Higher Education Management and Policy
JOURNAL OF THE PROGRAMME ON INSTITUTIONAL MANAGEMENT IN HIGHER EDUCATION

Introduction 9
The EU Innovation Agenda: Challenges for European Higher Education and Research Franz van Vught 13
Big Ideas for Australian Universities Steven Schwartz 35
Competition, Autonomy and New Thinking: Transformation of Higher Education in Federal Germany Peter Mayer and Frank Ziegele 51
The Context of Higher Education Reform in the United States Donald E. Heller 71
Brave New World: Higher Education Reform in Finland Timo Aarrevaara, Ian R. Dobson and Camilla Elander 89
The Impact of Reforms on the Quality and Responsiveness of Universities in the United Kingdom Tony Clark 107
Chilean Universities in the Transition to a Market-driven Policy Regime Jorge Katz and Randy Spence 123

Subscribers to this printed periodical are entitled to free online access. If you do not yet have online access via your institution's network, contact your librarian or, if you subscribe personally, send an e-mail to SourceOECD@oecd.org.
The OECD is a unique forum where the governments of 30 democracies work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation’s statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

This work is published on the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Organisation or of the governments of its member countries.

Corrigenda to OECD publications may be found online at: www.oecd.org/publishing/corrigenda.

© OECD 2009

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d’exploitation du droit de copie (CFC) at contact@cfcopies.com.
Higher Education Management and Policy

- A journal addressed to leaders, managers, researchers and policy makers in the field of higher education institutional management and policy.
- Covering practice and policy in the field of system and institutional management through articles and reports on research projects of wide international scope.

Information for authors wishing to submit articles for publication appears at the end of this issue. Articles and related correspondence should be sent to the editor:

Professor Vin Massaro
Professorial Fellow
LH Martin Institute for Higher Education Leadership and Management
Melbourne Graduate School of Education, The University of Melbourne
153 Barry Street
Carlton, Victoria 3010, Australia
E-mail contact: jill.gaston@oecd.org

To subscribe send your order to:
OECD Publications Service
2, rue André-Pascal, 75775 Paris Cedex 16, France
2009 subscription (3 issues):
EUR 129  USD 169  GBP 90  JPN 18 300
Online bookshop: www.oecdbookshop.org
The Programme on Institutional Management in Higher Education (IMHE) is a membership forum serving policy makers in national and regional authorities, managers of higher education institutions, and researchers. IMHE provides strategic analysis and advice on institutional leadership, management, research and innovation in a global knowledge economy, and reform and governance in higher education.

The Programme on Institutional Management in Higher Education is part of the OECD. IMHE is the only OECD forum open to higher education institutions. Established in 1969, IMHE now has 220 members from 41 different countries. IMHE research areas and activities are determined by the IMHE Governing Board, made up of elected representatives of IMHE members in each country. The role of the Governing Board is to develop and monitor the IMHE programme of work, implemented by the Secretariat.
Editorial Advisory Group

Elaine EL-KHAWAS  
George Washington University, United States (Chair)

Philip G. ALTBACH  
Boston College, United States

Chris DUKE  
RMIT University, Australia

John GODDARD  
Newcastle University, United Kingdom

Leo GOEDEGEBUURE  
University of New England, Australia

Ellen HAZELKORN  
Dublin Institute of Technology, Ireland

Salvador MALO  
Instituto Mexico de la Competitividad, Mexico

Vin MASSARO  
University of Melbourne, Australia

V. Lynn MEEK  
University of Melbourne, Australia

Robin MIDDLEHURST  
University of Surrey, United Kingdom

José-Ginés MORA  
University of London, United Kingdom

Jan SADLAK  
UNESCO-CEPES, Romania

Jamil SALMI  
The World Bank, United States

Michael SHATTOCK  
University of London, United Kingdom

Sheila SLAUGHTER  
University of Georgia, United States
Andrée SURSOCK  
European University Association, Belgium

Ulrich TEICHLER  
INCHER-Kassel, Germany

Luc WEBER  
Université de Genève, Switzerland

Akiyoshi YONEZAWA  
Tohoku University, Japan

Frank ZIEGELE  
Centre for Higher Education Development, Germany
# Table of Contents

**Introduction** ................................................................. 9

**The EU Innovation Agenda: Challenges for European Higher Education and Research**  
Frans van Vught ................................................................. 13

**Big Ideas for Australian Universities**  
Steven Schwartz ................................................................. 35

**Competition, Autonomy and New Thinking: Transformation of Higher Education in Federal Germany**  
Peter Mayer and Frank Ziegele ............................................. 51

**The Context of Higher Education Reform in the United States**  
Donald E. Heller ................................................................. 71

**Brave New World: Higher Education Reform in Finland**  
Timo Aarrevaara, Ian R. Dobson and Camilla Elander ............. 89

**The Impact of Reforms on the Quality and Responsiveness of Universities in the United Kingdom**  
Tony Clark ................................................................. 107

**Chilean Universities in the Transition to a Market-driven Policy Regime**  
Jorge Katz and Randy Spence ............................................. 123
Introduction

Several countries have recently announced major reforms in their higher education systems. Some of these changes have been in reaction to a perceived need to maintain international competitiveness in world university rankings. In some countries this has led to substantial increases in research funding and changes in the way research is funded, generally opting for greater concentrations in institutions that are significant research players. Some changes have been driven by the fact that governments can no longer pay for the university systems they would wish to have so they are searching for alternative sources of funding. Yet others have been driven by the need for a new vision for higher education.

This issue of the Journal consists of a range of commissioned articles that examine reform processes around the globe. Authors were asked to discuss the reasons for reform, the means used to bring it about and whether the intended results are likely to be achieved. They were also asked to assess whether the proposed reforms might be of benefit to their systems. It is obviously not possible in one issue of the Journal to cover the gamut of countries that are in the process of considering or implementing change, so these articles constitute a representative sample, which will be expanded in future issues.

Any collection of essays can only provide a snapshot of systems and proposed changes, with general indications about the likely success of change. While this would be difficult in quite stable environments, the global financial crisis continues to have a deep impact on the range of options available to governments, making predictions very challenging.

The recurring theme in these essays is that governments are prepared to acknowledge more openly the importance of higher education for the economic performance of nations, with some seeing higher education as the main engine of economic growth. On the basis of such an argument one would expect a greater preparedness to provide more government funding to support higher education and research. Indeed some countries have announced intentions to both allocate resources and support policies to ensure that reforms of the higher education and research sector have a direct impact on government objectives. But this enthusiasm and support has more recently
been balanced by the realisation that changed economic circumstances have reduced the capacity of governments to meet their original intentions. Time will tell whether some of the good intentions reported in these essays are eventually modified or abandoned.

There had already been discussions in parts of Europe about the need for students to make more of a financial contribution to their studies. As governments realise that supporting ambitious reform programmes will require substantial recurrent funding, the argument for student fees is likely to become overwhelming. Europe is almost alone in not having major student financial contributions as part of the funding mix, but it cannot be too far from a policy and ideological change in the direction of student fees.

Arguments for student fees have traditionally been based on the fact that students are the major beneficiaries of higher education; supporting research shows that graduates have greater earning power than non-graduates. The other group that benefits from graduates is industry, but there has been little progress in seeking a direct contribution from that sector towards the costs of higher education. It is possible that changed economic circumstances will act as the final reason for a change in this direction.

A major issue that will need to be addressed in many countries is research funding. There is general agreement in policy circles that excellence in research and the capacity to translate and commercialise research are crucial to national economic development. Recent ranking exercises which have tended to reward institutions with a strong research record have only served to increase the status of research in the global competitive market. Some governments have reacted by promising significant reform to boost research funding and to restructure the research enterprise by concentrating research in fewer institutions. These promises are also now subject to changed economic circumstances.

Another major issue is the creation of system diversity to enable institutions to play to their strengths and to meet the needs of a broader student population. As universal access develops in some countries, it is becoming apparent that structure and governance is also in need of reform. While some countries have retained binary systems of higher education to cater for research intensive and teaching intensive institutions, others have gradually abandoned them. In those countries where such systems were abolished, a debate has begun about the virtues of differentiated systems as they face the need to fund a much larger number of places, which cannot all be made available in research intensive institutions.

When we revisit the reform agenda, it will be instructive to see which countries have treated higher education and research as a pivotal element in
their economic recovery and whether this has indeed led to the positive results that those of us within the sector would have predicted.

I wish to thank the authors for their excellent and informative contributions, elucidating a changing and unpredictable policy environment, and for providing us with charts that will assist our navigational efforts as the policy landscapes continue to evolve.

Vin Massaro, Editor
The EU Innovation Agenda: Challenges for European Higher Education and Research

by
Frans van Vught
European Centre for Strategic Management of Universities (ESMU), Belgium, and Centre for Higher Education Policy Studies (CHEPS), University of Twente, the Netherlands

This article analyses the innovation agenda of the European Union (EU), places it in the context of globalisation and explores its foundation in the theoretical innovation systems perspective. It analyses a number of the central policy domains of this agenda: higher education, doctoral education, research and knowledge transfer.

In the second part of the article, some major challenges of the EU innovation agenda for European higher education and research are discussed. These challenges concern: future shortages of higher education graduates, the issue of access and equity, limited world-class research excellence, the need to further increase knowledge transfer efforts, the lack of private funding in higher education and research, and the processes of academic stratification and regional differentiation.
Programme-cadre de l’UE en matière d’innovation : les défis de l’enseignement supérieur et de la recherche en Europe

par

Frans van Vught

Centre européen pour le management stratégique des universités (ESMU), Belgique, et Centre for Higher Education Policy Studies (CHEPS), Université de Twente, Pays-Bas

Cet article propose une analyse du programme-cadre de l’UE (Union européenne) pour l’innovation, qu’il place dans le contexte de la mondialisation et dont il explore les fondements à la lumière des systèmes d’innovation théoriques. Il examine différents domaines politiques fondamentaux constituant ce programme-cadre : l’enseignement supérieur, les thèses de doctorat, la recherche et le transfert des connaissances.

Dans une seconde partie, l’article propose une réflexion sur plusieurs défis importants qui attendent ce programme-cadre sur l’innovation pour l’enseignement supérieur et la recherche en Europe : la pénurie future de diplômés de l’enseignement supérieur, la question de l’accès et de l’équité, le niveau d’excellence limité de la recherche à l’échelle mondiale, la nécessité d’accroître les efforts liés au transfert des connaissances, le manque de financement privé dans l’enseignement supérieur et la recherche, et les processus de stratification académique et de différenciation régionale.
Introduction

We live in a globalised world, with increasingly interconnected markets. In this article I will focus on the innovation agenda of the European Union (EU), which is being developed and implemented in response to the ongoing process of globalisation. Innovation is seen as a crucial response to the global economic crisis, and higher education and research institutions are assumed to be major actors in finding effective answers to the crisis.

In the EU innovation agenda, knowledge is increasingly seen as the new strategic production factor. The creation, transfer and application of knowledge are assumed to be of prime importance for a process of economic reorientation and further social and economic development. As a consequence the European Union has become more active and assertive in its efforts to influence the behaviour of higher education and research organisations. In Europe, higher education and research are increasingly being challenged by the rapidly developing EU innovation strategy.

The innovation systems perspective

Since the early 1980s, the literature on the economics of innovation has reflected the emergence of a perspective on innovation policy being promoted by international organisations like the OECD and the World Bank. This perspective takes an explicit policy position emphasising the interactive character of the generation of ideas, scientific research, and the development and introduction of new products and processes.

Innovation perspectives have been discussed under various rubrics – the evolutionary approach (Nelson and Winter, 1977), the technological paradigm (Dosi, 1982), the technological innovation systems approach (Carlsson, 2002) and the concept of sectoral systems of innovation (Malerba, 2002). In this article I will use the term “innovation systems approach”, inspired by authors such as Freeman (1982) and Dosi (1984), and further developed by Lundvall (1992), Nelson (1993) and Edquist (1997).

In the innovation systems approach, the basic assumption is that the key to international competitiveness is national “factors that influence the development, diffusion and use of innovation” (Edquist, 1997, p. 14). This perspective argues that industrial innovation is decidedly non-linear. Instead, innovation is an interactive, reciprocal process involving different actors and
organisations (Nelson, 1993). From the outset, academic institutions were identified as playing a critical role in the innovation systems approach, and the evidence suggests that, if anything, their influence has grown over time (Mowery and Sampat, 2004). However, while the tangible outputs of academic research – publications and patents – remain important, equally significant to successful innovation is the production of highly skilled human capital (Cohen, Nelson and Walsh, 2002). Most importantly, and in sharp contrast to the linear assumptions of the traditional “science-push model”, the innovation systems perspective stresses the role of linkages between the various actors and organisations in the overall innovation process (Edquist, 1997; Nelson, 1993). These linkages include not only formal knowledge transfer arrangements between universities and industry, such as science parks and joint university-industry research ventures, but also soft linkages – the many channels of communication by which knowledge is exchanged.

During the last decades, the innovation systems approach, has clearly influenced policies and reforms in higher education and research in many countries (Laredo and Muster, 2001; Lundvall and Borrás, 2004; Rammer, 2006). Many are now implementing policies that intend to improve the effectiveness of higher education and research in the context of innovation. The EU innovation agenda clearly fits into this general picture. As suggested by the innovation systems approach, the EU innovation strategy addresses higher education and research organisations both as the creators of new knowledge and as the producers of skilled human capital.

The EU political context

The European policy domains of higher education and research are embedded in the broader European integration process. Analysing these policy domains necessarily requires us to look first at the broader European political context.

In the aftermath of World War II and during the onset of the Cold War, the wish to create peace and stability in Europe became a common aim, and the idea of pooling European countries’ interests seemed highly attractive. The results were the gradual creation of a supranational policy context, with the European Council (the heads of state and government and the European Commission president) and the European Commission as the major supranational entities with political scope. The European Union operates on the principle that decisions are taken as closely as possible to the citizens of Europe. The Union is assumed not to take action, except in areas that fall within its exclusive competence, unless the member states cannot themselves achieve the intended results – the principle of subsidiarity. Because education was not one of the areas over which power was ceded to
the European Union by its member states, the Union’s involvement in higher education has been limited until more recent times.

The most crucial recent phase in the European integration process to have had a major impact on developments in higher education and research policy was the “Lisbon Process” which began in 2000. At their Lisbon meeting, EU leaders decided on a process to boost the Union’s competitiveness and growth. Inspired by the ideas and concepts of the innovation systems approach, they wanted to create “a Europe of knowledge” and formulated the goal that by 2010 the European Union should be “the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth, with more and better jobs, and greater social cohesion” (European Council, 2000, para. 5).

Unfortunately, as the evaluation report of a special high-level group showed (European Communities, 2004), by 2005 the ambitious political goals of the Lisbon summit appeared to be very difficult to reach. While weak economic growth in the larger member states had been a major factor, the design and implementation of policy to reach the targets, relying strongly on the efforts of member states and industry, was also identified as a major reason for the failure of the Lisbon Process (Weber, 2006).

The European Commission restarted the process in 2005 by launching the New Lisbon Partnership for Growth and Jobs (European Commission, 2005a), identifying “knowledge and innovation for growth” as one of the main areas for action. In addition, it developed integrated guidelines for the preparation of three-year National Reform Programmes (NRPs) by member states, as well as the Community Lisbon Programme consisting of a set of Actions for Growth and Employment (European Commission, 2005b), building a new, overarching community-member states partnership. With this new partnership, the European Commission created the foundations of the EU innovation agenda, known as the Lisbon Agenda.

**The EU innovation strategy**

The supranational EU innovation strategy that has emerged includes a number of inter-related policy fields. Two major policy domains are higher education policy (including doctoral education policy) and research policy (including knowledge transfer).

Since the re-launch of this agenda in the 2005 New Lisbon Partnership, the European Commission has tried to develop a general strategy that provides a solid base for the further development of the European Union. The Union faces fierce global economic competition and sees it as a major task to develop a comprehensive innovation agenda, and higher education and research policy has become a crucial element of this broader agenda.
According to the European Commission, “Knowledge and innovation are the ... heart of European growth [...] Public authorities at all levels in the Member States must work to support innovation, making a reality of our vision of a knowledge society [...] More investment by both the public and the private sector spending on research and development [is needed]. [...] the Union must ensure that our universities can compete with the best in the world ...” (European Commission, 2005a, pp. 4-9).

Higher education and research are interpreted as sub-systems of a larger overall European innovation policy. To allow Europe to create stronger, lasting growth and more and better jobs, the European Union has set an innovation agenda to which the higher education and research policies are assumed to contribute. In the following subsections I will explore these specific policies.

**EU higher education policy**

Generally speaking, higher education has come to the supranational European agenda only slowly. Although some educational activities were developed at the European level during the 1970s (in particular in the field of vocational training and the education of migrant workers’ children), the education sector was for a long time “taboo” for European policy initiatives (Neave, 1984, p. 6).

However since 2001 the political view has developed that the European Union can contribute to the development of quality education by encouraging co-operation between member states through a wide range of actions, such as promoting the mobility of citizens, designing joint study programmes, establishing networks, exchanging information and teaching languages for all EU citizens. The basic idea is that although legislative power for education in general and higher education in particular remains at the level of the member states, the Union has a complementary role to play.

The main tool for putting this ambition into practice has been the Socrates programme. The first phase of this programme ran from 1995 to 1999 and the second phase from 2000 to 2006. The Socrates II programme supported European co-operation in eight areas, from school to higher education, and from new technologies to adult learners. The higher education section of the programme continued the older Erasmus programme, established in 1987. As the higher education Action of Socrates II, the Erasmus programme aimed to enhance the quality and reinforce the European dimension of higher education by encouraging transnational co-operation between universities, by boosting mobility, and by improving the transparency and recognition of studies and qualifications.

However, the roots of the current European higher education policy lie in a broader, intergovernmental European political context: the Bologna Process.
In 1999, 29 European ministers of education signed the Bologna Declaration, to create the European Higher Education Area (EHEA), to promote mobility and employability, and to increase the compatibility and comparability of European higher education systems. It also emphasizes the need to increase the “international competitiveness” of Europe’s higher education and its “worldwide degree of attraction” (Bologna Declaration, 1999). Since the Bologna conference, the process has accelerated. Follow-up conferences were held in Prague (2001), Berlin (2003), Bergen (2005) and London (2007). The “Bologna ministers” (an expanding group of 46 nations in 2008) added new actions on lifelong learning, on a common framework of qualifications, on a coherent quality assurance and accreditation mechanism, and on an additional focus on the doctorate level (third cycle) of the Bologna Process. In 2009, the “Bologna ministers” meet in Leuven to discuss the next ten years of the Bologna Process.

In 2003, the European Commission initiated a debate on the “place and role of European universities in society and the knowledge economy” (European Commission, 2003, p. 4). Since the European universities are at the heart of the European knowledge society, being responsible for 80% of Europe’s fundamental research, the European Commission intended to explore the conditions under which Europe’s universities would be better able to play their role in the knowledge society and economy.

The Commission’s analysis is stern: “the European university world is not trouble-free, and the European universities are not at present globally competitive.” They should realize that the traditional model of Wilhelm van Humboldt no longer fits the current international context and that the high degree of fragmentation of the European university landscape prevents Europe from responding to new global challenges. These challenges go beyond national frontiers and have to be addressed at a European level. “More specifically, they require a joint and coordinated endeavour by the member states …, backed up and supported by the European Union” (European Commission, 2003, p. 10).

According to the European Commission, European universities have so far failed to unleash their full potential to stimulate economic growth, social cohesion, and improvement in the quality and quantity of jobs. In a policy paper in 2005, the Commission identified several bottlenecks: a tendency to uniformity and egalitarianism in many national higher education systems, too much emphasis on mono-disciplinarity and traditional learning and learners, and too little world-class excellence (European Commission, 2005c). European higher education remains fragmented into medium or small clusters with different regulations and languages; it is largely insulated from industry; graduates lack entrepreneurship; and there is a strong dependency on the state. European higher education is also over-regulated and therefore
inefficient and inflexible. In addition, European universities are underfunded; underfunding leads to low enrolment rates, failure to prepare students for the labour market, and difficulties in attracting and retaining top talent.

In the view of the Commission, the quality and attractiveness of European universities need to increase, human resources need to be strengthened both in numbers and in quality, and the diversity of the European higher education system needs to be combined with increased compatibility. In 2004, the Commission launched the Integrated Lifelong Learning Programme (2007-2013), with the general objective of contributing to the European knowledge society. The Lifelong Learning Programme consists of four sub-programmes, one of which is the Erasmus programme. A crucial aim of this programme is to reinforce the contribution of higher education institutions to the European innovation agenda (European Commission, 2004).

**EU doctoral training policy**

A crucial dimension of overall European higher education policy is the increasing attention paid to the importance of doctoral training, including at several Bologna ministerial summits. The ministers emphasised the importance of research and research training in enhancing the competitiveness of European higher education and called for increased mobility at the doctoral level and stronger inter-institutional co-operation (Berlin Communiqué, 2003, p. 7). They urged European 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.” Also, the number of doctoral candidates should be increased to contribute to the needs of the knowledge society (Bergen Communiqué, 2005, p. 4). The ministers invited universities to reinforce their efforts to embed doctoral programmes in their institutional strategies and to develop career paths for doctoral candidates and early-stage researchers (London Communiqué, 2007).

Doctoral training is beginning to feature higher on the European research and education agendas. It is assumed to be able to play a major role in creating a highly trained labour force for the knowledge society, which is understood to need knowledge professionals who have the competencies to work in extremely complex, knowledge-intensive environments. Europe indeed seems to have discovered the full potential of the third cycle in higher education (Bartelse and Huisman, 2008). Doctoral training is considered to be the major link between the Bologna Process and Lisbon Agenda (Aghion et al., 2008), and more specifically between the European higher education and research areas. Not only has it become an official part of the European political agenda in the Bologna Process, it is also a crucial point of attention in the EU innovation strategy. The European Commission strives for an open, single and competitive labour market for researchers with attractive career prospects.
and incentives for mobility. In the near future it is assumed that doctoral graduates will find their careers not only in academia and government, but also in private sector research and development (R&D) laboratories and general management positions.

**EU research policy**

Although the European Union has been active in research policy since the beginning, EU research policy has only developed fully since the 1980s. A vital step in the development of EU research policy was the creation of the multi-annual research and technological development framework programmes (FPs). The FPs have developed into the central EU instrument in research and technology policy. They have become the strategic documents describing broad strategic EU research priorities, each to be implemented through specific programmes. In addition, they address the overall EU budget to be spent for the duration of the programme, the breakdown of this budget into priority areas, and how funding will be made available to projects (Caracostas and Muldur, 2001).

However, while the financial and political strengths of the FPs are considerable, the proportion of their research investments on a Europe-wide scale is limited. In the sixth framework programme, this proportion was only 5%. The other 95% invested in European research came from the member states. The overall European research landscape suffers from fragmentation and unnecessary duplication of efforts and resources (Andersson, 2006). The major challenge in the European research and policy domain is to create critical mass and joint investment schemes. This is the challenge that is being addressed in the proposals for the European Research Area (ERA).

The ERA was formally launched in 2000 (European Commission, 2000). The Lisbon summit of that year endorsed the creation of the ERA as a key component of the Lisbon Agenda. However, it was only in 2002 that the ERA took further shape. The European Commission noted that European research represented a jigsaw of 15 often very different national scientific and technological policies. The FPs appeared to be no more than a “sort of 16th research policy, coming on top of national effects, but not dynamic enough to have a truly integrating effect” (European Commission, 2002, p. 8). The result was compartmentalisation, dispersion and duplication as well as a failure to assemble the critical mass of human, technological and financial resources that major scientific advances now demand.

The European Commission also stated that the only way to reach the ambitious targets was to increase general investment in research to 3% of gross domestic policy (GDP) and that a substantial part of this effort should come from business and industry. In March 2002, the 3% figure (of which two-
thirds was expected to come from private funding) was accepted as the target to be reached by 2010. But this appeared to be a difficult task, with European R&D expenditure by business and industry lagging well behind the United States, and at midterm the European Union was far from its target. It was concluded that “halfway to 2010 the overall picture is very mixed and much needs to be done to prevent Lisbon from becoming a synonym for missed objectives and failed promises” (European Communities, 2004, p. 10). There was a large gap between the political rhetoric about the knowledge society and the realities of budgetary and other priorities, and action was urgently needed.

The most recent framework programmes (FP6: 2002-06; FP7: 2007-13) address this issue by improving the co-ordination of national research funding programmes. They underline the need for an EU research policy framework that creates incentives for the member states to contribute to the joint EU innovation strategy. Without the active involvement of member states, the European Union cannot succeed in building the European knowledge society.

The current FP7, with a budget of EUR 53.2 billion, is a major programme for realising the “re-launched” Lisbon agenda. It is the current chief instrument for funding research and innovation and is creating a dialogue and co-operation with industry (in the Technology Platforms and Joint Technology Initiatives) and with the academic world through the creation of the European Research Council which is designed to provide support for the best European “frontier research”.

With FP7 the ERA's scope has broadened from a focus on how to improve the effectiveness and efficiency of the fragmented European research landscape, to an awareness that more public and private investment in research is needed, and that research policy should be related to other EU policies to achieve coherence and synergies in the context of the overall Lisbon strategy. According to the Commission, the expanded ERA must comprise six features: (1) an adequate flow of competent researchers with high levels of mobility among institutions, disciplines, sectors and countries; (2) world-class research infrastructure, accessible to all; (3) excellent research institutions engaged in public-private co-operation, attracting human and financial resources; (4) effective knowledge-sharing between the public and private sectors and with the public at large; (5) well-coordinated research programmes and priorities; and (6) the opening of the ERA to the world, with special emphasis on neighbouring countries.

EU knowledge transfer policy

The basic philosophy of the EU research policy is that excellence in research can be promoted by increasing co-operation and further
investments. But stronger links with business and industry are also needed, and knowledge transfer processes need to be strengthened.

In 2006, the European Commission published a strategy to stimulate “putting knowledge into practice” (European Commission, 2006), to frame policy discussions on innovation at national and European levels. It outlines the most important planned and ongoing initiatives, identifies new areas of action, and in particular introduces a more focused strategy to facilitate the creation and marketing of new innovative products and services in promising areas – “the lead markets” (European Commission, 2006, p. 3).

According to the Commission, there are major barriers to greater knowledge transfer in the European Union, including cultural differences between the academic and the business communities, legal barriers, fragmented markets and lack of incentives. Some member states have set up initiatives to promote knowledge transfer, but these largely ignore its international dimensions (European Commission, 2007a).

In this context a number of measures are suggested, including creating a workforce of skilled knowledge transfer staff in universities (and a professional qualification and accreditation scheme), developing a more entrepreneurial mindset in universities, and providing for exchanges of staff between research organisations and industry. In addition, voluntary guidelines to help improve knowledge transfer cover issues such as intellectual property management, incentives for researchers to participate in knowledge transfer activities, and the development of knowledge transfer resources (European Commission, 2007b).

**Challenges for European higher education and research**

European higher education and research have shown themselves to be no strangers to change: for the better part of three decades higher education and research have been included in broader Western, Central and Eastern European reforms. Since the late 1990s though, the rate of change has accelerated to unprecedented levels, largely on the aforementioned foundations of the Lisbon Agenda (2000) and the Bologna Declaration (1999). While developing the European Higher Education and Research Areas (EHEA and ERA) several issues remain as major objects of concern. It is clear that Europe cannot compete internationally on the basis of labour costs so it must compete on productivity and innovation. According to the theoretical bases of the innovation systems approach, innovation processes are assumed to be founded on both new knowledge and larger numbers of employable knowledge workers. The creation of new knowledge should lead to new products and services as well as to higher levels of productivity. The increase in trained knowledge workers should allow the European Union to address the
new skill needs of the knowledge economy. The EU innovation strategy can therefore have a direct impact on the ways knowledge creation processes are organised and on the educational provision structures in higher education. New knowledge is driven by the search for innovation; education is first and foremost seen as a process of producing relevant professional qualifications for the labour market.

**Enrolments and labour market needs**

The overall EU innovation agenda has changed the European higher education landscape. Higher education and research organisations are confronted with new challenges in their educational and research roles. I will focus first on the educational role of higher education institutions, particularly on the challenge to produce sufficient numbers of qualified professionals for the labour market.

The projected demographic situation in Europe creates special problems for its innovation capacity. According to UN projections, the EU share of world population will decline by almost one third between 2008 and 2050 (from 7.5% to 5.2%). The world population will increase from 6.5 billion to 9.6 billion while the EU population will decrease from nearly 500 million to 470 million. This will lead to decreasing cohorts of the traditional age groups seeking higher education, with an average reduction of 23.3% in the 20-24 year age group by 2050, and decreases of more than 50% for countries such as Bulgaria and Poland (Ritzen, forthcoming).

Between 1960 and 1980, enrolments in European higher education increased by a factor of ten. Rising social demand and the absorption capacity of the labour market created a massification of higher education, leading to a substantial expansion of the EU higher education systems and a changing position of these systems in society from elite training to manpower production. However, the educational attainment level of the EU adult population (25-64 years old) is still limited (23%) and is outperformed by both the United States (39%) and Japan (40%).

The combination of a future decline in the traditional age cohorts enrolling in higher education and the relatively low educational attainment level of the adult population confronts the European Union with a major challenge for its innovation agenda. The labour market in industrialised countries shows that the “race between higher education and technology” (Tinbergen, 1977) is still being lost by education: the demand for higher education graduates keeps increasing beyond the increase in supply. Like many other nations in the world, the EU member states will have to reduce the gap between the demand and supply of graduates. Raising higher education enrolment rates, particularly in undergraduate higher education, is not only a...
matter of social cohesion and stability, but also a necessity in a knowledge-based economy. The European Union needs more graduates and it needs these graduates to be directly employable. So the massification of European higher education will need to continue and enrolments will need to continue to grow. Recent skills forecasts for the European Union indicate that the demand for skills and qualifications is growing in most occupations. The total employment increase in Europe between 2006 and 2015 will be around 13.5 million new jobs, comprising over 12.5 million additional jobs at higher education level and almost 9.5 million jobs at medium education level, while the demand for jobs requiring low qualifications will fall by 8.5 million (CEDEFOP, 2008). In 2015, around 30% of jobs in the European Union will need higher education qualifications. To address this demand, the undergraduate education systems of the European Union member states will have to grow and larger numbers of first degree students will have to enrol. However, given the decreasing future traditional age cohort enrolments, the European Union also urgently needs to address new recruitment areas such as international students and adult learners.

In addition to increasing higher education enrolments, “access and equity” will also need attention. Despite the rapid expansion of European higher education, students from lower socio-economic groups continue to be underrepresented. An important dimension of the “European model” is the political wish to ensure that talent rather than socio-economic background counts in admission to higher education. While this objective has been kept in mind during the massification of European higher education, lower socio-economic under-representation remains a problem. In particular the children of immigrants with low or no educational attainment have difficulty in reaching higher education. While these participation rates have been increasing, they are still below those of the original population. Increasing them is important for social cohesion as well as to address the problem of future shortages of higher education graduates (Ritzen, forthcoming).

The challenges for EU higher education institutions are clear: they will have to find ways to expand their student bodies, particularly by enrolling non-traditional students. Consequently, they will have to diversify their educational programmes and adapt these to new categories of students and to strengthen the employability of their graduates in the context of the knowledge economy.

In doctoral training, universities will have to recognise the need to offer candidates a broader experience than core disciplinary research skills. Universities will have to introduce courses and modules offering transferable skills training and preparing candidates for career opportunities in labour market sectors beyond academic institutions. The traditional Humboldtian
doctorate may have to be supplemented by a variety of new professional doctorates.

**Research excellence and knowledge transfer**

In research, European higher education and research organisations are confronted with the challenges of world-class excellence and better knowledge transfer.

The European Commission has characterised the quality of the EU research output as “generally good on average, but with a very limited basis of universities at world-level” (European Commission, 2007c, p. 50). In terms of total number and world share of scientific publications, the European Union is the world leader. In 2004, the Union’s world share was 38%, compared to 33% for the United States and 9% for Japan. China ranked fourth with 6%. However, the picture changes when publications are compared to population. Then the United States leads with 809 publications per million population, followed by the European Union with 639 and Japan with 569 (European Communities, 2005).

There is clear evidence that the European Union’s scientific impact lags behind that of the United States in almost all disciplines. The data on the field-normalised Citation Impact Score per scientific discipline show that the European Union’s scientific impact is around or below world average in almost all disciplines. The Union scores above world average in only 6 out of the 37 fields and has lower scores than the United States in 35 of the 37 disciplines.

An institutional citation impact analysis per discipline shows that of the universities that are world leaders in at least one discipline only 26% are EU universities while 81% are US universities. In addition, the number of disciplines in which an EU university is the world leader is on average substantially lower than that for US universities. A number of EU universities are considered among the top universities in the world, but their top is generally less broad than that of US universities (European Commission, 2007b).

To increase their performance in terms of world-class research excellence, the European universities and research organisations will need to strengthen their research base. The brain drain of EU graduates and researchers, particularly to the United States, will need to be curtailed. Currently some 5% to 8% of the total EU researcher population is working in the United States. Many of these researchers are reluctant to return to Europe, primarily because of a lack of attractive research conditions and career prospects. Universities will need to focus on their relative research strengths and create attractive conditions for top-level researchers. They will need to profile their research portfolios using investment and co-operation strategies. They will need to develop joint research networks with attractive research
infrastructure and academic career paths. The current EU research policy (particularly FP7) offers important opportunities to address these challenges.

The European Union also needs to increase its performance in the process of knowledge transfer. The number of full-time equivalent (FTE) researchers per thousand labour force participants amounted to 5.4 in the European Union in 2003, compared to 10.1 in Japan and 9.0 in the United States. The EU deficit in the proportion of researchers in the labour force is mainly found in the business sector. In the European Union in 2003, 49% of all researchers were employed by the business sector, compared to nearly 69% in Japan and over 80% in the United States (European Commission, 2007c).

In 2005, EU patent applications accounted for nearly 31% of the total number of patent applications in the world. The United States has more than 33% of all patent applications and Japan over 16%. Between 2000 and 2005, the patent applications from Asian countries increased dramatically (India 241%; China 137%), as a result of which the world share of both the European Union and the United States has declined. In the enabling technologies (biotechnology, ICT, nanotechnology), the EU share of patent applications is lower than that of the United States, indicating a concentration of US inventions in these areas compared to the European Union (European Commission, 2008a, p. 69).

During the last years, the European higher education and research institutions have clearly increased their knowledge transfer activities. More and more institutions have established technology management and technology transfer offices. The number of patents applied for by higher education institutions in the European Union has increased by more than 28% during the last decade (European Commission, 2008a, p. 132). Nevertheless, the EU higher education and research institutions will have to further increase their efforts in this field. The links with business and industry will have to be intensified. Regional knowledge application clusters need to be further developed. And also “soft knowledge transfer” processes (applied research, internships, guest lectures, projects) will have to expand.

**Public and private funding**

The ideal of public financing of higher education and research is still widely shared in Europe. But the EU innovation agenda implies a major challenge to this ideal. Government finance simply is unable to provide sufficient funds for the new challenges that European higher education institutions are confronted with. If European higher education is to contribute to the innovative capacity of the European Union, provide professional and academic training for growing numbers of students, and perform world-class research, it cannot be funded solely from the public purse. The increasing
demands on higher education institutions in terms of numbers and quality on the one hand and the limitations of public finance on the other will not allow the European Union to close the present funding gaps between itself and the United States.

EU research and development intensity (gross domestic expenditure on R&D as a percentage of GDP) lags behind Japan and the United States. In 2006, EU R&D intensity was 1.84%, significantly lower than that of Japan (3.39%) and the United States (2.61%). Government expenditure on R&D as a percentage of GDP was 0.63% in 2005, which is 15% higher than in Japan (0.55%) but 21% lower than in the United States (0.76%). Business expenditure on R&D in the European Union as a percentage of GDP stands at 1%, compared to 2.62% for Japan and 1.69% for the United States (European Commission, 2008a). In terms of R&D expenditure, the European Union is still a long way from its ambitious target – 3% of GDP.

EU investments in higher education show a similar gap with the United States and Japan. Total investments (public and private expenditure) in higher education institutions in the European Union (2004) is 1.30% of GDP, while in the United States and Japan this is 2.45% and 1.85% respectively. The difference between the European Union on the one hand and the United States and Japan on the other is largely the effect of a much higher private investment level in both the United States (1.91%) and Japan (0.80%) compared to the European Union (0.35%) (European Commission, 2008b).

Given these funding gaps in research and higher education, the differences in performance and attractiveness between the United States and the EU systems are likely to remain. If the European Union wants to be a world-class higher education and research performer, it needs to boost its expenditure in these domains. And for this there appears to be only one solution: to increase private finance for higher education and research.

These funding differences have become a major concern of EU policy. The European Commission has pointed out that the funding gaps are a serious obstacle to meeting the Lisbon goals, and has particularly emphasised the importance of fiscal rules enabling the increase of private investments in both higher education and research. The Commission also points to the need for cost-sharing and suggests that member states critically examine their current mixes of student fees and support schemes in the light of their actual efficiency and equity outcomes.

EU higher education and research institutions are therefore confronted with the challenge of increasing their private income in education and research. In education, the major option is the introduction of tuition fees, coupled with the adoption of student financial support systems. In OECD countries, private contributions to higher education (household expenditure
as a percentage of total higher education expenditure) has on average increased by 5% between 1995 and 2005 (with large increases in Australia and Japan). However, most EU countries remain hesitant in this respect, and there is considerable ambiguity over whether tuition fees should be charged.

An increase in private income for research can result from closer co-operation with business and industry, including in knowledge transfer processes. While further developing their research portfolios, universities and research institutions can diversify their funding base by responding to the knowledge needs of business and industry and by prioritising their research programmes in accordance with major clients in sectoral or regional clusters.

Multi-level governance, academic stratification and regional differentiation

Clearly different from the days before the Lisbon Agenda, the European Union has become a major higher education and research policy actor, and many universities and academics have experienced its conditions and effects. The supranational EU policy level has become part of the multi-level governance system that European higher education and research organisations are dealing with. There appears to be an increasing alignment of EU higher education and research policies with the various national policies. The “re-launched” Lisbon strategy creates extra pressure on member states to align their national policy efforts to the EU innovation agenda. As a result, higher education and research institutions are working in a multi-level policy context in which the focus is increasingly on the roles institutions can play in enhancing innovation.

There appear to be two effects of the dynamics of this multi-level governance system that create important challenges for EU higher education and research institutions. The first of these can be described as the academic stratification of the European higher education system, with increasing vertical diversity. This is the combined result of the changing participation processes of European higher education institutions in the research framework programmes and the counterproductive consequence of the reinforcement policy on the interaction between higher education and industry. With regard to the former, it has been noted that past success in the framework programmes appears to be an indicator of successful future participation in these programmes (David and Keeley, 2003). What appears to be emerging is the well-known Matthew Effect where research groups that have been successful in obtaining funding appear to increase their chances of winning future funds. The other process is the counterproductive effect of the European Union’s push towards closer links between higher education and industry. It appears that those institutions in a relatively weak financial position are increasingly forced to accept industrial funding for often routine
contract research. Faced with the impossibility of charging real research costs, these institutions are often confronted with a further weakening of their financial situation and a decrease in their capacity to undertake academic research (Geuna, 1999). The combined outcome of these processes is an increasing differentiation between academically and financially stronger and weaker institutions, and hence a growing vertical diversity in the overall European higher education system.

The second unintended effect is a growing regional differentiation in European higher education and research. This appears to be the outcome of three interrelated processes emerging from EU research and innovation policies (Frenken et al., 2008). The first is the preference of researchers in “excellent regions” to collaborate with each other, rather than with colleagues in lagging regions. EU research policy appears to stimulate the concentration of talent in the richer and academically better-equipped regions of Europe. Lagging regions find it difficult to participate in successful EU research networks and appear to have to cross a threshold of quality and size before they can do so. Secondly, the EU policy objective of the free movement of people appears to not only lead to an increased mobility of researchers but also to the concentration of talent in a selected number of excellent regions. The most talented researchers compete for positions at the most prestigious universities, rendering it difficult for lagging regions to retain talent. Thirdly, the sectoral structure of the poorer European regions is usually characterised by a dominance of low-tech and medium-tech activities that do not fit the thematic priorities of EU research policy. The framework programmes almost exclusively concern high-tech sectors, thus creating a situation in which the research subsidies are becoming concentrated in the richer regions. The result is an unintentional but nevertheless real effect of regional differentiation. The geography of European higher education and research is changing from one based on the priority of national borders into one based on the clustering of talent. Wealthier regions are increasingly able to profit from the general European innovation policy, while poorer regions are left with the resources of the cohesion policy. This process also appears to contribute to the growing academic stratification in the EU higher education and research system.

Academic stratification and regional differentiation confront European higher education and research institutions with the challenge to increase their strategic behaviour at the European level. The innovation agenda appears to have increased competition for funding and reputation. Higher education and research institutions cannot ignore the effects of the multi-level processes they are governed by. They need to design and implement institutional strategies that allow them to play their own roles in the new system dynamics of EU higher education and research.
For European higher education and research institutions, the development of effective institutional strategies may well be the major challenge of the current EU higher education and research policies. These strategies should include the educational, research and knowledge transfer profiles the institutions want to pursue, as well as the financial arrangements that should be related to those profiles. In coming years, European higher education and research institutions will have to find strategic institutional answers to the challenges of the EU innovation agenda.

Acknowledgements

This article is based on a contribution by the author to: David D. Dill and Frans A. van Vught (eds) (forthcoming), National Innovation and the Academic Research Enterprise: Public Policy in Global Perspective, The John Hopkins University Press, Baltimore. The author wishes to thank Dr. Leo Goedegebuure of the University of Melbourne and the journal’s editor, Prof. Vin Massaro, for their contributions in finalising the text.

The author:
Frans van Vught
Centre for Higher Education Policy Studies (CHEPS), University of Twente, the Netherlands
European Centre for Strategic Management of Universities (ESMU)
Rue Montoyer 31
B-1000 Brussels
Belgium
E-mail: f.a.vanvught@utwente.nl

References


CEDEFOP (European Centre for the Development of Vocational Training) (2008), Future Skill Needs in Europe: medium-term forecast, CEDEFOP.


European Communities (2004), Facing the Challenge: The Lisbon Strategy for Growth and Employment, report from the high level group, chaired by Wim Kok, Office for Official Publications of the European Communities, Luxembourg.

European Communities (2005), Key Figures 2005, Towards a European Research Area, Science, Technology and Innovation, Office for Official Publications of the European Communities Luxembourg.

European Council (2000), European Council Presidency Conclusions, Nr. 100/1/00, European Council, Lisbon.

Freeman, C. (1982), The Economics of Industrial Innovation, Francis Pinter, London.

Frenken, K., J. Hoekman, and F. van Oort (2008), Towards a European Research Area, Institute for Spatial Research, NAI Publishers, Rotterdam.


Lundvall, B.-Å. (1992), National Systems of Innovation: Towards a Theory of Innovation and Interactive Learning, Pinter, London.


Ritzen, J. (forthcoming), A Chance for European Universities, or: Avoiding the Looming University Crisis in Europe, Amsterdam University Press, Amsterdam.


Big Ideas for Australian Universities

by

Steven Schwartz
Macquarie University, Australia

Within weeks of taking office, Australia’s new Labor government commissioned two major reviews – one of Australia’s innovation system and one of Australian higher education. Taken together, these reviews will have major implications for the future of research and teaching in Australia for decades to come. This paper discusses the main recommendations of these reviews, puts them into context and examines the government’s response.

Although the innovation review was conducted first, this paper begins with the higher education review because its recommendations, at least in regard to universities, are broader. Those parts of the innovation review that are relevant to universities follow. The paper concludes with a brief discussion of what will happen next.
De grandes idées pour les universités australiennes

par

Steven Schwartz
Université de Macquarie, Australie

Quelques semaines après son entrée en fonction, le nouveau gouvernement travailliste australien a commandé deux études, l’une portant sur le système d’innovation australien et l’autre sur l’enseignement supérieur en Australie. Pris dans leur ensemble, ces études auront des répercussions considérables sur l’avenir de la recherche et de l’enseignement australiens dans les décennies à venir. Cet article traite des principales recommandations proposées par ces études, rappelle le contexte dans lequel elles s’inscrivent et analyse la réponse du gouvernement.

Bien que l’étude sur l’innovation soit menée en premier, l’article s’intéresse d’abord à l’étude sur l’enseignement supérieur, car elle propose des recommandations plus générales, tout au moins concernant les universités. Les éléments de l’étude sur l’innovation ayant un intérêt pour les universités sont repris ensuite. L’article conclut par une brève réflexion sur les perspectives.
Background to the higher education review

In 2008, the Australian government asked former Vice-Chancellor of the University of South Australia, Denise Bradley, to “examine the capacity of Australia’s higher education sector to meet the nation’s future economic and social needs”. Leading a small panel and backed up by civil servants, she consulted widely and examined just about every aspect of universities – teaching, learning, funding, governance and much else. The result is the Bradley Review of Australian Higher Education (henceforth known in this paper as the Review) (Bradley et al., 2008). It is the most comprehensive review of universities undertaken in Australia in many years. The government placed great importance on the Review, seeing it as the initial volley in an “education revolution” (ALP, 2007).

The Review came at a crucial time for Australian higher education. For most of the preceding 12 years, per-student funding for Australian universities failed to keep up with inflation. The result was a significant drop in the taxpayer-funded support provided for the average university student. This decline in funding is not typical of wealthy countries. In fact, Australia is the only OECD member country not to increase “public” funding over that 12-year period (OECD, 2008).

To make up for the funding shortfall, at least in part, the federal government increased the amount that students are required to pay for their own education (DEST, 2004). This brought additional revenue to universities but still left them underfunded. Even when the Higher Education Contribution Scheme (HECS) fees paid by students are added to taxpayer subsidies, the total still does not cover the cost of teaching the average student (Access Economics, 2007).

Because universities have not been able to make ends meet by relying solely on government funding and the fees paid by domestic students, they have enrolled large numbers of international students whose high fees make them more lucrative than domestic students. Foreign students now make up 19% of the university students taught in Australia, by far the highest proportion in the OECD (AEI, 2008). The percentage is even higher at my own university, Macquarie, where more than 30% of our students are international.

Nationally, 50% of Australia’s international students come from China and India (AEI, 2008). A substantial proportion of these students hope to remain in Australia after they graduate, but some find themselves unable to
gain employment even in high demand occupations such as accounting. This is partly the result of the economic downturn but it also reflects low English language proficiency among many graduates (Birrell and Healy, 2008). In their attempt to make up for funding shortfalls, it is possible that some universities have been forced to sacrifice quality for quantity.

Not surprisingly, the major part of the earnings received from international students is spent recruiting and teaching them. Whatever is left is used to make up for the deficit in the funding of domestic students – but even this cross subsidy has not been sufficient to maintain standards. For example, the number of students per academic staff member has increased by around 30% in the past ten years (Bradley et al., 2008). The financial assistance available to support students’ living expenses while they study has also failed to keep up with costs. To make ends meet, the majority of students, including most full-time students, work during semester (Universities Australia, 2008).

The Bradley Review was asked to look at these matters, and many more, with the aim of setting Australian higher education on a sustainable path for the future. Its final report contains 46 recommendations which venture into every nook and cranny of the higher education sector – and which would cost an estimated AUD 7 billion if fully implemented. Underlying its recommendations are the two big ideas discussed next: Australia needs more graduates, and funding should follow students.

**Big idea 1: Australia needs more graduates**

According to the Review, Australia needs many more university graduates than it presently produces. Although this sounds terrific to academics, it is not a call to turn Australia into a nation of scholars. Scholarship, as most academics think of it, hardly rates a mention in the Review report. Its focus is on economic growth.

The Review argues that Australia’s standard of living depends on its winning an international competition for the most skilled workforce.¹ Put bluntly, more graduates means greater national prosperity. This is not the place to debate this widely held belief but I doubt that it is true, at least not in the simple way it is stated in the Review report. (I cannot resist noting that Russia has a higher percentage of university graduates, relative to the size of its population, than Switzerland [OECD, 2008]. But which country has a higher standard of living? It is a sad fact of life, at least in Australia, that valuing education for its intrinsic value, or its civilising influence, is decidedly out of fashion.)

Using predictions of labour market needs, and student demand over the next decade, the Review concludes that Australia will need many more graduates (Bradley et al., 2008, pp. 15-17). The Review sets a target of 40% of Australians aged 25-34 to have a degree-level qualification by 2020. The current figure is 32%.
The history of labour force predictions, at least in Australia, has not been a happy one. Extrapolating from today's trends to tomorrow's needs is never easy, and predictions are often wrong (Schwartz, 2009). Nevertheless, the Review calls for massive growth.

Given current progression and graduation rates, meeting the 40% target would require an enormous increase in undergraduate student numbers. (Curiously, the same labour market studies show a glut of postgraduate completions over the next decade [Bradley et al., 2008, p. 4], but this does not lead the Review to call for a decrease in postgraduate students.)

Because most school leavers from middle class and professional backgrounds already attend university, increasing the number of Australian graduates to 40% will require capable students from under-represented backgrounds to enter higher education and successfully complete their degrees (DEEWR, 2008).

Many of the Review's recommendations proceed logically from this premise. If we want to attract more students from under-represented backgrounds, then we need outreach programmes designed to raise aspirations. Because we will need to measure progress, the Review also advocates setting enrolment and completion targets for individual equity groups – disabled, low-income, indigenous and others.

Most importantly, if we want to attract students from low-income backgrounds, then we will need to provide adequate funds to help them survive while studying. There are two ways to do this – through direct grants or by allowing students to borrow their living costs and pay the money back through the tax system just as they currently borrow their fees and pay them back through the HECS system. The Review opted for direct grants, recommending increases in the level of student allowances and tweaking the existing system of entitlements so that it is better targeted at those who need the money.

Most parties will welcome this recommendation, but it comes at a price – a compliance and checking regime will be needed to ensure that only eligible students receive funding. Allowing all students access to income contingent loans for living costs would eliminate the need to police eligibility because everyone would be eligible. It would also mean that most of the money given to students would eventually be recouped and recycled to future generations of students. A programme of direct grants is expensive because grants never have to be repaid. Hopefully, this recommendation will be reconsidered.

Although implementation issues will require careful consideration, the Review's first big idea certainly deserves support. Social mobility is the hallmark of a just society. Helping talented students to reach their potential is the fairest and most acceptable way to encourage social mobility. For this reason, the Review's first big idea deserves to be implemented where possible.
The Australian Minister for Education, Julia Gillard, agreed. In a response to the Review, she accepted the Review’s 40% target although she extended the deadline for achieving it by five years – to 2025 (Gillard, 2009a). The minister also committed the government to pursue an important equity target; by 2020, 20% of higher education enrolments at undergraduate level will be of people from low socio-economic backgrounds. The current figure is 16% (Gillard, 2009b).

There is a catch, however. Educating many more students will be expensive. Getting the greatest benefit for the money we spend on higher education requires a more efficient resource allocation system than the top-down system of quotas currently in place. This brings us to the Review’s second big idea, student-driven funding.

**Big idea 2: Funding should follow students**

Instead of the block grants and centrally set quotas that currently determine the amount given to universities each year, the Review recommends that funding follow students. Specifically, a government-subsidised place would be made available to every student accepted by an approved higher education institution. There would be no limits; a new place would be created automatically for every student an approved university enrols.

This reform would provide students with greater choice than they have now. Unlike the current course quotas, which are established by central planning, universities would be able to adjust their course intakes in response to student demand. This is a major step in the right direction but it is not a complete victory for those who have advocated “vouchers” for years (Schwartz, 2007).

The problem is the Review’s insistence that universities be forbidden from raising their fees (the private contribution that students make toward their education). Specifically, the Review recommends that HECS fees be capped at current levels. The Review recognises that price signals are a major mechanism for delivering efficiency, but claims it is necessary to cap tuition fees to keep institutions from sharply raising prices (Bradley et al., 2008, p. 163).

For reasons that are never explained, the Review takes it for granted that higher fees are bad for students. Yet, under the rules set by the previous government, many Australian students took up the opportunity to enrol in expensive full-fee places offered outside the quotas. This shows that Australian students are willing to pay more, sometimes much more, for what they perceive to be a high quality education. The new government has outlawed these full-fee places for domestic students although the Review, contradicting its own logic, suggests that full-fee places for domestic students may be revived in a somewhat different form (Bradley et al., 2008, p. 165).

In macroeconomic terms, money spent on education has the same beneficial effects as money spent on plasma televisions, holidays or anything
else. It also has the spin-off effect of producing a better skilled workforce. So, higher fees may assist and certainly would not harm the economy. Increased fees are unlikely to hurt students either. Because students can defer their fees and pay them back in instalments when their income permits, it is not clear how capping fees protects vulnerable students. Forbidding fee increases is really a way to protect those universities that will find it difficult to get students to pay higher prices for the education they offer.

Instead of deregulating fees, the Review recommends a 10% increase in government funding for teaching and learning. However, since 4% of the proposed increase is subject to meeting equity performance goals (enrolling disadvantaged students, for example) and another 2.5% will be distributed on the basis of teaching performance (Bradley et al., 2008, p. 140), universities that do not meet the goals or the performance criteria will not receive the full 10% increase.

If a university misses out on the 4% of equity-based funding (perhaps, for example, it is located in a high income area such as Canberra), the 10% proposed by the Review would translate to only 6%. It is important to understand that even this does not mean that this university’s teaching funds would increase by 6%.

Funding for domestic undergraduates has two components: the government subsidy and the student (HECS) fee. There are seven different levels of government subsidy, varying from AUD 1 709 for law to AUD 18 610 for medicine. There are four levels of HECS fees, which range from AUD 4 162 for science to AUD 8 677 for law and medicine. The increases recommended by the Review apply only to the government’s subsidy. Thus, for law, a 6% increase on AUD 1 709 equals only AUD 102.50 per year. Universities currently receive AUD 10 386 for a law student (AUD 1 709 from the taxpayer and AUD 8 677 from the student paid through HECS). Increasing the taxpayer part of this by 6% brings the total received to AUD 10 488.50, a per-student increase of less than 1%.

Even if a university managed to meet its equity targets and receive the full 10%, this would translate to AUD 171 per student, less than a 2% increase for each law student. The increases would be bigger for science students but universities find it hard to recruit them.

The figures given so far assume that the hypothetical university will receive the 2.5% awarded on the basis of teaching quality. But this is not guaranteed. Not all universities have received teaching funds in the past. If a university misses out on both the equity and the teaching bonuses, the 3% left would give it about AUD 50 more per year for each law student. In Sydney, where I work, this would buy about one cup of coffee per month.

Capping fees means that the only way for universities to increase revenue is to enrol more students for which they will receive the same inadequate support they receive for currently enrolled students. At best, this provides no
net gain – just money in for new students and money out to pay the costs of teaching them. At worst, depending on which course they undertake, universities could lose money on every new domestic student they enrol. For example, a study conducted by an economics research group found that, on average, universities lose money on law students (DEST, 2007, section 1.1). Clearly, then, there is no incentive to enrol more of them. Although it sounds like a measure designed to help struggling students, capping fees actually makes it unlikely that universities will be able to expand sufficiently to enrol enough low-income students to meet the government’s ambitious equity target.

Capping fees also works against quality improvement. A university that wants to offer a 20-student law tutorial taught by a distinguished former High Court judge must charge the same amount as a university offering a 300-student lecture taught by a personal injury lawyer. As there is no way of being compensated for the extra costs of high quality, all universities will be pushed toward low-cost, low-quality provision even though students are willing to pay more for a higher quality experience.3

As already mentioned, the Review seems to leave open the possibility of increasing fees by suggesting that a university “may designate an undergraduate course as non-Commonwealth subsidised” and then charge whatever it likes (Bradley et al., 2008, p. 165). This could lead to a system in which prestigious universities receive high private fees while others have their incomes capped. However, the Review appears to contradict itself by stating that “an independent national regulatory body” could cap prices even in non-Commonwealth subsidised courses (Bradley et al., 2008, p. 116). These irreconcilable statements suggest a conflict within the Review itself, poor editing or both.

The Review’s recommendations leave many funding details unexplained. For example, on several occasions, the Review report refers to “base grants”. The relationship between “base grants” and the amounts that universities will receive for each student is never clarified nor is it clear how “performance funding” will be applied. The Review recommends that 2.5% of the funds for teaching and learning be distributed on the basis of teaching performance. Does this mean that successful institutions will have the payment for each student increased by 2.5% based on how well the university taught the year before? Probably not – this would leave the 2.5% set aside for unsuccessful universities unspent. Perhaps it means that some universities will receive more than a 2.5% premium for performing well while others receive nothing or a partial reward. Maybe the 2.5% will not be calculated on the value of each student subsidy, which would give a boost to universities with expensive medical and veterinary schools, but on some university-wide basis. It’s anyone’s guess.
Because competition can produce losers as well as winners, some universities have objected violently to the Review’s funding recommendations (CSU, 2002). They may have good reason for concern. By establishing full-fee courses and taking more students where the marginal costs make this worthwhile, the most popular universities could increase their student numbers at the expense of the less popular ones. The latter universities will have to find ways to make themselves attractive to students – specialised courses, teaching at convenient hours or in the workplace. Unfortunately for them and for students, they will be prohibited from competing on price.

Despite these complexities, the government has accepted the Review’s recommendations that funding be demand driven, that is, that funding follow students (Gillard, 2009a). Starting in 2010, enrolment quotas will be gradually relaxed and, in 2012, universities will be free to enrol as many students as they choose.

Professor Bradley and the federal minister for education are at pains to emphasise that this will not herald the introduction of a “voucher” system. In the minister’s own words: “Let me be clear about one important point: this is not a voucher. Students will not be receiving a set dollar entitlement to be redeemed at an institution of their choice. Rather, there will be a Commonwealth payment to universities – with the amount varying depending on the course – on the basis of student numbers” (CSU, 2002).

Clearly, the word “vouchers” is taboo in government circles and not one to be uttered in polite company, hence the attempt to define a distinction without a difference. The review recommends that public teaching subsidies be allocated according to demand – the will of the market. That is the essence of a voucher system.

After the rock star Prince changed his name to an unpronounceable syllable, he was referred to as the “star formerly known as Prince”. Perhaps the new Australian demand-driven student entitlement system could become known as the “funding system formerly known as vouchers”.

Other ideas

In addition to its two big ideas, the Review makes many other recommendations – too many to comment on here. However, a few of the more wide ranging recommendations are covered in this section.

Grant indexation

Because government grants for teaching and learning have not been indexed for inflation, their value has deteriorated for many years. The Review recommends a new indexation formula, which is more generous than the one
currently in use. If adopted, the new formula will increase the long-term sustainability of universities while still encouraging productivity gains.

**National regulator**

The Review calls for a new national regulatory body that would be responsible for all types of tertiary education. The new body would accredit new and existing institutions, carry out quality audits, and provide both solicited and unsolicited advice to government, and it may supervise price-capping arrangements for courses offered on full-fee basis (or perhaps it will not; it depends on which part of the Review report you believe) (Bradley et al., 2008, p. 165).

It is difficult to get excited about new regulatory bodies – they often become hidebound bureaucracies, and they have a well-known tendency to develop reasons to justify their own existence. However, the recommended ten-year accreditation cycle is unlikely to be too onerous, even though it also includes an additional sub-cycle of quality audits. Most Australian universities are already used to extensive reporting requirements, being required to answer such questions as: “How many of your doctoral scholarships went to females from non-English-speaking backgrounds with fewer than two children studying history part-time?” More of this will not faze Australia’s creative university managers.

**Integrating vocational education**

Vocational education and training is currently delivered through state-based Technical and Further Education Colleges (TAFE). The federal government, in contrast, supports universities. The Review recommends that the federal governments take over two-year TAFE courses from the state and that these courses become part of a new regulated national education system. This reform is long overdue. It will improve standards, provide greater choice for students, and help the government to reach its participation and equity goals. However, some, or perhaps all, of the states may resist what could be portrayed as a Commonwealth takeover. Overlapping jurisdictions between the state and federal governments has long produced dysfunctional outcomes for Australian health (states control the hospitals whereas medical education is federal) (Schwartz, 2009b) and education. Without considerable goodwill among all parties it is not likely that the federal government will be able to integrate the various state-based TAFE colleges into a national educational system.

**PhD scholarships for international students**

The Review recommends that the federal government increase the number and value of PhD scholarships for international students. Specifically, the Review recommends that the Commonwealth provides AUD 80 million for
such scholarships. However, the Review recommends that universities who want access to these new scholarships be required to provide living allowances for international PhD students and their dependents – a costly trade-off, which few universities will be able to afford.

Funding for research

The Review recommends a AUD 300 million increase in the block grant awarded to universities for research infrastructure. This block grant is calculated as a percentage of the research income a university earns from competitive research grants. The Review also supports increasing the value of postgraduate scholarships and the full funding of research overheads, which is also the much welcomed recommendation of the review of Australia’s “innovation system” discussed in the next section (Cutler, 2008).

There are many other recommendations including the idea of a university for regional areas and the recommendation that funds be set aside for restructuring (read “amalgamations”).

As already noted, the federal minister has responded to the main review recommendations – increasing numbers especially from low income and other equity groups and a demand-led funding system.

She has not commented on the other recommendations other than to say that the higher education sector will have to wait for the federal budget in May. She also noted that “these are difficult days for Government expenditure”. This maybe another way of telling the sector: “Don't set your hopes to high” (Gillard, 2008).

Review of Australia’s Innovation System

In a lecture given in 1775, the gentle Scottish genius Adam Smith summarised his formula for prosperity as follows: “Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism but peace, easy taxes, and a tolerable administration of justice: all the rest being brought about by the natural course of things.”

This is definitely not the view of Terry Cutler, at least as evidenced by his Review of the Australian Innovation System. To make Australia more innovative and prosperous, Dr. Cutler calls for the creation of a vast array of new programmes, boards and committees.

For example, Cutler recommends that the government establish a “Knowledge Connections” programme within the “Enterprise Connect Program” to work with “Industry Innovation Councils”. The report also foresees the appointment of an “Advocate for Government Innovation” and recommends the establishment of a “National Information Strategy” to “optimise the flow of information”.

Cutler wants to set up a “Competitive Innovation Grants Program” that will make awards for “public sector innovation”, and he calls for the creation of a “National Innovation Council” chaired by the Prime Minister. There will be an “Office of Innovation” and an “International Innovation Advisory Panel” as well.

Cutler’s report, called *Venturous Australia*, goes on in this activist vein for more than 200 pages.

The report clearly acknowledges the value of university research but not its curiosity-driven nature. Like the experts recruited by US President Franklin Roosevelt in the 1930s to set national research priorities, Cutler wants national research priorities set for Australia. Unfortunately, Roosevelt’s committee, like all such efforts everywhere, could only base its predictions on what it was familiar with. It missed all of the most important developments of the next 20 years: nuclear energy, antibiotics, jet aircraft, space exploration, radar, computers, transistors and many more. Cutler may be more prescient, but my guess is that his priority areas are doomed to a similar fate.

Cutler makes several recommendations of direct interest to universities. For example, his report calls for the current research and development tax deduction to be transformed into a tax credit. As many research and development firms do not make any profits, tax credits are more valuable to them than tax deductions.

The report also calls for changes to immigration policy designed to improve the nation’s store of “human capital”. This could help universities attract more international students.

On the research front, Cutler advocates higher stipends for government-funded postgraduate research students, a new programme of early career research fellowships, open access to research publications and continued funding of research infrastructure. To one extent or another, the government is pledged to support all of these recommendations, much to the delight of Australian universities.

Universities will also be happy with Cutler’s recommendation that research grants be fully funded; a recommendation also made in the Bradley review. At present, Australian research grants pay the direct costs of projects; universities must cover the indirect overhead costs (electricity, telephone and so on). This means that every time a university receives a research grant, it must find the indirect costs from some other source, often from teaching. Fully funding the total cost of research will end this cross subsidy and leave more money for teaching. As indirect costs can add up to half the cost of a research project, one result of this policy will be to make research much more expensive for the government. Cutler warns that, unless larger sums are allocated to the research councils, the result could be fewer funded projects.

Some universities will worry about the report’s recommendation that training funds be allocated according to quality as reflected in the
forthcoming Excellence in Research for Australia evaluation exercise. They fear that this will concentrate research training in a limited number of universities, which, of course, is the intent.

The science minister, Kim Carr, has endorsed the report, implemented some of the recommendations and pledged to move toward the full cost funding of research (Carr, 2009). However, he did note that the total cost of full research funding – and all of the other programmes, boards and committees recommended in the report – will amount to billions dollars. For this reason, it is unlikely that full cost research funding and the other recommendations will be enacted in their entirety until economic times improve.

What’s next?

Both the higher education and the innovation reviews were charged with ensuring that Australia maintains or improves its economy and its competitiveness, the first by increasing “human capital” (more graduates) and the second by making us more creative. Have they delivered?

In some ways they have. Consider higher education, for example. Allowing universities to expand to accommodate student demand, especially in these times when jobs are hard to find, will certainly increase the number of students enrolling in university.

But increasing the number of graduates is another matter. Without increases in fees and subsidies, classes may become more crowded, the ratio of students to teachers may worsen, and counselling and student support systems will be stretched. As a result, we may well find that we are admitting more students only to see large numbers drop out without completing their degrees.

Even if the target of 40% graduates is reached, it is not obvious that this will translate directly into greater prosperity. It depends on what these graduates are trained to do. It is unlikely that any country can expect an economic recovery to be led by media studies graduates.

Given the ease of implementation, it is possible that the government will enact all of the recommendations for enhanced regulation but hold back on the recommendations to inject more money into higher education. Of course, the government will portray any new regulation as cutting red tape, but it has long been known that governments only cut red tape lengthwise.

Innovation, as we know, depends not only on good ideas but also on the availability of credit, capital and free trade, not to mention Smith’s formula of peace, easy taxes and a tolerable administration of justice. Innovation is the work of enthusiastic individuals who see opportunities most others miss. Dozens of new committees and a set of designated national priorities (picking winners) is precisely how not to enhance innovation.
A more liberal immigration policy is a good idea but, with the fear that the recession will cost jobs, the government is busy cutting back immigration not increasing it.

Similarly, although the government has been generous with funds for the construction of new facilities (because it is thought that these stimulate the economy and provide jobs) money to subsidise students and research may prove hard to find in the coming years. In an interview given in late March, 2009, the federal education minister said that the financial crisis was “pounding the budget” and it was “only responsible” to consider the price tag of higher education reforms. And, of course, she is correct.

The author:
Prof. Steven Schwartz
Vice-Chancellor
Macquarie University
Sydney, NSW 2109
Australia
E-mail: vc@vc.mq.edu.au

Notes
1. “The nation will need more qualified people if it is to anticipate and meet the demands of a rapidly moving global economy” (Bradley et al., 2008, p. xi).
2. For details on HEC, see: www.goingtouni.gov.au/Main/Quickfind/PayingForYourStudiesHELPLoans/HECSHELP.htm.
3. This is evident from the domestic students who enrolled in full-fee courses when that option was available.

References


Competition, Autonomy and New Thinking: Transformation of Higher Education in Federal Germany

by

Peter Mayer and Frank Ziegele
University of Applied Sciences Osnabrueck and Centre for Higher Education Development, Germany

Germany has recently gone through a fundamental process of reform of its higher education system. The last 15 years have been characterised by significant changes in virtually all aspects of the system. The impacts of the Bologna Process have been far reaching. The reform of the governance and funding systems in higher education has also been highly influential. This article reflects upon the increasing relevance of the concept of competition in higher education and how the realisation of more competitive elements was accomplished in a highly decentralised system of governance. The article also demonstrates the complex interplay between the public discourse regarding the need for more competitive approaches in higher education, legal reforms, changes in funding provisions for higher education and the transformation of rules for attracting human resources.
Concurrence, autonomie et nouveau courant de pensée : transformation de l’enseignement supérieur en Allemagne fédérale

par
Peter Mayer et Frank Ziegele
Université de sciences appliquées, Osnabrück et Centre pour le développement de l’enseignement supérieur, Allemagne

Le système de l’enseignement supérieur allemand a récemment connu un processus de réformes fondamental. Ces 15 dernières années ont été marquées par des changements importants affectant quasiment tous les aspects du système. Les impacts du processus de Bologne ont été considérables. De la même manière, la réforme des systèmes de gouvernance et de financement dans l’enseignement supérieur a exercé une grande influence. Cet article analyse l’intérêt croissant accordé à la notion de concurrence dans l’enseignement supérieur, et la façon dont des éléments plus compétitifs ont été mis en place dans un système de gouvernance fortement décentralisé. L’article démontre l’existence d’interactions complexes entre le discours public sur les besoins d’une approche plus concurrentielle dans l’enseignement supérieur, les réformes légales, les changements apportés à l’attribution de financement et la transformation des règles visant à attirer les ressources humaines.
Introduction

The post-war period in Germany was characterised by a continuous process of expansion in the country's higher education system. Demographic trends and increased demands in the labour markets led to increases in enrolments and a higher proportion of the population gaining access to higher education. The number of institutions providing higher education also increased, as did the quantity of staff working in higher education. New institutions were created to offer education with specific purposes, for particular groups, or to induce structural change in certain regions of the country. While the country increased its financial allocation for higher education, the increases were not proportional to the expansion in student enrolments. Although Germany's main competitive advantages are in skill intensive sectors, spending for higher education is below average compared to the average for OECD countries (OECD, 2008).

Despite fundamental changes in the framework conditions for higher education in Germany, until the 1990s there were only slight changes in the governance model which characterised the system. According to Schimank, a system of higher education can be described using five broad modes of system co-ordination (Schimank, 2005, p. 2; CHEPS, 2007):

- **State regulation** refers to ways in which the state regulates in detail the operations of higher education institutions.
- **Stakeholder guidance** refers to the role given to external stakeholders when deciding upon strategic and occasionally operational matters.
- **Academic self-governance** captures the role the academic community plays in steering the affairs of institutions.
- **Managerial self-governance** refers to the powers given to rectors, presidents and deans in internal goal setting, decision making and regulating the institution's affairs.
- **Competition** makes reference to scarce resources such as personnel, students, financing and reputation.

The German system of higher education as it had developed in the post-war period was characterised by a high degree throughout of state regulation (CHEPS, 2007; Schimank, 2005). The individual German states (11 before reunification and 16 after) and their ministries of higher education were in charge of planning the structures of the higher education system, e.g. setting
up or closing higher education institutions, determining where in their state more capacity should be added or not. Private universities played a negligible role until recently. State governments essentially controlled the complete higher education sector in their respective state. The state ministries directed higher education institutions in terms of strategy, but also concerning new programmes offered. Ministries also had a strong voice in hiring practices since the consent of the ministry was required in each case for recruiting a new professor.

Stakeholders such as the business community played some role, sometimes in advisory bodies or in rather informal committees. But they had no formal role in the governance of institutions of higher education. Instead, the system was heavily biased towards the influence from internal stakeholders in decision making.

Academic bodies such as senates, university councils representing members of the institution, faculty boards and similar organisations that represented the idea of academic self-governance, were influential in determining the course of affairs. Specific arrangements changed in the 1970s when new participatory models were introduced, giving students and non-professorial staff a stronger say in the governance of higher education institutions.

Concerning managerial self-governance, rectors and deans, on the other hand, had limited power and they were mainly important in terms of their ceremonial roles. Rectors and deans quite often served only one term. The typical length of a deanship was one or two years, resulting in a rotation system with professors typically accepting nolens volens the deans’ role, but with little commitment and minimal time to gain experience.

The notion of competition did not belong in the realm of German higher education. Higher education institutions (universities and universities of applied sciences which were set up from the 1970s) operated on the premise of only small systematic differences between institutions. The state-led model of allocating students to higher education institutions functioned on the basis of this idea of all German universities being equal in quality.

**More competition in higher education – paradigms change slowly**

**Paving the way for competition in higher education – paradigms start changing**

The recognition of competition as a positive element for the German higher education system started to gain ground in the 1980s. Politicians publicly reflected upon the need to have a more competitive atmosphere in higher education (Müller, 2009). It was no coincidence that such a need was discussed at the time when liberalisation, privatisation and competition in traditionally publicly controlled sectors were pushed into the centre of public attention in the
United States under President Reagan, and in the United Kingdom under Prime Minister Thatcher. The idea of a more competitive arrangement in higher education received major public attention in Germany for the first time when the coalition government of the conservative party, CDU, and the small liberal party, FDP, started to discuss such a policy in the mid 1980s.

In 1985, the renowned German Science Council proposed to reform the German higher education system by strengthening its competitive features. They specifically mentioned competition for reputation as well as for financial and human resources. However, the idea was rejected by rectors, professional bodies and social organisations. The notion that academia should be free of the need to win resources in a competitive environment continued to dominate thinking in academic circles. The idea of institutions outperforming each other was seen as alien and dysfunctional among the majority of German intellectuals. And when academics discussed the need for higher education institutions to have autonomy, autonomy was not seen as a mechanism for better strategic management, but as a tool to protect academia against undue influence from government.

Later, reunification debates on the need for political reforms in general intensified, and this had a strong impact on the discourse regarding what could improve the higher education system. Political parties argued in favour of more competition in higher education. The CDU repeatedly called for more competition between and within higher education institutions (CDU, 1994, p. 24), stating in its key policy paper on education in 2000: “More quality of higher education institutions requires more competition, more competition requires more freedom. Good research and teaching and efficient management of higher education institutions is not the result of restrictions, directives, and centralised state decision-making” (CDU, 2000, p. 15). The FDP believed that “the public education system needs to free itself from entrenchment and regulation” (FDP, 1997, p. 31). The social democratic party, SPD, more reluctant on the call for competition, requested more freedom for higher education institutions to decide their own fate without state interference (SPD, 1998, 31).

The German Science Council reiterated the call for more competition, which it had made since the 1980s. In the “Theses for the Future Development of the System of Higher Education and Research in Germany” published in 2000, the Council argued: “There are already a number of instruments for the promotion of institutional competition, within academic institutions as well as among them. These instruments must be expanded and utilised more intensively than they have been thus far” (WR, 2000, p. 50). Other organisations such as the German Rectors’ Conference, which had been quite reluctant in the 1980s and early 1990s, finally began to support the idea of more competition.
Throughout these years, the organisations representing professors at higher education institutions remained rather critical of competition as a key mechanism to allocate resources. They questioned the validity of the analysis of the poor state of affairs in German universities. The difficulties, weaknesses and shortfalls in German higher education were mainly interpreted as resulting from insufficient overall public funding for higher education and from failure to adequately increase resources to match increasing student populations. Support for these arguments was provided by statistical evidence that showed Germany was well below the OECD average in terms of spending for education in relation to gross domestic product.

Continuous inputs from international and national organisations contributed to the debate. The European Union increasingly emphasised the need to have highly competitive higher education institutions, and the data and analyses provided by the OECD contributed to an emerging consensus that action was needed. The continued weak performance of top German universities in studies that compared academic institutions internationally was important in this respect. And nationally a number of public interest organisations contributed to the growing sense of a need for change.

Ranking of study programmes in German higher education institutions was another step towards a competitive position in higher education. The Centre for Higher Education Development (CHE) began publishing rankings of study programmes in 1998, and other attempts to rank output of academic institutions followed. The very idea that study programmes could be compared was hotly debated. Some academics also fiercely criticised the ranking of institutions, while others lambasted rankings as ill-suited for capturing the notion of quality and argued that the happiness of students is not the equivalent of quality. However, the idea of ranking universities, faculties and/or study programmes gained ground and the CHE approach of multi-dimensional ranking at a subject-field level was increasingly seen as well-founded from national and international perspectives. In addition, the results of these rankings were appealing to the public.

The emergence of private higher education institutions in Germany added to the increasing recognition of the benefits of competition (Ziegele, 2007; Müller-Böling and Zürn, 2007). The media, policy makers and the public watched the work of private providers of higher education with considerable interest and increasing appreciation especially at the beginning. They seemed to offer attractive services, were innovative, used new ways to collaborate with the private sector and explored new forms of international co-operation. However, despite some growth in recent years, in 2007 only approximately 5% of all students in Germany studied at private higher education institutions. Their modest enrolments notwithstanding, the consensus seems to be that private universities challenge the inertia in public institutions. Whether it has resulted
from their different form of governance, from their rather small size or from their typical focus on business management related study programmes, private institutions have indeed introduced a service orientation which is new to the German higher education landscape, especially in comparison with the country’s large traditional universities.

**Legal reforms towards competition – providing space for innovation**

With political actors and public opinion slowly shifting towards competition, the ground was prepared for legal reforms, aiming at competition and its corollary – increased institutional autonomy. Most fundamental for the understanding of reforms in higher education in the last ten years was the Fourth Amendment of the *Hochschulrahmengesetz* (HRG, Federal Framework Act for Higher Education). While education traditionally falls under the control of the states in Germany, the federal government had been accepted as having the role of defining the overall framework for higher education. The main legal instrument was the HRG. This law clearly defined the framework for higher education institutions and regulated in detail their internal governance structures. The HRG regulated the authority of the state and higher education institution in the system. It clearly defined the tasks, obligations and responsibilities of higher education institutions. The laws on higher education in the 16 states built on this legal foundation.

With the amendment of this federal law in 1998, the decision was made in favour of leaving considerable leeway for innovation in the states and for substantial differentiation between them (Hüfner, 2003). The chapter of the law concerning internal governance of institutions, which stipulated detailed forms of internal mechanisms of leadership and control, was completely withdrawn. This created the opportunity for new models of institutional governance. Politicians justified the reform with the need to find the best solutions for higher education governance in a decentralised manner and on the basis of allowing centres of excellence to develop. While some regretted this development because of the loss of clarity, simplicity and comparability, others saw it as the beginning of an era of competition between states. They saw it as leading to a system in which innovators could work towards internal improvements that would give them a competitive advantage over those who were unwilling to change.

The reform indeed implied the introduction of the notion of competition at the state level. A race between the states developed with respect to introducing the most modern higher education legislation. All 16 states overhauled their laws on higher education, opting for different models of governance. Some states quickly decided to strengthen the role of external stakeholders. Influenced by ideas of New Public Management, states generally strengthened the managerial role of the rector or president. In most states,
higher education laws now allow non-professors to become president of a higher education institution, based on an assumed benefit of instilling managerial thinking from business. In some cases a business related terminology was introduced in order to emphasise that the rector or president is no longer *primus inter pares*, but rather the chief executive officer in charge of steering the course of affairs and taking responsibility for giving an institution a clear profile.

This process of providing an avenue for differentiation, for creating space for experiments, for allowing states to leave the mainstream and try something which is perceived to be superior went one step further when a reform of the system of federalism, a cornerstone of the German political system, was agreed upon in 2007. The 16 states together with the federal government agreed upon a fundamental reform of responsibilities. One of the components of the political agreement was a consensus that the federal government would almost completely withdraw from playing an active role in higher education. It was agreed that the HRG, reformed just nine years prior, should be discarded altogether. The co-ordinating function of the federal government was reduced to an absolute minimum.

Some praised this change as a victory for competition and innovation, and saw it as a positive move towards subsidiarity: delegating power to the state level which was seen as competent enough to effectively perform the tasks at hand. Others deplored the lack of foresight and failure to recognise the need for an impartial agent who sets the rules of the game. These opponents saw the move as anachronistic in a time when challenges called for greater harmonisation and co-ordination, and as European countries moved towards common standards, approaches and rules regarding higher education.

As a consequence of this “federalism reform”, states reacted by again reforming their state laws with respect to higher education. The largest state in Germany, North-Rhine Westphalia, promulgated a law called *Hochschulfreiheitsgesetz* (Academic Freedom Act), which essentially delegates to higher education institutions the authority to set new priorities, introduce new programmes, hire staff and the like. While this experiment was widely watched, many other states also changed their laws in the same direction. Ministries in charge of higher education at the state level fundamentally changed their role. Instead of supervising, controlling and in part “micro-managing” public higher education institutions in a detailed manner, ministries and higher education institutions meet regularly and agree on broad objectives for the institutions to pursue. Implementation is left to the institutions’ decision-making bodies. Authority which before was vested in the ministries was given to the rectors and presidents of higher education institutions. The role of external stakeholders was generally strengthened by introducing in all states governing boards for universities and universities of
applied sciences. However, these models vary between the 16 states, reflecting different ideas concerning the importance, potential and limitations of external stakeholders’ ability to guide higher education institutions.

**Competition and allocation of financial resources**

When competition is introduced in a system where higher education institutions receive almost all funding from the government, subsequent changes in the mechanism to allocate financial resources are inevitable. As an example, allocation of funds on the basis of the number of staff is incompatible with the idea that institutions with the best performance should receive extra funds. A number of innovations changed the basic set up, relying more on indicators which tend to reflect success: a high number of graduates, a low drop-out rate and large amounts of third-party funding were some of the indicators which formally became important when states decided upon the allocation of funds.

The initiative which received the most public attention in this respect was the so-called Excellence Initiative. However, the introduction of performance-oriented funding, the increased importance of formula funding and target agreements for allocating funds to higher education institution were equally important. All 16 states used their power to introduce new mechanisms which emphasised competitive processes for receiving funding.

**Increased importance of performance for state funding**

In the 16 states two different financial steering philosophies emerged, both in line with the philosophy of New Public Management. In one philosophy, some states based their primary financial support of higher education institutions on funding formulas. In the state of Brandenburg, for example, more than 95% of the budget is calculated by using a formula. The state introduced the “money follows the student” principle (taking into account varying costs across disciplines), accompanied by performance criteria such as number of graduates, number of PhDs awarded and volume of third party funding (Ziegele, 2003). The system clearly penalises institutions that do not have enough students as compared to state-funded capacity. The state defines the rules of the game by determining financial incentives, which express the objectives of the state. Institutions act autonomously by deciding which strategy works best for them, with budgets automatically calculated on the basis of this formula. The state does not make discretionary funding decisions but relies on market-simulating mechanisms. The aim was clearly to shift towards a new mode of allocating public funds to higher education institutions.
The second philosophy emerged in states which focused less on automatic financial responses to indicators, but instead relied on negotiations of so-called “target agreements” or “contracts”. In this system universities receive a certain level of funding in return for reaching certain objectives, which are part of a formal target agreement or contract. In this case the target agreement is linked with the basic funding of the university. An alternative model created funding pools which are reserved for and allocated to innovative projects on the basis of target agreements. In this model the agreements do not legitimise basic funding, but instead intend to create incentives for innovation through additional funding for new developments. Methodological standards have been developed for target agreements or contracts: the agreements should be published, linked with strategies, include goals instead of measures, include individually designed indicators, etc. (Ziegele, 2008). Both alternatives of using target agreements allow for the state to clearly indicate its interest in high performance. Strong performance should lead to additional funds in future, while weak performance will lead to lower allocations.

The choice between these philosophies depends on the situation in the individual state. Formula models are more popular in large states with a higher number of universities, whereas target agreements play a major role in small states (e.g. city states such as Berlin or Bremen) with fewer and more heterogeneous institutions. However, no state introduced a completely polarised model, and they instead adopt a mixture of ex ante financing for future developments through the use of contracts and ex post rewards by means of distribution through formulas (Ziegele, 2002). The automatic funding elements based on indicators and the discretionary elements based on contracts have proved to be complementary, with only the weights between those elements differing substantially.

The emergence of these combinations could be explained by the criticism of the different models in the German discussion. Formulas are ex post-oriented, and therefore are not able to pre-finance new developments, which might lead to vicious circles (e.g. having problems which result in lower funding which in turn exacerbates the problems). Target agreements tend to create “soft goals” which are easy to achieve but bear the high administrative cost of negotiation processes. A combination of formula funding and target agreements could limit the negotiations to a few topics of strategic importance and combine ex post – and ex ante – funding. Hence, in the end, all states introduced some form of a general “Three Column Model” of public funding, consisting of a relatively stable element of basic funding (using target agreements or formulas with stable indicators), a performance-oriented part (using formulas) and an innovation-oriented funding pool (using target agreements) (Ziegele, 2008).
The introduction of these new models of resource allocation was closely connected with the introduction of lump sum funding. Financial competition requires financial autonomy. All states abolished or reduced the rigidity of line-item budgeting. And higher education institutions are now allowed to build financial reserves.

The Excellence Initiative

The idea of all universities being essentially equal and receiving similar levels of funding (depending on size, discipline and sometimes the financial capabilities of the state) had been eroding for a number of years. The idea further eroded as governments focused increasingly on the goal of having some German universities or individual academic units recognised as leading global institutions, especially in terms of research performance. The federal government challenged the image or vision of equality of higher education institutions when it proposed an initiative to identify centres of research excellence in German higher education and allocate additional funds for their further development. After intensive political debate and struggle over the authority of the federal government versus that of the states to create such initiatives in higher education, an agreement was reached in 2005 to implement the so-called “Excellence Initiative”.

The initiative is based on the idea that true high-level internationally competitive research which goes beyond individual excellence is possible only when funding is concentrated in a few “lighthouses”, as universities with high international visibility were called (DFG/WR, 2008; Bloch et al., 2008). “The aim of the Excellence Initiative is to make Germany a more attractive research location, making it more internationally competitive and focusing attention on the outstanding achievements of German universities and the German scientific community” (DFG/WR, 2008). The initiative explicitly mentioned as one of its objectives “the intensification of scientific competition in Germany and improvement of the quality of Germany as a place for science and research” (DFG/WR, 2008). The idea, that some concentration is necessary in order to be competitive and be recognised internationally as leading institutions, has gained acceptance in large parts of society and the academic community.

The initiative under the joint responsibility of the German Research Foundation and the German Science Council comprised three areas of funding:

1. graduate schools to promote young scientists;
2. clusters of excellence to promote top level research;
3. institutional strategies to promote top level university research.
The interest in gaining funding and being seen as a place where internationally recognised research takes place was enormous. In the first round, 39 graduate schools, 37 clusters of excellence and 9 institutional strategies to promote top level university research were selected for funding. For the period 2006 to 2011, a total of almost EUR 2 billion has been allocated for this initiative. It is planned to continue with the initiative beyond 2012, but the issue of the long-term sustainability of the new developments is a major concern in the current debate.

The competition for funding received vast attention nationally and internationally. The nine universities which received funding for their “institutional strategies to promote top level university research” were quickly called “universities of excellence” or “elite universities”, and their prestige received a considerable boost. The idea of institutional differentiation also gained significantly as a result of the competition. Criticism of the basic philosophy of differentiation continues. Some fear a dichotomisation of universities: those which are excellent and those which are not. Others mainly criticised the process of identifying universities to be awarded funding, which in some fields was based on concepts, vision statements and proposals, instead of proven records. However, while the initiative was controversial when initially launched, it has since gained wide acceptance in society.

Despite the positive impact of the Excellence Initiative, there are a number of weaknesses. Initial studies of the programme's implementation show that institutions have difficulties effectively utilising the additional funds. It can be difficult to find sufficient numbers of highly qualified researchers and graduate students. In addition, uncertainty regarding the long-term stability of the funding may be contributing to a reluctance for individuals to move to institutions and programmes identified in the initiative (Hornbostel and Sondermann, 2009). Another major problem is the increased focus on research induced by the Excellence Initiative. Most universities regard all other profiles except research excellence as “second best” and inferior. It is a major challenge for the German higher education institutions to shape a system with a diversity of profiles in research, teaching, innovation, internationalisation, regional orientation, etc., all of which are important and relevant for the overall quality of the system.

**Competition changes the rules of the game for human resource allocation**

With the advent of the notion of competition between higher education institutions nationally and internationally, a consensus has emerged that institutions need increased freedom to make decisions about their key asset: human resources. The traditional governance model in higher education meant that ministries had enormous influence over recruitment of professors at public...
institutions. The system was highly centralised and ministries generally had the final say over the selected candidates. Recruitment could sometimes take years. The system of human resource management was egalitarian in nature and differences in salaries were small. After a period of considerable uncertainty between completing a doctorate degree and gaining a professorship, the system was transparent and predictable for those who became professors. Professors knew exactly what level of income they would receive in the following years, with variations only dependent on their age and number of children. Advocates of the old system appreciated the egalitarian character. They emphasised the intrinsic motivation of academics and considered additional financial incentives for top performance as unnecessary. However, public discourse emphasised the need for change, especially with reference to examples in Australia, Canada, the United Kingdom and the United States. The net migration of academics to countries with higher salaries for top level researchers seemed to prove this point.

Policy makers therefore moved towards changes in the way higher education institutions manage their human resource needs. Rules and regulations for the recruitment of highly qualified academic staff were changed, the remuneration system in higher education was transformed by adding explicitly salary components that depend on performance, and initiatives were started to make it more attractive for highly qualified personnel working abroad to come or return to Germany.

**Rules and regulations concerning recruitment**

Increasing numbers of states moved towards a system which delegated authority for staff recruitment to higher education institutions and discontinued the need for institutions to get final approval for the recruitment of professors from the ministry. Higher education institutions have shifted this authority to the institution's presidents or rectors and sometimes the governing board. Laws and regulations were changed towards more flexibility when hiring professors, particularly in an attempt to reduce the time for recruitment. Regulations started to allow deviations from standard procedures for recruiting top academics. New arrangements where professors work both at a university and in industry were also introduced in some states. Strict rules which kept universities from employing highly qualified people beyond retirement age were relaxed. The general trend of the changes was towards deregulation and increased flexibility.

**A new remuneration scheme for professors**

In 2002, the federal government used its authority to change the higher education service regulations with the objective of increasing monetary compensation for performance and innovation (European Commission, 2006-7). The law that reformed professorial salaries constituted a key system change.
Instead of fixed salaries which basically – within four categories – only varied with age, newly appointed professors now receive a base salary and additional performance related payments. These bonus payments can be awarded at the time of appointment (taking into account previous performance of the applicant and labour market conditions in the relevant field) and/or regularly for performance in teaching, research, international activities, etc. The 16 states were required to adjust their laws and practices no later than 2004, so that since 2005 all new professors have been recruited in accordance with the new salary scheme.

While the general public welcomed this innovation, the change was strongly rejected by the academic community and organisations representing professors both at universities and universities of applied sciences. Some argued that the change would fundamentally alter the atmosphere in academia. There would be less co-operation between professors resulting in less frequent teamwork. Their arguments were strengthened by a specific mode of implementation, which compared with the old system of payments implied financial neutrality and resulted in professors at the same institution competing for a fixed amount of funds available for performance-based payments. Others argued that mechanisms to judge performance are not yet fully developed or are difficult to implement in academia. When research results might prove to be important only after long periods of time, judgements based on performance after periods of two or three years are inappropriate and encourage academics to focus on research which will show short-term results and benefits. However, despite the criticisms it is clear that higher education institutions now have an important instrument at hand to attract qualified academics and to compete in a rapidly globalising academic labour market.

**Initiatives to get the best**

Germany can boast of being one of the key destinations for scholars from abroad. But figures for the last 15 years show that German higher education and research institutions have not increased their attractiveness as destinations for top researchers; rather in some categories they have lost their position as first choice institutions for highly skilled academics (DAAD, 2008). With increasing attention on the global competition for knowledge and “knowledge production”, this was seen as an early indicator of a possible loss of competitiveness of the German system. Public institutions began initiatives to increase the number of highly skilled academics from abroad who would consider working in German higher education and/or research institutions. Target groups were both internationally mobile foreigners and Germans who were working abroad and might find it attractive to return to Germany.
The German government and public organisations such as the DAAD (German Academic Exchange Service) started campaigns to highlight Germany’s attractiveness. An example is the campaign “Research in Germany – land of ideas”, which featured German organisations abroad supporting initiatives to highlight the benefits of working in Germany. Additionally, the government relaxed work permit requirements for foreign researchers coming to Germany.

Higher education institutions reacted as well, recognising the potential of recruiting scholars working abroad, both German and foreigners, who might spend some time working in Germany. Increasingly, recruitment for professorships explicitly targeted international experts. Vacancies were advertised in easily accessible international databases such as www.academics.de and in internationally relevant journals, and international conferences were used to publicise job openings. Furthermore, new methods were introduced to help newly recruited staff and their families settle in Germany.

**Competition for the best students**

The admission of students to universities was traditionally highly regulated and controlled by state governments and federal legislation rather than by the universities. For programmes where the number of applicants clearly exceeded the total capacity in universities or universities of applied sciences, the higher education institutions had almost no say in determining which students would be admitted. A central admission office (Zentralstelle für die Vergabe von Studienplätzen, ZVS) allocated the majority of students to the institutions which offered the respective programmes. While academic performance in secondary school played an important role, other criteria such as residence, family status, the number of years since finishing secondary school or disabilities were important factors as well. Higher education institutions did not have the freedom to set their own criteria. Instead such criteria were agreed upon centrally.

The centrally regulated system was changed, and universities and universities of applied sciences were allowed to select a small proportion of students using their own criteria. Since 2005, higher education institutions have been able to select more than 50% of their students, and in many cases up to 100% according to their own criteria. Immediately following this autonomy for selecting students, competitive processes between higher education institutions quickly developed with institutions seeking to attract the best students. This competition unleashed new efforts by higher education institutions to market their institution. In addition, innovative ways of selecting students were introduced, reflecting a recognition of the importance of having the right students.
Competition and autonomy require new management skills

With the dramatic transformation of the framework for higher education in Germany, higher education institutions were forced to react and engage in fundamental institutional changes. The new framework has had significant implications for managing higher education institutions. Strategic management has become a relevant concept and institutional leadership models have been revised in response to the new challenges. Controlling research and education and cost accounting became more important, marketing the institution, faculty or study programme was necessary, and quality management was indispensable (Friedrich, 2008). This was all necessary to come to terms with the management challenges in the new competitive framework. In addition, those in leadership have had to improve their qualifications in order to better cope with the new landscape in German higher education.

As state governments changed the basic legal parameters and handed over rights and responsibilities for a growing number of issues to higher education institutions, they were faced with a new challenge: to define their own objectives and determine the key contributions they can make to society. A general agreement with internal and external stakeholders regarding institutional contributions to such areas as a growing knowledge base in society, regional development, or high quality in teaching and research was quite easy to achieve – numerous institutional mission statements of higher education institutions around the world contain such lists of contributions. However, it turned out to be much more difficult to move beyond such general objectives.

It is a challenge for an institution to spell out clearly which specific objectives have priority over others, and to find general internal and external support for such choices. As a result, many rectors, presidents and deans have faced considerable resistance, reflecting the divergence of views on the value of specific objectives.

Additionally, controversies have arisen over how leadership should handle the process of establishing new or revised institutional profiles, which may no longer be based upon disciplinary loyalties. German higher education institutions have had to learn how to master this process of setting objectives, responsibly translating those general objectives into spending priorities, and handling the subsequent process of allocating scarce resources.

The use of the term “management” with respect to higher education institutions was a clear break with the past (Müller-Böling and Ziegele, 2007). For some this was a long awaited change, for others it was a development watched with considerable unease and scepticism. However, the structural changes to the system towards more competition and autonomy left little choice but for higher education institutions to accept the new role. The changes
to the system required higher education institutions to take on new roles in decision making and adopt new instruments for managing the institution. The considerable volatility and uncertainty in the county's economic, social and political conditions, combined with these fundamental changes to the higher education system, means that decision making is even more relevant and important, and at the same time more difficult, than before.

Some institutions have accepted the new management role, seemingly embracing the new opportunity. The most prominent example is the Technical University of Munich (TUM) where the rector has pronounced the institution to be an entrepreneurial university. This has been done with clear and strong leadership, and with forceful decision making that breaks with the institution's past governance model. TUM is an example of an institution that is ahead of overall developments in the state of Bavaria. In this case, it was not a change in the state's framework that induced the modernisation of TUM, but rather it was experiments in management at the institution that put pressure on the state government to strengthen institutional autonomy and introduce more competitive steering elements.

Many of the country's other higher education institutions have also responded with dynamic institutional changes, with smaller and younger institutions sometimes finding the transition easier. However, there are still a substantial number of higher education institutions which have been reluctant to accept the new situation. The situation has sometimes met with considerable institutional resistance towards the new forms of leadership it requires. In addition, in some institutions difficulties have been observed on the part of senior leaders to change their managerial mind-sets.

The observable differentiation in higher education in Germany and the considerable gaps between well-managed higher education institutions and other institutions can be primarily linked to the different ways those institutions have mastered the new management challenges.

The emergence of strategic management as part of the management strategies of higher education institutions has gone hand in hand with a recognition of the leadership structure's importance in the success of the institution. The well-known observation in management that strategy and organisational structure are closely related is equally true for higher education institutions. Examples of this combination of strategy and leadership structure can be seen in institutions with a focus on internationalisation that have opted to introduce a vice-president for international affairs, and at institutions with a strong regional focus that have created a special portfolio for regional technology transfer or similar functions.
The decentralised model of governance has also resulted in the need for different leadership structures depending on institutional profile. Clearly institutions with large faculties and significant manpower to manage require a different leadership structure from institutions with small faculties where more services are delivered from centralised units within the institution. Additionally, where institutions have had a choice, many have opted for longer terms for their presidents, rectors and/or deans. These are examples of the reorganisation of institutional leadership structures that has been a common feature in higher education in recent years.

Those in leadership positions have had to develop new skills to effectively manage the changes and resulting difficult processes brought about by the new situation in the higher education system (Mayer, 2008). Numerous conferences, seminars and workshops were organised, for example, by professional associations, and consulting agencies have offered services to higher education management. A new group of experts has also emerged: higher education managers, who are highly qualified with specialised skills in management coupled with a sound understanding of higher education. New positions have been created for such managers, and similar existing positions have been upgraded, in terms of qualifications required and salaries. New training programmes have been established with a number of higher education institutions offering master's programmes in higher education or higher education management. In addition, short courses on specific issues of higher education management are being offered, which reflects a process of “professionalisation” that is expected to continue (an overview of these courses can be found at www.ag-wissenschaftsmanagement.de).

Conclusion

This paper has discussed the dynamics and difficulties of changing paradigms in a higher education system with shared authority and strong traditions. Paradigms change slowly, but the German example shows how changes in many fields lead to a far-reaching and comprehensive transformation of the whole higher education sector. The successful transformation was the result of continuous efforts by the federal government, the state governments, political parties, professional associations, the media, other stakeholders and of course the higher education institutions. The move towards competition and autonomy has fundamentally changed the concepts and challenges surrounding the management of higher education institutions in Germany.

Acknowledgements

The authors would like to thank Prof. Hans Rainer Friedrich and John Fowler for their valuable comments.
The authors:
Prof. Dr. Peter Mayer
Professor for International Economics and Economic Policy
University of Applied Sciences Osnabrueck
Faculty of Business Management and Social Sciences
Caprivistr. 30a
49009 Osnabrueck
Germany
E-mail: mayer@wi.fh-osnabrueck.de

Prof. Dr. Frank Ziegele
Professor for Higher Education and Research Management,
University of Applied Sciences Osnabrueck
Director, Centre for Higher Education Development
Verler Straße 6
D-33332 Gütersloh
Germany
E-mail: frank.ziegele@che-concept.de

References
Bloch, R. et al. (eds.) (2008), Making Excellence, Bielefeld.
DAAD (German Academic Exchange Service) (2008), Facts and Figures on the International Nature of Studies and Research in Germany, DAAD, Bielefeld.

Mayer, P. (2008), Management of Faculties and Departments as Major Challenge in Higher Education, University of Applied Sciences Osnabrück, DAAD and German Rectors’ Conference, Bonn.


SPD (Sozialdemokratische Partei Deutschlands) (1998), Grundsatzprogramm der Sozialdemokratischen Partei Deutschlands, SPD, Leipzig.


Ziegele, F. (2008), Budgetierung und Finanzierung, Hochschulen, Münster.
The Context of Higher Education Reform in the United States

by

Donald E. Heller
Center for the Study of Higher Education,
The Pennsylvania State University,
United States

Higher education in the United States has received much scrutiny in the recent past from the federal and state governments, the press and the general public. In response to this scrutiny, a number of blue ribbon panels have been formed to examine how effectively higher education is serving American society. In this article, I analyse the proceedings and impact of the most recent prominent panel, the Secretary of Education’s Commission on the Future of Higher Education, commonly known as the Spellings Commission. I also briefly examine how the new administration of President Barack Obama is likely to affect colleges and universities in light of the global economic crisis.
Contexte de la réforme
de l’enseignement supérieur aux États-Unis

par

Donald E. Heller
Center for the Study of Higher Education,
Université d’État de Pennsylvanie,
États-Unis

Ces dernières années, le gouvernement fédéral, les États, la presse et l’opinion publique ont placé l’enseignement supérieur aux États-Unis au centre d’une attention toute particulière. En conséquence de cela, de nombreux groupes d’experts se sont formés pour étudier dans quelle mesure le système d’enseignement supérieur sert efficacement la société américaine. Cet article examinera les procédures et l’impact de la commission du ministre de l’Éducation sur le futur de l’enseignement supérieur, plus généralement dénommée la commission Spellings, qui constitue le plus important groupe d’experts récemment constitué. Nous étudierons ensuite brièvement dans quelle mesure la nouvelle administration du Président Barack Obama est susceptible d’affecter les universités dans un contexte marqué par la crise économique mondiale.
Higher education has been under the scrutiny of policy makers, the press and the public for as long as it has existed in the United States. Even during the earlier years of the country, when proportionally few citizens enrolled in its institutions of higher education, colleges and universities received attention from a broad cross section of society.

As participation in higher education expanded in the 20th century, and as higher education became a more important contributor to the economic and national security needs of the nation (particularly beginning during World War II), this scrutiny became more heightened. Both states – which have the governance and funding authority over public institutions of higher education – and the federal government – which funds research and student financial aid – have formed numerous commissions and review panels over the years that have looked at the role of higher education in serving society. These organisations have recommended a variety of changes over the years to improve the higher education sector and how it serves the nation.

It is fair to argue that the 21st century finds the attention paid to higher education in the United States at record levels. This has been driven by a number of factors:

- Participation in higher education, as measured by total number of enrollees or by the proportion of the population enrolled in college, is at an all-time high. Enrollments exceed 18 million students; almost 50% of 18- to 19-year-olds are enrolled in college (as compared to about one-third 30 years ago) and 36% of 20- to 24-year-olds are enrolled (23% 30 years ago). Thirty years ago, approximately half of all secondary school students enrolled in college within a year of graduating from high school; today, two-thirds do (National Center for Education Statistics, 2009, Tables 2, 7 and 200).

- Even as participation in higher education has grown, the price of attending college in the United States in recent years has grown more rapidly than has the average income of families or measures of price inflation (College Board, 2008a). This has brought much scrutiny from potential students and politicians alike, who raise concerns that students, particularly those from lower- and moderate-income families, will be priced out of attending college.

- Public investment in higher education continues to grow. Between 1991 and 2006, state and local governments increased their funding for higher education institutions 71%, from USD 39.1 billion to USD 67.0 billion. The
federal government increased spending on research at universities by 133%, from USD 13.8 billion to USD 32.1 billion (National Center for Education Statistics, 2009, tables 31, 352 and 373). The amount of grant aid provided to students by the federal government increased from USD 6.6 billion to USD 19.4 billion, or 193% (College Board, 2001, 2008b). Consumer prices during this period grew only 49% (Bureau of Labor Statistics, 2009). As governments put more funding into higher education, this increases the scrutiny and calls for accountability.

This first decade of the 21st century has seen a number of calls for reform and changes to higher education and how it serves American society. In this article, I review the most prominent of these, the Secretary of Education's Commission on the Future of Higher Education, commonly known as the Spellings Commission, and describe the institutional, political and economic contexts that surrounded it. I also provide a brief analysis of the likely environment for reform of higher education under the new administration of President Barack Obama.

The Spellings Commission

Background

In announcing the creation of the Secretary of Education’s Commission on the Future of Higher Education in September 2005 US Secretary of Education Margaret Spellings noted that “It is time to examine how we can get the most out of our national investment in higher education. We have a responsibility to make sure our higher education system continues to meet our nation’s needs for an educated and competitive workforce in the 21st century” (US Department of Education, 2005a). The formal charge given to the Commission was to “consider how best to improve our system of higher education to ensure that our graduates are well prepared to meet our future workforce needs and are able to participate fully in the changing economy” (US Department of Education, 2006a, p. 33). The Commission had 19 members, including former college presidents, academics, representatives of higher education policy and advocacy organisations, and representatives of the business community. It was chaired by Charles Miller, a former Chairman of the Board of Regents (governing board) of the University of Texas, one of the largest public universities in the United States.

Historically, while the federal government has provided funding for colleges and universities, it has done so while imposing relatively few restrictions on the governance and operations of the institutions. The United States Constitution, written shortly after the founding of the nation in the 18th century, does not contain the word “education”. Thus, control and authority over educational institutions at all levels – primary, secondary and
tertiary – has been devolved to individual state and local governments. Federal involvement in postsecondary education has largely been accomplished through application of the policy “carrot” of federal funding and inducements targeted at particular societal needs, rather than through the policy “stick” of regulation and control (Fitzgerald and Delaney, 2002).

The timing of the announcement of the Spellings Commission was important, as it came as Congress was preparing to take up the reauthorisation of the Higher Education Act of 1965 (HEA), the primary federal statute that governs the provision of institutional (non-research) support and student aid to the nation’s colleges and universities. The HEA, signed into law by President Lyndon Johnson in 1965 as one of his Great Society social welfare programmes, needs to be reauthorised every five years. Last accomplished in 1998, Congress was overdue on renewing the law as it was dealing with other priorities. So every year since 2003, the law was continued an additional year with a simple continuing resolution. But following the elections of 2004, when President George Bush was reelected and his Republican Party solidified control of both the Senate and the House of Representatives, congressional leaders announced their intent to finally move forward with a comprehensive reauthorisation of the HEA.

From its first announcement, the Spellings Commission was greeted with some skepticism and criticism. Much of this was driven by concerns over the possibility of an increased federal role in regulating the higher education sector. A representative of the Cato Institute, a libertarian think tank, stated, “If they’re going to have a national strategy, who is going to implement it other than the federal government? My fear is that they’re going to duplicate what they have in K-12 in higher education”, a reference to the federal government’s passage of the No Child Left Behind Act, which imposed on states a requirement that they test students in primary and secondary schools annually (Field, 2005). A representative of an advocacy organisation for private colleges criticised the composition of the panel because it did not “include anyone from historically black, women’s or faith-related schools” (Haurwitz, 2005). The American Federation of Teachers, one of the two national teachers’ unions in the United States, asked Secretary Spellings to include “the perspective of people who work on the front lines with students, day in and day out” (Field, 2005).

The Commission’s deliberations

Over the course of approximately a year, the full Commission met nine times at which it invited testimony from a number of experts in higher education from across the country. These meetings included two open hearings, where in addition to invited presentations, members of the public were allowed to step forward and address the Commission.
Even though the initial charge to the Commission was focused fairly narrowly on higher education’s role in preparing Americans for the 21st century workforce, this mission was interpreted rather broadly. A list of the topics on the agendas of the Commission meetings includes:

- accountability;
- affordability;
- accessibility;
- quality;
- innovative financing;
- innovative models of delivery;
- innovative public/private partnerships;
- innovative teaching and learning strategies;
- articulation;

But the Commission discussions were not limited to these topics. One meeting, in December 2005, included invited testimony from Lamar Alexander, an individual perhaps uniquely qualified to discuss the intersection between public policy and higher education. Alexander was at the time of his testimony (and still is) a United States Senator, a former Secretary of Education (under President George H.W. Bush), a former governor of Tennessee, and a former president of the University of Tennessee. Alexander exhorted the Commission to put a spotlight on the greatest threat to broader public support and funding for higher education: the growing political one-sidedness which has infected most campuses, and an absence of true diversity of opinion. [...]

There is more to this charge of one-sidedness than the academic community would like to admit. How many conservative speakers are invited to deliver commencement addresses? How many colleges require courses in US history? How many even teach Western Civilization? How many bright, young faculty members are encouraged to earn dissertations in the failures of bilingual education or on the virtues of vouchers or charter schools? (US Department of Education, 2005c, p. 143)

It is interesting to note that Alexander in his testimony did not present any evidence for his charges of liberal bias in the academy. While this has been a charge that has received much publicity and discussion of late (see for example American Council of Trustees and Alumni, 2005; Horowitz, 2007; Horowitz and Laksin, 2009), it seems far-fetched to justify it as being within the scope of the Spellings Commission’s responsibilities. This was confirmed by the fact that even though Alexander was one of the most prominent speakers at any of the hearings, the final report made no mention of the “problem” he identified.
Another speaker spoke about the problem that “two-thirds of all college students today, male and female are reporting incidents of sexual harassment in their college experience” (US Department of Education, 2006b), but again, the Commission never took up the issue in later discussions or reports.

The Commission also had much discussion about the role of for-profit providers in the American higher education system. This is not surprising given the growth and prominence of this sector in recent years. Between 1990 and 2007, enrollment grew 24% in public colleges and universities and 29% in private, not-for-profit institutions (National Center for Education Statistics, 2009, Table 188). Enrollment in for-profit institutions (only those that are accredited by an accrediting body recognised by the US Department of Education) grew 455%, with these institutions increasing their market share of students from 2% to 7% over this same period.

At the meeting held on 2 and 3 February 2006, in San Diego, California, the Commission heard from analysts from the venture capital and banking industries who followed for-profit higher education providers, as well as from the chief executives of two of the nation’s largest for-profit providers, Kaplan Inc. and Capella Education. One analyst pushed the Commission to encourage state lawmakers to allow institutions to privatize while directing greater resources to individual aid. State colleges and universities, particularly community college systems, amount to state-run enterprises and suffer from all of the inefficiency and poor decision making of Soviet-style factories. (US Department of Education, 2006c)

Other speakers spoke about the almost-exclusive focus of for-profit institutions on job placement and the vocational needs of their students, and the market-responsiveness of these companies in comparison to traditional colleges and universities.

One subject that was noticeably absent from the Commission’s deliberations (as well as its final report) was the role of intercollegiate athletics in contributing to the rising cost of college, an issue directly related to the topic of affordability. This is a topic that has received much attention from the popular press, scholars, and policy makers in recent years (see for example Bowen, Levin and Shulman, 2003; Shulman and Bowen, 2001; Sperber, 2000; Suggs, 2004; Wieberg and Upton, 2007; Wolverton, 2006). At the first meeting of the Commission in October 2005, one member – Arthur Rothkopf, Senior Vice President of the United States Chamber of Commerce, a lobbying organisation for business and industry in the United States – raised the issue of the potential problem with spending on athletics, but the topic was taken off the table by the Commission’s Chairman:

ARTHUR ROTHKOPF: ... Intercollegiate athletics, except for a handful of institution is one of the great money pits for schools and I think it would...
be well for many institutions to talk about deemphasizing intercollegiate athletics even though it is a very nice thing for people, for Michigan, and Penn State, and Oklahoma, and Miami, but for those of us.

CHAIRMAN MILLER: I am not going to recognize any more athletic discussion during this commission’s meeting.

ARTHUR ROTHKOPF: What I’m saying is, I think it is a cost-driver that adds tremendous added costs which.

CHAIRMAN MILLER: Well, it does. Let’s put that in the amenities department and say we are not an amenities commission, but that is a cost-driver that we will look at in a model of our education. But that is an accurate statement. But, we could not deal with that here and do anything in that nine months. (US Department of Education, 2005b, p. 107)

After this exchange, the subject of athletics was only briefly raised in other Commission hearings, and does not appear in the final report.

As one way of informing its deliberations, the group commissioned a series of 15 papers from experts around the country on a variety of topics, ranging from quality assurance, to affordability, to accountability. A reading of the topics does appear to be beyond the scope of the Commission’s initial charge from Secretary Spellings, but one could make an argument that any topic could be found to be related to the improvement of higher education. Chairman Charles Miller clearly allowed the Commission to focus on a broad range of topics, rather than keeping it narrowly-focused on a small number that would be, at least by outward appearances, more germane to the Commission’s charge.

The Commission’s report

After the first five meetings, the Commission members met for two days in Washington in May 2006 to discuss the contents of the final report, to be informed by the earlier hearings along with the discussion papers written by the higher education experts. Given the breadth of the topics covered in the public hearings and consultant reports, the discussion meandered over a broad path (Lederman, 2006a, 2006b). Commissioners bantered over definitions – “higher education”, “20th century education”, “post-secondary” or “tertiary” as the demarcation of the sector of education that was within its scope, in addition to what is meant by “access” and “affordability” – as well as discussing the trade-offs inherent in promoting the policy goals of initial access to higher education versus progression toward degree attainment (US Department of Education, 2006d). Chairman Charles Miller pushed the group to be “bold” in its recommendations and not to shy away from any that may be uncomfortable or difficult for colleges and universities to accept. The Commission members wrestled with the challenge of distilling the many issues and challenges discussed in their meetings – along with proposed
solutions – down to a manageable number that would be memorable to the report’s audience. The second day of the May meeting closed with Miller’s promise to send to the members a draft of a final report, to be written by the Commission’s staff from the Department of Education, along with the assistance of a consultant engaged for the task.

A little more than a month later, the draft report was sent to the Commission members and released to the public. The tone was set early on, when the first page of the report stated, “US higher education needs to improve in dramatic ways. As we enter the 21st century, it is no slight to the successes of American colleges and universities thus far in our history to note the glaring deficiencies that remain. [...] We have found equal parts meritocracy and mediocrity” (Secretary of Education’s “Commission on the Future of Higher Education”, 2006, p. 1).

The key findings of the body were grouped into four categories:

- access to higher education;
- affordability;
- quality and innovation;
- accountability.

Each of these was expounded on, providing details from the hearings held by the Commission and the experts’ reports.

The report laid out a series of six broad recommendations grouped under the findings as follows (pp. 18-21):

- Access to higher education
  - expand college access by increasing student aid and improving academic preparation of students
- Affordability
  - overhaul the student financial aid system to provide more need-based aid and make it less complex
  - control costs in colleges and universities and improve their productivity
- Quality and innovation
  - implement “continuous innovation and quality improvement” in higher education institutions (p. 20)
  - improve opportunities for lifelong learning for non-traditional (i.e. adult) students
- Accountability
  - create a “robust culture of accountability and transparency throughout higher education” (p. 21)
It is reasonable to conclude that the recommendations were far from the “bold” initiatives urged on the Commission by Chairman Miller at its May meeting. All of these are ideas had been fairly widely discussed both within and outside of the academy in recent years.

Nevertheless, the draft report generated quite a bit of controversy as it circulated among the members of the Commission. Much criticism was raised regarding the negative tone toward the current status of higher education in the country. Commissioner Robert Mendenhall, president of the Western Governors University, a not-for-profit Internet-based institution – and certainly one Commission member far from the mainstream of American higher education – said, “I don’t think it’s about blame. The report was more negative than it needs to be about the academy, but not as alarming as it needs to be in shining a light on the challenges in American higher education” (Arenson, 2006). Robert Zemsky, an education professor at the University of Pennsylvania, and another member, decried the tone of the report, saying, “The most distressing thing to me is that it’s just mean-spirited. Critiques can be very effective, but mean-spirited critiques just don’t go anywhere” (Lederman, 2006c).

Other Commission members complained that the draft report reflected not so much the views and deliberation of the members, informed by the public hearings held, but rather those of the consultant hired to draft the report and the expert papers submitted to the Commission. David Ward, president of the American Council on Education, the umbrella lobbying organisation for higher education institutions in the United States, and a member of the Commission, commented that the report was “based on a highly selective reading of testimony and in no way reflects the candid and creative discussions we have had during our yearlong process” (Field, 2006). James Duderstadt, former president of the University of Michigan, complained that “This really reflects what the consultants put in the papers and what they would like the commission to say. It doesn’t have any relationship to the kind of deliberations we had at the May meeting” (Field, 2006).

One of the key recommendations in the June draft report was that Secretary Spellings implement a database that would track the progress of the nation’s millions of college students. Because of the decentralised (to the 50 states) and mixed public-private model of higher education in the United States, there is no central system for tracking students longitudinally. The challenge was compounded by the fact that many students attend college sporadically, part-time or with periods of stopping- or dropping-out before returning to continue their studies, often at a different university than where they had started their postsecondary careers. The standard of an 18-year-old recent high school graduate enrolling in college full-time and attaining a bachelor’s degree from that institution four years later has become less and less the norm in the United States.
This recommendation for creating a student tracking database was met with much resistance as the draft report was released beyond the Commission, with opponents citing privacy and other concerns. The president of a private college questioned, “Is there some reason to reverse three decades of [privacy] policy and go down this Orwellian road?” (Romano, 2006a). The president of a private college association in one state added, “It’s cradle-to-grave tracking. It can easily be connected to other databases and be connected to basic freedoms” (Romano, 2006a, p. A15).

Responding to the concerns raised both inside and out of the Commission, Chairman Charles Miller shepherded the report through three more drafts before reuniting the members for a meeting in Washington in August 2006. These changes ameliorated the concerns of many of the members, because overall reaction to the revisions was positive as they assented to the most recent draft. There was one important exception, however: David Ward of the American Council on Education (ACE). Ward was the lone dissenter to acceptance of the latest draft, stating his concerns to his fellow Commissioners at that meeting:

I guess I may be providing the rain on this unanimous reaction to the report. [...] Where I think I have apprehension is that I wish that we could have built our arguments more on the strength of higher education than on the idea that there may be a crisis or even an emerging crisis. [...] I think in this report there is a slight tendency, and I’d just say a slight tendency, to attribute some problems almost entirely to higher education when there are multiple factors involved in creating those problems. (US Department of Education, 2006)

Ward’s resistance to endorsing the report was no doubt complicated by his role as, in some ways, the chief spokesperson for higher education institutions across the United States. The ACE represents not just the individual institutions, but also acts as an umbrella organisation for lobbying and advocacy organisations in Washington that represent most specialised sectors of the industry (e.g. community colleges, private not-for-profit institutions and large public universities). The president of ACE has the challenging task of trying to represent institutions and organisations that have very different missions and characteristics.

A “pre-publication” version of the final document was released in September 2006, and contained the signatures of 18 of the 19 members of the Commission, all but Ward (US Department of Education, 2006f). A careful analysis of this version, as compared to the first draft released the prior June, finds some subtle and not-so-subtle changes that were made throughout the
summer (the Department of Education released a “final” version of the report that was largely unchanged from the pre-publication version). Table 1 highlights some of these key differences.

Table 1. Examples of differences between first draft and pre-publication reports

<table>
<thead>
<tr>
<th>First draft, 22 June 2006</th>
<th>Pre-publication report, September 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 As we enter the 21st century, it is no slight to the successes of American colleges and universities thus far in our history to note the glaring deficiencies that remain (p. 1).</td>
<td>As we enter the 21st century, it is no slight to the successes of American colleges and universities thus far in our history to note the unfulfilled promise that remains (p. vi).</td>
</tr>
<tr>
<td>2 Among the vast and varied institutions that make up US higher education, we have found equal parts meritocracy and mediocrity (p. 1).</td>
<td>Among the vast and varied institutions that make up US higher education, we have found much to applaud but also much that requires urgent reform (p. vi).</td>
</tr>
<tr>
<td>3 We want colleges and universities to be productive and efficient in order to be affordable to the students, taxpayers, and donors who sustain them (p. 2).</td>
<td>We want postsecondary institutions to provide high-quality instruction while improving their efficiency in order to be more affordable to the students, taxpayers, and donors who sustain them (p. viii).</td>
</tr>
<tr>
<td>4 We want post-secondary institutions to be accountable to the American public for their performance and transparent in their operations (p. 2).</td>
<td>[dropped]</td>
</tr>
<tr>
<td>5 Employers report repeatedly that the new graduates they hire are not prepared to work, lacking the critical thinking, writing and problem-solving skills needed in today's workplaces (p. 6).</td>
<td>Employers report repeatedly that many new graduates they hire are not prepared to work, lacking the critical thinking, writing and problem-solving skills needed in today's workplaces (p. 3).</td>
</tr>
<tr>
<td>6 While higher education prizes transparency of information, precision of data, and rigorous analysis in its own scholarship, as an enterprise it has failed to apply the same standards to itself. Some colleges are beginning to experiment with new assessment tools, but most make no serious effort to examine their effectiveness on the most important measure of all: How much students learn (p. 6).</td>
<td>[dropped]</td>
</tr>
<tr>
<td>7 The Secretary of Education should take the lead in developing a national strategy to keep the US at the forefront of the knowledge revolution, creating a system that encourages knowledge and skills to be obtained and continuously updated on a regular basis through a lifetime of learning (p. 21).</td>
<td>The secretary of education, in partnership with states and other federal agencies, should develop a national strategy that would result in better and more flexible learning opportunities, especially for adult learners (p. 25).</td>
</tr>
<tr>
<td>8 At the state level, one promising approach that should be encouraged is placing increased emphasis on empowering consumers by redirecting assistance to individual students instead of institutions. The same effect could occur with a well designed expansion of the Pell Grant program (p. 20).</td>
<td>[dropped]</td>
</tr>
<tr>
<td>9 States should require public institutions to measure student learning using quality-assessment data from instruments such as the National Survey of Student Engagement (NSSE) and the Community College Survey of Student Engagement (CSSE), which survey undergraduates about key aspects of their college experience; the Collegiate Learning Assessment (CLA), which measures how much student learning – and growth – takes place in colleges; the MAPP, The Measure of Academic Proficiency and Progress, which is designed to assess general education outcomes in order to improve the quality of instruction and learning, and/or graduate and professional entrance exams (pp. 21-22).</td>
<td>[dropped]</td>
</tr>
</tbody>
</table>

Note: Key differences highlighted in italics.
Certain changes were clearly designed to address some of the members’ concerns regarding the negative tone of the report. Examples 1 and 2 in Table 1 demonstrate this, with substitution of “unfulfilled promise” for “glaring deficiencies” (example 1) and “much that requires urgent reform” replacing “meritocracy and mediocrity” (example 2). Example 5, in its replacement of a single word, greatly changes the Commission’s view on the quality of the graduates produced by American colleges and universities; rather than all of the graduates being unprepared for the workforce, only the more ambiguous “many” of them are deemed inadequate.

Other differences were more substantive and demonstrated major changes to the findings and/or recommendations in the report. Example 6, which criticised most institutions for doing nothing to assess student learning, was dropped. Some sections of the final report talked about the efforts institutions made to assess student learning, but the language was much gentler. And the related recommendation shown in example 9, that states require public institutions to conduct standardised learning assessments of all undergraduate students, was also dropped.

Example 8 is a recommendation that, if carried out, would fundamentally change how the states provide funding to higher education. The majority of the funds appropriated by states to support higher education is targeted at the support of individual colleges and universities, rather than supporting students in the form of financial aid. In fiscal year 2006, states provided USD 58.7 billion in direct support to public colleges and universities (National Center for Education Statistics, 2009, Table 352).* In that same year, the states provided USD 6.8 billion in financial aid to students (National Association of State Student Grant and Aid Programs, 2007). Thus, a change that would encourage (or require) states to shift their resources from funding institutions to one of funding students would put more market power in the hands of students and potentially threaten the viability of some institutions. It is not surprising that this recommendation was ultimately dropped from the report.

Example 9 is another telling illustration of the pressures under which the Spellings Commission worked. As described earlier, during the formation of the Commission there was a concern that it was going to advocate for a national college student testing scheme, based on the Bush administration’s implementation of the No Child Left Behind law for primary and secondary schools. While the recommendation for mandated testing of students in public institutions made it into the initial draft report, objections to such a strong requirement led it to be dropped from the final report.

* Some states also provide funds to private institutions, but these amounts are small in comparison.
Reactions to and outcomes of the report

Outside of the Commission members themselves, reactions to the publication of the Spellings Commission were mixed. Secretary Spellings pronounced herself quite pleased with the results, announcing her plans to carry out the Commission’s recommendations that were under her purview at a speech shortly after she received the report (US Department of Education, 2006g).

Commentators, while recognising some of the shortcomings about the American higher education system documented in the report, supported some of the findings and recommendations and criticised others. The president of a community college felt that her sector of American higher education received short shrift (DiCroce, 2006). A private college president complained that while some of the recommendations were good ones, the report is one “that wants to improve higher education on the cheap” by not pushing forcefully enough for more funding (Bennett, 2006). A public university president was critical of the potential for more government intrusion into higher education, stating, “The irony of these periodic bursts of regulatory enthusiasm is that the conservative, free-market political enterprise appears most eager to see this educational free market socialized into government mandated homogeneity, often based on simple, one dimensional measures” (Lombardi, 2006).

The report called for an increase in funding for the federal Pell Grant, the largest student aid programme targeted at financially needy students. But one influential Senator, Edward Kennedy, ranking Democrat on the Senate Education Committee, criticised Secretary Spellings for not stepping forward to more forcibly support that recommendation (Romano, 2006b).

As with any complex social system, documenting a causal relationship between the Spellings Commission report and changes to the higher education system in the United States is difficult. The report made a number of recommendations, very few of which have been implemented by either the state or federal governments through legislative action. Granted, some of the recommendations are fairly complex, would have to be accomplished over a stretch of time and require the co-operation of multiple players (e.g. the federal government, state governments and higher education institutions themselves), so it may be too early to measure the report’s impact based on this standard. The political and practical viability of the recommendations may also have been undermined by the fact that there were little more than two years left in the Bush administration for them to be championed, as well as that the Democrats gained control of both chambers of Congress in the mid-term elections of 2006. This change in political control made it more difficult for the Bush administration to carry out any changes that would require legislative approval.
Secretary Spellings and the Department of Education did take some actions in response to the report in her remaining 28 months in office. In September 2008, the Department of Education announced the “College.gov” website, designed to provide earlier information to potential college students, particularly those from low-income and minority families that historically had been underrepresented in higher education in the United States. There has also been a flurry of activity both in the Department, as well as in Congress, related to simplifying the financial aid system, though few of these activities have resulted in substantive changes to what most observers agree is a highly complex and inefficient system.

The Bush administration and Congress agreed on a relatively large increase in the maximum Pell Grant award, from USD 4,050 in fiscal 2007 to USD 4,731 in fiscal 2009, taking a step toward implementing at least in part one of the Commission’s recommendations. Again, it is difficult to determine how much of this increase should be ascribed to the influence of the Commission, rather than to the fact that the value of the Pell Grant had been raised only USD 50 in the prior four years and was well overdue for an increase.

In summary, it is fair to conclude that much of the Sturm und Drang caused by the formation of the Spellings Commission and its subsequent deliberations and report was never realised. Higher education in the United States will likely be little reformed on a macro scale because of the Commission, not a surprising result given the size, diversity, power and autonomy of the industry.

The future of higher education under the Obama administration

While it is still the first few months of the new administration of President Obama, and his attention has been dominated by dealing with the financial crisis engulfing the United States, it is still possible to speculate on what changes – if any – his administration is likely to bring to higher education. From his campaign statements as well as his first actions since taking office, it is apparent that his early focus is on problems relating to access and affordability of higher education – two key issues taken up by the Spellings Commission. In spite of the financial situation facing the country, President Obama has submitted a 2010 budget request to Congress that calls for large increases in Pell Grants. He has also called for simplifying the financial aid system, another key recommendation of the Spellings Commission that has garnered support elsewhere (Baum and McPherson, 2009).

The nearly USD 800 billion fiscal stimulus bill introduced by President Obama and passed by Congress early in his administration also provides funding for higher education, both directly from the federal government as well as with funds funneled through state governments and earmarked for education purposes. As of this writing it is unclear how much of the latter
funds will go to colleges and universities, however, rather than being used for primary and secondary schools.

As for the rest of Obama’s perspective on higher education, it is still too early to tell whether he has any interest in taking on some of the issues and recommendations addressed by the Spellings Commission. Unlike his predecessor as president, who was often disdainful of higher education and liked to proclaim himself as just a “regular guy” (even though he was a graduate of two of the country’s most elite institutions, Harvard and Yale universities), President Obama has spoken eloquently in his books and other public pronouncements of the importance of what a college education meant for him. He has also been a professor, having taught at the University of Chicago law school before beginning his political career.

Given his background and public statements about higher education in the past, under ordinary circumstances one would expect Obama to have it as an important topic in his domestic policy agenda. But these are clearly not ordinary times. The President will likely be dealing with challenging economic and fiscal conditions during at least his first term and, if he is reelected, the difficulties may continue into a second term. Even if he were interested in championing an expansion of access to higher education, and a closing of the gap in college participation between various groups (such as rich and poor, and white and Asian American as compared to black, Latino, and Native American students), he may find it difficult for the federal government to muster the resources required to help promote such an endeavour.

In addition to the fiscal constraints under which he is going to be working, it is unlikely that Obama will suggest any kinds of reforms to college and university governance – through the policy “carrot” of federal funding – that would substantively shake up the higher education establishment in the United States. As described above, he has generally been supportive of colleges and universities in his public pronouncements, in contrast to the attacks on the industry undertaken by many Republican politicians in recent years. Thus, while he may try to address public and media concerns about the rising price of college, he is unlikely to do so in a manner that would impinge on either state or institutional autonomy.

The author:
Donald E. Heller
Director, Center for the Study of Higher Education
Professor of Education and Senior Scientist
The Pennsylvania State University
University Park, PA 16802
United States
E-mail: dheller@psu.edu
References

American Council of Trustees and Alumni (2005), Intellectual Diversity: Time for Action, American Council of Trustees and Alumni, Washington, DC.


College Board (2001), Trends in Student Aid, 2001, College Board, Washington, DC.


College Board (2008b), Trends in Student Aid, 2008, College Board, Washington, DC.


Brave New World: Higher Education Reform in Finland

by

Timo Aarrevaara, Ian R. Dobson and Camilla Elander
University of Helsinki, Finland, and Educational Policy Institute
and Monash University, Australia

Finnish universities are about to enter a period of radical change. This paper considers the reforms expected of a new Universities Act currently before parliament and a set of institutional mergers. When passed, the new act will provide universities with independent legal status, change their relationship with the government in several ways, affect university governance arrangements, and alter the relationship between staff and their university employers. Although these reforms will be radical for the university sector itself, many of the changes will be all but invisible to those outside the sector. The change that will be noticed is the creation of the new Aalto University through a merger between three existing institutions. The new university will be highly visible to all as it tries to meet the government’s aspirations for it to become a world-class university.
Le meilleur des mondes :
réforme du système de l’enseignement supérieur en FinLANDE

par
Timo Aarrevaara, Ian R. Dobson et Camilla Elander
Université de Helsinki, Finlande, Institut de politique éducative
et Université de Monash, Australie

Les universités finlandaises se trouvent au seuil de changements radicaux. Cet article analyse les réformes découlant d’un nouveau projet de loi sur l’université actuellement présenté devant le Parlement finlandais et de plusieurs fusions institutionnelles. Une fois adoptée, la nouvelle loi accordera aux universités un statut juridique indépendant, modifiera leurs relations au gouvernement en plusieurs points, affectera les accords relatifs à la gestion des universités et modifiera les relations entre le personnel et les employeurs universitaires. Bien que le secteur universitaire considère ces réformes comme radicales, la plupart des changements qu’elles vont entraîner seront absolument invisibles aux yeux de l’observateur extérieur pour qui le changement apparent résidera dans la création de la nouvelle Université de Aalto, fruit d’une fusion entre trois institutions existantes. Cette nouvelle université occupera en effet le devant de la scène puisqu’elle s’efforcera de répondre aux aspirations du gouvernement qui veut en faire une université internationale de haut niveau.
Higher education in Finland

Towards the end of the first decade of the 21st century, the Finnish higher education system is a binary one. In 2009 it comprises 20 universities (yliopisto) and 26 polytechnics (ammattikorkeakoulu) under the auspices of the Ministry of Education. Universities and polytechnics had about 164 000 and 132 500 enrolled students respectively in 2008 (KOTA, 2009; Statistics Finland, 2009a). The National Defence University, under the Ministry of Defence, is Finland's 21st university. Administration of two other polytechnics falls outside the Ministry of Education portfolio. The higher education system is seen as an essential element of Finland's national and regional innovation systems, and there is a link between higher education and economic policies. These policies have been strengthened by several national policy initiatives and reforms within both the university and polytechnic sectors (Aarrevaara and Holttä, 2008, p. 118).

The first Finnish university was established in 1640, long before Finland became a sovereign nation in 1917. Further institutions acquired university status in the first half of the 20th century, until considerable expansion in the 1960s and 1970s increased the number. Many latter-day universities were established as multi-disciplinary institutions in regional cities (Ministry of Education, Finland, 1996, pp. 29-30). At the time of writing, ten of Finland’s 20 universities are multi-disciplinary, three are universities of technology, three are schools of economics and business administration, and four are creative and performing arts institutions (Ministry of Education, Finland, 2008a, p. 38). Constitutionally, Finland is a bilingual nation and two universities teach predominantly in the Swedish language.

Finnish polytechnics are relative newcomers to the higher education scene. They began as experimental institutions in 1991 based largely on the amalgamation of a vast number of small trades and vocational colleges (Ministry of Education, Finland, 1996, p. 79). The purpose of the experiment was “… to raise the standard of higher vocational studies and to rationalise the structure of the education system” (Ministry of Education, Finland, 1996, p. 18). The new polytechnics, established under the Polytechnics Act (2003/351), were primarily non-research organisations offering three- or four-year degrees. Polytechnics are meant to have a close working relationship with “working life” and part of their brief is to foster regional development. Core funding comes from the government. Under the act, a licence for managing a polytechnic can be granted to the
government itself, to a local authority (municipality) or a joint municipal body (municipal federation), or to private organisations (a registered Finnish limited company or foundation). In 2009, six polytechnics are run by local authorities, seven by municipal education consortia and 13 by private organisations. Therefore there are several models of governance for polytechnics, but at present universities under the Ministry of Education operate according to a single, centralised model.

The Finnish government is committed to a binary system built around discrete degrees, degree titles and functions. It has stated its intention to clarify the division of responsibilities between universities and polytechnics (Finland, 2007). The binary system in Finland has strong political support and the system appears to be effective from the national point of view (Aarrevaara, 2007, p. 286).

Change is a constant in the life of higher education institutions in the 21st century, and although polytechnics are not exempt from it, currently there are no proposals for radical reform in the short term, although some polytechnics have merged in recent times, and others might follow suit in the near future. The case with universities is rather different. They have been perceived as institutions struggling to keep up in an increasingly global and competitive world, and perhaps unnecessarily constrained. University reform, therefore, is seen as providing the solution to these problems.

**University reform**

Finland’s reforming of its university sector will be effected through a new Universities Act. At the same time, Finland is moving towards a series of university mergers that will reduce its 20 universities to 15 or 16. Both the new act and the mergers can be seen as attempts to improve university efficiency and effectiveness. The government submitted its proposal for the new act to Parliament on 19 February 2009. If passed, the new law will replace the Universities Act of 1997. The aim is for the law to come into force on 1 August 2009 for application from the start of 2010 (Ministry of Education, Finland, 2008b, p. 15). The reformed structures should be fully established by 2012 (Ministry of Education, Finland, 2008c, pp. 8-11).

Institutional, organisational and managerial changes occur continually, whether stakeholders like it or not. However, Finnish universities have always been tightly controlled via legislation. In effect, many aspects of university organisation have been guaranteed by legislation. The proposed act will change this by freeing up the system and setting the scene for the development of an “entrepreneurial culture”. Although it seems likely that only some of the reforms will have an immediate direct effect on the universities, it is essential that flexibility be built into the Finnish university sector so that universities are in a position to react quickly in their own right in the future. It could be argued that
the reforms proposed will allow Finnish universities to act with sufficient independence and with adequate mastery over their own destiny. The major aims of the reform package in the new act are to improve universities’ capacity to react to changes in the operational environment; to diversify their funding base; and to compete for international research funding. Other concrete objectives are to increase co-operation with foreign universities and research institutes and to help in allocating resources (Ministry of Education, Finland, 2008d). From the universities’ perspective, moving away from tight and direct legislative control represents a sea change in Finnish higher education policy.

The new act, which is expected to be passed in June 2009, will introduce reform on three major platforms:

- Finnish universities will become independent legal entities and in one sense will cease to be government-funded public institutions.

- The ownership and management of university buildings is to change. The government is to relinquish its 100% ownership and provide universities with majority ownership rights.

- Governance arrangements will be different, but not quite as originally planned. The new act was going to require that half of the members of university boards be external appointees. However, Finland’s Constitutional Committee examined the act and decided that some of its governance provisions ran counter to the Finnish Constitution (Dobson, 2009).

A fourth platform of the current set of reforms is university mergers. Each of these is discussed in more detail below.

Finland will ultimately have a university sector in which the status quo will be maintained in some areas. Research and education will remain as the universities’ main tasks, supported by state-guaranteed core funding, and degree education will continue to be fee-free. In addition, academic autonomy and the rights to freedom of teaching, research and expression will continue (Ministry of Education, Finland, 2008b, p. 3).

The reforms, however, will lead to increased autonomy for universities, which will be afforded legal status in their own right, and will have much increased financial freedom. Governance and authority relationships will change, both between universities and the government, and within universities. In addition, there is to be a trial of a tuition fees system for special master’s programmes for students from outside the European Union (EU) and European Economic Area (EEA) (Ministry of Education, Finland, 2008b, p. 2). Universities will decide themselves whether to participate in the provision of fee-paying degree tuition, but there will be conditions for doing so, including establishing a scholarship fund and offering separate master’s programmes that satisfy the criteria for such degrees. A pilot programme is to operate until 2014 (Ministry of Education, Finland, 2008b, p. 5).
**Independent legal entities**

From the legal perspective, the major change that will come with the passing of the new act is that universities will become independent legal entities. Universities are constrained at the moment because they have in effect been a part of the national administration since the 1970s and each university’s administrative status has been that of an accounting unit within that administration. The main reform in the new University Act is that there will be a change in universities’ legal capacity. According to the act proposal, universities will have the option of becoming either institutions subject to public law or foundations subject to private law.

From the universities’ perspective, the major ramification is likely to be financial. As separate legal entities universities will have more flexibility to seek private funds both on- and off-shore. As Virtanen has noted of the current situation, “Public funding of universities is weak, much less than in the countries understood to be Finland’s major competitors in the international economy. [...] As the prospects for the increase in public funding are unpromising, more private funding is suggested, as well as more collaboration with international companies and collection of private donations and endowments” (Virtanen, 2008, p. 57).

The Ministry of Education will continue to be the main source of income, but funding will be provided in the form of a monthly-paid subsidy rather than an allocation through the annual national budget. There will also be a change in the way universities hold and apply cash assets.

A concept which might seem strange to readers familiar with less centralised university sectors is that Finnish universities do not receive regular payments from the government sources that they then deposit in their own bank accounts. Instead, in a sense, the government provides sufficient funding for a university to meet the needs of each day’s activities. These funds are drawn down each morning, and unused funds are returned to government accounts each night. Short-term cash flow has not been an issue in the past, but universities will have to take account of this from 1 January 2010.

In fact, universities do have income from other sources, some more than others. They also have their own bank accounts, but these funds are not typically used to meet day-to-day operating costs. Under current legislation, universities are restricted in their capacity to take decisions regarding their business activities. The primary provision in the new bill will reduce these restrictions. In addition, universities will be granted the right to decide how their assets are managed and how they use capital income. From the beginning of 2010, universities will meet their commitments using their own funds, and the government will no longer be responsible. In one sense, this will increase universities’ autonomy, but their new independent legal status
will make the universities fully responsible for their finances, which will highlight the importance of strategic management.

Other key changes will not directly affect university finances. For example, once the act is passed, university staff will cease to be employed by the government. At present, university personnel enjoy a civil service employee-employer relationship with the government, but from 2010 formal contractual employment relationships will be with universities. A literal reading of ministry documentation suggests that the highly centralised system of the present will be replaced by one in which universities will follow their own staffing policies. This, it is anticipated, will allow universities to increase their competitiveness by improving their attractiveness as employers (Ministry of Education, Finland, 2008d). However, it isn’t likely that wide gaps will open up between salaries paid by different universities. Trade unions will continue to negotiate on behalf of their members, and from 2010 it is the universities’ intention to present a common face in any negotiations through a universities’ employer body, rather as they do at present. Therefore change in this regard is likely to hasten slowly at first.

It remains to be seen what might befall the broader academic profession under the new act. Although certain freedoms (of teaching and research) are to be guaranteed, it cannot yet be certain whether academic staff will be more or less “independent” in the future.

Another change to flow from the new act will have an impact on interactions between universities and the government. The load created by performance agreement processes is to become lighter as the government takes a step backwards. At the same time the government will continue to guarantee indexed core funding, and has said that universities that have obtained external funding will not be penalised by having government grants cut. It will be interesting to see if the government will try to win back some of its capacity to control university behaviour, for instance by dividing funding into smaller packets and requiring universities to “compete” for such funds, with associated “accountability” requirements for the winners.

**Ownership and management of university buildings**

Practices concerned with university buildings are another matter that will be affected by the independence afforded by the new act. The current arrangement for holding and maintaining university buildings is another element of organisation and control that might seem strange to those unfamiliar with the Finnish system. At present, all university buildings are owned and maintained by a government company called Senaatti Kiinteistöt. Universities rent buildings and space from the company but, from 2010, universities will be able to exert much greater influence over these major assets.
According to correspondence from the Ministry of Education to universities, buildings will be owned and maintained by three separate companies which in turn will be owned by universities (67%) and the government (33%). One of these companies will manage buildings and property on behalf of most of the region in and around Helsinki universities and a second will do the same for Finland’s regional universities. The third will undertake similar duties on behalf of Aalto University, a new university formed through a set of mergers (see below). Under this new arrangement, universities will be able to use their share ownership of these companies as collateral for loans.

Perhaps the changes proposed under the new act will make little difference to some of the smaller institutions; but to larger, older universities, such as the University of Helsinki, holding shares in a company that owns a considerable amount of capital-region real estate could provide it with considerable leverage in its future financial dealings. This change in the organisation of university assets is also a radical departure from what Finnish institutions have been used to. It seems likely to limit one aspect of the firm control typically exercised in the past by government ministries.

**Governance arrangements**

Overall governance arrangements will change with the passing of the new act. The composition of the university board will continue to include representatives of the university community (professors, other staff and students), but external stakeholders will be afforded a much greater role (Ministry of Education, Finland, 2008b, p. 7). Under current arrangements, the role of non-government external stakeholders is limited to minor membership of university boards. The new act originally intended that at least half of the members, including the chair of the 6- to 14-person board, would be external to the university. Finland’s Constitutional Committee, a body that examines Finnish legislation before it is placed before parliament, has decided that requiring universities to have a majority of external board members would be unconstitutional, on the grounds that it could adversely affect university autonomy (Dobson, 2009). Universities that are institutions under public law will continue to have board members appointed by the university collegiate, but it will not be compulsory for at least half to be external to the university.

Even allowing for the amendments required by the Constitutional Committee, when the current proposals are implemented, stakeholders from outside the university sector will be more significant participants than they are today, playing a much greater role in the administration and funding of Finnish universities. Many university staff might imagine that this new arrangement will not change anything at the organisational level of universities. Of course, this is one possible scenario, but there is nothing to stop new board members demanding a greater role in the day-to-day
management of university affairs. Board members will be responsible for budgets, financial statements and management of assets, and will also be liable for accounting and control (Ministry of Education, Finland, 2008b, p. 6). Given their personal liability, they might demand more information, more often. Staff in university administrative offices might find themselves required to produce performance reports more often than in the past. Boards of some universities are likely to seek a more “hands-on” role than others.

Under the current act, Finnish rectors are elected by their peers, and they chair the university board. This practice is in common with that in many European systems. From 2010 the board will appoint the rector, who must enjoy the confidence of that board. As stated on the ministry website, “The aim is to enhance the community relations, influence and financial competence of the boards of the universities operating as public corporations” (Ministry of Education, Finland, 2008d).

The new act also makes reference to the “collegial body of the university”. This body will have a maximum of 50 members, elected according to the tripartite system of voting by professors, other staff and students. This is the group that will then appoint the external members of the board, and decide on their number and the length of their tenure as board members. The “collegial body” also appoints the university’s auditors, and will wield the considerable power of deciding whether to bring actions for damages against the university board or its members and the rector (Ministry of Education, Finland, 2008b, p. 9). Although this is unlikely to happen, it would be possible for board members to be brought to court on grounds of negligence, principally for financial negligence. This action could not be taken, for example, because the collegial body was unhappy about, say, the quality of teaching provided.

The role of students is such that they will continue to be regarded as full members of the university community, and will continue to be members of the students’ union and represented on universities’ governing bodies (Ministry of Education, Finland, 2008d).

**Mergers**

Institutional mergers are sometimes seen as a way to improve efficiency and effectiveness in a university sector, and a number of countries have gone down this track. Finland too is looking at the merger option. Perhaps this is appropriate for a nation that currently has 20 universities and 26 polytechnics to service only 5.3 million people.

The one million people living in and around Helsinki are the Finns best-served with universities. However, the university network covers the whole country, including sparsely populated areas to the north and east. The
regional distribution of multi-faculty universities away from the capital is a product of Finland’s regional development policies from the late 1950s.

This is not the first time mergers have been mentioned in Finland. Discussions of varying levels of seriousness have arisen on a number of occasions. Typically at least one of the institutions targeted for any given merger was opposed to it, and it has been said that targeted universities sought to minimise the “threat” of merger by ensuring that their internal structures and major information technology systems were incompatible with those of the future “marriage” partner. The climate for merger in contemporary Finland is rather better, and potential partners seem now to see the potential benefit of size.

Mergers discussed in recent times and likely to go ahead include a merger between regional universities: the universities of Joensuu (about 8 000 students) and Kuopio (6 000 students) will merge to form East Finland University (Turunen, 2008, p. 23). There is also to be a merger in the city of Turku between the multi-disciplinary University of Turku (about 15 500 students) and the Turku School of Economics and Business Administration (2 250 students) (Turunen, 2008, p. 23). This merger has also been discussed in the past.

There were also discussions about an alliance between the University of Jyväskylä, the University of Tampere and the Tampere University of Technology to become the Central Finland University (Turunen, 2008, p. 23). Under this alliance, the universities have joint programmes and cooperation agreements on various aspects of teaching and research. Together these three universities have a student population of about 43 000 (KOTA, 2009).

In Helsinki, there is to be an alliance between the Swedish language Hanken School of Economics (2 100 students) with the University of Helsinki (32 500 students) according to which they will co-operate more closely in future (University of Helsinki, 2008). Hanken has been mentioned in mergers in the past, but usually with Finland’s other Swedish language university Åbo Academy University (6 100 students), a multi-disciplinary university in the city of Turku 170 km away on the Finnish west coast. However, this has often been perceived as an attempted take-over of the former by the latter.

The merger that has excited the most interest has the unashamed aim of creating a “world-class” university. Three universities from the Helsinki region – one large and two small – are to merge. The Finnish government decided during 2007 to create the new edifice from Helsinki University of Technology (HUT) (approximately 14 000 degree students), Helsinki School of Economics (3 200 students) and the University of Art and Design (1 900 students). The working name of the new university was “the Innovative University” (Virtanen, 2008, p. 53) but it was formally named in mid 2008 as Aalto University in honour of one of Finland’s most esteemed architects (Alvar Aalto, 1898-1976). In fact, Aalto was an architecture student at HUT in the 1920s. He also designed HUT’s
main building and planned the current HUT campus. As noted by Virtanen (2008, pp. 53-54), “the new university of technology, business and art and design will be a unique entity in the system of Finnish universities in many ways. [...] The main difference will be its legal status as a foundation under private law. [...] This will generate new structures both in the funding and management of the university.”

The mergers to form the Aalto University differ from the other mergers outlined above in two main ways. First, it will become a private university in a legal sense, although much of its funding will come as subsidies from government sources. Second, Aalto University is to receive more government-sourced funding than other universities (Virtanen, 2008, p. 61). The government plans a one-off injection of EUR 500 million as its initial investment in Aalto University. This investment is conditional on EUR 200 million being raised from the private sector.

The concept behind Aalto University is an interesting one. It is quite a challenge to establish an international top-level university through a set of administrative decisions, but perhaps this is a very Finnish way to attempt such a thing. Even though the new university is to be more generously funded than others in Finland, some might see elements of the “Harvard Here” syndrome, by which an expansion of funding is seen as a means to create a local equivalent of Harvard. It has been suggested that this is not as easy as it seems. In a paper presented at a university ranking conference early in 2009, Tony Sheil presented data that suggest that developing a top 20 university is not an option for small countries. Sheil (2009) reported on research that shows that a world-leading university is an enterprise worth USD 1.5-2 billion. These sums are certainly far beyond the assets available to most universities, and particularly Finnish ones. He also refers to other analysis that shows top universities are usually well established (i.e. old), are small or medium-sized by world standards, are extremely well resourced, and are highly selective in their recruitment of both staff and students. According to Sheil (2009), the institutional budgets of Harvard, Princeton, Yale and Stanford are sufficient to provide the equivalent of between USD 149 000 and USD 227 000 per enrolment. Roughly equivalent figures for Aalto University and the University of Helsinki are USD 30 000 and USD 28 000 respectively, leaving them well behind on this measure. (These figures were calculated from data available in the government’s KOTA databases by dividing total funds available in 2008 by the total number of enrolments.)

Several universities have remained unnamed in merger discussions, although speculation suggests some eventual re-organisation of the three remaining creative and performing arts universities is not out of the question. All three are located in Helsinki, and between them they had fewer than 2 000 enrolled students in 2008 (KOTA, 2009). The ultimate intention is that by 2020, Finland will have no more than 15 universities and 18 polytechnics. It is expected that there will be four or five “alliances” between universities and
polytechnics by that date (Ministry of Education, Finland, 2008e). This would seem to be a logical approach in regional cities.

Despite the current political support for a binary system, such “alliances” might eventually lead the way to a future end to the dual nature of higher education in Finland. Such transformations are not without precedent; Australia went down that track and Great Britain shortly after in the 1990s. In any case, most polytechnics are now referring to themselves as “universities of applied sciences” in their English language material (Dobson, 2008), but the Ministry of Education has not adopted this nomenclature.

Reforming the university sector: cheques and balances?

Notwithstanding the rhetoric of reform, in most cases the reason for wanting change is financial: will the changes to the system lead to better “education” (in its broadest sense) at lower cost to the public purse than at present. Over the past two decades university sectors the world over have been subjected to financial pressures because of so-called “massification”. This term was coined to describe the process by which universities changed from being elite organisations to ones providing higher education access to a much larger proportion of the university-aged cohort (Trow, 1999). As reported recently by the OECD (2008), “In some countries, such as Australia, Finland, Iceland, Poland and Sweden, as many as three out of four school-leavers set out to take a degree”.

The major impact of improved access to higher education for a nation’s citizens is therefore a significant increase in the total cost of teaching an increased number of students. The fact that the Finnish system is one that has traditionally been funded almost entirely from government sources means that cost considerations are likely to increase the government’s desire for a broader funding base. It is also perfectly reasonable for a government to seek to maximise the return on its investment through improved efficiency and effectiveness. Public expenditure on Finnish universities was about EUR 575 million in 1981 (expressed in 2008 prices) for a student population of about 84 000. By 2008, university funding had risen to EUR 1 485 million for 164 000 students. The figures for 2008 do not include the EUR 379 million spent on polytechnic funding (Ministry of Education, Finland, 2008a, p. 13). (Finland was among the first nations to adopt the euro. University expenditure in 1981 was FIM 2 521 million [Ministry of Education, Finland, 1996, p. 118]. The exchange rate between the Finnish markka and the euro was approximately FIM 6 = EUR 1 on its date of introduction; inflation between 1981 and 2008 was approximately 1.37 [Statistics Finland, 2009b]. Calculation: 2 521/6 x 1.37 = 575.)

How then, could the government reduce the proportion of the funding drawn from the public purse?
**Tuition fees**

In theory, the simplest way to broaden the funding base is to increase the charges paid by the direct beneficiaries of higher education. That is, increase fees (where they exist), or impose them where they do not. However, this change is unlikely to occur for Finnish domestic students in the near future. In line with the Scandinavian tradition, Finland’s constitution guarantees tuition fee-free education for all students. As noted on the Ministry of Education website, “Degree education will still be provided free of charge. The legislative reforms will, however, make it possible to charge tuition fees on a trial basis to students from outside EU/EEA countries who are taking part in separate master’s programmes, provided that the arrangements include a scholarship scheme” (Ministry of Education, Finland 2008d). Therefore the way is open to charge fees to some foreign students, but this would not be likely to raise much additional revenue until foreign students made up a substantial proportion of the total population. Finland, with about 6 000 foreign students in 2007 (KOTA, 2009) (and many of these would be from within the EU/EEA), has a long way to go before reaching the numbers proportionate with the large, experienced players such as Australia, Canada, the United Kingdom and the United States.

In any case, it is likely that neither the Finnish government nor the universities have yet worked out their strategies for increasing the inflow of overseas bachelor and master’s degree students. Teaching would most usually be conducted in English, which might place a strain on the language skills of Finland’s academic workforce. Quality assurance processes would be needed to ensure that teacher skill levels in English were at an appropriate level.

Of course, teaching foreign students can lead to improved contacts with foreign institutions, which can lead to foreign research partnerships and perhaps research income. However, it is also typical that any expansion in the number of students to be taught places an additional burden on academic staff, reducing their capacity to undertake research.

Tuition fee income cannot be counted on to provide much university income until such time as fees are levied on domestic and EU/EEA students. Will Finland eventually follow this trend?

**Bequests and donations**

Bequests and donations can provide an additional source of non-government funding for universities, but as with foreign student fees, this is not likely to provide a huge financial boost. Finnish universities already have the right to accept donations and funds bequeathed from foundations or private organisations, but these must be kept in separate accounts. The government supports universities’ fund raising efforts in order to speed up university reform. Under certain conditions, tax deductibility will be
permitted on donations made to public EU/EEA universities of EUR 850 to EUR 250 000 during 2009/10. This recent legislative change (18 December 2008) is the first time that individuals have had the right of tax deductibility for such donations, although corporations have had this benefit for some time. In the context of the Finnish welfare state, this is a radical change from the past. If donations to universities continue to be legitimate tax deductions, perhaps this could represent a new source of funds.

However, where donations are concerned, Finland might find itself in the same situation as countries such the United Kingdom where the practice of “giving” to universities is much less developed than in the United States. As Proper (forthcoming) has said, “… there are significant legal, historical, and cultural differences between [the United States and Britain] that may limit Britain’s higher education sector’s capacity to increase voluntary support, at least in the short term. While the British higher education sector was developed in large part by voluntary support, this tradition waned in the 20th century. Today, Britain has stricter privacy laws, fewer tax incentives for giving, a belief that charitable giving usurps what ought to be a government role, a lack of experienced fundraisers, different attitudes about proper motives for giving, and little tradition of active alumni loyalty to alma mater.” One could only speculate on how Finland might fare with funds sourced from donations, particularly with the relatively low limit for tax deductibility.

**Other sources of income**

There are few other sources of funding beyond those that can be derived from governments, students and donors. According to a recent Ministry of Education document (Ministry of Education, Finland, 2008f, Table 3), 64.5% of total university funding was in the form of direct grants, so-called “budget funding”. Some universities earn substantial sums for research from Finnish government research organisations (about 11% of the total in 2007), and although income from such sources is described locally as “external funding” it still ultimately comes from the Finnish government. Funding from domestic corporations, the European Union and other foreign sources amounted to only 10.4%. The remaining 14.2% of funding in 2007 came from “other domestic sources”, but much of this also came from government departments. Universities will improve their chances of research income from outside Finland with the continuing efforts to engage with the international research market, but when compared with total income, the sums available are likely to be relatively low.

If it is acknowledged that the university funding base would be diversified only minimally through tuition fees to non-EU/EEA students, changes to legislation to make benefaction more common and an environment that makes it easier to obtain off-shore funding; the dominant potential sources of funds are from the public purse or tuition fees levied on
domestic and EU/EEA students. If the latter is considered to be unpalatable, then the major dependence on government funding will remain.

Conclusion

The Finnish government has established a strong reformist agenda with its new Universities Act and its promotion of institutional mergers. The reforms are essential if Finland’s universities are to be able to remain competitive in the international markets for education and research. However, the whole sector will need to perceive the benefits of reform for the impact to meet the government’s expectations in the short term. Although the keys to a reformed sector are a diversified funding base and an entrepreneurial culture, it is not self-evident that new entrepreneurial modes of operation will be widely accepted in Finnish universities at first. Problems could occur if there were perceptions of a contradiction between bureaucratic and entrepreneurial attitudes. Finnish universities have been the subjects of tight controlling legislation for many years, leading to the development of a set of “traditional structures” in higher education institutions. The traditional, bureaucratic administrative culture has its advocates in Finnish universities, but the newly-created academic labour market will also bring forth strong arguments in favour of entrepreneurial modes of operation. The universities’ ability to implement change will be put to the test when these different administrative cultures are brought face to face in coming years.

There will be more than one approach to the reforms among the universities. Some will have been planning for change since the announcement of impending reform; others might be taking a “wait and see” approach. Some might have used the opportunity provided by official reform to make structural changes internally. The way Finnish universities deal with the current raft of reforms might increase the diversity of the sector. Universities could become more different from each other than they are now.

The major reforms in the Finnish higher education system are scheduled to start from 2010 and continue through to 2012. As is the case in many European countries, Finland has become used to inflexible higher education structures and a reactive university system. This has led to a heavily bureaucratised administration, slow decision making and a permanent funding deficiency in the publicly owned universities. The government has now decided that the major problems of the 21st century are not likely to be solved by traditional means. However, change has got to start somewhere, and in time Finnish universities’ capacity to move more quickly will improve.

Most often “reforms” are words on the pages of ministry documents and manifests, and some of those words will eventually find their way into university mission statements or other slogans. The reality is that Finnish
universities will continue to be supported primarily from the public purse, and even though the mechanism for providing funds will be different in future, these changes will be all but invisible to most of society. Changes to university real estate practices will also not be obvious beyond the university sector. Similarly, most of the changes to governance arrangements will be evident only to those directly involved, until such time as a university collegial body uses its right to bring an action for damages against the university's board. However, this is an unlikely scenario.

The change that will keep people's attention the longest is likely to be the progress of Aalto University. This is the most obvious “new” thing in the Finnish university system, and also the most visible. Many will keep a close eye on its progress, and it is likely to be the subject of many scholarly papers in the future. Interest in this venture will also be scrutinised outside Finland. The Aalto University experiment has the prospect of being imitated by countries intent on improving their university sector. People will also be interested in the outcome of Finland's foray into “private” universities. Aalto University operates through a private foundation and, if the model is a successful one, other Finnish universities might try to follow suit.

The authors:
Timo Aarrevaara
Faculty of Social Sciences
University of Helsinki
00014 Helsinki University
Finland
E-mail: timo.aarrevaara@helsinki.fi

Ian R. Dobson (corresponding author)
Educational Policy Institute and
Centre for Population and Urban Research
Monash University
Victoria 3800
Australia
E-mail: ian.dobson@arts.monash.edu.au

Camilla Elander
Kvestuuri
University of Helsinki
00014 Helsinki University
Finland
E-mail: camilla.lander@helsinki.fi
References


The Impact of Reforms on the Quality and Responsiveness of Universities in the United Kingdom

by

Tony Clark, United Kingdom

Higher education in the United Kingdom has undergone numerous reforms over the last 50 years. By reference to specified output measures, the performance of UK universities is judged to be good. The factors affecting this performance are postulated by comparing policies and approaches in the United Kingdom with those elsewhere (in particular in continental Europe). Three factors – the level of autonomy, the amount of competition and the level of funding, combined with the universities’ direct control over funding – are identified as important factors. The level of autonomy for UK universities is long-standing. So too is the level of competition for recruiting the best students – although the reform in 1991 to bring universities and polytechnics into a single sector has increased that competition. Competition for research has increased through the reform initiated by the University Grants Committee in the mid 1980s to introduce the Research Assessment Exercise for non-specific funds. Recent reforms have provided both additional funding and, through tuition fees for UK students, greater influence for universities over the level of funding.
L’impact des réformes sur la qualité et les moyens des universités au Royaume-Uni

par

Tony Clark, Royaume-Uni*

Le système de l’enseignement supérieur au Royaume-Uni a fait l’objet de nombreuses réformes depuis 50 ans. Évaluées à la lumière d’indicateurs spécifiques, les universités britanniques présentent de bons résultats. Les facteurs de cette performance sont postulés par comparaison des politiques et des approches adoptées au Royaume-Uni et à l’étranger (en particulier dans le reste de l’Europe). Associés au contrôle direct des universités sur le financement, le degré d’autonomie, le niveau de concurrence et le niveau de financement apparaissent ainsi comme trois facteurs de performance importants. Bien qu’elle ait été renforcée par la réforme de 1991, regroupant les universités et les instituts de technologie en un secteur unique, la concurrence pour le recrutement des meilleurs étudiants existe depuis longtemps, tout comme le degré d’autonomie important dont jouissent les universités britanniques. La concurrence a également gagné le milieu de la recherche où, suite à une réforme initiée par le University Grants Committee au milieu des années 80, l’attribution de fonds non spécifiques est déterminée par le Research Assessment Exercise (exercice d’évaluation de la recherche). De récentes réformes ont permis d’accorder des financements supplémentaires et, par le biais des frais d’inscription imposés aux étudiants britanniques, de développer l’influence des universités par rapport au niveau de financement.

I start this paper with some basic facts and definitions. The United Kingdom comprises England, Scotland, Wales and Northern Ireland. Under devolution powers adopted initially in 1998, both the Scottish Parliament and the National Assembly for Wales can pass primary legislation covering most aspects of higher education. That is also now the position in Northern Ireland. In practice, there are significant differences in policies for higher education in Scotland, where support for education generally has always been strong.

A key feature of higher education throughout the United Kingdom is that universities are (and have been for nearly 100 years) independent self-governing bodies, responsible for their own decisions on all aspects of their academic teaching and research programmes, the remuneration of all staff, and their estates. Expenditure by the universities is classified as private. Furthermore, governments are debarred by law from interfering in academic matters such as the choice of academic or research programmes, or the selection of individual students. While the universities rely on public funds for some of their income, and governments may set general guidelines for their distribution, the funds are not allocated directly by the governments. Except in Northern Ireland (where the scale is too small to justify a separate body), public funds are allocated by "funding bodies" comprising members from universities, employers and others outside government.

This paper concentrates on reforms over the past 50 years in England – the largest of the four UK countries. The funding body involved is now the Higher Education Funding Council for England (HEFCE). Figure 1, prepared by HEFCE in 2005, shows the scale of higher education across the United Kingdom.

There are now some 2 million students attending some 170 universities and colleges. About 40% of young people complete a higher education qualification by the age of 30, and the government has set a future target of 50%. A significant proportion of undergraduate students and half of all postgraduate students study part-time. Some 15 000 students take sandwich courses, involving up to an extra year in relevant employment. Demographic trends for 18- to 20-year-olds are downwards for the next ten years. Postgraduate numbers are expanding, especially amongst those studying part-time. The numbers taking doctoral programmes (now some 17 000) have also been increasing – by 22% from 1996/97 to 2004/05. There are significantly more female entrants than male entrants. There are concerns about the low proportion of students from less well-off families.
Major reforms over the past 50 years

Committee on Higher Education, 1963

This major inquiry chaired by Lord Robbins (Committee on Higher Education, 1963) covered most aspects of the universities in the United
Kingdom, concentrating on concerns about the limited proportion (5%) of young people, who were able to secure a place at the limited number of universities. The government accepted its main recommendation for a significant expansion of the universities by some 10% by 1973, in part through the creation of new universities such as Sussex and East Anglia and in part through the conversion of Colleges of Advanced Technology into universities. The Committee also set out objectives for higher education which included the preparation of young people for employment.

**The birth of the polytechnics, 1970**

In addition to the universities, there existed some 30 other higher education institutions in England and Wales which focused on vocational subjects. Many of these institutions offered these vocational subjects to degree level and beyond. The Labour government decided that these institutions should be reclassified as “polytechnics” and should be funded by relevant local authorities. However, since students attended these institutions from all areas of the country, there would be a pooling system to ensure that all local authorities contributed to the costs. The aim of the government was to establish 30 polytechnics which would achieve the same degree of excellence as the universities but in the more vocational subjects. A new Council for National Academic Awards (CNAA) was established to ensure comparability of awards. In addition, the polytechnics were inspected by Her Majesty's Inspectorate to check the quality of teaching and the effectiveness of institutions.

**A new approach to the funding of universities, 1982**

The advent of a new Conservative government, with Mrs. Thatcher as Secretary of State for Education, led to reductions in public spending across government departments. For universities, annual funding was reduced by some 5% with a clear indication from the government, that this should be applied differentially according to perceived relative outputs. The then University Grants Committee reduced annual funding for four universities by 25%. Inevitably in this situation, the long standing arrangement whereby universities were funded on a quinquennial basis was replaced by annual funding, as had been the case for other public spending. Curiously, the polytechnics were not significantly affected by these new measures – mainly because the pooling arrangement allowed local authorities to avoid a significant reduction in funding. As a significant change of policy, the government decided that public funds should no longer be available generally to support international students, and many universities responded by recruiting such students to generate income.
**New accountability measures for universities and independence for polytechnics – White Paper, 1988**

This White Paper (a government policy statement) (HMSO, 1988) provided for more accountability for universities through a statutory Universities Funding Council which replaced the University Grants Committee. This Funding Council developed the Research Assessment Exercise (initiated by the University Grants Committee) designed to allocate non-specific funds for research by reference to a subject-by-subject assessment of research quality. The White Paper also exhorted the universities to establish closer links with industry and employers.

As the polytechnics developed their academic programmes and the CNAA endorsed the provision of some doctoral programmes, it had become clear that it was not appropriate for local authorities (and especially the smaller local authorities) to continue to maintain the polytechnics. The White Paper provided for a new Polytechnics and Colleges Funding Council to take over this role of local authorities and to allocate funds to the polytechnics and some colleges (including music colleges) in England and Wales which concentrated on providing higher education.


The proposals in this White Paper (issued by the post-Thatcher Conservative government of John Major) (HMSO, 1991) followed on from the 1988 White Paper. It provided for a single system of higher education with all the polytechnics offered university status and the potential for some other colleges to achieve that status also. But in keeping with the pressure for devolution, each UK home country became responsible for its higher education system. Funds for research would continue to be concentrated by reference to quality – although the White Paper left open the issue as to whether the Research Councils (responsible for specific research funding) might take on the role of allocating the non-specific funds. In order to meet potential concerns about quality in the new single system of universities, quality assurance would be enhanced under arrangements to be put in place by the new Funding Councils. Although the new single system was generally welcomed, these quality assurance arrangements proved to be contentious for the rest of the decade.

Finally, the White Paper indicated a significant expansion of participation in higher education from a level of under 20% (which had been the pattern for the 1980s) to 33% by the end of the decade. In the event, and in the absence of additional funding from the Funding Councils, the former polytechnics embarked on substantial expansion by taking advantage of funds available through tuition fees (covering some half of the costs) reimbursed in full from public funds through the student’s mandatory grant.
By the mid 1990s, it had become clear that other priorities for public spending, in particular to improve schools and the National Health Service, would inevitably leave the universities with inadequate resources to maintain their high quality. It was clear also that the introduction of tuition fees for UK students offered the main potential source of additional funds. The substantial number of part-time UK students already paid fees. International students also already paid fees. Given that a proportion of the population engaging in full-time higher education received a personal benefit from higher education (in addition to the benefit to society), it was argued that it was equitable that full-time students should contribute. With a general election on the horizon, the Labour government reached an understanding with the other main political parties that the issue of funding the universities would be examined by a National Committee of Inquiry which would report after the election.

The late Lord Dearing agreed in May 1996 to chair the Inquiry, which had wide-ranging terms of reference. The Committee reported in the summer of 1997 and offered a range of options for introducing tuition fees for full-time students. The preferred option was for a 25% contribution towards tuition costs with income contingent loans available to all (hence enabling the fees to be paid in effect after graduation), and for a continuation of access by all to loans for living costs (but repaid on an income contingent basis). The 450-page report set out the arguments in some detail and also covered a range of other issues, including the future of quality assurance.

The Labour government’s response in 1998 drew on other options in the report and provided for a means tested 25% contribution to tuition fees of GBP 1 000 (achieving greater savings in the short term) and access by all to income contingent loans for living costs. This was sometimes described as not requiring up-front contributions to tuition, although this applied only to those students (less than half of all students) not required to make a contribution as a result of the means test.

The measures to introduce the new policies were enshrined in the Teaching and Higher Education Act 1998 (HMSO, 1998).

**2003 White Paper**

This White Paper (HMSO, 2003) announced substantial changes to the funding arrangements. Tuition fees would be set by individual institutions up to a maximum of GBP 3 000 for UK students. Income contingent loans would be available to students to pay for tuition (as well living costs) and institutions would be required to make bursaries available to improve access for students.
from disadvantaged families. There would be a new framework for quality assurance which included a requirement for each institution to publish performance indicators on a common basis. The new variable fees were introduced for new students from 2006. One university charged fees of GBP 2,000 but has since reverted to the agreed maximum because the lower fees failed to attract more students.

Performance of UK universities

Throughout the reforms outlined above, UK universities have continued to flourish. Successive results from the National Student Survey have shown that students are generally satisfied with what UK universities offer.

Table 1. National Student Survey (NSS) results for students in England, 2007 and 2008

<table>
<thead>
<tr>
<th>Questions</th>
<th>2007 NSS</th>
<th>2008 NSS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% average agreement</td>
<td></td>
</tr>
<tr>
<td>1-4 The teaching on my course</td>
<td>82</td>
<td>83</td>
</tr>
<tr>
<td>5-9 Assessment and feedback</td>
<td>62</td>
<td>64</td>
</tr>
<tr>
<td>10-12 Academic support</td>
<td>71</td>
<td>73</td>
</tr>
<tr>
<td>13-15 Organisation and management</td>
<td>71</td>
<td>73</td>
</tr>
<tr>
<td>16-18 Learning resources</td>
<td>80</td>
<td>81</td>
</tr>
<tr>
<td>19-21 Personal development</td>
<td>77</td>
<td>78</td>
</tr>
<tr>
<td>22 Overall satisfaction</td>
<td>81</td>
<td>82</td>
</tr>
</tbody>
</table>


UK universities remain popular with international students, and especially so following the devaluation of the UK currency over the last nine months. The United Kingdom is second only to the United States in the number of recruited international students (and third after Australia and New Zealand in the proportion of recruited international students).

UK universities also feature in high positions in world league tables – second only to the United States in the top ten in the QS-Times Higher 2008, as shown on Table 2.

Research performance forms a significant element in the QS-Times Higher and other world league tables. The most recent Research Assessment Exercise (2008), for UK higher education based on expert review includes the views of international experts in all the main subject areas. The results show that 54% of the research conducted by 52,400 staff submitted by 159 universities and colleges is either “world-leading” (17% in the highest grade) or “internationally excellent” (37% in the second highest grade). It is relevant too that a report, commissioned by the UK Office of Science and Innovation and issued in
June 2007 (Adams, Gurney and Marshall, 2007), indicates that UK universities collaborate, to a greater extent than others (apart from the United States), with universities in other countries.

As shown in the Figures 3 and 4, UK universities perform well in terms of the proportion of students who complete their course and the proportion of graduates in employment soon after graduation.
Figure 3. **Completion rates in tertiary-type A education, 2005**

Countries are ranked in descending order of the tertiary-type A completion rates.


StatLink: http://dx.doi.org/10.1787/401536355051.

1. Only full time students.

Figure 4. **Employment rates, by educational attainment, 2006**

Countries are ranked in ascending order of the employment rate of females.

Factors affecting performance

This brief analysis does not embrace all aspects of the performance of UK universities. For example, the UK government wishes to see even greater engagement by universities with employers. The foregoing analysis does however demonstrate on the basis of a range of performance measures that UK universities perform well in teaching and research – and remarkably so given that the funding level of UK universities has in the past been around the average (see key facts above). The aim of this paper is to identify systemic features of UK universities which have led to their performance. As a specific example, there are benefits for international students associated with teaching in English. These have however become less favourable for the United Kingdom as other universities in Europe and elsewhere have offered teaching in English also.

There are, in my view, three main features of UK universities which are not present to the same extent in universities in continental Europe and elsewhere. These features – autonomy and governance, competition, and funding arrangements – may offer at least part of the explanation for the performance and popularity of UK universities. The view about the factors affecting performance in universities is broadly shared by two other commentators in Europe – Professor Meny, president of the European University Institute in his lecture to the Higher Education Policy Institute, “Higher Education in Europe: National Systems, European Programmes, Global Issues. Can They Be Reconciled?” (January 2008), and Philippe Aghion et al. (2008) in Higher Aspirations: An Agenda for Reforming European Universities.

Autonomy and governance

As explained earlier, United Kingdom universities are self-governing autonomous bodies responsible for electing members to the governing boards, determining their own academic developments, their own estates and the use of buildings, and their own financial affairs, including the remuneration of staff at all levels. The boards, chaired by external representatives, approve strategic plans and monitor progress by the Vice-Chancellor (Rector) and senior staff in implementing the plans. For national expenditure planning, the universities are classified as private. These freedoms, and in particular the power of universities to make decisions without reference to others, encourage creativity in academic developments at all levels. The presence of external members on the governing boards assists the universities' response to the needs of society and the economy.

The allocation of public funds to individual universities is managed by an independent agency (the Higher Education Funding Council for England) rather than the government. This minimises the risk of political interference in determining the funds for each individual university. While the government
may set general conditions for the agency in allocating the funds, it is debarred by law from engaging in academic affairs, including the selection of academic programmes, or matters concerning the selection of individual staff or students. These arrangements allow universities to proceed with their plans with confidence that there will be no external interference.

**Competition**

UK universities compete for UK and international students. There is also keen competition for research funds – whether for specific research through the Research Councils or for non-specific research (for infrastructure). In the 2008 Research Assessment Exercise, an indication of the strength of competition is revealed by the fact that nine universities received about one half of total funding from the Funding Council.

Figure 5 illustrates the variation in sources of income for individual universities arising from the competition for funds for teaching and research.

![Figure 5. Variations in sources of income for English higher education institutions, 2007/08](source: HESA financial record (English institutions), HEFCE chart. StatLink: http://dx.doi.org/10.1787/648262356788.)

The competition for students has led to much diversity in the academic programmes which individual universities offer – including, for example, programmes in nursing, business studies, sports science, the creative arts and media studies. There is also diversity in the level and mode of study. The fastest growing area is in postgraduate studies for one or two years following a three-year undergraduate course. These studies provide graduates with
specific skills for employment. Many students continue to study part-time whether as undergraduates or postgraduates, while others choose sandwich courses, incorporating a year in relevant employment.

These developments are consistent with the Bologna Process in Europe. Nonetheless, the opportunities for students in UK universities are more diverse, both in terms of mode of study and the subjects available for study, than is the case generally in universities in continental Europe. The pattern in European universities is often to provide the Bachelors degree for full-time study only and to regard it solely as a stepping stone to a Masters degree. Furthermore, the breadth of subjects offered for study by universities is constrained in many European countries by the existence of a binary line which has the effect of ensuring that universities stand back from advanced studies with a vocational bias (except for example in law and medicine).

Some constraint over unfettered competition may be desirable. For example, the Funding Council controls the total number of full-time undergraduate students. This is to enable the cost of student support (through grants and loans) to be controlled. It allows some leeway for individual universities. But, while some constraint on recruitment by individual universities may be beneficial in terms of stability (and particularly at a time when demographic trends are downwards), the impact on competition needs to be kept under review.

There is potential also for competition to be affected by concern over the lower participation rate for students from disadvantaged families. Universities are required to offer bursaries for such students. However the aim is to offer places only to those with the potential to succeed in their studies. This should not dilute competition. (While universities can play a part in seeking to offset these lower participation rates, there is more to be achieved also in schools and within the community.)

The recruitment of international students in the United Kingdom is matched by the employment of significant numbers of international academic staff. These staff contribute to the quality of teaching and research and hence assist with future recruitment of both staff and students, as Figure 6 shows.

**Funding**

There is a range of views about the introduction, initially in 1999, of tuition fees for home students at universities in England. However, loans are available to enable students to pay the fees, together with grants and bursaries for those from less well-off families. The fact that the repayment of the loans is dependent on the graduate's income has also limited the impact of the fees. In practice, the introduction of tuition fees has had only a limited effect on the demand places at universities (Ramsden and Brown, 2007). Current applications for places at UK universities are buoyant.
There have been benefits for the universities in two respects. First, the total income available for universities has increased thus enabling universities to plan improvements to facilities and to compete in national and international markets. Secondly public funds continue to be allocated by an agency rather than the government.

Figure 6. Academic staff by nationality and academic employment function, 2004/05

Total academic staff (headcounts): 160 665;
Known nationality (headcounts): 148 560 Excluding atypical

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Headcounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK nationality</td>
<td>120 085</td>
</tr>
<tr>
<td>Non-UK nationality</td>
<td>28 570</td>
</tr>
<tr>
<td>Nationality unknown</td>
<td>2 010</td>
</tr>
<tr>
<td>Teaching only</td>
<td>5 600</td>
</tr>
<tr>
<td>Teaching and research</td>
<td>30 970</td>
</tr>
<tr>
<td>Research only</td>
<td>11 960</td>
</tr>
<tr>
<td>Neither teaching</td>
<td>1 260</td>
</tr>
<tr>
<td>Non-research</td>
<td>11 240</td>
</tr>
</tbody>
</table>

Figure 7. Funding for higher education institutions, 1996/97 to 2006/07

Note: Funding council grants includes funding from the TDA.
Source: HESA Finance record, HEFCE-funded higher education institutions.
Secondly, the fees have provided universities with direct influence over a larger part (now on average 40%) of their total income. On average, the Funding Council now provides about 35% of total funding, with a further 25% from other public sources (including competitive research grants). Again, and even allowing for uncertainties such as the demand for places, this greater control over their income enables universities to plan with more confidence.

Conclusion

This analysis points to the importance of autonomy, competition and suitable funding if there is to be responsiveness and high quality in universities. In contrast to the position in much of continental Europe (where significant reforms are underway in many countries, for example in Germany), universities in the United Kingdom have had a long tradition of both autonomy and competition.

The UK reforms have enhanced competition. The introduction of tuition fees (paid by full-time students for the first time) has led to more adequate funding and more direct influence by universities over the level of that funding. The demand for university places from both home and international students remains buoyant.

The author:
Tony Clark
The Paddock
Guildford Road
Effingham
Surrey KT24 5QA
United Kingdom
E-mail: tony.clark6@googlemail.com

References


Research Assessment Exercise (2008), Research Assessment Exercise website, www.rae.ac.uk, Higher Education Funding Council for England (HEFCE), the Scottish Funding Council (SFC), the Higher Education Funding Council for Wales (HEFCW) and the Department for Employment and Learning, Northern Ireland (DEL), accessed 27 March 2009.
Chilean Universities in the Transition to a Market-driven Policy Regime*

by

Jorge Katz and Randy Spence
University of Chile, Chile, and Economic and Social Development Affiliates, Canada

This paper briefly reviews the historical development of the university system in Chile and describes the current structure of funding, supply and demand for tertiary education, research, and university services. Both public and private universities in Chile have expanded and restructured, access to tertiary education has improved, and universities have contributed to the country’s national innovation system. However, steep challenges related to structure and performance in education and research remain, if universities are to meet the growing economy’s demands for productivity and competitiveness. This paper outlines the principal areas which need improving: market access; quality of services; research and development and innovation spending; fiscal support; institution building and strategy co-ordination.

* The present paper is based on a previous monograph prepared by the authors for the Chilean Ministry of Foreign Affairs. For this study the authors received financial and institutional support from IDRC, Canada, which is kindly acknowledged. The authors remain completely responsible for the ideas and judgements hereby advanced.
Les universités chiliennes en transition vers un régime politique gouverné par le marché*

par

Jorge Katz et Randy Spence
Université du Chili, Chili, et Economic and Social Development Affiliates, Canada

Cet article propose une brève présentation du développement historique de l’université au Chili et décrit la structure actuelle du financement, de l’offre et des besoins de l’éducation supérieure, de la recherche et des services universitaires. Les universités publiques et privées se sont développées et restructurées, l’accès à l’enseignement supérieur s’est amélioré et les universités ont contribué au système d’innovation national du pays. Toutefois, pour répondre aux demandes de productivité et de concurrence d’une économie en pleine croissance, les universités devront faire face à plusieurs défis de taille, notamment en ce qui concerne la structure et les performances dans les systèmes de l’éducation et de la recherche. Cet article expose brièvement les principaux points à améliorer : l’accès au marché, la qualité des services, les dépenses liées à la recherche, au développement et à l’innovation, le soutien budgétaire, la mise en place des institutions et la coordination stratégique.

* Cet article se fonde sur une monographie précédente préparée par les auteurs pour le compte du ministère chilien des Affaires étrangères. Dans le cadre de cette étude, les auteurs ont reçu le soutien financier et institutionnel du IDRC, Canada, auquel ils adressent leurs remerciements. Les auteurs restent responsables des idées et des opinions avancées dans ce texte.
Introduction

Universities are complex social organisations producing teaching, research and development (R&D), and “public goods” for individual and collective consumption in areas such as health, environmental protection, energy, climate and desertification, culture, and the creative industries.

These services are delivered to private, non-profit and public sector individuals and organisations. All three of the above categories of goods and services play an increasingly important role within national innovation systems, in step with the growing importance that knowledge and knowledge services now play in the path towards the “knowledge economy”.

For economic, institutional and historical reasons, national innovation systems vary a great deal across countries. Large differences can be observed in the proportion of R&D expenditure financed or performed by the private sector. On the other hand, systems of innovation involve much more than how much is spent on, or who finances, R&D activities. Countries differ markedly in institutions associated with the innovation process: tax measures and incentives, intellectual property laws, legal enforcement practices, degrees of public/private co-operation in knowledge generation programmes. Universities are indeed a major actor of national innovation systems but, again, universities differ in size, strategy and “core capabilities” and in the way they participate in research and development activities.

Almost all university services are, to varying degrees, public goods, in that they involve a significant element of collective consumption. Because of the public good or collective consumption element of the services universities deliver, welfare economics and theories of the firm do not provide a complete tool box for their examination. Decisions on issues such as how much of the population should receive tertiary education, what proportion of the cost should be paid by students, how much and how best to finance basic research, or how much and how best to support community and “bottom of the pyramid” innovation typically remain as public choices where markets are far from providing “correct” answers.

Universities also deliver many services (particularly education) which are in large part private or individual-consumption in nature; the student pays the fee and gets the service. While there is considerable debate about the best ways of analysing the tertiary education sector, much can be learned in this
respect from looking at universities along the lines of industrial organisation theory, i.e. as “firms” in a service “industry”.

The next section of this paper looks at some of the early historical forces conditioning the evolving path of Chilean universities. Special attention is given to the sources of revenue that financed university activities in different stages of Chilean history. In the two sections that follow, we examine the various forces inducing the expansion of supply of, and demand for, university services in Chile. This is a highly heterogeneous industry in which firms differ in size, product mix, prestige, quality of services and so forth. It is an industry in which demand is expanding quite rapidly, with many new segments of the Chilean population entering the market for tertiary education services both as a result of a rapidly growing economy and of demand-side subsidies facilitating market access. The final section examines various aspects related to the dynamics of market functioning. Universities compete for students in many different ways, including product differentiation strategies, loans and advertising. Prestige and location appear as important determinants of firm behaviour. New institutions and an increasingly mature regulatory environment are gradually emerging in Chile, affecting the long term functioning of university markets.

In our assessment, major aspects of structure and performance of Chilean university markets demand careful re-structuring in the years ahead. Although the industry exhibits a successful record of expansion, signs of fatigue can be clearly identified. Future growth of the Chilean economy requires faster productivity growth and the strengthening of international competitiveness, and this can only be attained on the basis of a much better trained labour force. But Chile also demands better political governance, which requires significant improvements in equity of access and quality in tertiary education markets. The local innovation system – and universities within this system – should be carefully re-structured in the forthcoming years if better performance in growth and equity are to be attained. The paper concludes by listing several policy issues which demand consideration from this perspective.

**Chilean universities: early historical evolution**

Two large universities dominate the Chilean tertiary education sector. Their market position has been significantly challenged in recent years by the competitive entry of many small and medium-size metropolitan and regional universities, both private and public, which are now trying to increase their participation in teaching activities and, to a much lesser extent, in applied R&D.

The University of Chile, created in 1843 by a merger of the Real Universidad de San Felipe de Santiago (1747) and the Instituto Nacional, emerged as the national
university of a newly independent nation. Secularism and 19th century liberalism were central to the conceptual basis of this first university.

It did not take long before the strongly articulated local Catholic constituency succeeded in creating the Catholic University of Chile in 1888. The third university was founded by the Freemasonry movement in Concepción in 1919: in the following three decades, only six other universities were created, making a total of eight universities in the country. The Council of Rectors of Chilean Universities (CRUCH) was created in 1954. At that point, Chile had some 20,000 university students. The eight universities were entirely supported by public funds, and entrance was free.

The military intervention of 1973 brought about a dramatic change of regime. Public resources for education contracted drastically, falling from 7% to just over 4% of gross domestic product (GDP) between 1973 and 1980. The reduction in fiscal block grants forced universities to search for alternative forms of funding, and student fees became the obvious alternative. Together with this fundamental change in the financing of university services, the military authorities also de-regulated the market, allowing for the entry of private providers.

As a result, the structure and behaviour of university markets changed quite dramatically during the 1980s. In 1981, the military government forced the subdivision of the University of Chile into 17 legally independent universities operating across the country. Together with the eight "original" universities, these 17 universities formed the new CRUCH. The de-regulation of university markets also promoted the creation of 22 new private universities and 23 professional institutes between 1981 and 1989.

Table 1. The creation of universities, professional institutes and centres for professional training in Chile, 1980-2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CRUCH universities</td>
<td>8</td>
<td>20</td>
<td>20</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Private universities</td>
<td>3</td>
<td>40</td>
<td>45</td>
<td>39</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td><strong>Total universities</strong></td>
<td><strong>8</strong></td>
<td><strong>23</strong></td>
<td><strong>60</strong></td>
<td><strong>70</strong></td>
<td><strong>64</strong></td>
<td><strong>61</strong></td>
</tr>
<tr>
<td>CRUCH professional institutes</td>
<td>–</td>
<td>4</td>
<td>2</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Private professional institutes</td>
<td>–</td>
<td>19</td>
<td>76</td>
<td>73</td>
<td>60</td>
<td>43</td>
</tr>
<tr>
<td><strong>Total professional institutes</strong></td>
<td><strong>–</strong></td>
<td><strong>23</strong></td>
<td><strong>78</strong></td>
<td><strong>73</strong></td>
<td><strong>60</strong></td>
<td><strong>43</strong></td>
</tr>
<tr>
<td>Centres for professional training</td>
<td>–</td>
<td>132</td>
<td>161</td>
<td>127</td>
<td>116</td>
<td>102</td>
</tr>
<tr>
<td>Total tertiary education institutions</td>
<td>8</td>
<td>178</td>
<td>299</td>
<td>270</td>
<td>240</td>
<td>206</td>
</tr>
</tbody>
</table>

We notice a rapid process of market entry during the period 1980-95. In the mid 1990s, the rate of new entry slowed, and between 1995 and 2005 the number of universities and professional institutes of higher education actually contracted. This suggests a complex winnowing process in the industry.

Not all Chilean universities and teaching programmes have been accredited through peer-review examination. Accreditation involves six different areas of evaluation – institutional management, undergraduate teaching, research, post graduate teaching, relationship with the community and quality of infrastructure – and can be obtained for two to seven years depending upon the status attained by a university in each sphere. Only a handful of Chilean Universities, out of a total of 61, have received full accreditation in four or more of the above mentioned spheres, and for a period running from four to seven years.

Market entry strategies over recent years show that some universities have opted for what we call here a “low end” market entry strategy – expanding the number of teaching campuses they operate across the country, without serious concern for quality and accreditation – whereas a few other universities have opted for the opposite strategy, i.e. entering the market on the basis of high quality staff, state-of-the-art infrastructure and world-class teaching curricula. In just a few cases, universities are trying to do both, developing state-of-the-art facilities in specific R&D areas – biotechnology, for example – and financing such activity through student fees, acting as a low cost, low quality service provider in teaching markets. A frail accreditation system allows some universities to take advantage of their monopolistic market position.

Both of these market entry strategies have occurred in Chilean university markets in recent years, with universities using different product differentiation efforts (e.g. advertising and loans) to attract new students. The choice of a given university involves a considerable amount of irreversibility, with sunk costs and information asymmetries being quite significant.

Supply and demand for university services

The provision of funds for teaching and research activities

Universities finance their activities through a mixture of public resources, tuition fees, donations, research grants and revenue from services to individuals, firms and governments. Clearly the more notorious long-term transformation of the financial model underlying the provision of university services in Chile is the falling level of government block grants within total university revenue and the concomitant expansion of the relative share of revenue from student fees, competitive funds, contractual services and donations.
In the following pages, we examine how each one of these alternative sources of revenue changed over time as a result of the transition to a market-driven environment.

**Direct and Indirect Fiscal Allocations (AFD and AFI)**

Breaking up the University of Chile into 17 different independent regional campuses in 1981 expanded CRUCH membership to 25 public universities. It is these 25 universities that receive Direct Fiscal Allocation (AFD), a block grant from the government aimed at covering operational expenses and an unspecified amount of R&D activities. AFD currently accounts for close to USD 160 million annually. AFD represents nearly one-third of university revenue but there is a considerable variation across CRUCH universities in terms of how much each one receives. Student fees have expanded strongly, accounting for another third of total revenue, again with a large variance across CRUCH universities. Public funding for R&D also comes from the National Commission for Science and Technology Research (CONICYT) and the Chilean Economic Development Agency (CORFO), while the Public Funding for R&D and the Superior Education Quality Improvement Project Ibero-American Network on Science and Technology Indicators (MECESUP) (and FIAC) provides resources for infrastructural investment and organisational upgrading. These sources together add up to another one-third of total university revenue.

Table 2 indicates how sources of funds have changed during the period 1990-2005. From a regime in which CRUCH universities were largely financed through government block grants, Chile has gradually moved into an alternative regime in which other sources of revenue have become significantly more important. Figure 1 below underlines this trend.

AFD funds are distributed among CRUCH universities according to a fixed formula (political and without precise rules) which was established in 1981 by a legally enforceable decree (Decreto con Fuerza Legal, DFL) No. 4. Eight years after establishing the formula, the government introduced a change allowing 5% of AFD funds to be allocated through competitive processes depending upon the number of papers each university published in ISI journals, the number of citations received and the number of research projects conducted.

The available evidence shows that AFD resources have increased over time, but at a slow rate. Besides AFD, the DFL No. 4 of 1981 also created Indirect Fiscal Allocation (AFI), which is related to the quality of the students each university enrolls each year. The best 27 500 students passing the university admission test are ranked and divided into five subgroups of 5 500 students each. The subsidy for the lower quintile is then determined with the remaining groups receiving that amount per student multiplied respectively by 3, 6, 9 and 12 depending on
their position above the lowest. This means that CRUCH universities that attract students in the highest quintile receive 12 times more AFI per student than those that attract students from lower segments.

This resource allocation mechanism introduces a selection bias that is under strong criticism in Chile. Noting that students from private schools gain significantly higher scores in the university entry examination, AFI leads to a bias against low income students, who tend to attain lower scores. It also involves a selection bias against Institutes of Tertiary Education, which are crowded out by the best universities in the system.

**Student fees and demand subsidies**

As explained earlier, about two-thirds of the total revenue of public universities comes from sources other than government block grants,\(^1\) with student fees forming a major part. Student fees are to a large extent covered by demand-side subsidies, but Chilean families absorb a large proportion of the cost of gaining access to university education. The following two public sector schemes stand out.

**University Credit Solidarity Fund (FSCU).** The FSCU is only available to students applying to CRUCH universities. It involves a low interest rate – 2% – and repayments can never exceed 5% of the recipient’s salary. The FSCU is basically directed to the two lower quintiles of income distribution, and it is believed that nearly 80% of those applying for the FSCU actually get it.

**State guaranteed loans (Creditos con aval del Estado).** Public sector guaranteed loans are also available to cover tuition fees and other expenses associated with

---

**Table 2. Sources of funds for Chilean universities**

<table>
<thead>
<tr>
<th>Source of Funds</th>
<th>1990</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLP</td>
<td>%</td>
</tr>
<tr>
<td>Direct Fiscal Allocation (AFD)</td>
<td>61,934</td>
<td>51.1</td>
</tr>
<tr>
<td>Indirect Fiscal Allocation (AFI)</td>
<td>20,016</td>
<td>16.5</td>
</tr>
<tr>
<td><strong>Block grants</strong></td>
<td><strong>67.6</strong></td>
<td></td>
</tr>
<tr>
<td>University Credit Solidarity Fund (FSCU)</td>
<td>28,328</td>
<td>23.3</td>
</tr>
<tr>
<td>Other forms of student support</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Institutional Development Fund</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>CONICYT</td>
<td>10,841</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Competitive funds</strong></td>
<td><strong>32.2</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total fiscal resources</strong></td>
<td><strong>121,119</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

university enrolment. These are somewhat more expensive options than the FSCU, with interest rates of 5%, and target students from higher income groups who can afford the more expensive option.

Although no hard information is available, local sources indicate that the percentage of non-performing loans is close to 40%, a much higher rate than in other countries. This might be taken as an indication that repaying the loans is a major problem for low income families. Better solutions to equity of access should be explored.

**Investment in infrastructure – FDI and MECESUP**

Another important source of university revenue is the FDI Fund (*Fondo de Desarrollo Institucional*), which recently merged with MECESUP. Close to 10% of CRUCH universities’ fiscal resources currently come from this source. Figure 1 describes the time line of the various sources of revenue examined thus far.

**Figure 1. Public subsidies for tertiary education in Chile, 1990-2003**

![Graph showing subsidies for tertiary education in Chile, 1990-2003](image)


**The financing of R&D activities**

Chile is not a big spender on R&D activities. Only 0.7% of GDP is only allocated annually for these purposes. Close to 70% of the total comes from government sources and only 30% from private firms. The current policy debate concerning innovation and technological change indicates that the government expects to expand R&D expenditure to the level of 1.2% of GDP
during the course of the next decade and that it also expects the share of private sector R&D to increase considerably. Several policies are currently being implemented to attain these goals.

CONICYT, under the Ministry of Education, is the central public entity responsible for the management of R&D funds. The agency is an autonomous public corporation created in 1967 to promote scientific and technological research and the development of human resources. It has become increasingly important in recent years, having been made responsible for managing a large number of competitive funds for R&D activities, with the National Fund for the Development of Science and Technology (FONDECYT) being an important one of these.

In 1982-83, the Chilean economy entered a deep recession triggered by the Mexican Moratoria and the drying up of most external sources of finance. GDP fell by 14% in 1982 and a major banking crisis unfolded in 1983. Fiscal resources diminished drastically and public expenditure was cut across the board. Concomitantly, the government announced the implementation of a new policy regime which involved the transition to market-based allocation processes in the field of R&D expenditure. This change led to the creation of FONDECYT in 1982. FONDECYT runs an annual competition for R&D funds in which close to 500 projects are selected for financing, most of them from the largest 6 or 7 Chilean universities involved in research. The University of Chile and the Catholic University are by far the major recipients.

According to a public presentation (Heyl, 2008), CONICYT’s total budget has increased from CLP 48,518 million in 2004 (some USD 80 million) to nearly CLP 90,000 million (USD 180 million). CONICYT therefore holds a prominent position within Chile’s National Innovation System.

The demand for university services

Various forces have fuelled the rapid expansion in demand for tertiary education in Chile over the past three decades: on the one hand, the high rate of growth attained by the economy, particularly during the period 1984-98; on the other hand, the increasing availability of scholarships, grants and credits, both from public and private sources. The table below indicates that the enrolment in tertiary education increased fourfold between the early 1980s and 2006. It is important to note that such expansion was much stronger in the lower quintiles of the distribution, causing the access rate to university in the 18-24 group in the lowest quintile of the distribution to increase from 4% to 15% from 1990 to 2003. In the next lowest quintile it increased from 8% to 21%.

The period 1984-98, after the Debt Crisis of 1982, is frequently regarded as the golden age of the Chilean long term growth process. An average rate of growth of 7% was attained, with many new firms opening up.
During the 1990s, industrial production underwent a rapid technological modernisation in sectors such as copper mining, salmon farming, fruit and wine production, and the forestry industry. The new firms entering the market brought with them world-class computer-based manufacturing facilities, rapidly gaining international competitiveness. The new production facilities demanded more professional management as well as skilled manpower in a large number of disciplines. The strong signal coming from the production structure induced a rapid expansion of demand for tertiary education. Tertiary education markets responded well to market signals by increasing the number of institutions providing teaching services. Ten new universities opened up between July 1990 and December 2005 (CNAP, 2007). The total number of university students increased from 245,000 in 1990 to 435,000 in 2000. As already mentioned, the rate of new student enrolment was well above average in the lower quintiles of income distribution.

A wide and heterogeneous middle class emerged, and the rapid expansion of university infrastructure created new opportunities for accessing university education as more demand-side subsidies facilitated market entrance for low income groups. We find here a virtuous circle of faster economic growth associated with productivity gains and a concomitant upgrading of human capital.

In more recent years – from 1998 to the present – the Chilean economy has suffered a significant slowdown in its long-term rate of expansion. From an annual average growth rate of 7.5% for the period 1984-98, the rate of GDP growth has fallen to an annual rate of 4%. This seems to be negatively affecting the process of social mobility and the functioning of university markets.

The dynamics of market functioning

Chilean university markets underwent a major structural transformation over the past three decades. Issues of access, affordability, quality and accountability have been affected, and major questions remain unanswered.
concerning how university R&D activities and the production of public goods are to be financed in the present macroeconomic policy environment.

The current scenario can be characterised as follows.

Some 250 000 secondary students – of very heterogeneous cultural and family backgrounds – compete annually for admission at local universities. Some 150 000 are admitted to tertiary education.

The best 27 500 of these students receive AFI subsidy. Universities compete for the best students, offering them grants, scholarships and loans, as well as engaging in a great deal of advertising.

Two highly prestigious universities – the University of Chile and the Catholic University – jointly absorb close to 9 000 of the AFI students. Most of the students enrolled in these two universities – 95% – bring an AFI subsidy.

A second group of reputable universities picks up the next set of AFI students. In this group we find CRUCH universities – the University of Santiago, Chile, the Catholic University of Valparaíso, the University of Concepción – and also some private universities including Los Andes and Adolfo Ibáñez. In these universities the percentage of AFI students is about 50%.

The remaining AFI students – close to 10 000 – are distributed among the other 40 universities in the system. Universidad Diego Portales, Universidad Austral and Universidad Catolica del Norte enrol some 35% of their students in this category.

At the “low end” of the market, many small and poorly accredited universities provide lower priced (and lower quality) services to the remaining group of students. They receive few AFI students. It is in this area of the market that mergers and acquisitions have occurred in recent years, with small universities being acquired by both local and foreign investors. University markets are undergoing a major winnowing process, with more restructuring and rationalisation expected in coming years.

At the “high end” of the market, a slow process of consolidation and discipline diversification seems to be taking place, involving a small number of private universities such as Adolfo Ibáñez, Los Andes and Diego Portales. These universities are gradually opening up new careers, trying to capitalise on their already high prestige. Their fees are higher than those charged by the University of Chile or the Catholic University, but their enrolments continue to grow rapidly among high income groups. They are in the process of incorporating high quality faculty, mostly PhDs recently returning from graduate studies at US or European universities. It is interesting to observe that they “buy out” faculty from the University of Chile and the Catholic University, pushing their salaries upwards.
Private universities are non-profit organisations by law, but they frequently operate under the aegis of real estate companies that own their land and physical infrastructure, which they rent back to the university. Private universities – low and high end – constitute highly profitable businesses.

Research and innovation activities are still in an incipient stage. R&D activities are mostly financed and performed by the public sector. Basic and applied academic research is partly financed by government block grants, but CONICYT is increasingly participating in the field through various competitive funds. One-third of CONICYT resources go to FONDECYT, a programme which annually finances close to 450 R&D projects carried out by researchers in local universities. The University of Chile captures close to 40% of these R&D projects. CONICYT also administers the Science and Technology Development Research Fund (FONDEF), the Millennium Scientific Initiative (ICM), the BASAL Programme for Science and Technology Centres of Excellence, and other competitive funds financing R&D activities.

Policy on this front seems to be changing, as CONICYT favours larger and more basic R&D projects, incorporating risk-sharing mechanisms with private firms and prestigious R&D laboratories. The BASAL Programme – prototypical of the above – has an annual budget of close to USD 12 million and has a five-year duration. Eight different R&D programmes were approved in the areas of astrophysics, climatology, mathematical modelling, aquaculture, plant-insect interactions, aging and regeneration, mining technology, and stress depression and addictions.

While our research indicates that a successful institution building process is in the making, it also highlights that major unresolved problems remain and will have to be tackled by government in the near future. The paper concludes with a brief review of some of these issues that demand policy action.

Concluding remarks

Our study offers a description of the structural transformation suffered by the Chilean university system in the transition from a government-regulated regime to a market-driven competitive environment. The process started three decades ago and was originally undertaken with the expectation that the “invisible hand” of markets could successfully handle the long-term transformation of the education sector without the need for further regulatory measures.

Many aspects of market functioning have changed over the past two decades. Together with the outstanding success of the process, it is now increasingly apparent that many new questions of market access, affordability, quality and accountability have emerged that demand further public sector intervention in the near future.
**Market access**

The population accessing university education has increased dramatically over the past 20 years, with the proportion of 18-to 24-year-olds entering university rising from 15% to 38%. Although this should be seen as a clear indication of success, there is still considerable room for improvement on this front. It is important to note that market access has increased more rapidly in the two lower quintiles of income distribution.

Yet Chile appears as an outlier in international comparisons when we consider the extent to which households finance access to university education. Student fees are quite high relative to per capita income, and public subsidies do not entirely cover enrolment costs. The high percentage of unpaid loans constitutes a clear indication that fees and financing mechanisms should be carefully reconsidered in the not-so-distant future.

**Quality of services**

A second area demanding attention is quality of education. Education markets are highly imperfect. There is a great deal of information asymmetry between supply and demand for tertiary education. Because of this asymmetry and as a consequence of weak accreditation requirements, there has been a rapid rate of “low end” market entry over the past two decades, significantly affecting quality standards. Low quality service providers are forced to abandon the market through mergers and acquisitions from stronger universities that then proceed to re-structure them and to upgrade their quality, but this is indeed a slow process if we are concerned with consumer protection and educational quality. Although an accreditation system already exists in Chile, the quality upgrading process seems to be proceeding at a slow pace. Performance-based agreements are being signed by MECESUP and various CRUCH universities, and this will certainly help to attain a gradual improvement in university performance, but much more needs to be done, particularly at the “low end” of the market, where low quality of services is quite evident.

Increased institutional development funding would appear to offer high returns at this stage. Performance agreements may work for many purposes, and have the appeal of being to some degree competitive. However, as accreditation requirements become stronger, there is both the need for upgrading good universities – with which Chile is well endowed – and the potentially more complex issue of the large number of local universities which have not been adequately accredited so far. Market forces may eventually sort this out, but it will take considerable time. Institutional funding and further regulatory surveillance of accreditation practices would seem prudent.
R&D and innovation spending

A third issue demanding policy changes is how to finance and expand R&D activities. This involves, on the one hand, expanding fiscal resources allocated for this purpose and, on the other, graduating a much larger number of PhDs and graduate students per annum, capable of adequately using such resources. International comparisons indicate that Chile is well behind world standards on both aspects. If the ratio of R&D to GDP is to be increased – as the government has announced – in the course of the next decade, universities will be required to expand their graduation of doctoral students. As stated in a recent document by an Academic Commission of the University of Chile: “The country has to set itself the goal of graduating 100 doctorates per million inhabitants by 2020, or 1 700 new doctorates annually” (Allende et al., 2007).

Growth of FONDECYT has stalled. It will need to increase again, and funding will have to be provided to support the expansion.²

AFD and AFI

AFD and AFI block grants could probably be improved upon with performance-based criteria based on the number of students being enrolled, discipline mix, quality of teaching and R&D, etc., taken into account in the allocation of resources. As accreditation and industry restructuring become more advanced, university expansion will likely benefit from block funding being dependent upon the quality of services universities provide. AFI is an interesting and unusual incentive that rewards quality, but it clearly has many unfavourable effects upon equity and market structure. Alternative mechanisms supporting quality without negatively affecting equity are used in many countries and could be considered by Chilean authorities.

Expanding R&D expenditure to the extent proposed by the National Council for Innovation for Competitiveness (CNIC) will have an important impact on university operations. New risk-sharing mechanisms between private firms and university R&D laboratories and institutes will need to be explored to encourage the private sector to participate more actively in export-oriented innovation activities.

Institution building and strategy co-ordination

Our enquiry shows the complex way in which economic and institutional forces have co-evolved in this transition from a state-regulated regime to a market-driven model of tertiary education. At no point did a “master plan” exist indicating how the transition was to take place. Several forces came together to globally transform the industry. Some of the forces that supported the process of expansion in the 1990s seem to be waning, with the economy now expanding at a considerably slower pace than in the past and the university sector showing signs of fatigue.
The current innovation agenda is interventionist and proactive, spurring commercialisation in the private sector, and in funding and stimulating applied research in universities. New institutions and funds, new co-operative forms of interaction between the public and the private sector, different approaches to research financing and technology diffusion in the economy have been introduced. These may be oriented to commercialisation in specific markets and sectors, but also draw on horizontally expanding capacities in tertiary education and R&D activities.

This seems to be a time for reflection, design and collaboration. Natural-resource based production and export prospects remain good, assuming a gradual resumption of global economic growth. Further diversification of the production structure – i.e. the opening up of new export-oriented sectors of economic activity – is needed if the country is to increase its rate of economic growth. It seems likely that further government leadership will be required to encourage industry to move in this direction. Research-oriented universities should explore new mechanisms to integrate themselves into the long-term growth strategy recently proposed by the CNIC.

Chile wants to move to a phase of “technological deepening” in its production structure and of more public goods production and dissemination in areas such as health, environmental protection, energy, desertification and urban development. The creation of new technological and institutional capabilities should be a matter of state concern. Adequate macroeconomic management is important, but it seems equally important to proceed with experimentation, learning and structural transformation at the micro and regional level, to create markets, institutions including tertiary education, domestic production and technological capabilities the country presently lacks.

**Glossary**

| AFD | Aporte Fiscal Directo/Direct Fiscal Allocation |
| AFI | Aporte Fiscal Indirecto/Indirect Fiscal Allocation |
| BASAL | (Programa Financiamiento Basal) Programa para Centros Científicos y Tecnológicos de Excelencia/Programme for Science and Technology Centres of Excellence |
| CNAP | Comisión Nacional de Acreditación, Ministerio de Educación/ National Accreditation Commission, Ministry of Education |
| CNIC | Consejo Nacional de Innovación para la Competitividad/ National Council for Innovation for Competitiveness |
| CONICYT | Comisión Nacional de Investigación Científica y Tecnológica/ National Commission for Science and Technology Research |
The authors:

Jorge Katz
Professor of Development Economics
Faculty of Economics
University of Chile
Av. Diagonal Paraguay 257
Santiago
Chile
E-mail: jorgekatz@terra.cl

Randy Spence
President, Economic and Social Development Affiliates
8 Annex Lane
Toronto, Ontario M5R 3V2
Canada
E-mail: wrspence@gmail.com

Notes

1. The extent to which CRUCH universities rely upon fiscal block grants, student fees and contractual income as alternative sources of revenue varies greatly. This topic is extensively discussed in J. Katz and C. Contreras (2008), The Dynamics of University Behaviour, Mimeo, Department of Economics, University of Chile.

2. The longer original version of this paper provides a comparative review of funding and management mechanisms for university teaching and R&D activities – particularly relevant to the section “The dynamics of market funding”.

References


Heyl, V. (2008), presentation, Comision Nacional de Investigacion Cientifica y Tecnologica (CONICYT), Santiago.
Contributions to the Higher Education Management and Policy Journal should be submitted in either English or French and all articles are received on the understanding that they have not appeared in print elsewhere. Articles submitted for publication in the Journal are refereed anonymously by peers.

Selection criteria

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.

Other criteria include clarity of expression and thought. Titles of articles should be as brief as possible.

Presentation

Electronic submission is preferred. Three copies of each article should be sent if the article is submitted on paper only.

Length: should not exceed 15 pages (single spaced) including figures and references (about 5,000 words).

The first page: before the text itself should appear centred on the page in this order: the title of the article and the name(s), affiliation(s) and country/countries of the author(s).

Abstract: the main text should be preceded by an abstract of 100 to 200 words summarising the article.

Quotations: quotations over five lines long should be single-spaced and each line should be indented seven spaces.

Footnotes: authors should avoid using footnotes and incorporate any explanatory material in the text itself. If notes cannot be avoided, they should be endnotes, at the end of the article.

Tables and illustrations: tabular material should bear a centred heading “Table”. Presentations of non-tabular material should bear a centred heading “Figure”. The source should always be cited.

Addresses of author(s), including e-mail, should be typed at the end of the article.

References in the text: Vidal and Mora (2003) or Bleiklie et al. (2000) in the case of three or more authors. However, the names of all authors should appear in the bibliography at the end of the article.

Bibliography at the end of the article: references should be listed in alphabetical order under the heading “References”. Examples of the reference style used in the Journal are:


The covering letter

This should give full addresses and telephone numbers and, in the case of multi-authored papers, indicate the author to whom all correspondence should be sent.

Complimentary copies

Each author will receive two complimentary copies of the Journal issue in which his/her article appears.

Articles submitted for publication should be sent to the editor:

Professor Vin Massaro
Professorial Fellow
LH Martin Institute for Higher Education Leadership and Management
Melbourne Graduate School of Education, The University of Melbourne
153 Barry Street
Carlton, Victoria 3010, Australia
E-mail contact: jill.gaston@oecd.org
Higher Education Management and Policy
JOURNAL OF THE PROGRAMME ON INSTITUTIONAL MANAGEMENT IN HIGHER EDUCATION

Introduction 9
The EU Innovation Agenda: Challenges for European Higher Education and Research
Frans van Vught 13
Big Ideas for Australian Universities
Steven Schwartz 35
Competition, Autonomy and New Thinking: Transformation of Higher Education in Federal Germany
Peter Mayer and Frank Ziegele 51
The Context of Higher Education Reform in the United States
Donald E. Heller 71
Brave New World: Higher Education Reform in Finland
Timo Aarrevaara, Ian R. Dobson and Camilla Elander 89
The Impact of Reforms on the Quality and Responsiveness of Universities in the United Kingdom
Tony Clark 107
Chilean Universities in the Transition to a Market-driven Policy Regime
Jorge Katz and Randy Spence 123

Subscribers to this printed periodical are entitled to free online access. If you do not yet have online access via your institution’s network, contact your librarian or, if you subscribe personally, send an e-mail to SourceOECD@oecd.org.