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21st Century COE Program

Construction and Quality Assurance of 21st Century Higher Education System

Reports of Changing Academic Profession Project Workshop on Quality, Relevance, and Governance in the Changing Academia: International Perspectives

Research Institute for Higher Education

Hiroshima University

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Contents

The Research Institute for Higher Education (RIHE), Hiroshima University, was established in May 1972 with the approval of the Ministry of Education as the first national institution for research in higher education. With its commitment to academic research, RIHE has developed since then to make significant contributions to higher education research both inside Japan and overseas. It celebrated its thirtieth anniversary in 2002.

This anniversary coincided with a decision of the Japanese government to establish its policy of support for research excellence, the “21st Century Center of Excellence program”. RIHE's project "Construction of a System for 21st Century Higher Education and Quality Assurance" was selected as one of 20 programs in the field of humanities and 113 programs in all disciplines. This formal recognition of RIHE as the sole COE in higher education identifies both its unique achievement and its capacity to contribute significantly to the future development of higher education. Its achievement reflects the dedication and commitment of many colleagues over the past three decades, transforming the status of research in higher education from a curiosity into the substantial position it now occupies. Those of us now working in RIHE are privileged to stand on the shoulders of the giants who established this reputation. They provide us with a continuing challenge to sustain their pioneering spirit.

The current COE program extends for five years in order to enable the project to develop fully. Specifically, the program will intensively address five aspects: institutionalization and assessment of the quality of faculty development and staff development; quality assurance in the academic research system; arrangements for and quality assessment of academic organization; construction of an international reference data base of academic systems; and training of younger researchers in higher education. In addition, in order to develop the international research network centered on RIHE we shall be publishing COE research publications in English as well as Japanese. The style of publication adopted in this volume reflects our intentions in this regard. Its aim is to place on record aspects of research already completed that are related to the COE program and to make it accessible internationally.

As the leader of the COE program project, this opportunity to provide useful information and new material to readers concerned with developments in higher education gives me particular pleasure. In turn, within RIHE, we shall be pleased to receive support, co-operation and comments from readers so that our work may be strengthened and that the function of the research network can be promoted.

March 2003

Akira Arimoto
Professor, R.I.H.E., Hiroshima University
COE Project Leader

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21st Century COE Program
Construction and Quality Assurance of 21st Century Higher Education System

Reports of Changing Academic Profession Project Workshop on Quality, Relevance, and Governance in the Changing Academia: International Perspectives

Message

In 2002, the Research Institute for Higher Education (RIHE) was identified by the Ministry of Education, Culture, Sports, and Technology (MEXT) as a member of the 21st Century COE Program. Our COE program has the title *Construction and Quality Assurance of 21st Century Higher Education*. We are now dedicating ourselves to deepening, developing, and integrating the research findings for FY 2007, the last year of the five-year-term COE program.

Rapid social changes, such as globalization, development of the knowledge society and marketization, have been requiring a constant review of the structure and mechanism of higher education. Higher education is facing a crucial turning point, not only in Japan but in many parts of the world. Therefore higher education researchers are expected to contribute to the reform of universities and make appropriate policy proposals based on theoretical and empirical research.

In the context of these trends in higher education, we decided to organize an international workshop entitled "Quality, Relevance and Governance in the Changing Academia: International Perspective" as part of our COE program in cooperation with The Changing Academic Profession (CAP) Project. The CAP Project intends to conduct a new international survey of the academic profession, based on the one done by the Carnegie Foundation for the Advancement of Teaching in 1992-1993. While the academic profession is one of the key research topics of our COE program, the CAP also has interests in its international comparisons. This has led to the workshop held jointly by RIHE and the CAP.

In the workshop, we focused on inquiring into the 21st century higher education from two points of view. First, issues regarding *Construction and Quality Assurance of 21st Century Higher Education* were examined from an international perspective on enhancement of the quality of the academic profession. Second, the international joint research program of the CAP project was deepened and reinforced by comprehensive discussions related to the academic profession.

Thanks to all participants' support and cooperation, the international workshop brought about significant and successful results. Based on reports and presentations in the workshop, we made this publication.

On this occasion, I would like to extend my sincere gratitude to all the authors and staff who contributed to this volume. Particularly my special thanks go to Professor Carol Frances for editing all the articles. Without her painstaking job, this publication would have been impossible.

Akira Arimoto
Director & Professor, RIHE, Hiroshima University
Project Leader of 21st Century COE Program
February 2006

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We would like to acknowledge the invaluable contribution of Professor Carol Frances of Seton Hall University, U.S.A., who edited all the manuscripts in this report.

Akira Arimioto
Director & Professor,
RIHE, Hiroshima University,
Project Leader of 21st Century COE Program
September 2006

COE Program Reports

Institutionalization of Faculty Development with a Focus on Japan

Akira Arimoto*

A concept of faculty development, or FD, has been imported to Japan from other countries, especially from UK and USA, since 1980's and institutionalized as a structure and function into the higher education system and the higher education institutions mainly beyond 1990's. Narrow meaning of FD focuses on an enhancement of teaching ability and skill of academics, while broad meaning focuses on an enhancement of various abilities and skills of academics related to academic work including teaching, research, service, and management.

The International Seminar intends to shed light on quality assurance in the academic profession from a perspective of international comparison. Probably, the institutionalization of Faculty Development (FD), in which the history and tradition of Japanese higher education have moved to cohesion, will become a focal point for discussion as we consider the problem of quality assurance of the academic profession in this country. In this context, it is important to say that our 21st Century Center of Excellence (COE) program has a main theme of "*Construction and Quality Assurance of 21st Century Higher Education*", and sets FD as one of the sub-themes.

From this perspective, this paper discusses the institutionalization of FD in three parts:

(1) Relationship between the COE program and the institutionalization of FD;
(2) Characteristics of the Japanese academic profession; and
(3) Institutionalization of FD in Japan from an international comparative perspective.

Relationship between the COE Program and Institutionalization of FD

The 21st Century COE program, which was authorized by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) in 2002, has a five-year term, starting in the 2002 academic year and finishing in 2007. The "Construction and Quality Assurance of 21st Century Higher Education" program can be summarized as follows:

> "The intention is to develop a program of research appropriate to the rapidly changing needs of society. The research is expected to constitute both a basis for formulating policy for higher education and criteria for assessing the quality of its achievement" (Research Institute for Higher Education [RIHE], Hiroshima University, 2002, p. 1).

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The basic framework consists of the following four parts:

(1) Necessity of constructing a Center of Excellence (COE);
(2) Academic and social implications of constructing the COE and training human resources;
(3) Aims and characteristics of the COE; and
(4) Planning of research and the expected research outcomes.

Within the framework, part (4) is related to establishment of the research center program, which is described in the RIHE's pamphlet as follows:

> "As a center of excellence, the core component of the new program is extension of the scale and scope of existing research in higher education. The medium-term program will be primarily concerned with three major areas:
>
> (1) Expanded studies of Faculty and Staff Development (FD and SD), with a focus on institutionalization and quality assurance. The project will involve reconsideration of basic theory, collection of data by interviews in Japan and overseas, and by surveys involving individuals and institutions, arranging discussions and seminars, and analysis of the accumulated information.
> (2) A study of university research systems with emphasis on the impacts of faculty members' mobility, academic productivity, and evaluation systems. This project is planned to include collection of data by surveys of institutions and academics in some nations, analysis of personnel records and statistical data, and extensive interviews.
> (3) Restructuring of academic organizations and higher education systems. The existing research program will need to be expanded by extending international comparative analyses, inclusion of international surveys, and consideration of the currently emerging changes to the structure of higher education systems in the principal nations around the world" (RIHE, 2002, p. 2).

The first of these areas, that is (1) the institutionalization of FD, which is concerned, among other issues, with the relationship between academic and non-academic staff, is particularly important. In this first area, the study of three topics has been undertaken:

(1) State of institutionalization of FD and its quality assurance;
(2) State of institutionalization of SD and its quality assurance; and
(3) Research, practice, and policy concerning FD and SD.

As a result, we intend to clarify the present situation in regard to institutionalization of FD in Japan in an international context, performing analyses of both the problem and its perspectives.

Characteristics of the Japanese Academic Profession

It is clear that the institutionalization of FD identifies the Japanese academic profession as a target for research, by seeking to analyze it from various viewpoints. Study of FD needs to emphasize observation of the present situation, problems, and future directions in an attempt to reveal the structure and function of the academic profession from an international comparative perspective.

Results of the Carnegie International Survey of the Academic Profession According to the Carnegie Survey, which so far is the largest and the most important international study ever done on faculty, there are some significant traits perhaps unique to the Japanese academic profession.

(a) A strong "research orientation" is the most remarkable feature among the many other specific traits of the Japanese profession: ageing of academic staff; small proportion of female academics among faculty members; high psychological stress among academics; lifelong employment and the seniority system; a chair system rather than a department system; little mobility in the academic marketplace; and rejection of massification and universal access to higher education (Altbach, 1996; Arimoto & Ehara, 1996).

(b) Some of these findings have already been discussed in previous studies that have been undertaken of the academic profession. For example, Michiya Shinbori and other researchers have pointed to academic nepotism and inbreeding (Shinbori, 1960; Cummings, 1972; Arimoto, 1981). Atsunori Yamanoi has discussed the low mobility in the academic marketplace (Yamanoi, 1990). Considering these previous studies, the revelation of the extreme emphasis on research among Japanese academics by the Carnegie survey constitutes a kind of Achilles heel.

Accordingly, in connection to the institutionalization of FD in Japan, the most remarkable traits of the Japanese academic profession are, on the one hand a strong orientation to research and on the other hand, a weak orientation to teaching.

If we make a typology of the fourteen countries that participated in the Carnegie survey, their combinations of research and teaching orientation fall into the following three main types, characterized by these countries as listed:

(1) a German type, consisting of Germany, the Netherlands, Sweden, Israel, Japan, South Korea, which stress research orientation;

(2) an Anglo Saxon type, consisting of the UK, USA, Australia, Hong Kong which stress research and teaching equally; and

(3) a South American type, consisting of Chile, Mexico, Argentina, Russia, which stress teaching orientation.

Based on the data, Japan belongs to the German type, possessing a strong research orientation.

(b) In spite of a great deal of differentiation among Japanese higher education institutions, a sort of unifying phenomenon is perceivable throughout the overall system. There are as many as 720 institutions categorized as universities. Their diversity is seen whenever various criteria are applied:

(1) Sector (national, private, public);
(2) Type (research university, comprehensive university, professional university, liberal arts university, etc.);
(3) History and tradition (old university, new university, very new university);
(4) Resources (rich, less rich);
(5) Region (big city, middle city, local);
(6) Scale (large, medium, small); and
(7) Hierarchy (upper, middle, lower), etc.

In spite of the wide variety among institutions, we can recognize the phenomenon of a single culture of a strong research orientation and weak teaching orientation across them all. In other words, despite the diversification of universities and colleges in terms of sector and type, there is little role differentiation in this country. Actually, this notion coincidentally informs a recent proposal of the Central Council of Education (*Chuou Kyoiku Shingikai*) demanding greater role differentiation among institutions (Central Council of Education [CCE], 2005).

If we apply the Carnegie classification of institutions, research universities constitute approximately 5% in all institutions: this corresponds to approximately 35 research universities in Japan. Accordingly, it is reasonable to suppose that most of the other 95 % of institutions could be expected to conform to a strong teaching orientation rather than a strong research orientation.

Background of Causality Given these findings about the strong research orientation and weak teaching orientation, some consideration needs to be given to the causes: Why is a weak teaching orientation characteristic of the academic profession in all of the Japanese institutions regardless of their diversification by sector and type? We can tentatively identify some of the reasons why it has occurred systemically and institutionally.

First, one element of the system is specific to Japan. For more than a century after the Meiji Restoration until today, Japanese educators tried to catch up with those of the advanced countries in the West. When consideration was being given to ways of building a modern higher education system, much attention was paid to the strong models available for importation and from which a choice could be made. As a result, Japan imported consciously and consistently the German model prewar and the USA model postwar, although aspects of both French and UK models were also selected. The

conflicts implicit among these models, operating in the same system and in all institutions since their importation has become obvious.

Among the advanced models, the German model is committed to a research orientation in spite of its intention to integrate research and teaching based on the Humboltian principles. The UK model involved equal emphasis on research and teaching orientations. The USA model was influenced by the UK model at an early stage, when undergraduate teaching was developed with a focus on liberal arts education, and was also influenced at a later stage by the German model, when at the end of the 19th century, the graduate schools were established. The French model has had fewer effects than the German model, as Burton Clark has pointed out (Clark, 1995), with its universities which characteristically have a teaching orientation because research in France is mostly conducted outside universities in national institutes of research. In this context, Japan's concentration on a research orientation was in strong conformity with the German model, although in modern times all the models have been more or less influenced by the German model.

Second, and related to the previous factor, a driving force has worked toward formation of a particular Japanese identity of the educational system. This force is the establishment of a Japanese higher education and academic profession. In this process of identity formation, Japan sought to import a strong model from the advanced models existing around the world, picked by a process that Shigeru Nakayama called "window shopping" (Nakayama, 1978). It was successful in the sense that selective importation of the advanced models enabled the system to develop its own identity. To do this, the Japanese government selected the German model from the competing alternatives as the one best suited to the system's own identity.

Third, there is the culture and climate in which some factors have operated in the process of developing the educational system's identity: government initiatives and control; bureaucratic coordination rather than professional and market coordination; top-down reforms; greater stress in the national sector – and especially in the former imperial universities – than in the private sector; establishment of ranking and formation of a hierarchy of institutions by the government rather than by market mechanisms; with competition generated by academic drift among institutions.

Problems Based on the previous discussions, we can recognize some of the problems to be solved.

(a) Restructuring of the role of academic profession is a necessity for the Japanese academic profession. This restructuring will require:
(1) Reconsideration of the role of scholarship;
(2) Rethinking of the relationship between research and teaching; and
(3) Quality assurance of academic work.

Among these three requirements, reconsideration of the role of scholarship is thought to be the most important.

(b) Reconstruction of the role of the academic profession is necessary in order to cope with the shifts along the stages of higher education development, from elite, to massification, to unniversal. Today, higher education is shifting from the massification stage to the universal stage, according to the Martin Trow model (Trow, 1974).

(c) For Asian countries, many systems remain at the elite stage, moving gradually towards the massification stage. According to OECD data, many countries around the world still remain at an elite stage, though most countries plan to shift substantially from the elite to a massified stage early in the 21st Century (GUNI, 2005, p. 310).

In these countries, rethinking of teaching is urgently needed to cope with the increasing demands of massified and diversified students. In the statistics, there are differentiations in the trends of developmental stages among regions throughout the world.

Table 1. Universal, Mass and Elite System of Higher Education, by continent

	Universal	Mass	Elite
Africa	1	4	38
Asia	3	22	16
Europe	22	15	1
North America	4	8	4
Oceania	2	2	4
South America	1	8	0

Source: GUNI (2005). p. 310.

For example, Table 1 shows universal, mass and elite systems of higher education, by continent. There are quite large gaps among systems in terms of the extent of the universal stage. In Europe there are already 22 university systems among a total of 38 systems, or 57.9%, while in Asia it is 3 among 41, or 7.3%: the former represents a share eight times greater than the latter. There are still high proportions of elite systems in developing regions such as Africa (38/43, or 88.4%), Oceania (4/8, or 50.0%) and Asia (16/41, or 39.0%) (GUNI, 2005, p. 310).

Japan, for example, entered into a massification stage in the middle of 1960's, entering into universal stage in 2005. Compared with UK and China, it took much time to achieve massification and through this process it apparently encountered student diversification from the 1960's to today when 50% of the 18 year-old cohort is going to universities and colleges, and more than 70% is going to post-secondary education institutions. In accordance with this, student ability for learning and scholastic achievement have gradually declined, while greater teaching ability is necessarily required to respond to the worsening situation.

Japan is now plunging into the stage of universal access, in which student diversification has advanced further. To respond this trend, it is essential that academics enhance the quality of teaching.

Specifically, enhancement of the quality of teachers, the main actors of education, is required to sustain quality assurance of teaching at all levels of input, throughput, and output of university education. Enhancement of teaching quality is increasingly necessary in connection with the introduction of an "open door" policy, which will start in 2007 when enrollment capacity of 650,000 coincides with the same number of would-be students (CCE, 2005).

Institutionalization of FD in Japan in an International Perspective

Based on the previous discussions, it is clear that the Japanese academic profession is now confronted with the major problem of enhancing the quality of its teaching in relation to its existing research. To remedy this difficult situation, the actual need has become to institutionalize faculty development (FD). The extent of the need facing the Japanese academic profession is seen if we compare it with that in other countries.

Trends in the 1990s According to a survey conducted around 1990, the UK and USA were leading countries incorporating FD at that time, while institutional and faculty development in Japan were delayed. Development began to take off in Japan as a consequence of the University Council's two proposals in 1991 and 1998. Following these proposals, MEXT's issued ordinances so that government-led institutionalization was initiated step-by-step with administrative guidance focusing on a narrow meaning of FD, or on teaching orientation (University Council [UC], 1998).

In addition, Japanese-type institutionalization of the concept of FD imported from abroad has been characterized by (1) top-down introduction of FD on the initiative of the national government at the system level and of the president at the institutional level; and (2) introduction of a legal imperative to evaluate the institutionalization by third-party evaluation agencies (Arimoto & Yamamoto, 2003).

Table 2. Self-evaluation of FD practiced until today, by three Countries ***

Self-evaluation	Japan	China	USA	Total
Very good	4.6	18.3	14.5	9.3
Rather good	38.6	60.0	47.0	43.6
Yes and no	34.7	10.0	29.0	30.2
Rather bad	8.8	10.0	4.0	7.3
Very Bad	0.6	0.0	1.5	0.8
Not practiced yet	12.8	1.7	4.0	8.7
Total (N=100)	329	60	200	589

Source: Arimoto, Daizen, Huang, & Kimoto (2005).
Note: ***P<0.001

Trends in the 2000s An international comparative survey of presidents and vice-presidents at universities in Japan, USA, and China was conducted in 2003. The result of this survey shows that

institutionalization of FD was going slowly in Japan, where it remained at the first stage, compared to the other countries, and especially to the USA, which has already proceeded to the second stage.

For example, Table 2 shows the fact that response rate of “very good plus rather good” to “Self-evaluation of FD practiced until today” is 78.3% in China, 61.5% in USA, and 43.2% in Japan. From an international comparative perspective, the current situation is inadequate.

Reasons for Delayed Development There are some reasons why progress has been delayed. They include: systemic and institutional factors; cultural and climate related factors; importation of foreign model; and characteristics of the reward and evaluation systems.

Viewpoints on Quality Assurance and Institutionalization of FD

We can conclude from the previous observations that the problem which now confronts us is how to enhance the quality of the academic profession. There are a number of steps as shown in the following descriptions.

Problems of Quality Assurance Accompanying Research First, enhancement of the academic profession should start by defining it, and rethinking its ideals. In this regard, Light has pointed out that the academic profession was earlier formed by the institutionalization of research – and training researchers into academia, particularly in graduate schools, was the essential education for a professional career (Light, 1974). This means that a teacher who has not participated in research is not considered to belong to the real academic profession. Accordingly, in the history of higher education, it was first formed as a profession in the modern university where an integration of research and teaching became a goal to be achieved.

On this basis, the academic profession is required to pursue the role of research and teaching in connection with a knowledge function. In the modern university, a research paradigm was strongly formed to the extent that it has been prevailing in all higher education systems and institutions worldwide from the early 19th century until today.

Second, in order to enhance the quality of the academic profession, we should pay attention to quality assurance of all aspects of the production of knowledge.

(a) The production of knowledge consists of discovery, dissemination, application, and control of knowledge. Equivalent to each of these aspects are research, teaching, service, administration, and management (Clark, 1983; Arimoto, 1987).

(b) The quality of individual academic disciplines arises from their own culture. Many studies have shown quite clearly how disciplines and subject specializations separate academia. Studies such as those of Becher (1989), Biglan (1973a, 1973b), Kolb (1981), and Newman, *et al*. (2002, p. 406) group disciplines in categories identified as: hard pure, soft pure, hard applied and soft applied, each of which has its own epistemological characteristics.

(c) Academic and scientific socialization is undertaken within individual disciplines. As Becher has discussed, there are cultures proper to individual disciplines and academic tribes are responsible for these cultures (Becher, 1989).

(d) Academic careers are usually formed by progression through a life-long sequence of undergraduate and graduate training and education, recruitment, promotion, and retirement.

(e) The quality of academics is usually assured by various means such as examinations, referees and gate-keepers, assessment and evaluation programs, and a reward system throughout training, recruitment, promotion, and retirement.

Third, both research and teaching contribute to academic productivity separately and jointly as research productivity and teaching productivity. Research productivity is a prerequisite when we think about the function and role of teaching. Research has the following phases.

*A typology of scholars is formed with a combination of high (+) and low (–) in quantity and quality of academic productivity, according to Jonathan Cole and Stephen Cole (1973). As Table 3 shows, there are “prolific” (++: high quantity and high quality), “mass producers” (+–: high quantity and low quality), “perfectionists” (–＋: low quantity and high quality), and “silent” (low – –: quantity and low quality).

Table 3. Typology of Scholars (Cole & Cole)

Typology	Quantity	Quality
Prolific	+	+
Mass Producers	+	–
Perfectionists	–	+
Silent	–	–

Source: Cole & Cole (1973). pp. 91-93.

* Stratification of scholars has a typology of elite, elite candidate, marginal, and mass scholars (Zukerman, 1980; Crane, 1972).

* Center of learning, or Center of Excellence (COE), exists with making a pinnacle of high productive scholars and scientists. These facts are affirmed by the functioning of the ranking of scientists, systems, institutions, and organizations. Some Awards and Medals such as Nobel Prize, Fields, Luska, Elliot, etc. are typical cases of the establishment of positions of international academic stratification.

Recently some of the media and other organizations, including the London Times, U.S. News and & World Report, and Shanghai Zeotang University, have published rankings of institutions worldwide purporting to recognize a hierarchy of institutions. Though we may question the authority of these kinds of comparative surveys, they tend nevertheless to demonstrate academic drift which describes phenomena as the move from a comprehensive college to a full-scale university, not geographic

relocation. According to this kind of comparative study, the stratification and ranking of institutions by using indicators such as, Nobel Prizes, patents, scientific citations, publication of papers, etc. it is clear that the centers of research, centers of learning, or centers of excellence are apparently moving from one continent to another. These performance indicators show that the center of research activity has shifted from Europe (France, UK, Germany) to the USA over the period from the 17th to the 20th century (Ben-David, 1977; Shinbori, 1985; Arimoto, 1996).

Research networks function, manifestly and latently, through the mobility of some elite scientists and researchers. Diana Crane has called this kind of network among scientists an "invisible college" in which elite scientists function usually at the core of a stratified network (Crane, 1972; Zuckerman, 1980). In the stratification of educational and research systems, brain-drains and brain-gains are flowing between the center and the periphery (Altbach, 2002). This also shows the international dimension of academic drift occurring with upward and downward mobility of systems as well as institutions among advanced countries and developing countries, the North and the South (Arimoto, 2006).

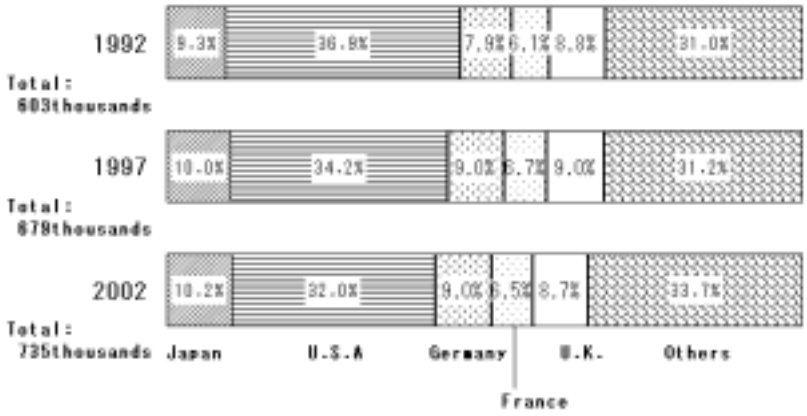
In this context, Japan has tried for more than a century since the Meiji Restoration to develop policies and practices in an attempt to catch up with advanced countries in academic productivity. As a result, research productivity has been gradually promoted to the extent that now it has successfully caught up with other centers of learning.

A recent survey shows that Japan is becoming closer to the USA, the current international center of excellence, although, as with the advanced European countries, such as Germany, UK, and France, there is still a substantial separation between them (Institute for Scientific Information, 2003). As shown in Figure 1 which compares indicators related to the number of published papers, Japan is competing with France, Germany and the UK though is still lagging far behind the USA. As shown in Figure 2 which compares the number of citations of papers among scientists worldwide, Japan's shares at 8.7 per cent of 259,000 papers in 2002, is one-fifth of that of the USA's 48.6 per cent.

These data clearly testify to the USA's dominance in scientific and academic productivity in the international scientific community. The question of how to bridge this gap became one of the issues to be confronted by Japanese higher education policy and reform. Based on the objective of bridging the gap, the First Science and Technology Basic Plan (1996-2000) and the Second Plan (2001-2005) were formulated. The Second Plan, March 2001, listed in its proposals: "(1) training of researchers and engineers and university reform, and (2) training and security of engineers." In order to resolve the present difficult situation, great expectations for research development, including training of researchers and engineers, is stressed.

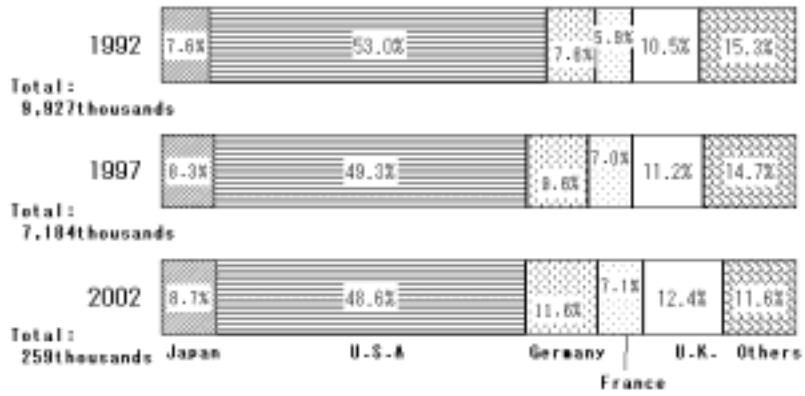
In order to proceed in this direction, the national government has recently been involved in intensive formulation of a series of policies: (1) the reinforcement of graduate schools; (2) establishment of the 21st Century Centers of Excellence (COE) Program for Research, 2002; and (3) introduction of the Good Practice (GP) Program for Education, 2003, so as to construct institutions

Figure 1. Selected Countries' Shares of Published Papers (percentage)



Source: Institute for Scientific Information-National Science Indicators, 1981-2002.

Figure 2. Selected Countries' Shares of Citations (percentage)



Source: Institute for Scientific Information-National Science Indicators, 1981-2002.
Note: This figure summarizes the total number of citations for the year 2002 by year of publication, and the share according to selected countries.

that can rank as centers of excellence; (4) creation of the national universities as corporate institutions (2004); (5) establishing the National University Corporation Evaluation Committee for assessment of the new national university corporations' achievements (2004); and (6) allocation of resources among them on the basis of its assessment. From here on, pressure to continue in this direction will be intensified.

Among these new plans, greater emphasis is put on the intent to raise research productivity rather than teaching productivity with the exception of (1) and (3). Indeed, while the need to improve research productivity has been stressed, teaching productivity has been neglected for many years. Accordingly, teaching productivity should be improved as urgently as possible.

Problems of Quality Assurance of Teaching First, we have to pay attention to the renewal of

scholarship at the normative level. In the midst of the prevailing research paradigm, the emphasis on teaching is necessarily directed to the rethinking of scholarship. In the modern university from the 19th to the 20th century, scholarship was almost monopolized by the research paradigm. A reconsideration of the relationship between research and teaching had to be made sooner or later. In fact, Earnest Boyer proposed this in "Scholarship Reconsidered" identifying a concept of the scholarship of teaching.

> "We acknowledge that these four – the scholarship of discovery, of integration, of application and of teaching – divide intellectual functions that are tied inseparably to each other. Still there is value, we believe, in analyzing the various kinds of academic work, while also acknowledging that they dynamically interact, formatting an independent whole" (Boyer, 1990, p. 25).

According to his idea, scholarship consisted not merely of research but of research integration, application, and teaching. Among these components, teaching is to be situated at the top of a pyramid with the function of integrating and synthesizing other components.

> "Boyer suggests that the scholarship of teaching has integrity of its own, but is deeply embedded in the other three forms. The particular characteristics are first, its synoptic capacity, the ability to draw the strands of a field together in a way that provides both coherence and meaning. Second, pedagogical content knowledge, the capacity to represent a subject in ways that transcend the split between intellectual substance and teaching process. Third, what we know about learning, scholarly enquiry into how students 'make meaning' out of what teachers say and do" (Nicholls, 2005, p. 60).

However, a consensus of the scholarship of teaching among academics has not been established thus far, at least in the UK, as Gill Nicholls pointed out in her recent book on the basis of interviews with academics in various disciplines.

> "The chapter has focused on academics' perceptions and conceptions of scholarship, the scholarship of teaching, and the relationship these terms had to their work. Even though the academics interviewed were explicit in their understandings and conceptualization of the term 'scholarship', they were very unsure as to the meaning of the term 'scholarship of teaching' or 'scholarship in teaching'" (Nicholls, 2005, p. 70).

The lack of consensus among academics is not only recognizable in the UK, which is considered to be one of the most advanced countries in terms of the institutionalization of FD, but also recognizable in Japan as we observe the institutionalization.

But perhaps the problem lies deeper. There can be no doubt that the separation of research and teaching has progressed consciously. Disciplines in the fields of the natural sciences tend to be committed to a research orientation, while their counterparts in the fields of humanities and social sciences to a considerable degree adopt a teaching orientation. There appears to be a fundamental difference between the natural sciences and the humanities and social sciences with regard to the concept of scholarship. This in itself suggests a phenomenon of divided academics.

Second, we need to compare the concept of scholarship in the West and in Japan. Does the concept of scholarship differ in countries throughout the world, and especially in the West and Japan? The West has a long tradition of a concept of scholarship from ancient Greece: Japan has no such tradition.

(a) The tradition of a teaching orientation was formed in western universities from the middle ages to modern times. Integration of teaching with research was sought with the growth of the research orientation only in modern times. However, the prevalence of the research paradigm has now brought about conflicts between the research and teaching orientations. Today, separation of research and teaching and the consequent conflicts are institutionalized. As a result a reconstruction of scholarship has not necessarily been realized. Even so, there is no doubt that a tradition of a teaching orientation does actually persist even today.

(b) On the other hand, Japanese universities have lacked a teaching orientation both in the more distant past and in modern times. At the time of Meiji Restoration, when Japanese universities were established, a scholarship of research was imported from Europe and the research orientation of the pre-war imperial universities was formed. After the war, an American higher education system was imported but nevertheless the research orientation established in the imperial universities has persisted to the present as a symptom of the lack of nexus between the postwar universities and the professional schools that were their prewar precursors.

To this extent, in addition to the lack of teaching orientation and introduction of the research paradigm, Japanese universities have no recollection or past experience with a teaching orientation as is found in the West (Arimoto, 2005a, pp. 212-213). Consequently, today, it is reduced to groping about in the dark in its attempts to establish a teaching orientation.

Improvement of the Reward System and the Evaluation System Merely rethinking of scholarship at the level of an ideal, even with the establishment of a new normative structure, is unlikely to realize the institutionalization of FD. It has to be deeply internalized in professors' consciousness and to be evident in their behavior if the results are to be seen and be evaluated as actual achievements. Conversely, the normative structure of the system has to be checked by evaluation if it is to realize institutionalization. In the system adapted to a research orientation, to

conform faculty members' behavior requires not only consciousness but also the characteristics of a research orientation. The kind of behavior that merits reward and approval is really important.

(a) The reward and evaluation systems are mutually related. The trend of the old reward system, conforming to the research orientation has been linked to the evaluation system just as the institutions have adopted the research orientation.
(b) Transformation of this situation is necessary if an integrated system of research and teaching is to be established on the basis of a reconstruction of scholarship. Specifically it implies construction of an effective evaluation system linked to self-evaluation, mutual evaluation, and third-party evaluation.
(c) Institutionalization of the third-party evaluation system started in 2004 and has introduced a compulsory accreditation system for all institutions regardless of their sector: national, public, or private. This is an epoch-making experiment.

Does the result of the newly introduced third-party evaluation bring about the second stage of FD's institutionalization, which will effectively enhance the quality of the academic profession? Does it improve the quality of academic work and especially enhance the quality of teaching? Probably the answer to these questions will not become evident for at least seven years when it is scheduled that the first cycle of the new accreditation of all institutions will have been completed.

Problems of Institutionalization of FD Based on the above discussions, there are various problems regarding the institutionalization of FD in Japanese universities and colleges.

(a) In the first stage FD is focused on a narrow meaning of FD; in the second stage the process is expected to cover a broader vision that includes research, service, and management in addition to the initial stress on teaching. As far as a normative structure is concerned, it is expected to realize integration of research and teaching with the aim of achieving a nexus of research, teaching, and learning (Clark, 1995; Nicholls, 2005; Arimoto, 2005, 2006).
(b) As was pointed out previously, the stage of institutionalization today in Japan is still at the initial stage. This has been already demonstrated by a recent national survey of presidents of universities and colleges. The survey showed that most universities and colleges are now engaged in establishing committees related to FD and have started to conduct series of workshops (Arimoto, 2005a, pp. 200-201).

   According to a separate international survey of university presidents and vice presidents (Arimoto, 2006), it is also true to say that at present the situation in Japan has not developed so much in comparison with that in the USA or China.

   Accordingly, a shift from the first to the second stage in the institutinalzation of FD has yet to be achieved. In the second stage a series of procedures are expected to be undertaken:

reconsideration of scholarship; internalization of scholarship into academics' consciousness and behavior; and assessment of the outcome by an evaluative process.

(c) To realize such a normative structure with a core of scholarship of teaching, a control is necessary to guide teachers' consciousness and behavior by maintaining a reward system as well as an evaluation system in accordance with the desired normative structure.

Concluding Remarks

This paper has considered a range of topics related to the institutionalization of FD. These include (1) The relationship between the COE program and institutionalization of FD, (2) The characteristics of the Japanese academic profession, and (3) the institutionalization of FD in Japan in comparison with that in other countries.

Discussion of these sub-themes yields a number of conclusions.

(1) The mission, role, consciousness, and behavior of the academic profession are extremely significant as the core of the key human resources responsible for development of the higher education system as well as the institutions of higher education. Their integration sheds light on the institutionalization of FD, making clear the relevant present situation and problems.

(2) The Carnegie International Comparative Survey of the academic profession and some domestic studies as well have already established to some extent the characteristics of Japanese academic profession. As a result, our studies have made clear that there is an inclination toward a too strong research orientation and, on the other hand, a too weak teaching orientation in academics in Japan. This is identified as a problem which needs urgent improvement. Recently, it has become clear that such improvement has yet to be sufficiently undertaken, even though a successful start has been made. There is a considerable degree of institutionalization of FD at the first stage.

(3) The institutionalization of FD has reached a stage of "stability," which is identified as the first stage in the survey conducted of university presidents throughout the country.
According to an international comparative study of university presidents and vice presidents in the USA, China, and Japan, the stage of institutionalization in Japan falls behind those in the two other countries.

(4) Enhancement of the academic profession's quality is indispensable in order to make a breakthrough in the present situation. In particular, integration of research and teaching – and even more important, establishing a nexus of research, teaching, and learning – is necessary. This can be done through reconsideration and re-integration of scholarship, which at present is still separated into the individual components of research, teaching, andlearning.

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The Japanese Academic Marketplace and Academic Productivity

Atsunori Yamanoi*

Introduction

The purpose of this paper is to explain some of the processes of Japanese university reforms since the Second World War. In particular, I should like to clarify the relationship between reform of the research universities and the academic marketplace in Japan. By increasing mobility in the marketplace, it has been thought possible to improve research productivity. This relationship between mobility and the academic marketplace will be examined in the paper.

The Formation and Development of the Academic Marketplace in Japan

Academic Marketplace before the Second World War

Foreign Professors and Overseas Students: Establishment of Tokyo Imperial University

The first modern Japanese university was established by the Meiji Central Government in 1878 (Meiji era 10). According to the leader of the Meiji Government, modernization of Japan meant westernization by importing key aspects of western civilization. So, when the first Japanese university was established, many foreign professors were recruited by the Tokyo Imperial University, as shown in Table 1. They had accepted salaries as high as those of ministers in the Meiji Government. In 1978, half of all the faculty[1] members were foreign. For instance, the Medical School at Tokyo Imperial University hired a German professor as the first professor; as a consequence, until quite recently, the method and style of Japanese medical education followed the German model.

The first Japanese university depended almost entirely on foreign professors Japanese faculties had rapidly increased in number, however, as the imperial universities grew. Before the Second World War, a total of seven imperial universities had been established; and as shown in Table 1, by 1939, the number of university faculty had reached 1,400 with the ratio of foreign professors gradually decreasing to 1.6 percent.

The Formation and Development of Japanese Faculty Careers In Meiji 26 (1894), a "chair" system was introduced by the Tokyo Imperial University. A "chair", attached to each academic discipline accommodated a professor, an associate or an assistant professor, and a research associate. By 1897 (Meiji 26) Tokyo Imperial University had hired 130 Japanese faculty, of whom

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[1] To avoid transatlantic ambiguity, when the word "faculty" refers to members of academic staff it will be given a small "f"; when it refers to an academic organizational unit it will be written as a capital "F."

100 had studied overseas either in Europe or in the USA (Amano, 1977); among them were 49 faculty, that is 36.7 percent, who had graduated from Tokyo Imperial University.

Table 1. Foreign Teachers at the Pre-War Imperial Universities

Year	Japanese Professors	Japanese Associate Professors	Foreign Teachers	Total	Percent Foreign Teachers
1877 (Meiji 10)	11	17	28	56	50.0
1883 (M 16)	26	37	13	76	17.1
1895 (M 28)	79	35	16	130	12.3
1902 (M 35)	202	98	20	320	6.3
1908 (M 41)	364	136	21	521	4.0
1918 (Taishou 7)	419	176	23	618	3.7
1926 (Shouwa 1)	644	392	35	1,071	3.3
1931 (S 6)	705	464	29	1,198	2.5
1935 (S 10)	736	512	26	1,274	2.0
1939 (S 14)	792	585	23	1,400	1.6

Source: “Annual Report of Ministry of Education”

Another six imperial universities were established prior to the Second World War, namely Kyoto Imperial University, 1898 (Meiji 30); Tohoku, 1907, Kyushu, 1910, Hokkaido, 1918 in the Taisho era; and Osaka, 1931 and Nagoya, 1939 in the Showa era. Other eminent universities were also established, including Tokyo Institute of Technology (1929), Hitotsubashi University (1920), Tokyo University of Liberal Arts and Science (1929) and Hiroshima University of Liberal Arts and Science (1929). Almost all of the Imperial universities gradually hired Japanese faculty who had graduated from Tokyo Imperial University and had studied overseas. Career formation of faculty had been gradually developed by the universities accompanying the structuring of their internal organization, including personnel affairs (Shinbori, 1965).

Over one or two generations, each university had established a pattern of mobility through appointment of research associates, who had been given tenure at an early age, with promotion to associate professors and professors within the institutions. At the same time, the faculty had gradually become inbred in each of the Imperial universities, except Nagoya Imperial University which had not been established until 1939 (Yamanoi, 1990).

Academic Marketplace after the Second World War

Features of the Japanese Academic Marketplace The characteristics of the Japanese academic marketplace until the 1980s were as follows (Shimbori, 1965; 1984; Cummings, 1972; Yamanoi, 1990, Altbach, 1996; Arimoto & Ehara, 1996; Yamanoi, Urata, & Fujimura, 2005):

1. An oligopoly of the University of Tokyo;
2. Inbreeding in the research universities;
3. A segmented marketplace based on a grouping of research universities along with some colonized universities;
4. Tenure from initial appointment at an early age and a “chimney-type” chair system; and
5. Employment of only a small minority of women and foreign professors.

Consequently, mobility in the Japanese academic market was not very high and it featured neither selection nor evaluation. It was said that, among advanced countries, Japanese academic productivity might well be low. The Council of Central Education and the University Council recommended many kinds of university reform.

Structural Reform of the Research Universities The Ministry of Education, Culture, Sports, Science and Technology (MEXT) has been implementing structural reform since the 1990s. These reforms have included the following policies concerning research universities (Yamanoi, Urata, & Fujimura *et al.*, 2005).

1. Establishment of graduate schools for research education (1992);
2. Introduction of a non-tenure system (1997);
3. Adoption by the Association of National Universities of an Action Plan to increase the proportion of women to 20 percent in each national institution by 2010 (2000);
4. Implementation of a policy of marketization with the “21st Century COE (Center of Excellence) Research Program” (2002);
5. Establishment of professional schools (*e.g.* in Law) (2003);
6. Incorporation of national universities as independent institutions and elimination of civil servant status of faculty (2004);
7. Introduction of a third-party evaluation system (2004); and
8. Improvement of internal organization and titles of academic ranks along with reform of the chair system (2005).

Trends in the Academic Marketplace after the Second World War

Trends of the Total Academic Marketplace over Sixty Years From the view point of the policies of MEXT for the Japanese universities it is possible to divide the sixty years since the Second World War into four stages of development, each of fifteen years. The first stage, from 1945 to 1960, can be regarded as the time when the new system of higher education was established. Each higher education institution had been reorganized into the new university system under the leadership of the USA. They transformed the older German–type university and polytechnic system into one

based on the American university system, which consists of four-year undergraduate and of post-graduate education.

The second stage, during the following 15 years from 1961 to 1975, can be seen as the period of rapidly developing universities against a background of a rapidly developing Japanese economy. At that time, many private four-year and two-year colleges were established. The combined enrollment rate for two-year and four-year colleges was over 15 percent and the number of faculty in the private sector increased to more than that of the public sector for the first time since the Second World War.

The third stage, from 1976 to 1990, was a period characterized by a MEXT's policy of retrenchment. In this period, the policy of retrenchment did not provide for a continuation of the growth of enrollment even though the number of faculty continued to increase gradually.

The fourth stage covers the period from 1991 to 2005. In the first half of the period, the number of students and the enrollment ratio rose rapidly again as a result of the pressures created by the second baby boom. But in the latter half of this stage, higher education policies in virtually all advanced countries have reverted to policies of retrenchment. This has been particularly true in Japan where it has been accompanied by the structural reforms already identified.

The accompanying trends in the Japanese academic marketplace over the sixty years after the Second World War Second are shown in Table 2. Some of its key features are listed below (Yamanoi *et al.*, 2005):

1. The first trend is the decrease in the percentage of University of Tokyo graduates in the academic marketplace. In the 1950s they accounted for almost 30 percent of the total market; subsequently their share has gradually decreased and by 2001 it was only 11.4 percent.
2. This trend was also accompanied by wider participation by graduates of other universities in the academic market. In the 1950s, a group of only three universities accounted for more than 50 percent of the total market; by 2001 it required ten universities to achieve an equivalent market share.
3. The top of the share of market is University of Tokyo. And University of Tokyo was followed by Kyoto University. The third trend is the re-internationalization of the academic market. In 1950s, the number of professors who had earned their final degrees overseas (including foreign professors) represented only 0.6 percent of the total. By 2001, it had risen rapidly to 6.9% and constituted the third largest group. Over the sixty years following the Second World War, the proportion increased of all faculty who had graduated from the University of Osaka, Nagoya University, TIT (Tokyo Institute of Technology), Kobe University, and Keio University. Conversely, faculty from Tohoku University, Kyushu University, Hiroshima University, Tokyo Fine Arts University and Hitotsubashi University constituted smaller proportions both in number and in academic rank.

Table 2. The Institutional Share of the Japanese Academic Market after Second World War

	1953		1961		1981		2001	
	College	Share	College	Share	College	Share	College	Share
1	U.Tokyo	3,841 (29.1)	U.Tokyo	7,935 (24.8)	U.Tokyo	11,250 (15.4)	U.Tokyo	12,596 (11.4)
2	Kyoto U.	1,938 (14.7)	Kyoto U.	4,267 (13.4)	Kyoto U.	6,809 (9.3)	Kyoto U.	8,378 (7.6)
3	Kyoikudai	1,039 (7.9)	Tohoku U.	1,744 (5.5)	Tohoku U.	3,476 (4.8)	Gaikoku	7,604 (6.9)
4	Tohoku U.	900 (6.8)	Kyoikudai	1,612 (5.0)	Tsukuba U.	3,363 (4.6)	Tsukuba U.	4,559 (4.1)
5	Kyushu U.	694 (5.7)	Kyushu U.	1,467 (4.6)	Kyushu U.	3,256 (4.5)	Osaka U.	4,485 (4.1)
6	Hiroshima U.	599 (4.5)	Hokkaido U.	1,131 (3.5)	Osaka U.	2,710 (3.7)	Tohoku U.	4,446 (4.0)
7	Hokkaido U.	570 (4.3)	Waseda U.	965 (3.0)	Waseda U.	2,539 (3.5)	Kyushu U.	4,210 (3.8)
8	Geidai	366 (2.8)	Hiroshima U.	937 (2.9)	Hokkaido U.	2,473 (3.4)	Waseda U.	3,840 (3.5)
9	Osaka U.	302 (2.3)	Osaka U.	849 (2.9)	Gaikoku	2,056 (2.8)	Hokkaido U.	3,364 (3.1)
10	TIT	191 (1.4)	Gaikoku	716 (2.7)	Hiroshima U.	1,915 (2.6)	Nagoya U.	3,297 (3.0)
11	Hitotsubashi	164 (1.2)	Geidai	691 (2.1)	Nagoya U.	1,852 (2.5)	Keio U.	2,791 (2.5)
12	Nagoya U.	160 (1.2)	Keio U.	680 (2.1)	Keio U.	1,585 (2.2)	Hiroshima U.	2,619 (2.4)
13	Gaidai	91 (0.7)	Hitotsubashi	512 (1.6)	Nihon U.	1,530 (2.1)	TIT	2,034 (1.8)
14	Nittai U.	87 (0.7)	Nihon U.	477 (1.5)	Geidai	1,334 (1.8)	Nihon U.	1,960 (1.8)
15	Chiba U.	83 (0.6)	Nagoya U.	452 (1.4)	TIT	1,141 (1.6)	Koube U.	1,621 (1.5)
16	Gaikoku	76 (0.6)	TIT	436 (1.4)	Koube U.	783 (1.1)	Geidai	1,442 (1.3)

Notes: In 1953, the values of only national university marketplace.
Kyouikudai: the former Tsukuba U. Geidai:Tokyo Fine Arts U.
Gaidai: Foreign U. to be earned as final degrees or PH.Ds
TIT: Tokyo Institute of Technology

Trends of the Research Universities' Marketplace

Inbreeding means the share of alma mater graduates to all staff. Inbreeding is the practice by universities of hring their own students. One of the main issues in the current academic marketplace is still the extent of inbreeding which suggests the rates of alma meter graduates. However, over the sixty years since the Second World War, inbreeding in the appointments in each of the some research institution has been decreasing (Table 3) (Yamanoi *et al*., 2005).

Table 3. Institutional Inbreeding of Research Universities **(Percent)**

College	1954	1963	1974	1984	1994	2003
U. Tokyo	98.0	96.7	94.3	89.5	83.6	78.0
Kyoto U.	86.6	87.5	86.8	84.1	80.1	72.3
Waseda U.	83.1	79.2	82.3	82.9	72.3	71.1
Keio U.	75.3	69.7	81.2	78.7	70.1	63.8
Hokkaido U.	55.1	63.7	64.9	62.4	59.1	51.0
Tohoku U.	52.4	56.9	55.6	59.0	62.5	55.6
Nagoya U.	21.6	22.0	29.7	44.6	53.8	44.4
Osaka U.	42.0	42.9	57.2	60.2	61.4	59.6
Kyushu U.	52.8	60.4	64.1	65.6	62.9	55.8
Tsukuba U.	46.6	46.5	54.8	29.5	40.2	40.7
TIT	30.7	42.3	48.3	52.9	58.9	56.1
Hitotsubashi U.	58.0	58.8	47.4	50.3	43.4	32.1
Hiroshima U.	36.8	40.7	37.9	43.1	39.4	38.9

The following results can be seen:

1. The big four universities, University of Tokyo, Kyoto University, Keio University and Waseda University, which form the top class of national and private sectors in Japan, had maintained high inbreeding rates over the 80 years before the Second World War. But consistently their inbreeding rates have been decreasing for the sixty years following World War II.
2. In contrast, inbreeding in the second group of former imperial universities, which had been established after the University of Tokyo and Kyoto University, *i.e.* Hokkaido, Tohoku, Nagoya, Osaka, and Kyushu University, increased until the 1980s or 1990s; after that their inbreeding decreased beginning in the 1990s or 2000s under the influence of structural reforms.
3. TIT, Hitotsubashi, Tsukuba, and Hiroshima Universities, which before World War II had histories of professional schools or liberal arts and science colleges have shown varied trends in their inbreeding.

Internalization of the Marketplace in Research Universities As noted above, the extent of inbreeding at each institution changed differently and competitively. After the structural reforms of higher education, inbreeding in the research universities went down rapidly. But how much have the internal markets of research universities opened for other universities?

Table 4. The Academic Marketplace of Research Universities in 2003

Ranks	Graduate University		Share (%)	Alma Mater	Other Research Universities	Share (%)
1	U.Tokyo	3,033	24.3	1,391	1,642	39.7
2	Kyoto U.	1,738	13.9	980	758	18.3
3	Osaka U.	1,065	8.5	733	332	8.0
4	Kyushu U.	959	7.7	813	146	3.5
5	Tohoku U.	915	7.3	652	263	6.4
6	Waseda U.	798	6.4	684	114	2.8
7	Hokkaido U.	797	6.4	644	153	3.7
8	Keio U.	789	6.3	690	99	2.4
9	Nagoya U.	661	5.3	457	204	4.9
10	Tsukuba U.	556	4.5	458	98	2.4
11	TIT	515	4.1	313	202	4.9
12	Hiroshima U.	479	3.8	417	62	1.5
13	Hitotsubashi U.	155	1.2	91	64	1.5
Total		12,460	100.0	8,323	4,137	100.0

Note: alma mater of faculty appointed to 13 research universities (above lecturers)

The total number of faculty in 2003 who graduated from the 13 main research universities and held appointments with them was 12,460. Within this total, those who had graduated from the University of Tokyo numbered 3,033 (24.3 percent). In the external marketplace of the 12 research universities, except University of Tokyo itself, the proportion is almost 40 percent. Together, the University of Tokyo and Kyoto University accounted for over 50 percent of the external marketplace for the other research universities. This strongly suggests that the Japanese research universities market was not open but substantially closed to graduates of the other research universities.

Appointments of Graduates with Overseas Doctorates At present, more than 80 percent of the faculty, on average, hold earned doctoral degrees. Until the 1980s, there were very few faculty at research universities who had earned their doctoral degrees overseas. They numbered less than 5 percent within each research institution. After the structural reforms of universities, which emphasized internationalization, they have risen to over 5 percent, however, as shown in Table 5. The change is especially marked in Hitotsubashi University, which is focused on the fields of social sciences. Here, the effects of internationalization over the last several decades have now yielded a proportion of those with overseas doctorates of almost 20 percent. Its inbreeding ratio has also declined through internationalization. This could be seen as the way forward for the Japanese academic marketplace in the 21st century.

Table 5. Faculty with Overseas PhD Degrees **(Percent)**

Colleges	1954	1963	1974	1984	1994	2003
Hokkaido U.	0	0	0.7	1.3	2.7	5.8
Tohoku U.	0	0	0.6	1.4	2.9	7.1
U.Tokyo	0.1	0.1	1.2	2.8	6.8	6.9
Tsukuba U.	0	0	1.7	5.5	7.5	8.9
TIT	1.4	1.0	2.1	4.4	2.8	4.3
Hitotsubashi U.	2.5	2.6	1.5	6.9	15.6	19.0
Nagoya U.	0	0.6	0.6	1.3	3.3	4.6
Kyoto U.	0	0.4	2.2	3.2	6.0	5.7
Osaka U.	0	0.2	0.8	2.7	3.8	2.9
Hiroshima U.	0	0.2	0.4	2.6	4.8	4.8
Kyushu U.	0	0.2	1.2	1.1	3.3	4.1
Waseda U.	0.5	1.7	0.7	1.5	5.4	6.6
Keio U.	0.9	0.2	0.3	1.1	5.3	8.8

The Countries and Colleges where Overseas PhD Degrees were Earned Tables 6 shows the countries and colleges overseas where doctoral degrees were earned. It is apparent that the USA functions as the center of overseas learning for Japan. The share occupied by North America is over

70 percent with European countries contributing about one quarter; universities in the English language region provide 83 percent of the total.

Table 6. The Countries where Faculty Earned Their Doctoral Degrees

Region	Countries	Number	Percent of Total	Number	Percent of Total	Percent of Overseas
Japan		13,842	94.3	13,842	94.3	
North America	USA	578	3.9	597	4.0	70.7
	Canada	19	0.1			
Europe	UK	81	0.6	197	1.3	23.3
	France	48	0.3			
	Germany	44	0.3			
	Other	24	0.2			
Asia	Chinese	10	0.1	26	0.2	3.1
	Korea	8	0.05			
	Others	8	0.05			
Oceania	Australia	15	0.1	15	0.1	1.8
other		9	0.1	9	0.1	0.1
Total		14,684	100.0	100.0	100.0	844 (100.0)

On the other hand, Table 7 shows the order of ranking of overseas colleges where faculty earned their PhD degrees. Similar tendencies are shown. Future Japanese faculty have been earning PhD degrees at colleges in the USA (78 percent), the UK (14 percent), thus predominantly in colleges in English language countries (92 percent), and France (8 percent). It is evident that the English language regions and their colleges have had the greatest effects on Japanese higher education and faculty.

Table 7. Colleges where Faculty Earned Their Overseas Doctoral Degrees

Rank	Colleges	Faculty
1	U. CALIFORNIA	47
2	HARVARD U.	33
3	STANFORD U. and U. PARIS	32
5	U. MICHIGAN	25
6	U.LONDON	21
7	ILLINOIS U., ＭＩＴ and CORNELL U.	20
10	U. ROCHESTER	19
11	YALE U. and WISCONSIN U.	16
14	OXFORD U., COLUMBIA U., NORTHWESTERN U. and HAWAII U.	13

Source: The auther analized the data from *the Faculties Directory in Japan, 2003*

Foreign Teachers Tables 8 through 10 show the trends of foreign professors in the Japanese academic marketplace by university sector, academic rank, and countries of origin. The following

features emerge.

1. Internationalization of the Japanese market has risen dramatically in each sector and each rank through the 1990s when the structural reforms were instituted.
2. Unlike the regions and countries where Japanese faculty had earned their PhDs, the regions and countries where foreign professors come from are concentrated in the Asian area, notably in China and Korea. It is a reasonable guess that Chinese professors may be a majority of the foreign faculty.

Table 8. Trends in the Number of Foreign Professors, by University Sector, 1986 to 2001

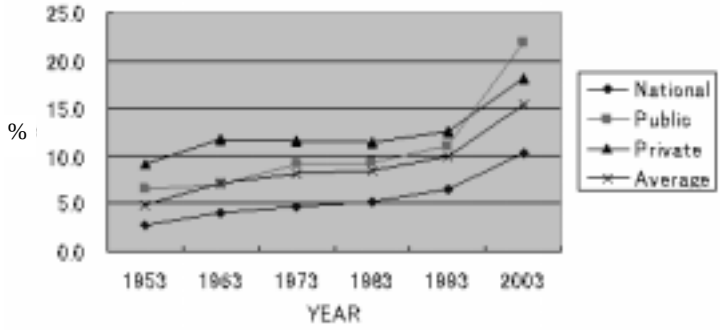
Foreign Professors	1986	1989	1992	1995	1998	2001
National	351	453	644	1,095	1,344	1,231
	0.7	0.8	1.2	1.9	2.2	2.2
Public	40	38	67	228	274	328
	0.7	0.6	0.9	2.8	2.9	3.1
Private	949	1,291	1,662	2,216	2,607	3,051
	1.7	2.1	2.4	3.0	3.4	3.8
Total	1,340	1,782	2,373	3,539	4,227	4,610
Average (%)	1.2	1.5	1.8	2.5	2.9	3.0

Table 9. Trends in the Number of Foreign Professors by Academic Rank, 1986 to 2001

Foreign Professors	1986	1989	1992	1995	1998	2001
Professors	367	459	579	773	974	1,172
	0.9	1.1	1.2	1.5	1.7	2.0%
Associate Professors	225	337	520	879	1,219	1,332
	0.8	1.2	1.7	2.8	3.6	3.8%
Lecturers	665	752	875	1,181	1,318	1,414
	4.5	4.7	5.2	6.8	7.2	7.5%
Research Associates	208	231	395	701	713	685
	0.6	0.7	1.1	1.9	1.9	1.8%
Total	1,340	1,782	2,373	3,539	4,227	4610
Average (%)	1.2	1.5	1.8	2.5	2.9	3.0%

Trends in the Number of Women Professors In 1999, the Basic Law for Gender-Equal Society was enacted by the State and in 2000 the Association of National Universities had adopted an Action Plan to increase the proportion of women to 20 percent in each national institutions by 2010. As in shown Figure 1, the share of women has increased dramatically to 15.3 percent as a result of these policies over the last decade. The goal of the Action Plan has already been accomplished in the public sector and it will possible to accomplish the goal in the private sector by 2010. It may be impossible to accomplish the goal earlier than originally scheduled at research universities. The Association has now recommended a follow-on Action Plan to accomplish an even higher goal of over 30 percent women by 2020 (Yamanoi, 2006).

Figure 1. The Proportion of Women, by Sector, 1953 to 2003



Japanese Research Universities, Academic Productivity and World Ranking

Table 10. Foreign Professors by Region and Country of Origin (2003)

Region	Countries	Professors	Associate Professors	Lecturers	Total
Asia	Korea	31	85	37	153
	China	26	195	25	246
	Others	8	21	3	32
North America	USA	36	54	20	110
	Canada	1	11	4	16
Europe	U.K.	9	25	5	39
	Germany	5	27	2	34
	France	1	11	0	12
	Russia	3	7	0	10
	Others	5	18	3	26
Oceania	Australia	7	11	1	19
Others		3	9	8	20
Total		135	474	108	717

Articles Published in the Principal Journals and Citations by Country From the above analyses, it is evident that structural reform of Japanese research universities has promoted the mobility of faculty in many areas of the academic marketplace during the 1990s and 2000s (Yamanoi & Kuzuki, 2004; Yamanoi, 2004). Major market-oriented policies have been implemented giving a priority to developing graduate schools for research education, the introduction of a non-tenure system, establishment of professional schools, incorporation of the national universities and removal of civil service constraints from faculty, the introduction of third party evaluation, and improvement of internal organization by changing the chair system and retitling academic ranks have all been instituted over the last two decades. At the same time, inbreeding in all the research universities has declined rapidly since the 1990s, faculty mobility among the universities has risen during the 2000s, internationalization of the Japanese academic marketplace has been strongly promoted by increases in earnings of overseas PhDs and increasing recruitment since the 1990s of foreign professors by

Japanese universities. As a result, research universities in Japan are now competing with other research universities in the global education and research markets.

Impact on Productivity It is possible that these structural reforms in the research universities and the increased mobility in the Japanese academic marketplace may have stimulated motivation to raise research and academic productivity. This hypothesis may be examined by studying research output.

Figures 3 and 4 show the number of articles in the principal world journals and citations by country. The number of Japanese articles in the principal journals in the world was ranked fourth after the USA, the UK, and Germany in 1985. Over the past two decades Japan has risen to second, following the USA: it has held second position, above the UK since 1989. Moreover, Japan's rate of increase in the number of publications is also second only to that of the USA. Citations of articles in the principal journals have remained in fourth place since 1989, however; it is apparent that few Japanese articles had high rates of citations.

Figure 5 shows similar data to Figures 3 and 4 but expressed in terms of global contribution. The USA has dominated contributions to the academic community in the past, but over the last two decades, the percentages of contributions from the USA and Canada have been steadily decreasing. In contrast, those from European countries have been rapidly increasing both in the number of articles and citations.

Figure 2. Institutional Mobility of Academic Staff, by Sector

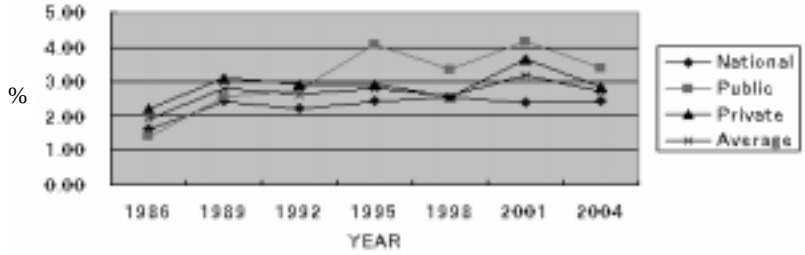
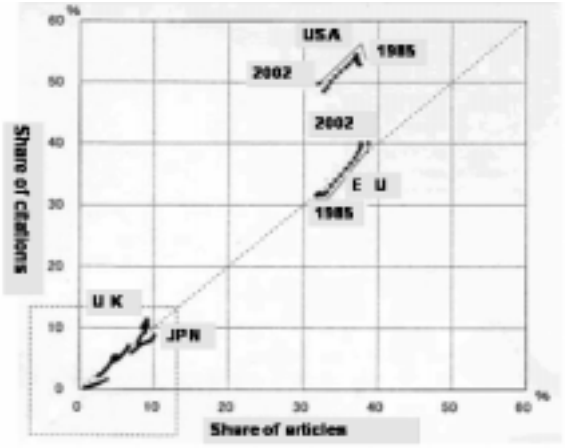
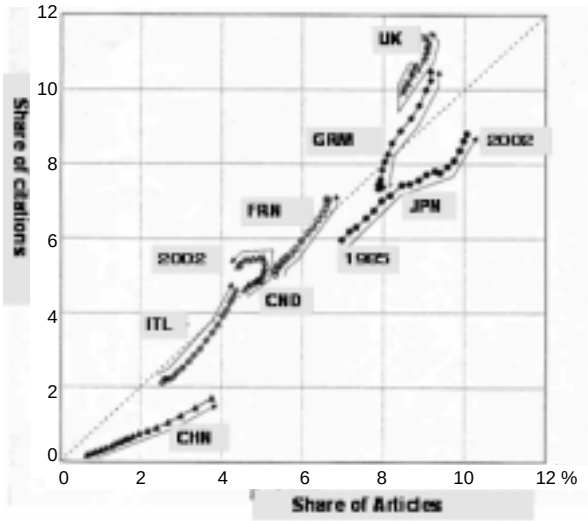


Figure 3. Trends in Academic Productivity by Country



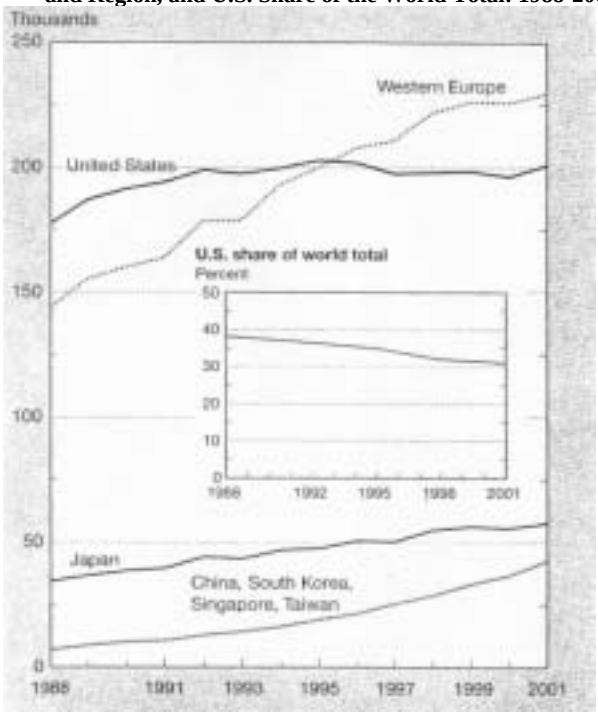
Source: MEXT (2004). Science Indicators

Figure 4. Trends in Academic Productivity, by Country



Source: MEXT (2004). Science Indicators
Note: The Figure 5 was enlarged the part of Figure 4

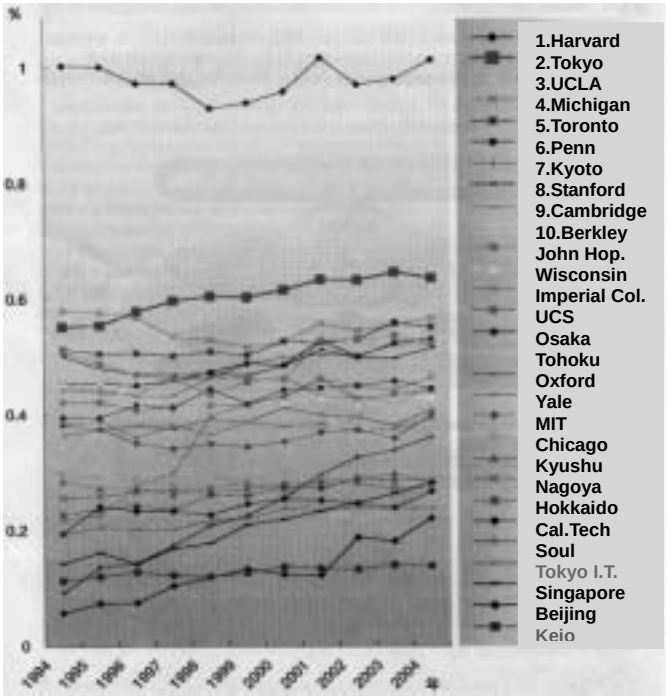
Figure 5. Science and Engineering Articles, by Selected Country and Region, and U.S. Share of the World Total: 1988-2001



Sources: Institute for Scientific Information, Science Citation Index and Social Sciences Citation Index; CHI Research, Inc.; and National Science Foundation, Division of Science Resources Statistics, special tabulations.

Research Universities Ranking of the Number of Articles on Main Journals Figure 6 shows the individual institutional shares of the number of articles in the principal journals in the natural sciences. In this regard also, the ranking of Japanese research universities has been rising. For instance, the University of Tokyo had been located at third or fourth position in the world around 1995, but over the past decade it has risen to second position. Kyoto University is seventh, within the best 10; and other research universities including Osaka, Tohoku, Kyushu, Nagoya, Hokkaido, TIT, and Keio Universities are now placed in the top 30 and are consistently rising in the worldwide rankings.

Figure 6. Institutions' Share of Articles in Main Journals



Source: The Japan Association for National Universities

Conclusion

From these analyses, we can recognize that Japanese higher education has steadily improved as a result of the structural reforms. Japanese social changes, structural reforms and improvement of personnel policies have increased mobility in the academic marketplace and the scientific community even though the mobility of faculties among research universities has not been very high. Moreover, the effects also seem to be readily evident in increases in academic productivity. In the 21st century, the Japanese academic marketplace will become more mobile in step with the growth of the global knowledge-based society. Internationalization of higher education will be promoted in virtually all dimensions by globalization. Universities will be opened to society beyond the ivory tower by the IT revolution. Ultimately, the higher education system will itself become global and, as a consequence be changed dramatically in the new era.

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Changing Academic Profession: Context and Rationale

The Changing Academic Profession: The Driving Forces [1]

John Brennan[*]

This paper attempts to set the context for a new international study of the academic profession. It outlines the kinds of questions that may be asked of the academic profession at the present time and the kinds of driving forces which may affect the answers.

Contexts

Higher education has in recent years undergone significant changes in most parts of the world. It has expanded, it has become increasingly differentiated and it has become subjected to ever rising external expectations and controls (Teichler, 1996; Meek, Goedegebuure, Kivinen, & Rinne, 1996; Marginson & Rhodes, 2002). Public financing has often not kept pace with the rate of expansion and higher education institutions have faced an increasing challenge to both do more with less and to become more entrepreneurial in their fundraising (Slaughter & Leslie, 1997). These changes have brought about changes in the governance and management of higher education institutions, in their internal structures and in their relationships with other parts of society (Enders, 2006; Enders & Teichler, 1997; Kogan, Bauer, Bleiklie, & Henkel, 2000). In many national systems, a private sector has become more prominent and even publicly funded institutions in some countries are increasingly regulated by and dependent on market forces.

Alongside these institutional changes have come changes in the backgrounds, specialisations, expectations and work roles of academic staff (Fulton, 1996; Altbach, 2000). In many countries the academic profession is ageing, increasingly insecure, more accountable, more internationalised and less likely to be organised along disciplinary lines. It is expected to be more professional in teaching, more productive in research, and more entrepreneurial in everything. It has to balance local and national, as well as international, needs and requirements. In many places, the very definition of an academic has become ambiguous as have the boundaries between academic jobs and the jobs of other professionals, both within and beyond the walls of the academy. New divisions of labour within the profession suggest fragmentation and question the centrality of the teaching-research nexus, regarded by many as lying at the heart of the traditional academic role (Brew, 2006; Rip, 2004). They also bring pressure for the development of new technical and professional skills, both among the profession

[1] This paper is based on an international project, *The shifting boundaries of the academic profession,* undertaken during 2006 and 2007. The author acknowledges the contributions to the ideas presented here of the other members of the international project team and especially the contributions to the project's conceptualisation by Akira Arimoto, William Cummings, Jurgen Enders and Lynn Meek.

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as a whole and for new specialists within the profession (for example, academics working in distance education or workplace learning). Some of these changes have raised questions about the attractiveness of an academic career for today's graduates (Harman, 2003).

With expansion of higher education has come increasing differentiation – of institutions, of programmes and of professional roles and statuses. Higher education faces increasing expectations from society, and an evolution of academic work that may take academics away from their original disciplines towards new forms of identity and loyalty (Henkel, 2001). At the same time, knowledge has come to be identified as the most vital resource of contemporary economies and societies, and many nations have taken great strides to improve their capacity for knowledge creation and application. However, knowledge 'work' pervades many of the institutions of modern societies and suggests new relationships and weaker boundaries between higher education and other economic and social institutions (Gibbons, Limoges, Nowotny, Schwartzman, Scott, & Trow, 1994; Nowotny, Scott, & Gibbons, 2001). This new devotion to knowledge has both expanded the role of the academy and challenged the coherence and viability of the traditional academic role.

Three new emphases have become particularly pervasive: relevance, internationalisation and management.

Relevance Whereas the highest goal of the traditional academy was to create fundamental knowledge, what has been described as the 'scholarship of discovery', the new emphasis of the knowledge society is on useful knowledge or the 'scholarship of application' (Boyer, Altbach, & Whitelaw, 1994). This scholarship often involves the pooling and melding of insights from several disciplines and tends to focus on outcomes that have a direct impact on everyday life. One consequence is that many future scholars, though trained in the disciplines, will work in applied fields and may have options of employment in these fields outside of the academy. This provides new opportunities for more 'boundaryless' forms of academic career and knowledge transfer while it may also create recruitment difficulties in some places, especially in fields such as science, technology and engineering where career opportunities outside the academy may be especially attractive. And for some, it sees a change in status of the academic from 'autonomous professional' to 'knowledge worker' (Newson, 1993). Within the 'relevant academy', it is generally left to others – the 'clients' or the 'users' of academic work – to define the central goal of relevance. This removes – or at least severely limits – one of the defining features of the academic profession, its autonomy over goals (Clark, 1983; Becher, 1989; Becher & Trowler, 2001).

There are strong interdependencies between the goals of higher education, the rules for distributing resources, and the nature of academic work. The changes associated with movement from the 'traditional academy' with its stress on basic research and disciplinary teaching to the 'relevant academy' are largely uncharted and are likely to have unanticipated consequences. There is a need to understand how these changes influence academic value systems and work practices and affect the

nature and locus of control and power in academe. There is a need to investigate how these tensions work out in higher education institutions of different types and in countries with different economic, political and cultural traditions and contemporary circumstances.

Internationalisation National (and local and regional) traditions and socio-economic circumstances continue to play an important role in shaping academic life and they have a major impact on the attractiveness of jobs in the profession. Yet today's global trends, with their emphasis on knowledge production and information flow, play an increasingly important part in the push towards the internationalisation of higher education (Marginson & Rhodes, 2002). The international mobility of students and staff has grown, new technologies connect scholarly communities around the world, curricula and credentials are required to have international currency, and English has become the new lingua franca of the international community. Competition between higher education institutions extends beyond the borders of the nation state. In particular, the research elite of institutions sees its rivals and reference groups in institutions across continents. Many institutions face the challenge of balancing the international with the local, the regional and the national.

The economic and political power of a country, its size and geographic location, its dominant culture, the perceived and actual quality of its higher education system, and the language it uses for academic discourse and publications are factors that bring with them different approaches to internationalisation (Amaral, Meek, & Larsen, 2003; Enders & Teichler, 1997). Local and regional differences in approach are also to be found. Questions are therefore raised about the functions of international networks, the implications of differential access to them, and the role of new communication technologies in internationalising the profession. Do such trends further constrain or rather liberate the members of the academic profession? Do they result in greater homogeneity or greater differentiation?

Management In academic teaching and research, where professional values are traditionally firmly woven into the very fabric of knowledge production and dissemination, attempts to introduce change are sometimes received with scepticism and opposition. Universities tend to be regarded as rather conservative institutions to which change, if it comes at all, comes slowly and painfully (Cohen & March, 1974; Trow, 1994). At the same time, a greater professionalisation of management within higher education is increasingly regarded as necessary to enable higher education institutions to respond effectively to – or even to survive within – a rapidly changing external environment. The control and management of academic work helps define the nature of academic roles – including the division of labour within the academy, with a growth of newly professionalised 'support' roles and, as we have noted, a possible breakdown of the traditional teaching/research nexus. New systemic and institutional processes such as quality assurance have been introduced which also change traditional distributions of power and values within academe and may be a force for change in academic practice

(Brennan & Shah, 2000). There is much rhetoric about 'managerialism' and control in today's higher education but also a need to distinguish the rhetoric from the realities of academics' responses to such managerial practices.

The tensions found in respect of the management of change in higher education are to be found both within and beyond the walls of individual institutions. Within them, they may challenge traditional hierarchies and notions of professorial authority (Enders, 2001). They may see the emergence of a professional cadre of full-time managers and a shifting of levels of decision-making between individual academics, basic academic units, faculties, and central authorities. The direction of the shift seems always to be upwards! Beyond the walls of institutions, the expectations of ministries, of new intermediary bodies and of resource-bearing clients bring further pressures for change.

A number of views can be discerned about recent attempts at the management of change in higher education and the responses of academics to such changes. One view would see a victory of managerial values over professional ones with academics losing control over both the overall goals of their work practices and of their technical tasks. Another view would see the survival of traditional academic values against the managerial approach. This does not imply that academic roles fail to change, but that change does not automatically mean that interests and values are weakened. 'Compliance' may be sufficient to satisfy the requirements of managers and consumers while academic work proceeds largely unaffected. A third view would see a 'marriage' between traditional professionalism and new managerialism with academics losing some control over the goals and social purposes of their work but retaining considerable autonomy over their practical and technical tasks. The desirability or otherwise of these three different positions is also subject to a range of different views.

A Research Agenda

Academics are often not too good at investigating themselves. Yet at times of radical change or even transformation, questions abound – for individual academics, their immediate institutional colleagues and the larger professional community of scholars, both national and international. Questions concern whether and how to respond to change, concern individual and institutional futures, and ultimately concern whether to engage, retreat or exit from academic life. Nostalgia for times past is common though sometimes revealing of faulty memory! Values and self-interests can easily get in the way of clear and objective vision and may replace evidence and analysis as the basis for decision-making.

It is, therefore, perhaps timely to see the commencement of a new international research project on the 'shifting boundaries of the changing academic profession.' The new project attempts to examine the nature and extent of the changes experienced by the academic profession in recent years, drawing in part on comparisons of current developments with those documented in the First International

Survey of the Academic Profession conducted in 1991 (Boyer *et al*., 1994; Altbach & Lewis, 1996). It explores both the reasons for and the consequences of these changes. It considers the implications of the changes for the attractiveness of the academic profession as a career and for the ability of the academic community to contribute to the further development of knowledge societies and the attainment of national goals. It is making comparisons on these matters between different national higher education systems, institutional types, disciplines, and generations of academics.

The project is attempting to address six research questions.

(i) To what extent is the nature of academic work changing?
(ii) What are the external and internal drivers of these changes?
(iii) To what extent do changes differ between countries and types of higher education institution?
(iv) How do the academic professions respond to changes in their external and internal environment?
(v) What are the consequences for the attractiveness of an academic career?
(vi) What are the consequences for the capacity of academics to contribute to the further development of knowledge societies and the attainment of national goals?

A Model of Change in the Academic Profession

The project is utilising a six stage model for the investigation of change in the academic profession. These represent drivers, conditions, beliefs, roles and practices, outputs, and outcomes.

First, the *drivers* of change. In a broad sense, these are principally the structures and ideologies of the knowledge society, leading to commodification, competition, internationalisation, expansion and differentiation, in other words to the kinds of contextual factors discussed above. These are the factors that have fuelled expansion and encouraged diversification and differentiation of higher education institutions.

Second, the *conditions* under which changes occur. These include factors such as infrastructures, salaries, institutional diversity, terms of employment, and hierarchies (old and new). They include resource issues including multiple funding sources, emphasis on cost-recovery and the financial contribution of academic units to growing institutional overheads and bureaucracies.

Third, there are the *beliefs* of academics, stable or changing, confident or threatened. There are the identities, loyalties, motivations (intrinsic and instrumental), career aspirations, individual and collective orientations which drive individual academics and shape their relationships and behaviour.

Fourth, there are the *roles and practices* of academic life. These include the teaching/research nexus, the place of public service, the division of labour involving the 'unbundling' of traditional roles and the creation of new specialist roles, the need for new specialist skills, and the creation of a cadre of management professionals.

Fifth, there are the *outputs*/ arising from/ these changes. These may be regarded negatively, for example, the loss of academic solidarity, declining prestige and conditions of work. They can also be regarded more positively, or at least neutrally, for example in terms of an undermining of traditional and constraining hierarchies, a shift from internal to external controls, a shift from individual to collective work, greater productivity, a blurring of boundaries (both within higher education institutions and between them and other organisations/institutions in society). Whether such changes are regarded as positive or negative depends on one's vantage point but also on an analysis of the impact of these changes, of their social, economic, and cultural consequence.

Sixth, and finally, there are the *outcomes* of change for the academy itself. Will we find – at the end of the research – a more responsive, socially useful academy ***or*** an undermined academy ***or*** a more differentiated academy? We may, of course, find different things in different places.

Conclusion

Of course, the six stages referred to above are interconnected. Methodological challenges will include the attempts to unravel these interconnections. They will also concern the extent to which the 'perceptions' of academics on these matters constitute 'hard evidence' or simply the perceptions of self-interested participants. It will also be interesting to compare the emerging picture of changes in the academic profession with what is known about changes in professional and working life more generally.

One interesting feature of the survey will be to show how the perceptions of individual academics differ according to the mobility of the academics concerned, including international mobility. At one extreme of a continuum lie those academics who have spent their working lives in a single university, perhaps even the university where they received their undergraduate and graduate education. At another extreme lie those who have moved on every few years and experienced working life in many institutions and, indeed, in many countries. In some fields, periods of academic life may be interspersed with periods of professional life and employment outside the academic world. Some academics simultaneously hold employment inside and outside the university, representing the 'portfolio careers' that are forecast for others within the knowledge society. Underlying these differences lie questions of academics' knowledge and understanding of their own working lives and the conditions and of the forces that influence them.

The perceptions of academics reflect, of course, the real circumstances of their working lives and institutions. But these in turn reflect the specifics of institutional and national histories and traditions. For all the rhetoric about the effects of globalisation, it is at least possible that the new international study of *the* academic profession will in fact discover *many* academic professions, each reflecting local circumstances and histories. Some of them may be 'successfully' resisting change. Others may be 'enthusiastically' embracing it. Or again, differences may cut across national boundaries and reflect such things as the type of institution, the subject area or the age and seniority of the individual

academic. The new study may prove to have several stories rather than a single story to tell.

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Changing Academic Profession: Country Reports

The Higher Education System in the United Kingdom

Rajani Naidoo* and John Brennan

Introduction

This chapter provides an introduction to higher education (HE) in the United Kingdom (UK). It describes the various components of the system and summarizes some of the main policy trends in the sector.

It should be pointed out that after 1992, as a consequence of pressures for devolution in Scotland, Wales, and Northern Ireland, separate HE policies were developed. For example, three separate funding councils for HE were established for Wales, Scotland and England. Since 1997 a series of constitutional changes through the devolution of power from Westminster to new legislatures and executives in Scotland, Wales and Northern Ireland has occurred. Scottish universities now fall under the Scottish government.

This summary focuses mainly on the HE system in England, Wales and Northern Ireland. The education system in Scotland is somewhat different and is therefore not covered here in detail.

The Origins and Legal Status of HE Institutions

The institutions which make up the current HE sector have diverse backgrounds and traditions and can be divided into two broad groups of universities, namely the 'pre-1992' universities and the 'post – 1992' universities, and a heterogeneous set of other colleges. The pre-1992 universities include the medieval universities of Oxford and Cambridge, the University of London which is federal, the member institutions of the University of Wales, the 'civic' universities founded in the late 19th and early 20th centuries, the former university colleges which awarded degrees of the University of London, the group of universities established in the 1960s, and the Colleges of Advanced Technology which achieved university status following the Robbins Report of 1963.

Most of the post-1992 universities are former polytechnics which until 1988 (or 1992 in Wales) were part of, and funded by, local education authorities and awarded degrees validated by the Council for National Academic Awards. The Further and HE Act (1992) removed the binary system and enabled these institutions to award degrees and to acquire the title of university. While the two sets of universities in general terms retain differences in student research profile and mission, it is also increasingly recognized that the two groups each contain a range of diverse institutions. This diversity

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is reflected to some extent by universities with similar missions and perceived status coming together in special interest groups such as the Russel Group, the 1994 Group, and the Campaigning for Mainstream Universities Group.

While the focus of this chapter is on universities, it is important to be aware of the college sector which constitutes approximately 15 percent of student numbers in tertiary education and which plays an important role in widening participation and developing links with local employers. These include some prestigious specialist colleges (for example, of music or agriculture), colleges which combine study at HE with lower levels of education (so-called 'mixed-economy' colleges) and colleges offering a broadly based HE curriculum though generally lacking a developed research function. Several of the latter group have recently acquired university status and titles following legislative change which removed some research-related criteria from the requirements necessary for the award of a university title.

In relation to legal status, institutions are legally independent corporate institutions with charitable status and accountable to Government through a governing body which carries ultimate responsibility for all aspects of the institution. Most of the pre-1992 universities were established by a royal charter granted through the Privy Council, with an associated set of statutes. A very small number of pre-1992 universities were established by a specific Act of Parliament. Further exceptions include the Universities of Oxford and Cambridge which have neither an Act of Parliament nor a charter, but do have a body of statutes, and the London School of Economics which is a company limited by guarantee.

All HE institutions are required to have robust governance mechanisms, although there are considerable differences in terms of detailed arrangements. The executive governing body of pre-1992 universities is called the Council. The Senate is charged by the Council with responsibility for regulating and directing the academic work of the university. In post-1992 universities the nomenclature generally differs although the division of responsibilities remains roughly the same. A principle of governing bodies is that a majority of the members must be external and independent of the university.

Most institutions have a Chancellor or similar titular head who represents the university at ceremonial occasions. The management structure is typically composed of a Vice-Chancellor or Principal (sometimes now also called a Chief Executive) with a second tier of Pro Vice-Chancellors and/or a Deputy Vice-Chancellor. With regards to their internal structure, institutions are generally organised around faculties or schools which bring together related disciplines. These are often headed by a Dean who frequently has budgetary responsibility and other institution-wide responsibilities.

While academic representation on governing bodies is an important principle, there are indications of conflicts and shifts in power between academics and mangers and growing tensions between governance through university committees and governance through senior managers.

The State-HE Relationship

HE institutions are state-funded but have a long tradition of autonomy which, although modified and arguably reduced in recent decades, remains considerable by international standards in crucial areas of university functioning. While there have been attempts by government to influence HE institutions, there has been no direct state control of the curriculum, student selection, staff appointments, or research.

Instead, state steering of HE has occurred largely through regulation and the encouragement of market forces. Rather than pulling in different directions, the relationship between the two modes of co-ordination have worked in different ways. State intervention has at times acted to compensate for market forces while at other times state and market forces have acted in concert to achieve certain goals. For example, state intervention has been deployed to help create the conditions for a quasi market while market mechanisms have contributed to the attainment of political objectives. Salter and Tapper (1994) have described the English system as a three-level system. Key goals are set out at the first level by government and through legislation. At the second level, mechanisms are developed to attain these goals and this is carried out largely by the funding councils. At the third level, the universities have autonomy to decide how to respond to the policy imperatives originating from the first and second levels. The policy process is, therefore, largely top-down although there is consultation from the upper to the lower levels and lobbying from the bottom up. Other commentators (Neave, 2005; King, 2006) have pointed out that compared to the rest of Europe, English HE has been bombarded by a diverse and increasing number of government initiatives which have led to regulatory oscillation and policy contradiction.

Current Policy Context and Goals of the HE System

The New Labour Government's approach to policy initiatives in HE can be understood as emblematic of Britain's 'Third Way' political programme, which has been described as a political enterprise which moves beyond the traditional fault lines of 'old left' and 'new right' (see Giddens, 1998; 2000). What is distinctive about the 'Third way' approach is its dual nature. On the one hand, a 'marketisation' approach to HE through fiscal restraint, with a reduction in the size of the public sector, and the creation of market relations between and across various components of HE has been developed (Naidoo, 2000). On the other hand, Government initiatives including regulation have also been applied to temper the most corrosive effects of market forces and to encourage a more equitable distribution of study opportunities.

Reflecting trends worldwide, many of the Government's pronouncements on HE are couched in the recognition that the rise of the 'knowledge' society in the context of globalization has positioned HE as crucial for the generation and dissemination of economically productive knowledge, innovation, and technology (Naidoo, 2003). The perceived relationship between investment in HE and national economic advantage has been deployed as the rationale for increased state scrutiny and intervention.

Key pressures for change, therefore, include the expectation that HE contributes more directly to enhancing Britain's position in the global economy through closer links with business and a focus on employability, through revenue-generating research, and the development of British HE as a global commodity. The Lambert Review was established by the Chancellor of the Exchequer in 2002 to review the long-term links between business and HE. Recommendations included a new funding stream for business-relevant research and the establishment of a business-led Research and Development Employers Forum (see http://www.hm treasury.gov.uk/ consultations_and_legislation/ lambert/consult_lambert_index.cfm).

HE has also been invested with a social justice dimension and is expected to contribute to social equity and mobility through widening and expanding access and creating links with communities. The National Committee of Inquiry into HE set up in 1996 under the Chairmanship of Sir Ron Dearing (NCIHE, 1997) and a series of Government responses all included a focus on widening participation.

A number of policy levers including additional funding and the publication of performance indicators have been introduced to encourage institutions to widen participation. In 2001 the Labour Government publicized its goal of attaining a 50 percent participation rate by 2010. The Higher Education Act (2004) and related developments exemplify the articulation of state regulation and market forces to achieve the government's social justice aims within the context of a market-responsive system. Universities have been allowed to vary fees between £1 200 and £3 000. The regulatory dimension is reflected in that the Office of Fair Access has been set up to approve and monitor institutions' access arrangements. Institutions can decide upon the level of the fee for programmes but the access agreement must demonstrate a commitment to widening participation and must include plans for bursaries and financial support. The Director of Fair Access will be able to refuse to renew an access agreement where it is not being met and in some circumstances will have the power to impose a financial penalty.

There have also been pressures for greater accountability. This has been achieved through increased regulation as well as market mechanisms such as the reconceptualisation of the student as a 'consumer' of HE. A number of consumerist levers to enhance student choice and control over the education process have been introduced or strengthened over the last ten years. Examples include the requirement that universities publish detailed information on academic programmes so that students can be assured at the outset of their studies of what they are to receive on completion of their work, and the publication of student satisfaction surveys and performance indicators evaluating institutional functioning. In addition, complaint and redress mechanisms have been institutionalized (Naidoo & Jamieson, 2005). Such mechanisms are expected to apply pressure on universities to become more responsive to external demands.

Finally, there is a concern to maintain and enhance the position of British research in relation to competitor nations and to maintain the reputation for high standards in teaching and assessment.

In the following sections we will outline the frameworks for funding and quality assurance.

HE Funding

In 2000, public expenditure in the UK represented 0.7 percent of the Gross Domestic Product. This was below the OECD mean and placed the country in 26th place on the OECD list, a position not merely below Scandinavian and many other European countries but also below such countries as Mexico, Slovakia, and Turkey. In addition, over the period from 1989 to 2003, unit costs per full-time student have fallen from around £7,600 to £5000 (Leadership Foundation, 2005).

Most universities derive their income from a number of sources with the bulk of their funding coming from the central government. In England, the Higher Education Funding Council for England (HEFCE) distributes funds made available by the Government. Similar bodies exist in Scotland and Wales. The funding councils provide each institution with an annual block recurrent grant for teaching and research, which institutions may distribute internally at their own discretion. The funding councils also provide funding for special strategic initiatives and some limited funding for capital schemes. Other principal sources of income are research grants and contracts from the UK Research Councils, charities and industry; tuition fees including full-cost overseas student fees, and income from services offered by universities (HEFCE, 2004b). More recently, a third stream of funding has been introduced to encourage universities to enhance their interaction with business, industry, and the public services and in so doing contribute to economic growth and competitiveness. This has included a contribution to the geographic region in which the institution is located.

The Funding of Teaching

The funding councils have an annual funding agreement with each institution, which sets out the student numbers that institutions are required to deliver in return for funds for teaching. When institutions fail to recruit their contract student numbers, a proportion of the funding is held back.

All academic subjects are allocated to one of four price groups, and a standard price for full-time students is calculated for each group. A series of funding premiums is applied to recognise that different institutions have different costs, such as the premium for part-time students. Other premiums relate to universities and colleges with historic buildings, and premiums for small and specialist institutions providing high-cost courses in, for example, music, dance, and art and design (HEFCE, 2004b).

Additional allocations are made for widening participation and supporting disabled students. For example in 2004-05, HEFCE allocated £273 million for this purpose.

Funding for Research

As shown in the Table below, funding for research is gained through the funding and research councils, as well as through contracts from industrial and commercial firms and grants from charities and the EU. This section will deal mainly with government funding.

Table 1. Income from Research Grants and Contracts (£ thousands) (Total UK institutions) 2004/05

OST Research Councils	926,294	(32.1 percent)
UK Based Charities	700,052	(24.3 percent)
UK Government, Health and Hospital Authorities	565,861	(19.6 percent)
UK Industry, Commerce and Public Co-operations	243,405	(8.4 percent)
EU Government Bodies	202,262	(7.0 percent)
EU other	3,4251	(1.2 percent)
Other Overseas Sources	151,251	(5.2 percent)
Other Sources	60,524	(2.1 percent)
TOTAL	**2,883,900**	

Source: Table G – Resources of HE institutions, 2004/2005, HESA

The allocation of research funding by the Government, based on their rationale for the distribution of funds, aims to support the research infrastructure, and secure the goal of selective research funding, as well as act as a quality assurance mechanism. Government funding for research in universities is distributed via the 'dual support system' under which funds to support academic staff salaries and the infrastructure for research in universities are distributed by the funding councils, while government funds to support specific research programmes or projects are channeled through the research councils (HEFCE, 2004b).

Research quality is assessed periodically in a Research Assessment Exercise (RAE). The bulk of funding for research is allocated as quality related (QR) grants which relate directly to the quality of work submitted to the most recent RAE, and only departments rated at a certain level or above receive QR funding. The last RAE took place in 2001 and the next will be completed in 2008. Institutions may submit research in any subject area to be assessed through peer review by panels of experts. Assessment is based largely on the quality of cited published research outputs. Other indicators used in the last RAE included the numbers of postgraduate research students, funded research studentships, external research income, and statements of research plans.

The Government has resisted calls to create an even more selective and competitive model by ending the dual support system and transferring all resources to the research councils. This would compel universities to compete for all their research funding. The argument has been that excellence is widely distributed and consequently a highly selective funding of a limited number of universities would destroy many centres of research. However, the operation of the funding system for research currently in place still results in the vast majority of research funds going to a small number of universities (Tapper *et al.*, 2004).

A new development from 2006-07 is that the Research Councils will be required to calculate their grants based on a proportion of the full economic costs of research projects, initially set at 80 percent. A further major change proposed is the Government's suggestion that an RAE in its present form will not be conducted after 2008. The Government has proposed that the basis for QR allocation, at least in the 'hard' sciences, should be performance against a 'metrics' system. The understanding is that these will based on quantitative measures such as number of citations, research council and other income, and research students. However, at the time of writing, final decisions are still awaited.

Other Areas and Sources of Funding

Other important areas of funding include capital investment in research facilities funded by the Science Research Investment Fund with resources from the funding councils and the Office of Science and Technology, and the Teacher Training Agency which provides funding for teacher training.

Institutions are increasingly providing other services to external bodies, often on a commercial basis. The scope of such services is wide-ranging, from advice on business development to the testing of products and goods, the exploitation of intellectual property, contract research, and the letting of university accommodation. The HEFCE HE Reach-Out to Business and the Community Programme and the HE Innovation Fund are designed to help HE institutions develop an infrastructure for working with businesses and the wider community. This is supported by the HE Active Community Fund to encourage closer working with local communities.

Other sources of income include endowments, donations, sponsorship of academic posts, fee income from overseas students and short courses, and income from vacation letting and conference facilities.

Quality Assessment

The Government operates through the funding councils in dealing with quality matters. The agencies are charged with distributing funds for teaching and research to universities and are required by the Government to assure themselves of the quality of the work they are funding. In both teaching and research quality assurance operates through a combination of state accountability, market mechanisms, and the incorporation of university staff in what the government terms ‘peer review’. However, as Salter and Tapper (2000) indicate, this peer review is bureaucratically organised and occurs within a context determined by the research and funding councils in which assessors accommodate themselves to the bureaucratic procedures established by the State.

The previous section on research funding discussed the link between the research assessment exercise and research quality. This section will focus on teaching quality. The funding councils subcontract this role to another agency, the Quality Assurance Agency (QAA). This agency is independent of government and funded by subscriptions from institutions of HE in the UK. The QAA has developed a huge regime of codes of practice which universities have to comply with (QAA, 2004c).

The judgments are made by ‘auditors’ who are drawn from the ranks of senior academics working in the UK HE system. They make their judgments against a series of criteria established by the agency, and on the basis of analysing documents supplied by the institution. They also obtain information during a week-long visit to the institution when they interview a cross section of staff and students. Their report, which is placed in the public domain, contains one of three judgements about the quality and standards of its programmes: ‘broad confidence’, ‘limited confidence’ or ‘no confidence.’ Over 95 percent of all UK HE institutions obtain a ‘broad confidence’ judgment.

There have been a number of trends in teaching quality assurance in the last ten years. First, there has been a move to claim that academic quality is an institutional responsibility. Second, there has been a move away from focusing on the departmental level towards making judgments at the institutional level (and away from sitting in on classes to make direct judgments about the quality of teaching). In essence, QAA auditors check whether QAA codes are being carried out. Third, there has been a move away from making judgements that result in numerical grades that can be placed in league tables. Finally, there has been a developing view from the Government that HE is a quasi market, and this means that students in their role as consumers need information about the quality of the HE 'product.' So part of the quality assessment process has led to more information about teaching performance being placed in the public domain, including indicators of student entry qualifications, drop-out rates, staff-student ratios, spending on libraries and IT, and the comments of external examiners. Most recently there has also been the introduction of a national student survey about learning and teaching for all final year HE students. The model is clear: educated consumers will opt for higher quality 'products', good universities will prosper, and the weak will not. There is, however, little evidence as yet that this model works.

The Size and Shape of the HE System

In this section, we will describe the size and shape of the HE system. HE is provided by different types of institutions at different levels and in different institutional settings. All qualifications awarded fall within the Framework for HE Qualifications (see below). This, together with the qualification descriptors and the quality assurance procedures monitored by the Quality Assurance Agency for HE, provide some fixed reference points for the HE sector and the public.

A breakdown of the numbers and types of institution by country is given below.

Table 2. Higher Education Institutions in the UK (2004)

	Universities	**HE Colleges**
England	89	43
Northern Ireland	2	2
Scotland	14	6
Wales	10	4
Total	**115**	**55**

Source: HE in the UK, HEFCE (2004a).

In addition, some HE courses are also available at further education colleges (FECs), although such provision needs the approval/validation of another institution (*e.g.* a university, in the case of degrees). In 2001/2002 there were 412 FECs in England, many of them providing HE courses and receiving funding from the HEFCE (HEFCE, 2003).

The two distinct sectors in a formal sense are the higher and further education sectors which constitute different levels of education and separate funding arrangements. Prior to 1992, the UK had a binary system of HE. One part of the system consisted of the autonomous universities which were, legally, private independent bodies, with degree awarding powers that engaged in both teaching and

fundamental research. The other part of the sysem consisted of the 'public sector' of vocationally oriented polytechnics. Since 1992, the system has been, at least formally, a unified one. HE institutions generally engage in teaching, research, and a wide range of other activities, although in varying measures. Most universities offer close to the full subject and qualifications range and cover the entire spectrum of disciplines. Medicine, however, is concentrated in a smaller number of elite institutions and there are specialist colleges in areas such as art and design, agriculture, and music.

There is not a separate vocational HE sector as such and functional differentiation has not been enforced by the State. There is, however, considerable diversity in the sector in relation to student and research profile, income, and reputation. The system is characterized by a relatively small elite of internationally recognised research-intensive universities. There are signs that the system is becoming increasingly hierarchical and diversified with growing attention given to prestige measures and rankings of various sorts. Government policy in recent years has been to create a market-driven (though regulated) diversity across HE, replacing the formalized separation of distinct sectors (polytechnics and universities) still to be found in many parts of the world. There have been institutional winners and losers from such a policy though in the main the history, reputation, connections and wealth of a few institutions has been sufficient to withstand the potential threats of performance measurement and competition.

Until recently, only institutions that had been granted the power to award both degrees conducted by coursework and research degrees could use the title of 'university.' In England and Wales, however, it is now possible for an organisation to be granted a university title without first having its own research degree awarding powers, providing it meets certain numerical thresholds in the number of full-time students enrolled. In Scotland and Northern Ireland, however, both taught and research degree awarding powers are still necessary to apply for a university title (QAA, 2004a).

The autonomous status enables these institutions to determine the portfolio of qualifications they offer, develop their own courses, set their own admission criteria, and recruit their own staff. In addition, the degrees and other qualifications awarded are legally owned by the institutions and not by the state. In practice, this means that curricula vary considerably between institutions. Since the early 1990s, there has been a tension between the wishes of the State to ensure greater standardisation across the system – with quality assurance the main weapon to deploy in this respect – and the concerns of the universities to maintain their traditional autonomy.

The Framework for HE Qualifications

The range of HE qualifications that can be obtained in the HE sector is encapsulated in the Framework for HE Qualifications (FHEQ) which covers England, Wales and Northern Ireland.

The main undergraduate qualification awarded is the first or Bachelor's degree (BA, BSc, BEng or BEd, for example, depending on the subjects studied). There are also some undergraduate programmes that lead directly to a Master's degree. These are called Integrated Masters and are

Table 3. Higher Education Qualifications in the UK

Level		Qualifications
1	Certificate (C level)	Certificate of HE
2	Intermediate (I level)	Foundation Degrees, Degree (non Honours), Diplomas of HE
3	Honours (H Level)	Honours (Bachelors) Degrees, Graduate Certificates and Graduate Diplomas
4	Masters (M level)	Masters Degrees, Postgraduate Certificates and Postgraduate Diplomas
5	Doctoral (D level)	Doctorates

Source: QAA (2004b).

common, for example, in engineering. Most undergraduate study programmes lead to an Honours degree, which usually lasts three years. Sandwich degrees (involving a year of work experience) and professional degrees in, for example, medicine or dentistry take longer (Scesa, Brennan, & Little *et al.*, 2005).

In addition, other undergraduate qualifications can be obtained at sub-degree level, for example, the Higher National Diploma (HND), the Higher National Certificate, the Diploma of HE and the Certificate of HE. Finally, Foundation Degrees were launched in 2001: they take two years to complete on a full-time basis, and are designed to be both work-related and have labour market relevance, and to provide opportunities for progression to honours degrees.

At postgraduate level there is also a great variety of routes and programmes. They include postgraduates certificates/diplomas, Master's degrees (MA, MSc, MBA, MPhil) and Doctorates (PhD, or DPhil), the latter being usually awarded after at least three years of supervised research. There is also a growing number of professional doctorate programmes which combine course work with a dissertation. Students can also progress from a 'good' honours degree (first class, or upper second bachelors degree) straight on to a PhD research programme.

The UK makes a formal distinction between full-time and part-time programmes, with students registered for one or the other mode of study. Part-time study routes are often effectively the traditional three-year full-time degree 'stretched' over five years, and are available in many institutions. In addition, some institutions viz. the Open University and Birkbeck College of the University of London specialise in part-time HE, with the former using a system of supported distance education. But the full-time/part-time distinction is becoming blurred as many full-time degree students undertake long hours of paid employment alongside their studies, which sometimes results in stretching their programmes beyond the three-year 'norm' (Scesa *et al.*, 2005).

Students in HE

This student body is growing in size and character with a 39 percent overall increase between 1995 and 2003 to a current total of approximately 2.2 million students. Such growth is unprecedented and has been managed against a steadily declining unit of resource for teaching which only leveled off in

2002. The largest increases have been in part-time undergraduates (99 percent increase since 1995) and part-time postgraduates (41 percent increase since 1995) (Leadership Foundation, 2005).

The UK has a relatively high proportion of adults in education and training and is second only to Australia in terms of lifelong participation. Among the 20-to-29 age group, the participation rate is 26 percent compared with an OECD average of 23 percent. Among 30-to-39-year-olds, the UK shows the highest participation rate, at 16 percent (compared with as OECD average of only 5 percent) and the same holds for over 40-year-olds, at 8 percent (OECD average 2 percent).

Student Selection

In theory, the minimum entry requirement for an Honours degree is two A Levels or equivalent: the General Certificate in Education at Advanced level being the most common qualification obtained on completion of post-compulsory secondary education. Institutions are responsible for setting their own admissions criteria, however, and it is usual for much higher requirements to be set for some courses (*e.g.* three A levels at A grade), particularly those which are in high demand and/ or are offered by prestigious institutions. Institutions can make exceptions for people with non-standard entry qualifications, such as adults wishing to return to education after, for instance, a period of activity in the labour market, or people with no formal qualifications who have followed access courses. The Open University is unique in that it sets no formal entry requirements for most of its undergraduate courses, although applicants must possess the basic skills needed for study at university level (Scesa *et al.*, 2005).

Prospective students are free to apply to any institution. The process of undergraduate applications is administered centrally by the Universities and Colleges Admissions Services, although all admissions decisions are made by the institutions themselves. Applications for part-time or postgraduate study are handled directly by the HE institutions. A few university departments continue to interview prospective students prior to offering them a place on a course, but more usually applicants are assessed on the basis of their application form, their qualifications, and references from their schools.

Student Funding

The 2004 Higher Education Bill introduced an overhaul of the financial support system for full-time students. The main elements of the new system are: i) the abolition of the up-front fees (instead, fees are payable after graduation and through the tax system); ii) the re-introduction of a means-tested HE grant (maximum £1,000 per year increasing to £2,700 in 2006/07) for students from low-income families; iii) the writing-off of student debt after 25 years for students enrolling in 2006/07 and afterwards.

Overseas students pay full-cost commercial fees if they come from outside the EU. These overseas students are an important source of income for some institutions

Postgraduate students are funded from a variety of sources. Some hold studentships awarded by the Research Councils while others are funded by charities or industry. A significant proportion are self-funded, in particular, those who are registered on a part-time basis.

The Student Population

In 2002/2003 there were over 2.175 million students following HE courses in publicly-funded HEIs in the UK. The following table provides a breakdown by level and mode of study:

Table 4. The Student Population by Level and Mode of study (2002/2003)

	Full-time and sandwich	*Part-time and other*	*Writing up*	*Total*
First degree	980,805	111,615	355	1,092,780
Other undergraduate	130,505	454,125	205	584,835
Total undergraduates	**1,111,310**	**565,745**	**560**	**1,677,615**
Higher degree (research)	55,270	31,325	22,015	108,610
Higher degree (taught)	107,385	110,330	18,330	236,050
Other postgraduate	44,100	105,850	2,895	152,845
Total Postgraduates	**206,755**	**247,505**	**43,240**	**497,500**
Total HE students	**1,318,065**	**813,250**	**43,800**	**2,175,115**

Source: Table A – Students in HE institutions, 2002/2003, HESA

The figures above indicate that over three-quarters of the students are enrolled at the undergraduate level. However, a significant minority are at the postgraduate level.

UK undergraduates are both younger and older than their European counterparts. Traditionally students entered HE straight from secondary school (at the age of 18 or 19) and graduated from first degrees at age 21 or 22. Most continue to do so, but there are also now large numbers of mature students who enter undergraduate HE in the mid-20s onwards and may be 30-plus by the time they graduate from their first degrees. At the postgraduate level, recent data shows that half of all first-year students are aged 30 and over (HESA, 2004a, table Iii).

Enrollment by Discipline

The distribution of enrollment by discipline for 2003/4 is as follows:

Table 5. Student Enrollment by Discipline (2003/4)

Humanities/General (inc. Social Science)	762,090	34 percent
Natural Sciences	240,495	11 percent
Mathematics and Computer Sciences:	168,420	7 percent
Medical Science	341,545	15 percent
Law and Business (incl. Mass Communication and Documentation)	429,645	19 percent

Source: 2002/2003, HESA

International Students

A significant proportion of students come from outside the UK and also from outside the European Union. In UK HE in 2004/05 international students made up:

- 11 percent of full-time first degree students and 10 percent of all first degree students
- 65 percent of full-time taught postgraduates and 40 percent of all taught postgraduates
- 48 percent of full-time research degree students and 41 percent of all research postgraduates

The top non-EU sender countries are: China (including Hong Kong), India, USA, Malaysia. The top five EU senders are Greece, Republic of Ireland, Germany, France and Spain. The five most popular courses are Business and Administrative Studies, Engineering and Technology, Social Studies, Computer Science and Languages (UKCOSA).

Student Graduation and Drop-Out Rate

In 2002/03, a total of 557,790 HE qualifications were awarded. The distribution by level and mode of study is as follows:

Table 6. Higher Education Qualifications Awarded by Level and Mode of Study (2002/2003)

	Full- time	*Part- time*	*All students*
Higher degree (research)	13,645	4,155	**17,800**
Higher degree (taught)	54,415	26,670	**81,085**
Other postgraduate	35,360	30,105	**65,465**
First degree	250,625	31,755	**282,380**
Other undergraduate	44,815	66,245	**111,060**
All qualifications	**398,855**	**158,935**	**557,790**

Source: Table K – Students in HE institutions, 2002/2003, HESA

The UK has very low drop-out rates by international standards and most students complete their programmes in the minimum official duration. The most recent first destinations statistics show that six months after graduation, the vast majority (62.8 percent) of the 2002/2003 first degree graduates of known destinations were in employment, a further 8.0 percent were in a combination of work and study, 16.0 percent were undertaking further study only and 7.1 percent were assumed to be unemployed (HESA, 2004b; Scesa *et al.*, 2005).

The Academic Workforce

The staff of the Universities fall into three main categories: academic, academic-related and non-academic. The conditions of service differ between the three categories. There is also a significant number of individuals who hold various honorary positions and appointments within the University. This section will focus on academic staff.

The academic staff of the Universities are primarily classified as Professors, Readers, Senior Lecturers and Lecturers although there is also a small number of other staff who are classed as academic staff. Research grades include Grade IV/Professor, Senior Research Fellow, Research Fellow/Officer, and Research Assistant.

Pay and Conditions

A newly-appointed lecturer will normally serve a probationary period of three years and will also be required to undertake a professional development programme. Generally, under the terms of their contracts, academic staff have no specific hours of employment but are expected to work such hours as are necessary to carry out the duties associated with their post. The retirement age for academic staff appointed before 20 November 1987 and not promoted since then is 67. The retirement age for other members of the academic staff is 65. Members of the academic staff are eligible to join the Universities' Superannuation Scheme, the national occupational pension scheme for (pre-1992) universities' academic and academic-related staff. Subject to satisfactory performance, annual salary increments are awarded on 1 October to all academic staff (except Professors) until the top of the salary scale is reached.

The Universities and Colleges Union is the recognised trade union which represents staff in negotiations about pay and conditions of service. The Universities and Colleges Employers Association conducts negotiations on behalf of universities at the national level. A single new national Joint Negotiating Committee for HE Staff was set up in 2001. A framework agreement negotiated in 2004 is in place with includes a new pay and grading structure and a single spine pathway for academic and non-academic staff, as well as pay increments. In recent times there have been shifts and pressures away from national bargaining towards local pay bargaining.

Profile of Academic Staff

The academic sector employs 2 percent (450,000 people) of the UK workforce. Employment opportunities within the sector have grown by 11 percent since 1994, in line with the general UK trend, but with marked growth in associate professional and technical jobs, such as research assistants and laboratory technicians. However, academics still account for half of all jobs in the sector (Leadership Foundation, 2005).

As many as 82 percent of the staff are full-time while 18 percent are part-time (HESA). Of the full-time staff, professors account for 11 percent and lecturers 34 percent (figs 2002/3 HESA). Female staff account for 35 percent while males account for 65 percent Some 5.6 percent of UK nationality staff are of non-white origin. Approximately 54.4 percent of academics are on fixed term rather than permanent contracts; 40 percent of the staff have doctoral qualifications; 25.1 percent have postgraduate degrees; 15.5 percent have first degrees and the rest have level 2 and 3 degrees; and 1.3 percent have no formal qualifications (HESA figs 2003/4; Lifelong Learning UK).

In terms of their demographic profile, the HE workforce is slightly older than the UK workforce as a whole: 16 percent of the academic workforce is over the age of 55 compared to only 12 percent of the UK workforce. Over the next decade replacing these retiring employees will become a major challenge for the academic sector. There are recruitment concerns especially in such fields as law, business management, accountancy, and IT (Leadership Foundation, 2005).

The 'Bett Report', published by the Independent Review of HE, Pay and Conditions (IRHEPC) in June 1999 (see summary at http://www.archive.official-documents.co.uk/document/irhec/irhec.htm), made a number of recommendations related to securing the successful recruitment, retention, and motivation of high quality staff. These included the need for additional public funding to provide a coherent reward structure and the need for flexible solutions to pay.

Following on from the Bett Report, the HEFCE announced a "Rewarding and Developing Staff in HE" initiative. Additional resources from HEFCE to recruit, retain, reward and develop staff in HE were announced as part of the Government's year 2000 spending review, but such funds have to be applied for and they are released only as conditional grants on the basis of an institution's human resource strategy.

The abolition of tenure, the highly competitive environment universities find themselves in, and the threat of redundancy have led to increasing levels of job insecurity. While 20 percent of academics are on teaching-only contracts, 24 percent research-only, and 55 percent on teaching-and-research contracts, academic roles have become less clearly defined and staff are increasingly asked to juggle teaching, research and administration roles. The move from a professional to an administrative model of quality has played a major role in changing academic roles (Jackson, 1997). Henkel (2001) has also indicated that academics are required to extend their functions of teaching and research to become more entrepreneurial.

Academic staff are in general exempt from the EU's working time directive and appear to be working longer hours and taking less time off. A survey reported in the Times Higher Education Supplement based on 844 academics carried out in 2004 indicated that while academics are entitled to take 31 days leave, the average for the sector was 24 days, while two-fifths failed to take leave of two weeks or more (Swain, 2006).

There is also evidence of increasing stratification of the HE workforce. A study by the HEFCE has indicated that institutions are increasingly using financial incentives to recruit or retain staff whom they perceive to be of high market value. Incentives include salary bonuses and retention payments. While salaries for Vice-Chancellors soared by a quarter in three years, academic salaries in general have deteriorated significantly against other benchmark occupations.

In addition, there are signs of increasing rank and file dissatisfaction with pay and working conditions as illustrated by the three-month examination and marking boycott in 2006. While work has resumed, there are signs of dissatisfaction with the pay settlement accepted by union leaders, and further industrial action may ensue.

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History and Development of Australian Higher Education:
An Overview

V. Lynn Meek*

The Australian Context

Australia is a constitutional democracy consisting of a federation of six states and two territories. In the Australian system the powers of the Commonwealth are limited to areas deemed to be of national importance. As discussed in more detail below, just how far those areas extend is presently the subject of considerable debate.

Whereas in terms of landmass Australia is the sixth largest country in the world – approximately the same size as the Continental United States – it has a population only slightly larger than the Netherlands. Most of the nation's population of some 2.5 million people (0.3 per cent of world population) is highly urbanized. The annual population growth rate is 1.2%. It is an aging population, with 20.8% in aged bracket 0-14 years, 16.6% 15-24 years, 53.1% 25-64 years, and 12.5% of the population 65 years or older. Nearly 22% of the population is foreign born or of foreign nationality (Australian Bureau of Statistics, 2001-2006). The average Australian lives in an urbanised setting, is of working age, born in Australia, unlikely to emigrate, English speaking, Caucasian and Christian.

In recent years the growth rate of the Australian economy has exceeded that of most other OECD countries, while maintaining low inflation and high employment. In 2006, unemployment was approximately 5% of the workforce. In terms of average weekly earnings, holding a degree or diploma is clearly an advantage, as depicted in Figure 1. Australia has relatively high graduate employment with 81% of graduates finding work within four months of their date of graduation.

Australia's "economy is 1.9 per cent of the Gross Domestic Product (GDP) of the OECD, and accounts for about 1 per cent of world trade", Department of Education, Science and Training (DEST, 2003, p. 3). Historically, the nation's wealth was based on primary products – mineral and agricultural. But in recent decades there has been a deliberate attempt by government and industry to switch the basis of the Australian economy from primary products to knowledge – to create what one Prime Minister termed in the 1980s as the Clever Country. While in the early 1970s, about 21 per cent of Australia's GDP was based on manufacturing and 5.4 per cent on agriculture, presently those figures are 12 per cent and 3.6 per cent respectively. As the Chief Economist of one of the country's largest banks put it: "Australia's economic growth will increasingly be linked to the mortarboard not the sheep's back …" (*The Sydney Morning Herald,* 2004). Much of Australia's wealth still comes

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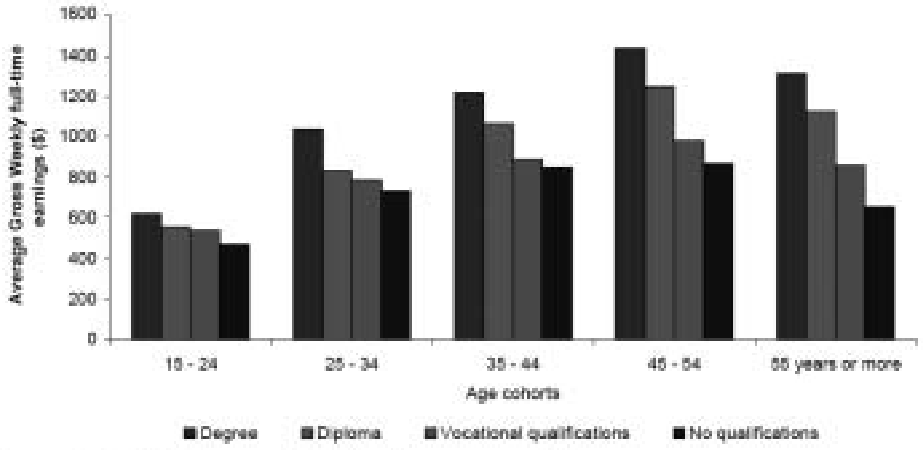
Figure 1. Relative Earnings of the Population with Income from Employment, by Level of Educational Attainment



Source: Australian Bureau of Statistics Income survey data

from minerals, but the mining industry like other sectors of the economy are more knowledge dependent and research based then in the past. Table 1 lists Australia's main exports, of which education services is ranked ninth.

Table 1. Australian Major Exports of Goods and Services, 2002-03, 2003-04

	2002-03	**2003-04**
Major categories of Goods and Services	($m)	($m)
Crude materials, inedible, except fuels	21,466	20,739
Mineral fuels, lubricants and related materials	23,803	20,381
Food and live animals	18,399	18,158
Commodities and transactions not classified elsewhere (in the SITC)	13,117	13,700
Machinery and transport equipment	13,530	11,923
Manufactured goods classified chiefly by material	12,605	11,339
Tourism	9,434	10,212
Transportation services	7,467	7,564
Education services	**4,896**	**5,622**
Chemicals and related products	5,093	5,288
Miscellaneous manufactured articles	4,413	4,267
Other business services	3,704	3,592
Miscellaneous business, professional & technical	3,170	2,985
Beverages and tobacco	2,725	2,694
Gross inward insurance premiums receivable	1,645	1,678
Computer and information services	1,091	1,128
Financial services	984	1,004

Source: Australian Vice-Chancellor's Committee (AVCC) (2005).

Australia has a well-developed but comparatively small science base, with the majority of its R&D effort concentrated in the public sector. Taking into account the size of the nation, Australia's contribution to world science is impressive, particularly with respect to medical and health disciplines, biological sciences, and astronomy. Based on 2002 data, Australia:

- Contributed 2.88 per cent of the world's output of research publications (including in the sciences, social sciences and humanities), up from 2.3 per cent in 1988;
- Was ranked ninth out of 21 countries behind Canada, France, Germany, Italy, Japan, Spain, the United Kingdom (UK) and the United States of America (USA) in the total number of research publications and ahead of countries such as Korea, the Netherlands, Sweden and Switzerland;
- Was ranked eighth out of 21 countries in the number of research publications on a *per capita* basis, ahead of Canada, France, Germany, Japan and the USA and behind Denmark, Finland, Israel, Netherlands Switzerland and the UK (DEST, 2003, p. 6).

For a number of historical and geographical reasons, the funding of Australian R&D is more highly dependent upon the public purse than is the case in most other developed countries. In 2000, government-financed expenditure on R&D was 0.71 per cent of GDP, compared to an OECD average of 0.64 per cent (DEST, 2003, p. 18).

In contrast, Business Expenditure on Research and Development (BERD) is low compared to other OECD countries. This is largely due to the fact that most of the large multinational corporations in Australia have their headquarters elsewhere and conduct little of their R&D in this country (Gallagher, 2000). Unlike the USA and UK, there are very few private foundations for Australians to look to for research support (Wills, 2001), and there is nowhere near the level of endowment support that some of the major USA universities enjoy.

Australia also lags behind many other OECD countries in terms of Gross Domestic Expenditure on R&D (GERD) as a proportion of Gross Domestic Product. Australia's total expenditure is 1.53 per cent of GDP compared to an OECD average of 2.25 per cent. There have been calls from such bodies as the Australian Vice-Chancellor's Committee (AVCC) that Australia should increase its investment in research to 2 per cent of GDP by 2010 and 3 per cent by 2020.

The relatively low level of investment in R&D from the private sector has meant that government has had to play a leading role in funding Australian science and innovation. The Federal Government channels its support for R&D through a variety of schemes and organizations, the two major being the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the nation's universities, the former receiving about AU$612 million direct from government and the latter AU$6652 million. Of course, Commonwealth support for universities is for teaching as well as research. About 27 per cent of GERD is performed by the higher education sector, which is a fairly large proportion relative to many other OECD countries. A greater proportion of Australia's R&D workforce is located in higher education than is the case for most OECD countries.

An exceptional feature of the Australian higher education sector is that the states have legislative control of higher education institutions, whilst financial responsibility rests with the Commonwealth. Appropriate and politically acceptable roles for both State and Federal governments in the funding and

coordination of Australian higher education have challenged policy makers for several decades. Historically and constitutionally, all forms of education in Australia have been primarily a matter for the States. But in the years following the second world war, there has been substantial and increasing Federal intervention in higher education. In 1974 the Whitlam Labor government assumed responsibility for providing all regular recurrent and capital funds for universities and colleges of advanced education and abolished tuition fees in universities and colleges. These decisions significantly changed the Australian higher education landscape and ensured that the Federal government would dominate planning and funding of this sector (Meek, Wood, & Carrington, 2003).

Yet the States retain many responsibilities for higher education, including legislative control, ownership of land and capital assets, controls of the use of terms such as 'university' and 'degree', and statutory requirements relating to industrial matters and the governance of individual institutions. The decision for the Commonwealth to assume nearly full responsibility for the public funding of higher education did not go entirely uncontested at the time. Also, the States have responded differently to this Federal government intervention. Some States, for example, have maintained a higher degree of financial commitment to higher education than other States, coupled with a more prominent leadership role.

In 2005 and 2006 successive federal education ministers have called for the Commonwealth to assume full legislative as well as financial control of higher education. This has been motivated, in part, by the desire of the federal government to introduce more fee-for-service private higher education providers. In July 2006, the Minister announced under the banner of enhancing diversity that she had achieved agreement with her State and Territory counterparts to "provide greater choice for students to study at a variety of high quality higher education institutions." As indicated by the Minister, the new set of National Protocols for Higher Education Approval Processes "will allow … higher education providers to accredit their own courses, bypassing costly and time consuming reaccreditation processes run by State Governments." Up to now, only universities could accredit their own courses. The agreement also included "specialist institutions having access to a university title" and the reduction of "research and higher degree teaching requirements for new universities in their first five years of establishment" (Bishop, 2006). This decision has the potential of transforming the Australian higher education landscape more than any other decision in the last decade. But as is outlined below, Australia is no stranger to higher education reform.

As of 2006, the nation's higher education sector consists of 37 public universities, some of which are quite large, with enrolments in excess of 45,000 students; two small private universities; and a number of small specialist institutions, both public and private. In 2005 an Australian branch of a USA university was established in Adelaide. Up to mid-2006 there were more than 150 non self-accrediting higher education providers registered by the States and Territories. In 2005, Australia had nearly one million students enrolled in higher education courses, about one-quarter of whom were overseas students. Up to now, the defining characteristics of an Australian university strongly

endorse the principles of unity of teaching and research and a broad, comprehensive curriculum.

Beginnings of the Australian Higher Education System

For most of its history, higher education has been peripheral to Australian society. Unlike the United States, Australian higher education did not develop as a result of mass public demand, nor was it recognised as an integral feature of economic development, as were the American land grant colleges. As is demonstrated by the difficulty of placing higher education issues, such as funding, on the political agenda and capturing the interest of the electorate, the remoteness of higher education from the everyday concerns of most Australians continues to some extent today. Even as late as the mid-1980s, Professor McKinnon (1985, p. 15), a well known Australian educator and former Vice-Chancellor, was prepared to state that: "The Australian public has been conditioned to the view that tertiary education is for a small privileged elite. It has not taken the view that tertiary education is a national necessity for a substantial proportion of the population."

Australia's oldest university, the University of Sydney, began teaching in 1850 with 24 students, and the University of Melbourne commenced its programs with 16 students three years later. The University of Sydney had only 74 students, while Melbourne was doing somewhat better with 250 students just prior to the foundation of the University of Adelaide in 1874. The University of Tasmania was added to the list in the late nineteenth century, followed by Queensland and Western Australia in the early part of the twentieth century.

The founding fathers of Australian higher education represented what there was of an Australian wealthy elite. They were Australian by physical location and British by social predilection. The new institutions of higher learning were also mainly British in character, precisely so when it came to standards and curriculum. The institutions were staffed by British scholars and served a small privileged minority that looked more to Britain than to Australia for what was culturally, socially, and scientifically of value. Students were taught British history, they studied British literature and learned British politics. It was not until the 1940s that the first full course in Australian history was introduced by an Australian university and a full course in Australian literature was not taught until the 1950s (Gardner, 1979; Grant, 1983).

Several factors maintained the social isolation of Australian universities, two of the most important being geographical location and the fact that until 1901 Australia was a collection of separate colonies rather than a nation. Up to the Second World War, Australia had established universities in the capitals of the six States. These six universities largely developed in isolation from one another. There was virtually no movement of students between the capital cities, and the academic staff continued to be recruited from Britain, or from Australians who had gained their qualifications in Britain. Partridge notes that "one reason why there was comparatively little intercourse between ... [universities] in all the years before the Second World War was that the instinct of each of them to look always towards the British source was so strong" (Partridge, 1968, p. 120). Yet this tendency to look continually

towards Britain helped to create remarkable similarities among Australian universities, despite their geographical isolation.

Even by the early 1940s, higher education remained a privilege for an elite few. Writing at the time while resident in Australia, the distinguished British botanist and theoretician of higher education, Sir Eric (later Lord) Ashby observed that this elitism contributed to the marginality of the universities. He noted that Australia spent more money on its mental hospitals than on its universities, and that 1.7 persons per thousand were in universities and 3.8 persons per thousand were in hospitals for the insane. He told his audience that "it is about twice as likely that you will go to a hospital for the insane as to a university" (Ashby, 1946, p. 67). At that time, of every 100 children who entered primary school, 40 left at the age of 14 years, and of the 60 who remained, 50 left at the intermediate standard. Of the ten who remained until the Leaving Certificate standard, less than 0.7 per cent would enter a university.

In 1939, there were about 14,000 students enrolled in Australian universities out of a population of seven million and, up to immediately after World War II, Australian higher education was homogeneous in the extreme. During the Second World War there was an unprecedented injection of federal funds into the universities for manpower training and other purposes geared to the war effort. Even more importantly, there was a heightened awareness amongst politicians and the community of the social value of science and technology. In 1946, there were 25,500 students enrolled at Australian universities. Shortly after the War, the Commonwealth government created the Australian National University to further research and postgraduate study, and in 1949 the New South Wales government established Sydney's second university: the University of New South Wales (initially called the NSW University of Technology). In 1954, the New England University College received its independence from the University of Sydney and, in 1958, Monash became Melbourne's second university. Thus, by 1960, Australia had ten universities with a student population of about 53,000.

In the mid-1950s, a committee of inquiry into the future of Australian universities, chaired by Sir Keith Murray, the then Chairman of the University Grants Committee in Great Britain, recommended that the Commonwealth become more involved in the affairs of the universities – particularly with regard to finance and development – and that an Australian Universities Grants Committee be established to advise the government on university matters, including funding (Committee on Australian Universities, 1957).

By the early 1960s, the political and social pressures to further expand higher education intensified, and in 1961 the Committee on the Future of Tertiary Education in Australia (the Martin Committee) was appointed to charter the course of development of Australian higher education. The 1964-65 report of the Martin Committee recommended the creation of colleges of advanced education (CAEs) as an alternative to the expansion of the universities (Committee on the Future of Tertiary Education in Australia, 1964-65). Martin and his committee's report differentiated colleges from universities by their function: vocational and teaching-oriented colleges on the one hand, and academic and research-oriented universities on the other. The substance of what later came to be called the binary system,

following an English precedent, lay in this doctrine. The binary experiment was to last until 1988.

Although Martin envisaged that the expansion of higher education would take place mainly within the advanced education (polytechnic) sector, by the mid-1970s nine additional universities had been added to the system. In 1974, the Whitlam Labor government assumed responsibility for providing all regular recurrent and capital funds for universities and CAEs. State education department controlled teachers' colleges were recognised as CAEs for funding purposes (to qualify for federal funding, the teachers' colleges had to become independent of State departments of education) and, as mentioned above, tuition fees in universities and colleges were abolished.

Throughout the 1970s and into the 1980s, policy makers and institutional leaders alike became increasingly concerned about the future of Australian higher education. This culminated in a push at the end of the 1980s to make higher education more relevant to national economic needs and priorities. The 1988 federal government White Paper initiated a dramatic transformation of Australian higher education which, amongst other things, led to the abolition of the binary distinction between universities and CAEs and the creation of the Unified National System (UNS) in which there is now a much smaller number of significantly larger institutions, all called universities (*Higher education: A policy statement*, 1988). These events are often referred to as the Dawkins' reforms, in recognition of one of their primary architects, the then federal Minister of Employment, Education and Training, the Hon. John Dawkins.

Transformation of Australian Higher Education

Dawkin's Reforms The Dawkins' reforms had several immediate effects, such as extensive consolidation of institutions through amalgamation. But, more importantly, the Labor government set in motion a number of long-term trends, such as the following, that are still helping to shape the system today:

- A shift in some of the cost of higher education from the State to the individual;
- The government curtailed its financial commitment through the introduction of such mechanisms as the Higher Education Contribution Scheme (HECS – partial tuition payment through the tax system);
- Enhanced national and international competition for students and research income;
- Greater emphasis on accountability for the government dollar and some movement towards performance-based funding;
- Greater deregulation within the higher education sector through, for example, collection and retention of student fees, and the right to borrow money for capital works; and
- An increased reliance on income gained from sources other than the Commonwealth.

The announcement of the impending death of the binary system in mid-1987 came as little surprise

to the Australian academic community. Based on how it had evolved since its establishment in the mid-1960s, the binary arrangement of higher education had probably reached its limits, both in terms of its capacity to absorb further expansion and in terms of the structural and philosophical contradictions it expressed.

Liberal Coalition Reforms With the change of federal government in March 1996, it became clear that the size of the task to which higher education must adapt had in fact substantially increased. The 1996 budget statement from the newly elected Liberal coalition government regarding higher education placed additional pressures and challenges on this sector. Key changes announced in the 1996 budget statement included:

- A reduction of operating grants by 5 per cent over three years;
- A lowering of the HECS repayment threshold; an increase in level of HECS payments; and the introduction of differential HECS according to course of study;
- No Commonwealth supplementation of academic salary increases;
- An insistence upon return of funds if enrolment targets are not met; and
- A phasing out of postgraduate coursework enrolments from Commonwealth funded load.

The privatisation of public higher education and the introduction of market-like relationships to achieve both greater institutional efficiency and adaptability have been national policy goals for more than a decade, regardless of the political orientation of the government of the day. A number of factors have influenced government policy and expectations of the higher education sector and include:

- The substantial costs associated with mass higher education which have led to a concern by government to realise more value per dollar committed in this sector;
- A clear expectation by government that the higher education sector is more closely tied to the national economy both in terms of meeting national labour market needs and also through the commercialisation of its research and teaching activities;
- As a larger proportion of the population expresses an interest in participating in higher education, inevitably, higher education also becomes more of a political issue;
- Due to an ageing population, the social service burden on the national treasury is rising dramatically, which is coupled with pressures to cut government expenditure and to demand greater efficiencies from public sector institutions; and
- As with other industrialised countries, traditional manufacturing industries are being replaced by the so-called ‘knowledge processing sector’, of which higher education is an integral component.

The rapid expansion of the higher education system was clearly a primary motivating factor behind

the Australian government's 1988 reform agenda. In fact, enrolments increased at a pace that far exceeded government expectations. But the then Labor government was not prepared to fund growth entirely from the public purse and the current Liberal government has gone even further in demanding that an increasing proportion of the financing of higher education comes from sources other than the public weal. In Australia, as elsewhere, the last decade has ushered in a new phase in higher education planning and policy development, one characterised by:

- Reductions in public expenditure;
- Increased emphasis on efficiency of resource utilisation;
- Increased emphasis on performance measurement, particularly in terms of outcomes;
- Increased emphasis on demonstrable contribution to the economy of the nation; and
- The strengthening of institutional management and of the policy and planning role of individual institutions.

The efforts of the Liberal coalition government to transform the higher education system have continued unabated since the mid-1990s. Changes to the higher education protocols were mentioned above. Other recent key policy changes include:

- New funding mechanisms allowing institutions to set tuition fees in addition to HECS;
- Increased funding contingent on institutions adopting industrial and governance reform;
- Increased number of full fee domestic undergraduate places;
- Introduction of loans for full fee undergraduate domestic students;
- Quality Assurance for Research – like Research Assessment Exercise in the United Kingdom;
- Teaching only universities;
- Taking legislative control from the States; and
- Increased micromanagement of institutions.

Profile of the Higher Education System

Students Since the late 1980s, there has been substantial growth in Australian higher education, from about 485,000 students in 1990 to more than double that in 2004. However, in recent years, most of the student growth has been fuelled by overseas students. In the period 1995 to 2001, the number of commencing domestic students increased by 8.6 per cent, while the number of commencing overseas students rose by 146 per cent. However, the slow growth in domestic student numbers does not indicate a slacking in demand but until quite recently lack of available places to meet demand.

The participation rate for domestic students aged 17-24 years in 2004 was 18.6% for the nation as a whole. Compared to many other OECD countries, Australia has a relatively large proportion of students who are older, many of whom study via distance education. Of the 944,977 students enrolled in 2004, 190,149 or 20% were studying partly or wholly through distance education. Only about 44%

of new domestic student enrolments come straight to higher education from secondary school. Some universities have over half of their students aged 25 years or older. Not only are an increasing proportion of students studying externally, but part-time as well. About 57% of the student body is female.

More so than any other country, Australia has internationalised its student body. In the early 1980s, there were about 25,000 overseas students studying in Australia. Up to that time, the education of overseas students was seen mainly as a form of foreign aid. Students were subsidised by government aid programs and fees were not paid directly to institutions. But the 1987 Green Paper on higher education foreshadowed a more market-oriented approach to foreign students by stating that "full-fee paying overseas students provide another important source of potential revenue growth" (p. 83) – quite an understatement as it turned out. In 2005, the one-quarter of students who are international contributed through the payment of fees 15% of the total annual budget for higher education. Australia leads the world in terms of the proportion of the student body that is international. It attracts 80% of its overseas students from countries in the Asia-Pacific region.

Quality Assurance A national, formalised approach to quality assurance came later to Australian than it did to many other countries. The quality movement in Australia only really began in the early 1990s with establishment of the short-lived Committee for Quality Assurance in Higher Education (CQAHE) in 1993. The Australian Qualifications Framework (AQF) was established in 1995. It lists all post-school education providers and accreditation authorities and the approved qualifications offered by all education sectors. A new approach to quality assurance was introduced in 2000 with the establishment of the Australian Universities Quality Agency (AUQA). AUQA is an independent agency owned and funded by the Federal and State governments.

AUQA was established, in part, in response to the fear that unscrupulous private providers would set up in some States and Territories and tarnish Australia's international reputation and threaten its standing in the Asia international student market. In 2000, a set of National Protocols for Higher Education Approval Processes were endorsed by the Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA) "to ensure consistent quality assurance criteria and standards across Australia" (DEST, 2004a, p. 23). As mentioned above, the protocols are being extensively revised to favour the establishment of private providers.

Funding Funding of Australian higher education increased during the period 1995-2000 with respect to all sources of revenue. However, direct public funding from the Commonwealth Government declined by 11 per cent in real terms. And, while total funding increased by 12.5 per cent in real terms, total student load increased by 21 per cent (Phillips *et al*., 2002, p. 28).

The government itself says that it no longer funds, but subsidizes higher education. The proportion

of the budget going to higher education from the Commonwealth Government varies according to whether or not HECS (re-named HECS-Help or Commonwealth Supported Students from 1 January 2005) is included as part of the Commonwealth grants. If HECS is counted separately, then only about 40 per cent of the revenue for higher education comes direct from the Commonwealth (see Table 2). In terms of the proportion of private expenditure on higher education, Australia ranks third in the world behind the USA and Japan (OECD, 2004).

Table 2. Higher Education Institution Operating Revenue, by Source, 2003

Source	$'000	%
Commonwealth Government Funding	4,919,513	39.89
State Government	506,042	4.10
HECS	1,917,206	15.55
Postgraduate Education Loan Scheme	178,950	1.45
Fees and Charges	2,720,720	22.06
Investment Income	318,678	2.58
Consultancy and Contract Research	637,500	5.17
Other Income	1,133,217	9.19
Total	12,331,826	100.00

Source: Department of Education, Science and Training (DESTa, 2004).

Funds for research and research training are allocated through a variety of performance-based funding programmes administered by the Department of Education, Science and Training or the Australian Research Council's peer-reviewed competitive grants. Universities receive research funding from a number of other agencies and schemes, such as the National Health and Medical Research Council (NHMRC) and Co-operative Research Centres (CRCs).

Academic Staff While Australia has experienced substantial growth in student numbers over the last decade, the number of staff has grown at a much slower rate. The 87,658 staff employed by higher education institutions in 2004 was only an 11% increase over the 1996 figure. Of all staff, 37,387 or 43% are academic staff. The academic staff: student ratio was 20.1 in 2003, compared to 14.2 a decade earlier. About 60% of academic staff are male, though females constitute more than half of the academic staff numbers at the lower ranks (lecturer and below; see Table 4).

There has been considerable pressure placed on Australian academic staff to be more productive and accountable, while simultaneously being more entrepreneurial and innovative. While many if not most have risen to the challenge, their status in society has declined. As Melleuish (2004) comments, "What's happened over the last 20 years or so is that comparatively academic salaries have dropped, people no longer listen to academics or have as much respect for them perhaps as they once had in the past." A clear indication of this decline is indicated by studies into the ranking of academic salaries relative to that of other professional groups. Horsely and Woodburne (2005, p. 8, and see Table 3), for example, demonstrate that:

Table 3. Academic Salaries as a Ratio of Average Weekly Earnings, 1977-2002

Year	Associate Lecturer (bottom of scale)	Lecturer (bottom of scale)	Senior Lecturer (top of scale)	Professor (top of scale)
1977	1.03	1.48	2.35	3.17
1978	1.03	1.45	2.27	3.04
1980	0.99	1.39	2.17	2.91
1982	0.92	1.29	2.02	2.70
1984	0.86	1.21	1.90	2.54
1986	0.88	1.24	1.94	2.59
1988	0.84	1.16	1.80	2.40
1990	0.82	1.13	1.74	2.32
1992	0.94	1.34	1.89	2.54
1994	0.90	1.29	1.82	2.45
1996	0.87	1.25	1.76	2.37
1998	0.90	1.28	1.81	2.44
2000	0.90	1.28	1.81	2.44
2002	0.88	1.26	1.77	2.39

Source: Horsely & Woodburne (2005). p. 8

Table 4. Number of Academic Staff, by Age Group and Gender, 2004

	Academic Classification				
Gender/Age Group	Above Senior Lecturer	Senior Lecturer	Lecturer	Below Lecturer	Total Academic
		Males			
< 25	0	0	10	144	154
25 - 29	2	19	245	655	921
30 - 34	30	191	930	917	2,068
35 - 39	217	662	1,240	602	2,721
40 - 44	687	1,085	1,264	423	3,459
45 - 49	1,088	1,150	1,056	280	3,574
50 - 54	1,428	1,166	913	180	3,687
55 - 59	1,730	1,016	683	108	3,537
60 - 64	1,040	511	290	49	1,890
> 64	328	137	134	19	618
TOTAL	6,550	5,937	6,765	3,377	22,629
		Females			
< 25	0	0	1	163	164
25 - 29	2	7	213	739	961
30 - 34	6	93	717	869	1,685
35 - 39	62	349	994	616	2,021
40 - 44	191	566	1,199	585	2,541
45 - 49	330	735	1,180	422	2,667
50 - 54	422	666	926	287	2,301
55 - 59	421	508	578	170	1,677
60 - 64	179	193	188	54	614
> 64	43	32	33	19	127
TOTAL	1,656	3,149	6,029	3,924	14,758
		Total Number of Persons			
< 25	0	0	11	307	318
25 - 29	4	26	458	1,394	1,882
30 - 34	36	284	1,647	1,786	3,753
35 - 39	279	1,011	2,234	1,218	4,742
40 - 44	878	1,651	2,463	1,008	6,000
45 - 49	1,418	1,885	2,236	702	6,241
50 - 54	1,850	1,832	1,839	467	5,988
55 - 59	2,151	1,524	1,261	278	5,214
60 - 64	1,219	704	478	103	2,504
> 64	371	169	167	38	745
TOTAL	8,206	9,806	12,794	7,301	37,387

Source: DEST (2004b).

> "A professor's salary … was 3.17 times greater than average earnings in 1977 but in 2002, it was only 2.39 times greater. A senior lecturer's salary was 2.35 times greater than average earnings in 1977 but only 1.77 times greater in 2002. A lecturer's salary was 1.48 times greater than average earnings in 1977 but only 1.26 times greater in 2002. Finally, an associate lecturer's salary was 1.03 times greater than average earnings in 1977 but had fallen below average earnings in 2002."

As is the case in most OECD countries, the age profile of Australian academic staff is of concern, with an expected large turnover of academic staff in coming years (see Table 4). There is evidence to suggest that the most intellectually talented of the younger generation do not view an academic career as attractive (Harman, 2003).

Conclusion

The way in which Australian higher education has and continues to develop impacts the academic profession in numerous ways. The strengthening of institutional governance and management has threatened traditional modes of collegial decision making. Much more power within institutions is now concentrated at the executive level than was the case a mere couple of decades ago. Moreover, University Councils (governing boards) are taking a much more direct and systematic interests in the running of the institutions for which they are responsible.

No longer is research or research training the responsibility of the autonomous academic pursuing knowledge purely for knowledge's sake. Research within institutions is systematically managed, emphasising concentration and selectivity of research funding based on demonstrated output. At the national level, research is guided by a set of national research priorities, with an emphasis on research's contribution to wealth and economic prosperity. This creates within many institutions research winners and losers amongst academic staff. At the systems level, there are a number of policy initiatives to differentiate the more research intensive institutions from those that may be allocated a primarily teaching role.

Academics are being asked to do more for less, with the clear consequence of increasing workloads. New duties are added to traditional functions, such as travelling overseas to teach full-fee paying international students. Increasingly, academics are asked to demonstrate that they are earning their salaries, with performance reviews of various kinds introduced everywhere. There are loud claims from at least some academics that they have lost control over their work agenda and how they allocate time to it, while being turned from being academic professionals into knowledge workers.

There have been many claims in the popular press and elsewhere that academics are encouraged to engage in 'soft marking' in order to placate international full-fee paying students. Free exchange of knowledge and ideas amongst academics is being curtailed by commercial in-confidence agreements with industrial partners. The integrity of research funding agencies, such as the Australian Research Council, has been questioned due to alleged government interference.

The above examples, a good deal of anecdotal evidence and tea room gossip appears to point in the direction that the academic profession has lost attractiveness and the best and brightest of the younger generation are unlikely to consider it as a career option. But there is other evidence that points to the opposite conclusion. It also appears that academics are resilient to change, that many of them are coping if not thriving under the new set of circumstances, and that there are clear and substantial winners taking advantage of the opportunities that the new imperatives within which Australian higher education must operate provide. Harman (2006, p. 153) sums up the current situation in Australia quite nicely:

> "Major changes in government policy and institutional management have impacted adversely on Australian university academics who tend to be highly critical of the new directions and their effects on the academic profession. Academics strongly oppose reduced government funding per student unit, higher workloads and new styles of corporatist university management that have resulted in reduced collegiality. At the same time, many academics have made surprisingly impressive transitions to the new environment. National survey data demonstrated that the changes have not adversely affected the commitment of academics to teaching and research. In fact, academics in both science and technology fields and in the social sciences show high rates of interest in academic work. They work longer hours per week than in the past, report higher levels of research outputs, and have achieved substantial success in attracting external research funds."

In Australia, as elsewhere, there is a demonstrable and urgent need for the detailed empirical investigation of the academic profession that the Changing Academic Profession project will provide.

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The section on the historical development of Australian higher education draws on Meek *Uses of Higher education policy research, Inaugural public lecture*, Armidale, University of New England, 2000.

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The Hong Kong Special Administrative Region of the People's Republic of China

Context, Higher Education, and a Changing Academia

Gerard A. Postiglione*

Hong Kong has long been considered a vibrant cosmopolitan center (Tsang, 2004). Foremost among its driving forces have been a rich Chinese cultural heritage that anchors it value system, a thriving internationalism that shapes its economic competitiveness, and a highly mobile population that contributes to a rapid turnover of its human resources (Chui & Lui, 2006). Its universities have contributed in significant ways to Hong Kong's historic role as a bridge between China and the world by facilitating educational exchanges, scholarly cooperation, and technology transfer (Postiglione, 2005). As the mainland opened to the outside world and reformed its economy, Hong Kong capitalized on the opportunity by setting forth a new vision to become Asia's world educational hub – a position strengthened by its geographical location within China, its world class communication and transport infrastructure, the capacity to offer a high quality English medium university education, as well as a generally multicultural outlook, the rule of law, and protection of academic freedom and autonomy. Yet, increasing competition from an emergent group of top mainland universities supported by the government's aspirations for world class universities may come to challenge the capacity of Hong Kong's highly international and globally integrated cadre of academics (Altbach & Postiglione, 2006). This paper reviews the basic characteristics of Hong Kong, its higher education system, and the academic profession.

Context

Historical Background Located in the southeast corner of the People's Republic of China, Hong Kong was a sparsely populated fishing village under the Manchu Dynasty, when it was ceded to the British Government in 1843 as a result of the First Opium War (Faure, 2003a; 2003b). As a result of the Second Opium War, the adjoining territories were added in a 99-year lease. With the exception of the Japanese occupation during World War II, it remained under British control until 1997 when it was returned to the People's Republic of China under a "one country-two system framework" in which it maintains a higher degree of autonomy in accordance with the Basic Law of the Hong Kong Special Administrative Region.[1] Among the articles relevant to higher education are the following:

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[1] Hong Kong was formally ceded to Britain in 1841. Pursuant to an agreement signed by China and Britain signed by Margaret Thatcher on 19th December 1980, Hong Kong became a Special Administration Region (SAR) of China on 1st July 1997. Under this agreement, China guaranteed Hong Kong a high degree of autonomy in all matters except foreign and defense affairs to 2047. Hong Kong cherishes its free trade economy and ranks first in the Index of Economic Freedom 2006 (research conducted by the Wall Street Journal 2005).

Article 136

(1) On the basis of the previous educational system, the Government of the Hong Kong Special Administrative Region shall, on its own, formulate policies on the development and improvement of education, including policies regarding the educational system and its administration, the language of instruction, the allocation of funds, the examination system, the system of academic awards and the recognition of educational qualifications.

Article 137

(1) Educational institutions of all kinds may retain their autonomy and enjoy academic freedom. They may continue to recruit staff and use teaching materials from outside the Hong Kong Special Administrative Region. Schools run by religious organizations may continue to provide religious education, including courses in religion.

(2) Students shall enjoy freedom of choice of educational institutions and freedom to pursue their education outside the Hong Kong Special Administrative Region.

In the relatively new status within a one country-two system arrangement, the interpretation of its colonial legacy remains an area of intense debate as Hong Kong grapples with the reinvention of its cultural identity and reformulation of its strategy for economic competitiveness (Chan, Alvin, & So, 2002; Sing, 2004).

Demographics Hong Kong developed from a sparsely populated region in the mid-19th century to become a major international metropolitan city with a population of 6.9 million in 2006 that is heavily concentrated on a fraction of its 1,092 square kilometer area (Central Intelligence Agency [CIA], 2006). Its most densely populated district averages 50,910 persons per square kilometer. This year there was a net inflow of 38,000 residents. Virtually all of the legal inflow is from the Mainland. The 2004 birth rate was estimated at seven per 1000. The ageing of the population continues, (the average life span is 85 years for women and 79 for men), with important human resource implications. A government provision in 2001 permits mainland university students who graduate from one of the eight University Grants Committee institutions to remain in Hong Kong if they locate employment. However, they have to possess skills or knowledge not readily available locally. A new admission policy was added in 2003 for mainland residents to come directly to Hong Kong if they possess talents useful for making Hong Kong more competitive. The academic profession has increasingly been advantaged by recruitment from the large pool of Chinese scholars who earned doctorates overseas, usually in the North America, Europe and Australia, but did not return to the mainland.

Hong Kong experienced a rapid population increase in the last half century, in accordance with changes on the Chinese mainland. The “touch base policy” – permitting any mainlanders who could reach the shores of Hong Kong to remain, was discontinued as mainland reforms got under way beginning in the late 1970s. Still, nearly two million newcomers from the mainland have arrived

since 1980. Hong Kong has long been characterized as being a "jumping-off point" with a transient population (Skeldon, 1994; 1995). However, a more geographically stable middle class has begun to emerge in recent decades. By the beginning of the 21st Century, Hong Kong had one of the lowest fertility rates in the world; new migrants make up a large part of population growth. Still, mainland family members of Hong Kong citizens cannot necessarily gain entry, and overstaying during visits to Hong Kong has been common. Most mainlanders must still process an application before coming to Hong Kong, while those from many other countries such as North American and EU countries can enter visa free.

In terms of ethnicity, Hong Kong remains a largely Chinese society (95 percent), although there is a great variation in their regional origin. Most of the population has roots in Guangdong province. However, many also come from Fujian, Shanghai, and elsewhere in China (Postiglione, 1988). These regional origins are reflected in the social networks that drive particular sectors of business and commerce (Wong, 1988). Most migrants to Hong Kong, as well as university staff and students, come from the wealthier parts of eastern China. The Central Government permits Hong Kong's universities to recruit first degree students directly from top mainland universities.[2] However, the agreement only covers universities in selected provinces on the east coast, including Beijing, Shanghai, Guangdong, Fujian, and Zhejiang.

Although Hong Kong has a 95 percent Chinese population, it also has 524,000 foreign passport holders, many of Chinese origin. The largest foreign resident groups are from the Philippines (129,760), Indonesia (105,710), USA (29,000), Thailand (28,550), Canada (26,650), India (21,880), Australia (18,670), Nepal (17,960), UK (17,780), and Malaysia (14,280) (Hong Kong Government, 2005). Hong Kong's two official languages are Chinese and English. The Cantonese dialect is used in government, school, home, and work environments. *Putonghua*, the standard dialect on the Chinese mainland is highly encouraged and taught in most primary schools as a separate subject; a few schools even use it as a medium of instruction. The other official language, English, is used as the medium of instruction of the University of Hong Kong. The Chinese University of Hong Kong, the Hong Kong University of Science and Technology and other institutions of higher education also rely increasingly on English as the medium instruction. About thirty percent of secondary school students are qualified to study through the medium of English, while the rest study English as a subject. The language policy is characterized as "sanyu, liangwen" (three spoken tongues and two written scripts) (Pennington, 1998).

There is an eclectic mix of religions in Hong Kong. Although most of the schools in Hong Kong are Christian, especially Catholic, only about 10 percent of the total population are practicing Christians. The rest is composed of an eclectic mix of local religions, including Buddhism, Taoism, and Confucianism (considered a religion in Hong Kong). There are also 70,000 Muslims, 15,000

[2] Since universities in Hong Kong still maintain a three-year university structure, students are recruited from mainland universities at the end of their first year.

Hindus, 8,000 Sikhs, and 1,500 Jews (Leung & Chan, 2003; Hong Kong Government, 2005). The Baptist University was founded by its American-based denomination, however, it is secularly run under the University Grant Committee (UGC) and supported by public funds.

Political System Free speech and movement are highly cherished attributes within Hong Kong society, but a lack of representative democracy, a legacy of the colonial era, remains a very emotional issue (Sing, 2004; Chan, Alvin, & So, 2002; Lam, 2004). Among the aspects of the colonial legacy that are viewed positively are its safeguarding of the rule of law, freedom of the press, and a no tolerance policy toward corruption, something which has helped Hong Kong fortify its position as a global financial center and the second largest banking center in East Asia, as well as one of the most open and free media centers in Asia.

Throughout most of the colonial era, a government bureaucracy developed that was relatively insulated from the Chinese society (Lau, 1982). Despite this fact, the people of Hong Kong generally held employment in the government bureaucracy in high regard. During the 1980s and 1990s the political system was stable and the economy grew rapidly. However, the relatively smooth transition of sovereignty was also marked by a lack of legitimacy in governance, something that became magnified during the Asian economic crisis that began in late 1997. Civil service reforms were introduced to boost government capacity and protect public finance. Despite the changing environment, the civil service structure changed slowly. A major reform, known as "executive accountability," was introduced after 1997, and the size of the service was trimmed to reduce costs. During this period, a university president was appointed the first Minister of Education, while academic salaries were drastically reduced. Although the latter affected recruitment from North America where academic salaries were rising, Hong Kong capitalized in other ways. It increased recruitment from Australia where reforms in higher education became a centrifugal force pushing academics to consider the merits of mobility within the larger Asian region. It also recruited more mainland-born academics with overseas doctorates. Although a lack of universal suffrage remains an issue, especially with respect to the Hong Kong legislature, where there are significant numbers of academics, the government bureaucracy has become more ethnically representative, making it much more coherent in practice (Burns, 2005).

Economic System and Performance

Economic Growth, Decline, Inequality and Recovery The capitalist ideology remains robust in the economic sphere (Hsu, Arner, Tse, & Johnstone, 2006; Zheng, Victor, Law, Keung, & Wong, 2001). Despite this, most schools and universities are government-funded or subsidised, something that may begin to change along with increased privatization. The degree of inequality as measured by the Gini coefficient has been rising. Hong Kong's Gini coefficient rose from 0.45 in 1981 to 0.53 in 2001 (Yung, 2006). It remains one of the highest in Asia. The population living in

poverty (though there is no official poverty line) has visibly increased (Lui, 1997). Relative prosperity in comparison to home regions across the mainland border have helped alleviate social instability. An increasing number of households choose to move across the border to Shenzhen and other parts of Guangdong where the lower cost of living more acceptable. Poverty has come to receive more attention from the government followed by initiatives from both the public and private sectors. Nevertheless, the rank in UN Human Development Index is 22 [.916] (United Nations Development Programme [UNDP], 2003).

The recent upturn of the economy has slightly eased economic pressures. Cheaply priced goods from the mainland including clothing, food stuffs and household goods (along with government subsidized housing – nearly half of all housing) have helped ease the plight of the working classes in Hong Kong.

GDP and the League Tables for Trade and Banking After more than two decades of rapid economic growth, the 1997 Asian economic crisis knocked Hong Kong's economy off the rails for several years (Jao, 2001). The SARS epidemic of 2003 further crippled development prospects. Deflation lasted 68 months. The major turnaround finally came in 2004 when Hong Kong's Gross Domestic Product grew by 8.1 percent (much faster than the 3.1 percent figure for the previous year), making it the second best performance since 1987 (Hong Kong Government, 2005). The economy doubled in size over the past two decades with an average growth rate of 4.8 percent in real terms (compared with the world economic growth rate of 3.5 percent). The inflation rate was -0.4 percent. Despite its small size, Hong Kong is the world's 11th largest trading entity. Its container port is the busiest in the world and its airport is also one of the busiest. Moreover, it is the world's sixth largest foreign exchange market and 14th largest banking centre.

Economic Sectors Hong Kong has expanded its service economy in line with global demands pushing it toward a knowledge economy (Ng, Carolyn, & Poon, 2004). There is virtually no primary production (agriculture, fisheries, mining, etc.). Secondary production (manufacturing, construction, electricity, gas and water supply) experienced a significant decline in its share of overall production, shrinking from 23 percent in 1983 to 11 percent in 1993 to three percent in 2003, as most manufacturing operations moved across the border into mainland China where labor costs are lower. The tertiary sector consisting largely of services often based on small scale firms, expanded from 67 percent in 1983 to 89 percent in 2003. Wholesale, retail, import/export trades, restaurants and hotels have expanded their share of the tertiary sector from 23 (1984) to 32 percent (2004). Finance, real estate, and business services have grown from 5 percent to 15 percent, trade, storage and communications from 8 to 11 percent and community, social and personal services from 17 to 27 percent (Hong Kong Government, 2005). Visible trade expanded annually by an average rate of 22 percent in value terms. That dropped to eight percent from 1994 to 2004 due to direct shipping

through enhancement of port facilities and simplification of customs.

Economic Links with the Mainland The economic links between the Hong Kong SAR and the Chinese mainland have been the most important factor in economic growth (Sung & Duncan, 1991; Faure & Lee, 2004; Sung, 2005; Postiglione & Tang, 1997). The mainland is Hong Kong's largest trading partner, accounting for 44 percent of all trade value, and 91 percent of Hong Kong's re-export trade. Hong Kong was the mainland's third largest trading partner (after the USA and Japan) accounting for 10 percent of mainland's total trade value. The Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA) has granted Hong Kong a special status in trade (zero tariff) and this has been extended to the trade in educational services.

There has been a sharp increase in the flow of people and services between Hong Kong and the Mainland, and Hong Kong is a principal gateway to the Mainland for business and tourism. Hong Kong is also a principal source of inward direct investment into the mainland, accounting for 43 percent of the total. The most important partner area on the mainland is the Pearl River Delta and estimates are that 11 million Chinese workers (10 million in Guangdong) were employed directly or indirectly by Hong Kong ventures.

Much of the business expertise that originally transformed Hong Kong into a major centre of trade and commerce came from the Mainland. Its manufacturing sector was greatly helped by the migration of Shanghai region entrepreneurs to Hong Kong after 1949. Hong Kong's manufacturing base of textiles and garments gradually shifted over the border into China, leaving Hong Kong to rely almost solely on its service sector for its economic growth. This includes an increased emphasis on tourism and its noted film industry.

Nevertheless, Hong Kong faces increased competition from neighboring cities on the Chinese mainland, including Shanghai, Beijing, and Guangzhou, as well as other regional centers such as Seoul and Singapore. Much of this competition is human resource related, and the Mainland government's initiative to establish a number of world class universities is coming to have an effect on higher education planning in Hong Kong.

Employment Sector The total employment figure for Hong Kong in 2004 was 3.29 million, of which 32 percent were employed in wholesale, retail and import/export trades, restaurants and hotels; 27 percent were employed in community, personal and social services; 15 percent were employed in financing, insurance, real estate and business services; 11 percent were employed in transport, storage and communications; and only five percent were employed in manufacturing. The average wage for all selected industries was HK$10,740 per month (approximately US$1,400). The unemployment rate of 6.8 percent in 2004 was much higher than the rate in the 1980s and 1990s which hovered between one and two percent. The 2005 figure for unemployment decreased to about 5.7 percent. The youth unemployment for ages 15-24 was 43,700 (a rate of 11.2 percent). The mean

employment rate for female and male working-age population was 57.7 and 85.6 percent, respectively (Hong Kong Yearbook, 2004). However, in July of 2006, the unemployment rate dropped to 4.0 percent (Census and Statistics Department, 2006).

Hong Kong is dealing with a major challenge in terms of labor supply (Fosh, 2000; Suen & Chan, 1997). While it has struggled to be a regional financial centre, and to provide first class trade and high value-added services, this has created great pressure on human resources. The labor force of three and a half million will be short in 2007 of the needed extra 100,000 people with post-secondary level education (Hong Kong Government, 2005). This is in stark contrast to the surplus of 230,000 with less than upper-secondary-level education. Thus, there is still a need to upgrade the labor force. Without a great deal of funding available for university expansion where places are 80 percent subsidized by government, Hong Kong established 20 self-financing institutions offering over 25,000 places at sub-degree and associate degree levels. This has led to a doubling of these places, from 33 percent in 2000 to 66 percent in 2005 – above the 60 percent target that had been set for 2010. This was made successful largely by the importation of the U.S. community college associate degree (AD). Hong Kong's AD is now accepted by 150 institutions in Hong Kong and elsewhere for articulation and credit transfer. It is also recognized by over 22 professional bodies.

Economics and Education Finance The total 2005 expenditure on education in Hong Kong was HK$58 billion (over US$7 billion). Hong Kong spends more on education than on any other item in the government budget. It accounts for 23.5 percent of the total government expenditure, or 4.4 percent of GDP. In absolute dollar terms, this is a growth of 54 percent compared to 1997 (Li, 2006).

The Education System The school system in Hong Kong is a British import, with six years of primary school, three years of junior secondary school, two years of senior secondary school, and a two-year course of study that prepares students for the advanced level examinations that determine entry into higher education institutions (Sweeting, 1990; 2004). However, upper secondary school will be transformed into a three-year program by 2011, similar to that in Hong Kong's leading trade partners (mainland China and the United States). In the process, the curriculum will be broadened with a greater focus on liberal studies to be followed by a four-year university degree course by 2012.

Most youngsters attend a pre-school program of two to three years which is not government funded. However, primary school and junior secondary school are compulsory and free. Most primary schools use Cantonese as a medium of instruction with English being taught as a subject. A shrinking fertility rate has led to the closing of many primary schools. Meanwhile, the large sector of international schools has come to admit more local students whose families can pay the steep tuition fees. Although most primary and junior secondary schools are government subsidized and managed by religious of other bodies, an increasing number are taking advantage of the opportunity to privatize

to a fee paying mode that gives schools more autonomy in student recruitment. The management of government subsidized schools has become contentious as the government introduced an ordinance that would transfer more of a school sponsoring body's governance responsibility to teachers, parents, alumni and other members of the school community. The school system is highly stratified by a banding system based on internal school assessments and scores achieved on primary school exit examinations. Also, only one third of students are allocated to the highly valued English medium secondary schools. Senior secondary education, though not compulsory, is virtually universal, with a small segment of vocational schools. Advancement from senior secondary to tertiary education was traditionally determined by a heavily examination-oriented system that stifled creativity and only opened the door to a small number of aspirants, consequently leading many to seek study abroad. Hong Kong's progression to mass higher education has been slow but steady, though it still lags behind Shanghai and Beijing. Hong Kong school students has been noted for their top global ranking in international assessment measures of science and mathematics achievement, especially as indicated in the TIMMS and PISA (Organization for Economic Co-operation and Development [OECD], 2003). A major challenge facing Hong Kong is how to make learning more innovative and creative with a self-learning emphasis while retaining its high rankings on these international examinations (Ho, Morris, & Chung, 2006; Stimpson & Morris, 1998; Education and Manpower Branch [EMB], 2005).

Higher Education

Policy, Legislation and Regulations Hong Kong's higher education policies are made independently of national educational policies. However, with increased economic integration, there is an unavoidable recognition that educational policy decisions need to take mainland developments into consideration. In terms of *size*, Hong Kong has 12 degree-granting institutions, of which eight are publicly funded. The Chief Executive's 2000 policy address set a target of 60 percent of the 17 to 20 age cohort enrolled in higher education by 2010, a doubling of the 2001 figure. Due to the economic crisis, achieving this target was planned through offering wholly self-financed community college places. Although student fees were higher for community college places leading to an associate degree than for university places leading to bachelor degrees, the demand for higher education was so great that the 60 percent target was achieved in half the time (Postiglione & Kwok, 2007). In terms of the *shape* of the system, a major policy shift will convert the traditional British 5+2+3 education system to a 3+3+4 structure (three years of junior and senior secondary education with a four-year university system). Although competition among the seven publicly funded universities is intense for the best students and the most research funds, new incentives have been introduced to speed cross-institutional collaboration as a way of cutting costs and strengthening areas of teaching and research. The Minister of Education has also proposed the merging of two of the top three research universities, a measure that has thus far been resisted.

Scale and Expansion Before 1990, most degree courses were offered in two universities. A third university was established in 1991. One polytechnic began offering degree courses in 1983 and the other polytechnic and one tertiary college began to offer degree courses in 1986, representing 42 percent of all first-degree enrollments in the UGC-funded institutions by 1988-89. The polytechnics and one of the tertiary institutions earned university status in 1994. Another was elevated to university status by 1997-98 (Sutherland, 2002).

In short, Hong Kong has eight institutions of higher education that are funded (HK$10 billion each year, excluding capital expenditure) by the University Grants Committee. Among these are two long-standing comprehensive research universities and a newer one with a focus on science, technology, and business. There are also two polytechnics that were turned into universities, two liberal arts universities, and an institute of teacher education. In order to encourage more private funding, the government has on several occasions provided grants to match private donations to institutions.

Research and Development Despite rapid growth in the 1980s and 1990s, Hong Kong was "remarkably reluctant" to fund research (UGC, 1996). As early as the 1990s when Taiwan, South Korea and Singapore moved ahead to invest in upgrading their industrial technologies, Hong Kong did not favor R&D expenditure. A 1983 proposal to establish a research grants committee was rejected by government. It was not until 1991 that a research grants council was established to ignite university based-research and development. In 1994-95, funding for new research reached HK$245.6 million (about US$30 million), 32 percent of which went to engineering, 26 percent to biological sciences and medicine, 19 percent to physical sciences, and 23 percent to social sciences, humanities, and business studies. The research grants council also provided a tiny amount to non-UGC institutions. Private support for research in all higher education institutions totalled HK$126.7 million in 1994-95. For 2003, Hong Kong's GDP expenditure on research and development was 0.7 percent and averaged 0.6 between 1997 and 2002 (HDR, 2005; Chen & Ng, 2001).

The Structure of Higher Education Reform of Hong Kong's higher education structure was for many years held back by its strong secondary school lobby that favored the British 3+2+2 model (three years of junior secondary, two years of senior secondary and two years of matriculation). In 1988, when Hong Kong had only two universities, (Chinese University of Hong Kong [CUHK] with a four-year and UHK with a three- year structure), the UHK Vice-Chancellor's proposed to move to a four-year structure was defeated. However, all universities will make the conversion in 2012, when the four-year undergraduate program will replace the three-year one, giving students more room for a more balanced intellectual development. This will also align Hong Kong with many international systems and facilitate students' articulation with institutions outside of Hong Kong.

Internationalization It is generally accepted that Hong Kong's survival depends upon its internationalism, something well reflected in its university academic staff composition, a large proportion of whom come from other countries (mostly English speaking), and a larger proportion of whom have earned their highest degrees overseas. Until the 21st century, most of the student traffic was largely in one direction – outward. However, several universities have set targets for recruiting as much as 20 percent of their students from outside of Hong Kong. There is no limit on admission targets for non-local research postgraduate students, but for publicly-funded programs, non-local students can make up as much as ten percent of targeted student numbers. Obstacles to recruit non-local students remain, including the high cost of living in Hong Kong, a preference that public funds be spent on local students in publicly funded institutions, and the three-year university system which makes it difficult for students from other systems to enter in the first year. Several universities have initiated recruitment of first-year students from top mainland universities. There are now 1,300 first years students from the mainland enrolled in Hong Kong. Universities also see this as a feature that can help attracts international students to campus. The UGC has also set aside HK$40 million to support internationalization initiatives. International partnerships have increased on a number of levels (Yang, 2006). Hong Kong has expressed a vision of becoming an educational hub in the region, something that is strengthened by its English medium higher education, location within China, university infrastructure, safety and ease of transportation, experience with launching and hosting international study programs, a rich tradition of educational exchange, and an academic environment that protects academic freedom.

Marketization and Competition Marketization and competition, both national and global, have intensified. Market forces have always been an almost sacred part of the Hong Kong's way of life. The mainland's transition to a socialist market economy has only emboldened those proponents who see improvements in higher education as inextricably linked to strategies of market competition. Cities like Beijing, Shanghai, and Guangzhou increasing challenge Hong Kong's position as China's economic powerhouse. The past-Director General of the World Trade Organization identified the pressing role of educational reform in Hong Kong.

> *…the rise of an increasingly skilled Chinese workforce, as well as direct transportation links with Taiwan, means that Hong Kong will have to fight to keep its privileged place…If recently launched educational reforms have the intended effect of producing a more flexible, creative, and skilled workforce, Hong Kong will have a fighting chance to keep its vaunted position as China's international window over a longer time period* (Panitchpadki & Clifford, 2002, p. 128).

It is within this context that the Hong Kong SAR has imported a number of innovations in higher education, including a more entrepreneurial model of operation and management, as well as the CC/AD.

Relevance For most of Hong Kong's history as a business and commercial center, having one university seemed adequate enough to symbolize a commitment to higher education. Hong Kong's position within East Asia during the years after World War II was as a trading port. It did not have a large or vocal academic intelligentsia and was mostly driven by economic concerns. As late as 1981, its universities only enrolled two percent of the traditional college-age group and this increased to about 8 percent by 1989 when Hong Kong lost much professional talent to emigration after the Tiananmen event. By 1990, the relevance of higher education, beyond being a training center for civil servants, teaching professionals and urban elites, became more urgent for Hong Kong. University places were doubled and four universities were added by the 1997. As knowledge economics and massification come to dominate policy discourse on the relevance of higher education, Hong Kong moved away from a sector-based manpower forecasting orientation to a more flexible model of tertiary education. A 2004 Report by the University Grant's Committee entitled: *To Make a Difference: To Move With the Times*, stated:

> "In short, Hong Kong needs its own higher education system to provide the depth and breadth of people who can participate in making Hong Kong a vibrant, economically powerful, cultured, civilized, and socially active and responsible society. The higher education sector is a key source of impetus for social development. Human capital is the single most important asset of Hong Kong. We need home-grown graduates who have a strong sense of belonging, and a strong sense of identity as being a part of Hong Kong. At the same time it is also important to nurture a core of local faculty who give stability, local character, and cultural and intellectual rootedness to local universities, and engage themselves heavily with the local community. Their social and public role is vital to the development of a civil society and the quality of life" (UGC, 2004 p. 4).

Vision: From a Bridge for China to Asia's World Education Hub Although post-1997 economic decline placed great strain on Hong Kong and its public universities, it also led them to give greater attention to their academic links in China, in the region, and globally. Hong Kong has long seen itself as a bridge between mainland China and other countries, especially across the Pacific. Early educational bridge workers include Dr. Sun Yat-sen, the first president of China, who studied in Hawaii and then at the Hong Kong Medical College (later to become the University of Hong Kong). The bridge role came to encompass dimensions of diplomacy, as well as trade and transport, travel and tourism, migration, and manpower. Strengthened by *huaqiao* links between China, the region,

and the world, Hong Kong and the Pearl River Delta region of Guangdong began an economic integration that continues to this day. Meanwhile, Hong Kong students continue a long tradition of crossing the Pacific to study in America. Among the first students from China to study in America at Yale University was Yun Wing, a native of Guangdong. Many successes followed as more Hong Kong students went to the US, including Daniel Chee Tsui, a graduate of Hong Kong Pui Ching Middle School, who received the Nobel Prize in Physics.

Hong Kong's bridge role passed through several phases during China's reform and opening to the outside world (Postiglione, 2005). As the reforms progressed, exchanges between China and other countries became more frequent and direct, leading to a further refinement of Hong Kong's bridge role. Before long, Hong Kong was viewed as moving from being China's bridge to "China's window," a place to observe social and scientific adaptations from the outside world as they operated within a Chinese society. Though some of the functions of the original bridge were no longer necessary, Hong Kong maintained its salience as a place for understanding China. It accomplished this task by providing information and interpretations about China's reforms. In this sense it became a window into, as well as one out, of China. Hong Kong could excel in this respect by capitalizing upon its international links and bilingual/bicultural abilities. Hong Kong remains a key center for interpreting China's reform, and its universities play a leading role in this respect. With the return of sovereignty to China, this role has become integrated with Hong Kong's transformation into a knowledge economy and information society. It also constitutes the nucleus of Hong Kong's vision for remaining a linkage point between China and other countries. Education is central to this process because it bridges minds – dealing intimately with thinking and understanding, and is embodied in the academic traditions, values, and practices of the University.

The implementation of the one country-two systems policy coincided with an even greater expansion of educational and academic exchange between mainland and Hong Kong universities. While this policy preserved Hong Kong's two-way flow of students and staff, educational exchange could no longer be seen within a vacuum. By the turn of the century, the Hong Kong–mainland dynamic in educational exchange became a key feature of its relationship. The flow of students and staff between the Hong Kong and mainland systems became inseparable in certain respects from the flow between Hong Kong and elsewhere (Li, 2006). With this background in mind and many years of playing a bridge role between East and West, Hong Kong is making a significant effort to take advantage of its location, infrastructure, and academic culture and become an educational hub for the region with a global outreach. Also, Hong Kong's universities will in all probability set up joint universities on the mainland – including in Shenzhen, with top mainland partner institutions, and in that way it can match local private financing with mainland financing.

Professoriate in Transition

The professoriate in Hong Kong has been a resource for creating bridges across social, cultural,

and national boundaries. The composition of Hong Kong's professoriate, with a high proportion of overseas-trained academics, ensures itself a central role in global academic discourse. The high proportion of overseas-trained academic staff at Hong Kong's universities is also a key factor in adaptation to mainland reforms. The basic argument here is that Hong Kong's universities adapted well to reforms on the mainland by refining their bridge role and modifying their academic culture so that could resonate with the university reforms on the mainland. Changes in Hong Kong's academy are at least partly attributed to the increasing number of university academics with higher degrees from the overseas, especially the United States. Furthermore, the adaptive response by the academy visibly emphasized flexibility and pragmatism, especially as more mainland academics, including university presidents, spend time studying overseas. Yet, the manner in which overseas academic culture came to influence the respective higher education systems of Hong Kong and the mainland differed. This was due not only to the much larger proportion of overseas trained professors in Hong Kong when compared with the mainland, but also because of the historical, structural, and legalistic differences between the two systems – aspects which still separate them, particularly with respect to academic autonomy. The academic deference to authority, especially in the sciences, is understood to constitute a major difference between the university systems of Hong Kong and the mainland.

The expansion of universities in Hong Kong between 1989 and 1994 and the upgrading of colleges to universities between 1994 and 1998 necessitated not only an increase in academic staff, but also an elevation of the average level of academic qualifications (Postiglione, 2002). Although the qualifications of local staff were traditionally slanted toward Britain as the colonial power, the overall number of academic staff earning degrees in the United States became higher than for other countries. The growing influence coincided with the significance of the trading relationship between the United States and Hong Kong. Anticipating the end of the colonial era, many colonial officials who themselves were educated in England or at the University of Hong Kong, preferred American higher education for their children. The overall effect on higher education was the recruitment of more US trained academic staff. Moreover, this group not only included those born in the US and Hong Kong, but also a larger and larger number of mainland academics who went to the US for higher education before securing an academic position in Hong Kong. The character of the academic profession, including their composition and training, has an effect on the academic integration with the global academy. Thus, the growing number of mainland academics trained in the United States and recruited by universities in Hong Kong adds a new dimension to this academic culture. While it is reasonable to expect a similar effect on the mainland, the number of US-trained doctorates in relation to the size of their academy is smaller. Further research is needed in order to attain a more detailed examination of the actual process by which this is occurring and its precise role in Hong Kong's adaptation and integration with the global academy and with higher education on the mainland during the reform era.

Conclusion

Hong Kong has many important advantages that go beyond its impressive university facilities. It is in the "software" – the academic culture and traditions – where Hong Kong's top universities have a competitive advantage. Academic autonomy is sufficiently well entrenched to have withstood several major challenges since 1997. An international faculty with both Chinese and other foreign heritages has not been sidelined in the day-to-day operation of the university and strengthens the cosmopolitanism of the institutions. Transparency in administration and a significant degree of faculty governance has meant that the academic staff has been involved in all major development planning and key decisions. Working conditions are favorable by international standards, as are academic salaries – despite quickly sliding downward toward the international norms with several cuts in recent years, a delinking from the civil service salary scale, and introduction of a performance-based salary system. However, Hong Kong's competitiveness in terms of salaries may gradually decline as salaries and conditions on the mainland improve and academic salaries in other places like the United States continue to rise.

While permanent tenured academic appointments are highly competitive and difficult to obtain in Hong Kong, there is a recognized academic career path and reasonable security of employment. The view is that the main requirement for Hong Kong to maintain its competitive academic system is for society at all levels – including the universities themselves as well as the government and the public – to support the universities and recognize them as a central element of Hong Kong's competitive future (Altbach & Postiglione, 2006). This means both adequate funding as well as attention to maintaining and strengthening Hong Kong's distinctive academic culture. An environment in which the most creative professors can pursue their work is essential. Given Hong Kong's heavily commercial and business culture, and the lack of a strong intellectual tradition, its leadership could easily slip back into the past during a time in which Hong Kong kept a university as a symbol rather than as a center for intellectual innovation. Within the strong pull of Chinese history, Hong Kong has not been noted as a cultural mecca or center of intellectual dynamism. The business sector has, at times, been skeptical of the usefulness of Hong Kong's universities with their high price tags. Hong Kong needs to commit fully to the idea that strong universities are the key to its future. That means that Hong Kong's universities need to be supported in their efforts to compete globally. Specific policy initiatives should include internationalization (recruiting international staff and students), the continued use of English as the central language of higher education, an emphasis on academic and professional fields especially relevant to Hong Kong's competitive future, dedication to intellectual freedom and independence that have been a hallmark of higher education in Hong Kong, ability to attract Hong Kong overseas scientists to come back home, continued reform of the school system, an undergraduate curriculum that builds problem solving skills and commitment to community building, and a research culture that is supported with bold initiatives to sustain a new intellectual environment of discovery and application. Without these emphases, Hong Kong will be unable to keep abreast

of the emerging academic sector in other parts of the world.

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The French Academic Professions

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The French academic profession is not one profession but multiple professions. This reflects the highly segmented French higher education and research system. In the first part of this report, I briefly describe the economic and demographic context within which the academic professions work in France. In the main part of the report, I describe the many different categories of faculty members and researchers active in French higher education and research institutions. I also explain how careers and recruitment are organized. The last part of this report will be dedicated to a review of the main challenges faced by the French academic profession today and in the coming years.

A Brief Overview of France and its Higher Education and Research System

Among the many debates reported in the French media in recent months, the exchanges pitting those lamenting the decline of France on the one hand against those who argue that is much too pessimistic a view on the other, occupied an important place. It is hard to escape completely this dispute when one has to describe the French overall situation because these arguments have often been mobilized by both sides in describing the main characteristics and changes of the French higher education and research system.

Some Figures about France France is a developed country with a GDP in 2005 reaching US $1,654 billion (calculated in PPP) (and US$ 2,677 per capita PPP). France belongs to the group of well-off countries of the world, as shown by its Human Poverty Index of 10. The level of inequality is also rather low: its Gini Index of 32.7 being slightly below the OECD average (with 0 = equality and 1 = inequality).

As in many other countries, the French population is ageing, even if less so than in some of its European counterparts. Nevertheless the share of the population which is less than 20 years old has decreased measurably over the 15 years from 1990 to 2005, while the share of those over the age of 60 has increased, as shown in the following table. The number of “traditional” age students is thus expected to decrease over the coming year, or at least to stabilize, even if the objective of increasing the percentage of this age group enrolling in higher education institutions is on the national education agenda.

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Table 1. Distribution by Age of the French Population in 1990 and 2005 (Percent)

	Less than 20	20 to 59	60 and more	75 and more
1990	27.8	53.2	18.0	6.8
2005	24.9	54.3	20.8	8.0

The relationship between training and the job-market has often been decried because the employment rate among young people happens to be more problematic than it is for other age groups. The employment rate in 2003 was only 20.8 percent among the 15 to 20 year-olds, while the average unemployment rate was 9.3 percent. As a result, individuals are hired on their first job quite late. On the other hand, as retirements (voluntary or involuntary) occur early, the 25 to 54 age group by far constitutes the working population in France.

Table 2. Employment/Population Ratio of the French Population by Age (Percent)

Employment/population ratio	Less than 20	20 to 59	60 and more
2004	29.5	79.5	37.1

The French Higher Education and Research System: Trends and Main Characteristics

Four main changes affected the French higher education and research system since the 1980s. The first occurred between 1985 and 1995, when a second massification took place (the first one took place in the 1960s. The number of young people attending tertiary education increased by 88 percent in twenty years-even though it may be followed by a stabilised growth in student numbers, or even a decrease in some institutional sectors and disciplines,

Table 3. Trends in the Number of Students

	1980	1990	1995	2002	1980 to 2002 in %	1980 to 2002 in numbers
Universities	871,008	1,199,284	1,571,651	1,513,995	+74%	642,987
*Among them IUT**	*53,667*	*74,328*	*103,092*	*115,465*	*+115%*	
Engineering schools	36,952	57,653	75,640	102,407	+177%	65,455
Among them public and part of a university	*8,330*	*17,325*	*24,186*	*38,690*	*+364%*	
Business schools	15,824	46,128	50,668	48,040	+204%	32,216
Other institutions	251,157	413,995	481,431	544,729	+169%	293,572
Total	1,174,941	1,717,060	2,179,390	2,209,171	+88%	1,034,230

Note: * IUT for University Institutes of Technology. They all belong to a university and prepare to a job-oriented degree, in two years after the *baccalauréat*. Their access is selective.

Second, the absorption of this new massification has been facilitated by the renewed interest of French local authorities in higher education and research (Manifet, 2004; Aust, 2004). Despite the fact that this sector was not covered by the Decentralisation Act of 1982, local authorities demonstrated a strong interest in this sector in the 1980s and the state used this opportunity to ask them for financial support when new buildings were required to welcome increasing cohorts of students.

In parallel, a third change modified the situation of French universities. While traditionally quasi-absent (until 1968) or weak, the universities became more autonomous and more governed, and they

imposed themselves as relevant interlocutors on the French scene by the end of the 1980s. This weakened the corporatist co-management which was prevailing between the academic profession and the Ministry of Education (Musselin, 2001, translated in 2004). This process began with the introduction of four-year contracts between the Ministry and each institution in 1988. It should be reinforced by the recent reform (called LOLF, Loi organique relative aux lois de finance) of the French public budgetary process which should increase the autonomy, responsibility, and accountability of French universities over their budget. The research act voted in April 2006, should further reinforce this trend.

A fourth important change resulted from the Bologna process which, of course, implied a restructuring of the French curricula into three degrees: bachelor, master, and doctorate, but also led French academics to become more aware than before of the European/international scene. It certainly transformed their perception of their environment.

Despite these four transformations, some characteristics of the French education and research system remained unchanged. In particular, French tertiary education is still very complex and structured in different non-homogeneous sectors, among them three are the most important. A first one consists of technical higher education programmes (called STS, Section de technicien supérieur) leading to a national degree in two years after the baccalauréat. Most of these study programmes take place within public or private lycées (high schools) and are given by secondary school teachers.

The so-called grandes écoles and grands établissements constitute a second sector which educates students for highly qualified jobs (engineers, business men/women, intellectual or administrative elites). They form a very composite group. Some of them are public and included within universities; others are also public, managed by the Education Ministry but having a specific status and being called grands établissements (for instance Sciences-Po, the Conservatoire National des Arts et Métiers, and Ecole de Rome); still others are public and under the responsibility of ministries other than the Education Ministry (for instance the Ecole Polytechnique); others (mostly business schools) depend on quasi-public institutions such as the Chambers of Commerce and Industry. Some of these Grandes Ecoles can only be entered after passing highly selective exams which are prepared in two years in the private or public lycées by attending the classes préparatoires aux grandes écoles (preparatory classes to enter grandes écoles).

The largest sector is the university sector: 84 institutions provide undergraduate and graduate studies, are involved in research activities[1] and are mostly public[2]. The access to undergraduate classes is open to all baccalauréat holders, with the exception of the IUT (Instituts Universitaires de Technologie) which deliver a national degree in two years and are selective. During the last thirty years, selective job-oriented degrees (MIAGE or maîtrise in computer science applied to the management of firms, DESS or diplôme d'études supérieures spécialisées, etc. before Bologna and

[1] They represent 75% of the French staff engaged in research activity according to the CNER report (2003, p. 8).
[2] There exist a few private universities which concern about 1% of the students.

Professional masters since Bologna) were developed in universities (mostly at the master level) along side the traditional national degrees (Licence, Master, and doctorat, since the implementation of the Bologna reform).

Parallel to this segmentation among higher education sectors, there is also a divide between higher education and research institutions. The latter were created during the 20th century to respond to the lack of research activities in most universities (and grandes écoles as well). They have their own staff of researchers with no teaching duties.

This institutional segmentation within higher education institutions and between research and higher education is nevertheless less pronounced now than in ealier years. On the one hand, there exists some cross fertilization between universities and grandes écoles: the former adopted some of the pedagogical characteristics of the latter (especially in job-oriented selective programmes), while the latter more and more adopt academic standards (now asking their staff to do research and recruiting faculty with academic profiles). On the other hand, research staff and faculty members are interacting more and more one with another. The former generally work within units located in universities and many research units are jointly managed by a university and one or more national research institutions (they are therefore called UMR, unités mixtes de recherche, or mix research units).

A Segmented Profession

Despite these cross fertilization processes and increasing relationships among the different sectors, the French higher education and research system is still institutionally segmented. This affects the management of staff, as reflected in the many different categories of actors involved in tertiary education. I shall briefly describe them but the level of information on each category will depend on the data available.

A first category consists of permanent secondary school teachers teaching in STS (Section de technicien Supérieur, technical higher education programmes) and CPGE (Classes Préparatoires aux Grandes écoles, Classes preparing the access to grandes écoles) classes (held in lycées). Teachers in CPGE reach a little more than 2,100 according to the Repères et références statistiques, 2005).

A second category consists of the permanent faculty members of the private or quasi-private (held by Chambers of Commerce and Industry) grandes écoles. No aggregated figures are available about them. We also do not know how they are recruited, promoted, or assessed as many schools have their own bargaining system.

A third category regroups heterogeneous types of academic personal: those having a permanent position in the public grandes écoles which are under the control of a ministry other than the Ministry of Education, or in a grand établissement. Some of these faculty have their own public servants status, others are part of the university faculty members category (see infra) but benefits from or are submitted to rules specific to their institution relating, for instance, to teaching duties or recruitment procedures. When they are in the first situation, they are not included in the figures provided by

the Ministry of Education, while they are in the second case.

A fourth category includes permanent secondary school teachers active in universities and training university students. They have no research obligations but must teach twice as many hours as the university faculty members and generally teach undergraduates. Their number is growing: they were 11,239 in 1994-1995 and 14,419 in 2004-2005 (about a 28 percent increase).

A fifth category is constituted of the university permanent faculty members, who are called enseignants-chercheurs. They are permanent civil servants organised in two main "corps": the maîtres de conférences, divided in two categories, normal and exceptional, and the professors, divided into three classes, second, first and exceptional class. They have the same yearly teaching duties[3]: 128 hours of lectures (cours magistral or CM) or their equivalent in discussion groups (travaux dirigés or TD, and 1.5 hour TD = 1CM) or laboratory work (travaux pratiques or TP, and 2 hours TP = 1 CM). In terms of salaries, a maître de conférences begins with a monthly income (before income tax and after insurance tax) of 2,027€ and can finish his/her career at 4,305€, while professors may start with 2,940€ and earn up to 5,904€ per month. But both of them can teach more than the 128 annual hours and then are paid overtime. Furthermore, there exist some bonuses: pedagogical bonuses for academics developing specific educational activities (between 456 and 3,530€ a year); administrative bonuses for all academics having management functions (an average 2,019€ a year; a research and doctoral bonus (3,336€ for the maîtres de conférences, 4,819€ for the second class professors and 6,302€ for first class professors) for academics especially involved in research activities. Enseignants-chercheurs may also receive complementary resources such as intellectual properties, author fees, consulting or expertise fees.

In the last few years the gender issue, which was previously virtually absent from the French scene, gained visibility. Many reports were published (see for instance Boukhobza, Delavault, & Hermann, 2000; Bonneau 2000; Esterle & Chapelle 2002) which addressed the low presence of women at universities. They showed that the percentage of women among students increased, but they still are very rare at the higher levels (as professors but also as deans, university presidents, or members of decision-making bodies). Among the enseignants-chercheurs, the percentage of women professors nevertheless increased overall within the last years.

Table 4. Trends in the Percentage of Women in Universities

	Law		Humanities		Science		Health sciences		Total	
	MCF	Prof.	MCF	Prof.	MCF	Prof.	MCF	Prof.	MCF	Prof.
1994/95	29.9	13.2	43.8	25.4	27.8	8.8	47.4	9.3	34.7	13.0
2001	36.6	15.5	47.9	27.7	29.6	10,1	48.6	11.2	37.6	15.0

A sixth category concerns positions open to professionals working half-time in firms or public services and half-time at the university. They are mostly employed in job-oriented study programmes

[3] Teaching duties can be reduced for faculty staff fulfilling academic leadership posts (university president or dean). And for all *enseignants-chercheurs*, a sabbatical of 6 months to one year may be granted each six years.

and called (PAST. Professeurs associés à temps partiel, Part-time affiliated professors).

A difficult to grasp seventh category concerns individuals paid by the hour: they are called vacataires but their number is uncertain and their main activities can be very diverse.[4] They are required for specific courses when no competence exists at the university or when the permanent staff can not accommodate the student numbers. They are recruited directly at the department level.

The eighth category counts the allocataires and moniteurs de recherche. The former are the doctoral students who receive a two-year fellowship (renewable once for one year) from the Ministry of Research in order to prepare their doctorate. Many of them are at the same time "moniteurs."[5] (Moguérou, 2003; Coulon, Ennafaa & Paivandi, 2004): they teach 64 hours per year, attend each year 10 hours of seminars offered by the ten Centres for Initiation to Higher Education (CIES). The CIES were created in 1989 in order to prepare future faculty members for an academic career. They receive a somewhat higher salary than those who are only allocataires (1,770€ each month before income tax and before insurance tax for the former against 1410€. for the latter, according to the Ministère de la Recherche website). These allocataires moniteurs represent on average 45 percent of the 11 500 allocataires and 8 percent of the 64 170 doctoral students counted in 2000 by the Rapport sur les Etudes doctorales (2001), according to the CNER report (2003, p. 14). Many of these doctoral students, especially in humanities, have no doctoral fellowship or salary.

The last and ninth category groups the ATER (Attachés temporaires d'enseignement et de recherche) positions. These are contingent positions on time-limited contracts (one-year renewable once) mostly dedicated to doctoral students on the verge of finishing their theses, or to PhDs who will apply for faculty or research positions within the three coming years. They have the same teaching duties as the enseignants-chercheurs. Because of this quite heavy teaching load, such positions are never considered as post-docs in the disciplines where it is required to spend time in a post-doctoral position in order to secure a first permanent position (as in biology, for instance).

Thus, there are many categories of faculty and researchers and many lack statistics as there is no centralised information about them. Consolidated data therefore only concern the permanent and non-permanent staff managed by the Ministry of Education, *i.e.* academic staff at the public universities, in grandes écoles belonging to universities, and in public grandes écoles and institutions managed by the Ministry of Education. For this population, the figures in 2004/2005 were the following (Bideault & Rossi, 2005).

Last but not least, there exist nine national research institutions which were created during the 20th century in order to compensate for the lack of research within universities. Among these institutions,

[4] Some are *enseignants-chercheurs* giving supplementary hours, other are researchers who accept to teach and are often paid extra for that, others are doctoral students, PhDs waiting for a position, people active in firms but offering some classes that the traditional faculty members do not want or are not able to give, etc.

[5] The study led by A. Coulon *et al.* (2004) shows that the *allocataires moniteurs* have had a more successful initial training and come from more favoured social milieus than other doctoral students. A further study (Moguérou, 2003, p. 12 and 13) further shows that their chance to become a faculty member or researcher are much higher and their risk of being unemployed much lower than other doctoral students.

Table 5. Distribution of Academics by Status and by Type of Institution, Distribution by Status

Repartition by status								
Tenured (including PAST)				*Non tenured*			*Tenured on contracts*	Total
Professors	*Maîtres de conférences*	Assistants (Footnote 7)	Sub-total	Specific medical staff	ATER	Moniteurs	Secondary school teachers in universities (with lecturers in foreign languages)	
19,849	36,124	389	56,362	4,179	7,326	6,510	14,419	88,796

Repartition by types of institutions				
Universities*	IUT	Institutions or *grandes école*s included in universities	Other higher education institutions depending from the Ministry of education	Total
70,583	9,844	1,304	7,065	88,796

Note: *Including technological universities

the CNRS (National Centre for Scientific Research) accounts for 70 percent of the almost 16,500 tenured researchers they employ. Each of these institutions has its own career paths and procedures, which are different from those for the university faculty members. They all are civil servants, however. In each institution, the researchers are organized in two corps (the chargés de recherche and the directeurs de recherche). At the CNRS the wages (before income tax and after social insurance tax) reach 2,030€ per month for a chargé de recherche who begins (3,670€ at the last echelon) and from 2,940€ to maximum of 5,900€ per month for a directeur de recherche.

At the CNRS, 31.3 percent of the researchers are women while they were 30.percent in 1991 (Bilan social CNRS, 2004, p. 23). The percentage of women in the lowest positions (chargés de recherche) is greater than in the higher positions.

Table 6. Percentage of Women by Corps and Class at the CNRS in 1991 and 2004

	Chargées de recherche 2d class	*Chargées de recherche* 1st class	*Directrices de recherche* 2d class	*Directrices de recherche* 1st class	*Directrices de recherche* exceptional class
1991	33.3	35.8	23.3	15.6	5.6
2004	35.7	37.6	25.2	11.7	11

Careers and Recruitment

The recruitment procedures are as diverse as the academic profession is. We will therefore only concentrate on the university academic staff (the fifth category mentioned above) and on the research staff of the national research institutions.

Recruitment While the chance for a person holding a doctorate to obtain a permanent position has decreased over recent years, the conditions required to apply for a position became more professionalized. Quite standard steps have to be passed to secure even a limited chance to be recruited. The first one consists of the completion of a thesis, whether with the help of a fellowship or

not.[6] Frequently in France a doctoral student may be registered in a university, especially in the humanities without a fellowship or any office at a research centre.

About 10,000 theses are completed in France each year. The new doctorates can apply for an ATER position or for a post-doc (often abroad, as such positions still are not very developed in France), while they are waiting for the annual national concours for recruitment as maîtres de conférence or chargés de recherche. For these positions, the candidates first have to send their dossier to a national council (the Conseil National des Universités,[7] CNU) which must decide whether they are qualified enough or not to apply for a maître de conférences position. This qualification is obtained for four years. The qualified candidates can then apply for the vacant positions the Ministry lists, generally in March. By the end of May or the beginning of June, local discipline-based committees (elected for four years) meet within each concerned university and rank the dossiers. Their choice has to be approved (and generally is) by the concerned university council.

The access to professorships for the maîtres de conférences in science and humanities follows a similar procedure. Maîtres de conférences first have to pass an habilitation à diriger des recherches (a kind of German Habilitationschrift) and then be recognised by the CNU as qualified to apply for a professor position in universities where vacant positions are published. They will also be ranked by the local discipline-based committees (restricted to professors). In law, management, economics, political science, the "royal" access to professorship[8] consists of passing the very selective agrégation du supérieur exam. A number of professorships are opened for this exam each year, the maîtres de conférence (who prepare for it intensively) pass the exam, and they are ranked according to their performance: the first on the list can chose the position he/she prefers among the open ones, and so on down the list. In this case, the chosen universities do not have their say in the staff they will welcome!

For the chargés de recherche positions within the national research institutions, the candidates send a scientific project and an application which is examined by a national discipline-based section (they are 41 of them at the CNRS) which rank them. For each section a number of positions are open for recruitment each year and the scientific direction then decides in which research centres the recruited candidates will be accepted of the three s/he indicated in his/her dossier. To become a directeur de recherche, chargés de recherche have to follow the same procedure: writing a scientific project and an application form, being examined and ranked by the same national discipline-based sections.

Some Characteristics of the French Academic Labour Market From a more analytical standpoint, three main features characterize the French academic labour market. First, the same principles of selection are used for recruitments and for promotions: they always rely on

[6] According to R. Barré (2001, p 34), about 65% of those who finished their Ph'd had a fellowship (80% in science and 25% in humanities) and 10% were wage-owners.
[7] It is organised in 56 sections, representing sub-disciplines. Each section consists in an equal number of *maîtres de conférences* and professors, two third of them being elected and one third nominated by the ministry.
[8] There are other ways but they concern fewer positions and are less prestigious.

"tournaments" (Lazear & Rosen, 1981), where many candidates apply for one position and they are ranked according to their comparative performance.

Second, a characteristic of the French academic labour market is the early access to permanent positions. An initial post as maître de conferences occurs on average at age 34. But it should be noted this does not guarantee access to a professorship as the next step. Some of those getting such a position will never become professors. According to the Ministry statistics (Bideault & Rossi, 2005), 23.6 percent of the maîtres de conférences are 55 years old or more and most of them will remain in this category until they retire.

Third, the French academic labour market combines poorly regulated internal labour markets with a barely attractive external labour market (Doeringer & Piore, 1971). Because it is possible to recruit one's own doctorates as maîtres de conférences, and also to recruit a professor among the maîtres de conférences of one's department, there exist "local" careers. But as a whole, the incentive mechanisms regulating French universities are very limited and while the few incentive mechanisms exist, faculty members are not obliged to submit to them. In a way they are optional, based on voluntarism. As there is no compulsory assessment, one can finish a career as maître de conférences. Nevertheless, the best way to "have a career" most of the time is to move from one institution to another and to be recruited by one of the best reputed departments. This mobility has no significant impact on the salaries of the concerned academic faculty, but allocates symbolic rewards, which can then be transformed by better access to research contracts and more doctoral students.

Forthcoming Challenges

Having described the situation of the diverse French academic professions, I can now turn to some of the current issues.

An Employer-job Market Today but Forthcoming Retirement Prospects Between 1996 and 2000, the total number of faculty rose by 9.2 percent (Barré, 2001, p. 11): mathematics, engineering sciences, and humanities benefited the most from this trend, while astronomy sciences and medicine decreased slightly (-5 to -6 percent). But during the very last few years, the number of positions opened for maîtres de conférences decreased. While 3,200 positions were open in 1998, 2,359 in 2000, and 2,674 in 2002 only 2,607 were open in 2004. The trends in the number of positions open at the CNRS for CR2 and CR1 was rather stable during the same period (338 in 1998; 337 in 2000, according to R. Barré (2001, p. 56), with 384 positions open in 2006 (according to the last national decree). But between 1996 and 2000, the overall number of research staff in national research institutions decreased by 1.2 percent.

Nevertheless, recent studies (Giret 2003; Beret, Giret, & Récotillet, 2003) show that researchers rather quickly find jobs after their defence (with disciplinary variations), but quite often a time -limited employment, though they generally have a permanent job three years later. For instance in 2001, only

19 percent of the doctorates of 1998 had non-permanent jobs and 7.4 percent were still unemployed (Beret *et al*., 2003, p. 12).

Two factors could modify the situation in the near future: first the recognition of higher education and research as a priority sector (one of the few which will not experience cuts in 2007, according to the budget under preparation) and second, the forthcoming high retirement rates. According to R. Barré (2001, p. 19), 1,750 academics per year left universities or research institutions between 2001 and 2004 and retirees are expected to increase from 2200 to 2400 between 2004 and 2012. The retirement of the baby boomers becomes a major worry, as at the same time French elites are said to be leaving France (see for instance, Institut Montaigne, 2001; or Postel-Vinay, 2002) for more attractive positions in academia elsewhere, or they may be leaving for other economic activities, as well. This may lead to debates about the attractiveness of the French academic profession.

Nevertheless, up until now, no crucial decisions have been made by the French Government to increase the attractiveness of academic careers. Furthermore, the projections (Fréville, 2001-2002; Barré, 2001; Barré, Crance, & Sogogneau, 2002) prepared for the French Senate, were not alarming. R. Barré projected the doctoral student population to increase from 40,000 to 50,000 persons, 10,000 of whom will be finishing their theses each year. There are thus between 12,000 and 15,000 candidates competing for the 2,500 to 3,000 positions open each year at universities and research institutions.

A further point to bring into the discussion concerns the evolution of the attractiveness for doctorates of the public sector compared to the private one. Beret *et al.* (2003, p. 13-15) observed a decrease in the employment of PhD holders in the public sector but the decreasing number of open positions probably explains this trend. Nevertheless, the recruitment needs in research positions in industry considerably increased over the last decade: the number of research positions in private firms increased dramatically from 28,100 in 1980 to 72,800 in 1998 (Observatoire des Sciences et Techniques, 2002, p. 7).

Reforming Careers and Staff Management A further concern deals with the structure and regulation of the French academic profession. Traditionally, the profession is rather egalitarian and protective. As a result, careers are rather undifferentiated. The introduction of bonuses was a first step towards the recognition of varied forms of academic achievement. The Report written by E. Espéret (2001) went further and outlined the diversification of missions assumed by academics (including administrative tasks)[9] and the diversity of tasks within each mission. The report also stressed that each individual academic does not undertake all these tasks the same way and that variations in the balance of these activities may occur during a career.

[9] Academics often claim that they do not find the needed competencies to lighten their work (for instance jurist competent in research contracts, EU specialists.) and that the division of work between them and the administrative staff is not clear. See also Gueissaz (1999) on this point.

Among the solutions the report suggested, a very interesting one concerns the introduction of individual contracts that each university could negotiate with each faculty member. Thus this report suggests a way to better match the new reality of academic work as well as to increase university management of academic staff. But five years later, this report and its sequel (Belloc, 2003) are still not implemented.

Becoming more International There is also general discourse about the need for mobility, for more international staff, and the dangers of inbreeding. As a result, the presence of foreigners among the university and research staff is becoming an indicator of dynamism and success. But Moguérou (2002) stressed that the proportion of foreigners getting their doctorates in France has decreased since the beginning of the 1990s. Further, Cytermann, Bideault, Rossi, and Thomas (2003) shows that the number of foreign candidates recruited for permanent positions at the universities decreased during the last five years.

Table 7. Trends in the Number of Foreign Candidates Recruited as Maîtres de Conférences (MCF) or Professors (Pr) Compared with the Number of Positions Open to Recruitment: 1998 to 2002, and Year-to-Year Percentage Change

	1998	1999		2000		2001		2002	
	N1	N2	99/98	N	2000/98	N	01/98	N	02/98
Recruited foreign candidates (MCF and Pr)*	341	316	-7.3%	261	-23.5%	215	-37%	212	-38%
Open positions (MCF and Pr)**	4831	4328	-10%	3944	-18%	3143	-35%		
Percent of Open Positions Filled by Foreign Candidates									

Notes: *according to Cytermann et al. (2003).
** according to tables 1 published for 1998, 1999, 2000, 2001 by the DPE B3 of the Education Ministry)

The situation at the CNRS looks somewhat better: according to recent data, 10.7 percent of the researchers are not French, (compared with 8.1 percent in 1991) and these foreigners come mostly from the European Union (Bilan social CNRS, 2004). But on the whole, the issue of the international attractiveness of the French academic professions is on the policy agenda.

Conclusion

While the French higher education system experienced many changes within the last two decades, the French academic professions remained up to now rather unaffected. No consistent changes occurred in terms of status, career development, control over work, or staff management. The gap between the evolution of the French higher education system on the one hand and the stability of the French academic professions on the other, will probably become more and more difficult to accept. Changes will probably have to be introduced. But if so, it would be better to discuss them and implement them before the large waves of recruitment which are ahead. If a change in the contractual

arrangements is to be initiated, it would be better to inaugurate it before the new hiring than after. This is, therefore, why I claimed at the end of my recent book (Musselin, 2005) that it is urgent to ac now.

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The Academic Profession in Germany

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Introduction

We tend to have firm views about the characteristics of the higher education systems in various countries. These views might be based on misinformation, be too stereotyped and be outmoded, but they often convey, in fact, typical elements of higher education in a certain country. Looking at higher education in Germany, we tend to be believed that professors, as far as their activities and the organisation of their work are concerned, are:

- strongly research-oriented,
- protected by a high degree of academic freedom to pursue knowledge for its own sake,
- very powerful in the internal decision-making processes of higher education institutions, and
- well-supported as chair-holders with personnel and material resources.

With respect to academic careers in Germany, overviews of higher education (*e.g.* Teichler, 1990; Kehm, 2006) point out that:

- universities employ large numbers of graduates soon after graduation to conduct research and to work on their doctoral dissertation at the same time; thus, the majority of doctoral candidates is employees of universities, paid either with the help of university positions or research grants,
- junior academic staff are expected to survive a long period of dependence and social uncertainty before becoming independent and socially secure scholars, and
- the *Habilitation,* an academic qualification based on several years of academic work beyond the doctorate, is the entry qualification for the professoriate at a university.

Concerning the steering and governance of the higher education system in Germany, experts underscore that:

- mobility between higher education institutions is a mandatory element of the academic career – a fact that is expected to ensure objectivity and fairness at times of selection along the

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academic career ladder, but which

- also has the side-effect of weakening the academics' attachment to their institution;
- governments in charge of higher education institutions traditionally reserved the right to select the professors to be appointed from a list of three candidates suggested by the university, or even to select candidates not on the list.

We should be cautious, however, in taking these conventional views as appropriate descriptions of contemporary reality. First, these views often emerge without thorough international comparative analysis of the extent to which the German academic profession really differs clearly from the academic profession in other countries. For example, academics remaining for long periods of time in dependent situations are by no means typical only of German higher education. Second, these perceptions of the academic profession tend to be so general that alternatives to the modal patterns tend to be overlooked. For example, the proportion of university professors who have not acquired a *Habilitation* is by no means small; and it is often overlooked in overviews of German higher education that careers and work assignments of professors at *Fachhochschulen* (translated into English as "universities of applied sciences") differ clearly from those at universities. Third, many reforms of higher education were realized during the most recent four decades, and these reforms significantly affected the junior academic careers as well as the roles of professors in decision-making processes within higher education institutions.

The aim of this paper is to provide an overview of key elements of the academic profession in Germany, starting with a description of the higher education system, supplemented with key statistics, then including more detail about the major ranks and staff categories, the typical academic career paths, staff planning and recruitment, the employment patterns of academics, the appraisal of their work, and their involvement in decision-making. Major changes which have occurred in recent decades will be discussed because they have affected several generations of those currently active professionally. Emphasis will be placed on the professoriate and the academic careers at universities, but major characteristics of academics at universities of applied sciences will be pointed out as well. No reference will be made to teachers in other types of tertiary education as most of them are viewed in Germany as vocational training institutions similar to other training institutions not considered tertiary. Nor will characteristics of private higher education institutions be discussed, because the private sector has remained small (with enrolment of less than 3 percent of all students).

Many features of higher education in Germany cannot be described accurately for the country as a whole because the institutions of higher educations are supervised by the separate governments of the 16 different *Länder* in the Federal Republic of Germany and each *Land* has its own higher education legislation. Key features of the academic professions, however, are common all over Germany, however, as a consequence of common traditions, national regulations regarding staff in the public sector, the national Framework Act for Higher Education (*Hochschulrahmengesetz*) which establishes

some common rules which have to be followed in the legislation of the individual *Land*. In addition, there is a national arena of public debates about higher education policies which shape public opinion more strongly than debates and policies within the individual *Länder*.

The Higher Education System

Several universities were established from the 14th to 16th centuries, but the concept of Wilhelm von Humboldt embodied in the establishment of the University of Berlin in the early 19th century is generally viewed as the beginning of the modern research university worldwide. Humboldt advocated that all professors should be in charge of both teaching and research. Academic freedom and pursuit of knowledge for its own sake isolated from the powers of the world was expected to be most appropriate and eventually useful for society. Further, in the community of teachers and learners, students had the "freedom of learning," as well.

The Humboldtian concept still, at the beginning of the 21st century, shapes German universities in various respects. Professors have a substantial influence on decision-making within higher education institutions. University professors have more or less identical teaching loads but they are also obliged to undertake research, and universities have to provide them with the basic resources they need for research. Teaching and learning is shaped by a strong emphasis on understanding theories, methods, and disciplinary knowledge even though some fields of study are strongly oriented to providing utilitarian knowledge for professional work. German students have more freedom and responsibility than they do in many other countries to find their own way during their course of study.

Two other historical features of German higher education have a strong impact on the current situation (see the overview article in Kehm, 2006). First, German higher education institutions were traditionally established and funded by the rulers of the various territories. Nowadays, the legislative power, the administrative supervision, and the basic funding, as mentioned above, rest with the 16 *Länder* of the Federal Republic of Germany. The Federal government and parliament develop framework legislation to ensure common features of the system, including planning, funding of research, buildings, and student aid, as well as the support and coordination of international links of German higher education institutions. Second, various mechanisms serve to reinforce similar quality standards across all universities as, for example, the common entry regulations, the mandatory mobility in academic careers, and the mix of Federal, Federal-state and inter-state coordination mechanisms. For another example, scholars of the fifth and sixth percentile of German universities, ranked according to external grants acquired per scholar, succeed on average in acquiring about two-thirds of the external grants [as do scholars at the top twenty universities]. This indicates a relatively flat quality hierarchy across German universities (see Teichler, 2005, pp. 105-114).

In the early 1960s, when only about 10 percent of the traditional college-age group were enrolled at institutions of higher education in the Federal Republic of Germany, a consensus emerged that a substantial expansion was desirable in order to reinforce economic growth, to ensure study as a right

of qualified citizens, and also to reduce inequality of opportunity. These goals were viewed as feasible, however, only if a sizeable group of students took short study programmes not as closely linked to research as was the case for long university programmes in the past. Actually, universities continued to offer courses requiring officially four or more years up to a master-equivalent degree called – varying by fields according to the character of the study programme and examination – *Diplom*, *Magister* or *Staatsexamen*. Additionally, *Fachhochschulen* have been established since 1970 offering somewhat shorter *Diplom* programmes for about one-third of the students (see the overview data in Table 1). Even with an entry rate of somewhat more than 30 percent and a graduation rate of about 20 percent in the early years of the 21st century (see some key figures on higher education in Germany in Table 2), expansion of higher education in Germany remains below the average of Organization for Economic Co-operation and Development (OECD) countries.

Table 1. Key Data on Higher Education in Germany

	Total	Universities[1)]	Colleges of Fine Arts	Fach-hochschulen[2)]
Institutions (2005)	379	124	53	202
Students (in 1,000) (2005)	1,964	1,373	31	560
Percentage of female students	47.7%	51.3%	57.3%	38.3%
Percentage of students by field of study (2005)				
Languages, cultural studies	21.6%	29.3%	4.8%	2.2%
Sports	1.5%	2.0%	0.0%	0.0%
Law, economics, social science	29.9%	26.4%	0.0%	44.4%
Mathematics, science	18.2%	20.7%	0.1%	11.9%
Engineering	16.5%	9.6%	3.7%	33.3%
Medicine, health	5.6%	7.2%	0.0%	1.8%
Veterinary medicine	0.4%	0.6%	0.0%	0.0%
Agriculture, forestry, dietetics	2.0%	1.6%	0.0%	3.1%
Fine arts	4.2%	2.5%	91.4%	3.2%
Total	100%	100%	100%	100%
Graduates (in 1,000) (2004)				
Degrees (Diplom, Magister, State examination, Bachelor, Master etc.)	196	122	5	80
Doctoral award	23	23	-	-

Sources: Statistisches Bundesamt (2005b; 2005c; & 2005d).
Notes: 1) Inclusive Colleges of education and colleges of theology.
2) Inclusive Verwaltungsfachhochschulen (Colleges of public administration).

Table 2. Expansion of German Tertiary Education with International Comparisons, 2003

	Tertiary - Type B	Tertiary - Type A
Net entry rate		
Germany	16%	36%
Country means OECD	16%	53%
Graduation rate		
Germany	10%	20%
Country means OECD	9%	32%
Population (25-65 years) that has attained tertiary education		
Germany	10%	14%
Country means OECD	8%	16%

Source: OECD (2005).

Since about the mid-1990s, when efforts had taken root to restructure higher education in the Eastern parts of Germany after the German unification in 1990, many activities to reform higher education in Germany got underway (see the overview in Teichler, 2002). Funding for international mobility of students and scholars increased to a higher level than in most other economically advanced countries. Reforms of leadership and management of higher education followed, by and large, the main stream of "New Public Management," whereby, governments discontinued various elements of detailed supervision, the power of universities and deans was strengthened substantially, and evaluation activities were extended. Germany was initially, since 1996, one of the most active advocates for the introduction of a bachelor-master-structure of study programmes and degrees, but the process of making these changes turned out to be slower than it was on average in Europe.

Last but not least, as will be explained below, steps were taken at German universities since 2002 to change the remuneration of senior academics and upgrade the status and independence of academic staff who are at a career stage corresponding to that of assistant professors in the US and Japan.

Academic Staff Categories

In Germany, no equivalent exists for the English term "academic profession." The official occupational category is "*Hochschullehrer*" (higher education teacher), and this applies only to senior ranks (mostly professors) undertaking their professional duties of teaching and research independently – almost all of whom hold the title "professor."

Traditionally, the full professor was named *ordentlicher Professor* or *Ordinarius*, and only he or she held a *Lehrstuhl* (chair) with possibly substantial personnel and material resources linked to it. Other professors were called *außerordentlicher Professor*. Since legislation enacted in the 1970s, however, the title "professor" is not differentiated anymore according to ranks (such as "professor," "associate professor," and "assistant professor" as they are in the U.S. and Japan), but rather according

to the type of higher education institution: *Universitätsprofessor*, *Kunsthochschulprofessor* (professor at fine arts college) and "*Professor*": the last category is reserved for professors at *Fachhochschulen*.

These changes of titles notwithstanding, two ranks of university professors were preserved in terms of salary categories: they were called H4 and H3 when appointed until the mid-1970s, C4 and C3 until recently, and finally W3 and W2 as the consequence of the reform gradually implemented since 2002. One can consider the H4, C4 and W3 professors as equivalent to full professors and the H3, C3 and W2 as equivalent to associate professors in the United States and in Japan. Corresponding professors at *Fachhochschulen* are one rank lower each on the pay scale (currently most C3 and C2). Since the late 1970s almost all professors of these ranks are civil servants with life-time employment up to a retirement age of 65.

As a rule, only professors of these ranks are considered to be fully independent scholars to whom the German constitution grants academic freedom. Only a few persons are appointed as *Dozenten* – the titles vary – who have similar rights of teaching and research but without access to similar resources and similar decision-making rights as professors.

Most other academic staff at universities are expected to teach and do research under the supervision of professors. The title linked to key positions for persons already awarded a doctoral degree but still in the process of preparing themselves for a professoriate has changed several times over the last few decades: *Assistent*, *Assistenz-Professor*, *Hochschulassistent* and recently *Junior-Professor*. Both the assistant professors appointed from the 1970s to the mid-1980s and the junior professors appointed since 2002 can be compared to assistant professors in the U.S. and Japan. Persons in the various positions named were appointed as civil servants with short-term contracts up to a maximum of six years, and doing research work towards a higher academic qualification is an integral element of their assignment.

The majority of academic staff at universities is employed as *Wissenschaftliche Mitarbeiter*. These are employees with short-term contracts or indefinite contracts, not withstanding whether they had already been awarded a doctoral degree or not, and whether they hold university positions, or are paid on the basis of external grants. Academic staff employed on a regular contract at a university but who have not yet been awarded a doctoral degree have the right to spend part of their time working on their dissertation. Those who are paid through research grants often are granted this right as well.

There are a few additional academic staff categories whose positions are held by smaller numbers of persons.

Career Ladders

A typical academic career in Germany can be viewed as a selective four-stage career. After the master-equivalent degree, a person opting for an academic career will spend on average more than five years as a *Doktorand*, a doctoral candidate. In the majority of cases, he or she will be an employee of the university with a short-term contract. In other cases, doctoral candidates are awarded a doctoral

fellowship and they work as short-term *Wissenschaftliche Hilfskräfte* (graduate auxiliary staff which is a status similar to teaching and research assistants in the U.S.). They may be employed outside academia while working on their doctoral thesis part-time or they may finance their doctoral work with funds provided by themselves or their families (see Wissenschaftsrat, 2001).

Most doctoral candidates are individually supervised by one or in some cases two professors. Only about one-tenth of the doctoral candidates participate in doctoral programmes named *Graduiertenkolleg* or similar name. Only a minority of doctoral candidates are formally enrolled as students at the university where they are working toward their doctoral degree. As there are no mandatory regulations for the length of time a student can be accepted as a doctoral candidate, no reliable statistics exist about the number of doctoral candidates or their success ratio. The dissertation eventually submitted will be assessed, as a rule, by two professors, including the supervisor. Students eventually have to defend their dissertation and in some cases are examined beyond the area of their dissertation. A doctoral committee of at least four professors will decide whether the doctorate will be awarded and what grade will be conferred.

Upon the award of a doctoral degree, those heading for a professoriate at this second stage of an academic career, might chose among a number of different employment options. These include employment as academics at universities, usually with contracts of up to five or six years; employment in research institutes outside higher education; employment as short-term civil servants preparing themselves for a *Habilitation* (or *Assistenz-Professoren* or *Junior-Professoren* when these positions existed); or in some fields they might even seek professional work outside academia and eventually return to the university.

Junior academic staff positions at both career stages are publicly announced at both institutions of higher education and at public research institutions. A substantial proportion of these positions, however, tend to be filled by former students and young academic staff of the same university. In contrast, university professors, as a matter of principle, are recruited from academic staff who had been at a different university during their previous career stage. Also, university professors of the highest rank are recruited externally, *i.e.* not promoted from second-ranking professorships of the same university. Thus, mobility in the course of academic careers is mandatory.

A recent study of academic career patterns (Janson, Schomburg, & Teichler, 2006) estimated that about one-tenth of the graduates from institutions of higher education in Germany eventually will be awarded a doctoral degree (excluding medical doctoral degrees awarded in close conjunction with a first medical degree). The average age at the time of the doctoral award is about 33 years.

The number of doctorates awarded at German universities among the corresponding age group is exceptionally high. Only a minority of those awarded a doctorate head for an academic career, however. Just one-third of those awarded a doctorate will subsequently stay for a long period in higher education: “The doctoral degree serves many masters, among them the self-reproduction of the academic profession; the research function in the private sector as well as in the public sector outside

higher education; the professions and semi-professions; leadership in governmental, administrative and private organisations; the 'educated elite' or 'intelligentsia" (Enders, 2003, p. 77). In medical fields, the doctorate is viewed in Germany by and large as an entry qualification for professional careers outside academia.

The *Habilitation* – the typical entry qualification – is awarded on average at the age of 40. It is estimated that more than half of those awarded a *Habilitation* eventually will be appointed as professors. The average age at the time of appointment is 41 years. Some are immediately appointed as professors of the highest rank while most are appointed as second-ranking professors and will continue to seek highest ranking positions at other universities.

As already pointed out, universities of applied sciences, in contrast to universities, do not award doctoral degrees, and they are not expected to train young scholars up to the entry level of a professoriate. As these institutions are predominantly in charge of teaching, academic staff positions are professor positions. The typical entry qualification to these professor positions is a doctoral degree and five years of subsequent professional experience related to the field they are expected to teach with at least three of these five years spent outside academia. In contrast to university professors, professors at universities of applied sciences can be promoted internally to a higher professorial rank.

Staff Statistics

The German statistics of higher education staff provide information on the number of

1. academic staff positions (*Personalstellen*), *i.e.* positions which are part of the basic budget of the university, totalling 111,258 in 2004,
2. academic staff actually regularly employed (*hauptberufliches wissenschaftliches Personal*), some of whom employed part-time, some paid on the basis of external grants, altogether 164,789 (which results in a student/academic ratio of about 13/1), and
3. total academic staff, *i.e.* including part-time staff not regularly employed (*haupt- und nebenberufliches wissenschaftliches Personal*), altogether numbering 236,378.

Of the academic staff positions at German universities in 2004:

- 14% percent were professors of the highest rank, *i.e.* corresponding to a full professor,
- 11% professors of the second rank, *i.e.* corresponding to an associate professor, and
- 75% other academic staff positions.

Most of the other academic staff positions are held by people already awarded or not yet awarded a doctoral degree and who are active in regular teaching and research functions. Less than one-tenth of them have specific functions, such as language teaching or administrative or service tasks, which are not viewed as leading to advanced academic qualifications and positions.

A comparison between staff positions and actual regularly employed staff shows, on the one hand, that more than 15 percent of the professor positions at universities are not filled. On the other hand, the actual number of regularly employed other academic staff is about 80 percent higher than the number of corresponding positions. This is due to the fact that some of the staff are employed half-time or somewhat more, and that a substantial number of other academic staff are paid by research grants and/or other additional income of universities. Altogether, universities have four times as many other academic staff positions as professor positions and they employ seven times as many academic staff regularly on full-time or part-time basis as professors.

Of all regularly employed academic staff at German universities, only

- 8% were professors of the highest rank and
- 6% were professors of the second highest rank, while
- 86% were academic staff in other categories.

The situation is different at other types of higher education institutions in Germany. More than half of the positions at colleges of fine arts are professor positions of the two highest ranks, and they comprise more than 40 percent of the actual regularly employed staff. The major two professorial ranks at *Fachhochschulen* comprise almost nine-tenth of all academic staff positions and about two-thirds of the actual regularly employed academic staff.

In addition, 71,589 persons were active in 2004 in academic functions at German institutions of higher education without a regular employment contract. These include

- professors at the typical retirement age who are still active as teachers or researchers (usually called *Emeriti*, even though this system formally was discontinued when the C4 position was substituted for the H4 position);
- Guest professors (*Gastprofesssoren*) and honorary professors (*Honorarprofessoren*) who as a rule teach without any financial compensation (the total number of academics in these three groups was 1,406 in 2004);
- part-time lecturers (*Lehrbeauftragte*) compensated through honoraria, altogether 53,356); and
- academic auxiliary staff (*wissenschaftliche Hilfskräfte*), *i.e.* graduates not yet awarded a doctoral degree but awarded a salary for less than a half-time job for auxiliary functions in teaching and research, totalling 16,827.

Actually, only 12,616, *i.e.* 8 percent of the regularly employed academic staff at all German institutions of higher education in 2004 ,were professors in the highest salary category (H4, C4 or W3), and 17,151, *i.e.* 11 percent, were professors in the second highest category (H3, C3 or W2).

These percentages of senior academic staff in Germany are relatively low in comparison to those in many other economically advanced countries. They reflect three features of German universities:

- German university professors have a substantial number of academic staff cooperating with them, notably in research;
- German universities employ the majority of doctoral candidates already at this career stage; and
- The ratio of students per academic scholar independently responsible for teaching is relatively low at German universities compared with those in other countries. In contrast, the student/academic staff ratio at German universities is by no means exceptional.

Table 3 sorts the academic staff according to ranks within the institutional types (not according to the national salary scale): the professors of the highest ranks named are C4 professors or similar ranks at universities and colleges of fine arts, while they include C3 professors or similar ranks at *Fachhochschulen*. Correspondingly, the professors of the second rank in Table 3 are C3 professors or similar ranks at universities and colleges of fine arts, but C2 professors at *Fachhochschulen*.

Table 3. Academic Staff Positions and Academic Staff Employed at Institutions of Higher Education in Germany, 2004

Staff categories	Total	Universities [1)]	Colleges of fine arts	Fach-hochschulen[2)]
a. Positions (absolute numbers)				
Professors, highest rank [3)]	22,941	12,918	879	9,144
Professors, second rank [4)]	16,798	9,895	887	6,016
Other academic staff	71,519	67,923	1,517	2,079
Total academic staff	111,258	90,736	3,283	17,239
b. Regularly employed staff (absolute numbers)				
Professors, highest rank [3)]	20,705	11,775	736	8,194
Professors, second rank [4)]	14,040	7,859	791	5,390
Other academic staff	130,444	121,254	1,919	6,871
Total academic staff	164,789	140,888	3,446	20,455
c. Positions (percentage)				
Professors, highest rank [3)]	20.6%	14.2%	26.8%	53.0%
Professors, second rank [4)]	15.1%	10.9%	27.0%	34.9%
Other academic staff	64.3%	74.9%	46.2%	12.1%
Total academic staff	100%	100%	100%	100%
d. Regularly employed staff (percentage)				
Professors, highest rank [3)]	12.6%	8.4%	21.4%	40.1%
Professors, second rank [4)]	8.5%	5.6%	23.0%	26.4%
Other academic staff	79.2%	86.1%	55.7%	33.6%
Total academic staff	100%	100%	100%	100%

Source: Statistisches Bundesamt (2005a).
Notes: 1) Including Colleges of education and colleges of theology.
2) Including Verwaltungsfachhochschulen (Colleges of Public Administration).
3) C4 professors and similary at universities and colleges of fine arts; C3 professors at Fachhochschulen.
4) C3 professors and similary at universities and colleges of fine arts; C2 professors at Fachhochschulen.

Available statistics do not report the number of staff at German higher education institutions who have been awarded a doctoral degree but who do not hold a position of professor at the two highest ranks. This number is estimated to be about 30,000 to 40,000, comprising at most one-third of all non-professorial academic staff employed. Substantially less than 10,000 of them are in positions considered to be directly preparatory for professorships, *i.e. Assistenten*, *Assistenz-Professoren*, *Hochschul-Assistenten* und *Junior-Professoren*. Correspondingly, only about 6,000 junior professor positions were envisaged for 2010, when the proposal to introduce such a position was first made in 2000. Up to 2006, a little over 1,000 junior professors were employed.

There is no generally agreed concept about what could be defined as a pool of candidates for professorship. We could opt for three different concepts:

First, we can view all persons being awarded a doctoral degree as candidates for a professorship. Actually, the total number of doctorates awarded in 2004 was 23,138 and the total number excluding medical fields was 15,180. Taking into account that the majority of medical doctorates are not based on substantial research work after the first degree, we estimate that about one-tenth of those holding these doctorates eventually will be appointed to a professorship.

Second, we can consider all persons awarded a doctoral degree and working as researchers as candidates for a professorship. According to the microcensus completed in 2004 (*cf.* Janson, Schomburg, & Teichler, 2006, p. 77), almost 600,000 persons holding a doctoral degree were employed, including10 percent in higher education and 19 percent in research functions outside higher education. Among the 30 percent of the doctorates employed in the health sector, a minority can be viewed as candidates for a professorship, as well. On that basis, we might estimate that the number of candidates for appointment as professors is about four times as high as the number professorships to be filled each year.

It should be mentioned in this context that 32,226 academics were employed in 2002 at public research institutes in Germany (Max-Planck Institutes and others) which serve similar functions as intra-university research institutes in many other countries. Only 3 percent of these academics (841) were in positions corresponding to professorial positions at universities.

Third, of course, those awarded a *Habilitation* are obvious candidates for a university professorship. Altogether, the number of these awards rose from about 1,500 a decade earlier to 2,283 in 2004. The number of *Habilitationen* awarded each year is somewhat higher than the number of vacant professor positions; this ratio varies, of course, by discipline. On the one hand, the ratio is substantially higher in medicine, where a *Habilitation* also opens access to high-level positions in hospitals. On the other hand, the number of *Habilitationen* in engineering is only about half as high as vacant professor positions, because many professors in this domain are recruited from industrial R&D. While in some of the remaining disciplines the number of *Habilitationen* surpasses that of professor vacancies only slightly, in other fields the number rises as high as double the number of vacancies.

A recent study comparing data on academic careers in Germany (Janson, Schomburg, & Teichler,

2006) came to the conclusions presented in Table 4, which in part was already mentioned above. First, the chance of a graduate from an institution of higher education eventually becoming a senior professor (full professor, associate professor or similar rank) is about the same in Germany as in U.S. However, while selectivity between the first degree and the doctorate is only about half as high in Germany as in the U.S., between the doctorate and the senior professor position it is about twice as high. Second, the average age at the award of the doctorate and the average age at the appointment to a senior professorship hardly differ between Germany and the U.S. (see Table 4):

Table 4. Selectivity of Academic Careers in Germany and the U.S.

	Germany	USA
Graduates		
	28 years approx. 18% of age group (University + Fachhochschule)	25 years approx. 30% of age group (Bachelor degree)
Doctoral awards		
	approx. 11% of graduates approx. 2.0% of age group	approx. 5% of graduates approx. 1.5% of age group
Advanced qualification/position		
Habilitation	40 years approx. 9% of doctorates	
Assistant prof. position		38 years less than 40% of Ph.D.
Professors		
	42 years approx. 8% of doctorates (University + Fachhochschule Prof.) approx. 0.2% of population (40-64 years)	44 years approx. 20% of Ph.D. (Prof. + Assoc. Prof.) approx. 0.2-0.3% of population (40-64 years)

Source: Janson, Schomburg, & Teichler (2006).

Academic Staff Planning and Recruitment

The number of professorial positions and the disciplinary areas of the individual professors are the key elements of planning in Germany, both within higher education institutions and between governments and higher education institutions. Junior academic positions and non-academic positions supporting research and teaching are taken into account in planning processes only as staff resources directly linked to professors or, when associated to the departments as a whole, indirectly as staff resources for the professors.

Until the 1990s, the majority of *Länder* governments and parliaments had the final say regarding

the creation of new professor positions at institutions of higher education, as well as in the creation of other new staff positions. They also had important roles in the possible reassignments once a professor position became vacant. In recent years, however, these decisions have been transferred in most cases to the universities. Governments, as a rule, however, remain involved, for example:

- through contracts with universities about the universities' medium-term targets which might specify the number of students and graduates in various fields, as well as research priority areas, and
- through the approval of study programmes which in most *Länder* was not completely replaced by the introduction in 1998 of an accreditation system for the new bachelor and master programmes.

Both the individual faculties or departments and the university presidents may take the initiative in closing, defining, or opening a professor position which had become vacant. Either the central level of the university or the Ministry of Education has the final say. If other academic staff and other staff positions are not bound to be re-allocated through mid-term planning decisions, professors continue to play a role in the negotiations regarding new appointments and in the allocation of junior academic staff positions – no matter whether the junior staff positions are officially allocated to the individual professor or to the department as a whole.

Filling a position of professor in Germany is a complex and time-consuming process. The decision as to whether a position will be kept in the same area or will be re-allocated elsewhere might be made in mid-term planning processes, but in other cases the decision-makinig processes would not start until a professorship actually becomes vacant. It might take some time as well to reach an agreement among all levels and actors up to the university about the definition of the position and eventually about the text of the public announcement. The normal recruitment process from the public announcement of the professorship to the first "call" to the most desired candidate takes 18 months on average, according to an analysis of search procedures over the period from 1997 to2001 undertaken by the Science Council (Wissenschaftsrat, 2001). If a disagreement emerges in the selection process which requires additional steps or if the first candidate does not accept the offer of employment, the whole time span taken by the search process lasts even longer. This is in stark contrast to filling positions of junior or intermediate academic staff where the process often takes less than three months and even might be speeded up to one month.

After a professor position is defined, it is publicly announced through an ad – usually placed in the weekly newspaper *Die Zeit* and – in the case of university professors – in *Forschung und Lehre*, the journal of the *Hochschulverband* (the university professors' association) – as well as possibly in specialized academic journals in Germany, in international journals, and occasionally in regional newspapers. A search committee is formed by the faculty and department comprised predominantly of

professors of that unit, possibly of professors of other units or of other institutions of higher education and, in addition, of representatives of junior academic staff and students.

According to the above named survey, there are an average of 33 applicants for every professor position to be filled at university-level institutions and 20 on average for professor positions at universities of applied sciences. The search committee, as a rule, selects about six or a few more of the most promising applicants, but they might also select people who have not applied. They invite these candidates to make public presentations and possibly they question them at closed hearings. This part of the search process may take one or two days. Eventually, the search committee recommends a ranked list of the first three candidates. This list will be reviewed and approved by the faculty meeting, or revised by it, or the faculty might even turn down candidates on the list. Thereafter, the university president and the university senate may comment. According to most *Länder* legislation, the Minister of Education has the final say as regards the "call" to the first candidate on the list or any other candidate. In some *Länder*, the university president has the final say, but even in these cases prior communication or even consensus with the ministry might be required.

Prerequisites for an appointment to a university professorship are a university degree, educational competences as well high qualifications in research, as evident through the *Habilitation* or equivalent achievements. As a rule, the search committees at universities put a strong emphasis on the research achievements as well as on the area of specialization. Notably in engineering, education, and fine arts, however, professional practice plays an important role as recruitment criteria at the university level; the same holds true for all fields at universities for applied sciences. Practices vary as regards the weight placed on teaching and the modes of assessing teaching abilities. As a rule, teaching abilities are assessed on the basis of self-reporting in the application file and during the interview with the search committee and the public lecture. In general, however, achievements in research play the dominant role in the choice among applicants for a university professorship.

The requirement to apply for a professor position at a university other than that of one's prior academic work and qualification, *i.e.* the mandatory mobility called in Germany *Hausberufungsverbot*, was expected to exclude particular notions in the assessment of academic achievements and potentials. The final decision making power on the part of the Ministry was expected to counteract the possible inclination of search committees, faculties or whole universities to opt for persons seemingly matching their faculty rather than applying rigorous academic standards. The traditional emphasis on external recruitment, however, is criticized frequently as counterproductive to internal staff development policies as well as to nourishing institutional loyalty. According to the 1992 Carnegie survey, German professors felt less attached to their university than academics from other countries surveyed (see Enders & Teichler, 1995).

All academic junior positions are publicly announced in newspapers, journals and/or possibly computerized job information systems. Small search committees screen the applications, the number of which might vary from a single informally pre-selected candidate to more than 100 candidates. As

a rule, a small number of candidates are invited for an interview with the search committee. Eventually, the search committee recommends the most suitable candidate. The dean or the faculty meeting has more or less the final say about the appointment, while the university administration officially in charge of the appointment will examine the appropriateness of employment, *e.g.* it will turn down a candidate who had been already employed in such position for a long period.

Commissioners for women (*Frauenbeauftragte*) and for handicapped persons (*Behinderten-beauftragte*) are involved in all recruitment processes in order to increase the equality of opportunity according to the respective criteria. If the position to be filled is not a civil service position (most academic staff positions are employee positions according to general labour legislation), the elected workers' representatives (*Personalrat*) will be involved in the recruitment process. In many instances, they will advocate continuous employment of persons already professionally active within the university.

Employment and Work Situation

In Germany, a university processor of the highest rank (C4) had in 2002 on average – without any supplements for additional calls – a monthly gross salary of about 6,000 Euro. The income varied somewhat according to the length of professional service (with increments of about 2 to 3 percent biennially up to about the age of 50 years) as well as according to family status and the number of dependent children. The salary of the second-highest rank university professor (C3) and also of the highest ranking *Fachhochschule* professor is estimated to be about 85 percent of the C4 salary, while the salary scales put intermediate academic staff at universities and lower-ranking Fachhochschule professors at about 75 percent and junior academic at about 65 percent. These estimates take into account that the conditions vary somewhat for civil service appointments and for employee appointments according to general labour legislation. One has to bear in mind, though, that most of intermediate and junior staff were younger and had fewer years of service than most professor; moreover, a substantial proportion of junior staff tends to be employed half-time.

According to the requirements of the remuneration and employment system existing exclusively until 2001, internal promotion at German institutions of higher education was confined to lower ranks of academic and other staff, as well as to *Fachhochschule* professors. No funds were allocated to reward achievements on a given job. Thus, achievement was awarded financially only through appointment to a higher-ranking career stage. The only major exception fits this basic logic: if highest-ranking university professors are offered a position by another university, not only could this external university offer a salary supplement of almost 10 percent, but the home university could compete with this external call by offering a salary supplement of three-quarters of the supplement offered by the external university or any other employer.

In 2002, a system of function-based and achievement-oriented supplements was introduced. At that time, the basic monthly salary was fixed at:

- 3,260 Euro for junior professors (W 1);
- 3,724 Euro for second-ranking professors (W 2); and
- 4,522 Euro for highest-ranking professors (W 3), from that time onwards both for professors at universities and at universities of applied sciences.

The professors paid according to the new wage system (all newly appointed professors and all other professors wishing to transfer to the new system) could not expect any supplements anymore for years of service and family status. But university professors could expect on average 26 percent and professors of universities of applied sciences on average 20 percent achievement-related or function-related supplements. These supplements could be awarded:

- on the occasion of the negotiation to embark on or to leave a professor position (notably on the occasion of a further "call");
- for specific achievements and work load in research, teaching, continuing education, or supervision of doctoral candidates *etc.*; or
- for taking over specific tasks of self-administration and administration (*e.g.* a dean of faculty).

Junior professors are only eligible for a supplement of 260 Euro after three years of employment, if they are positively assessed and offered an additional three-year contract.
Thus, the average annual salaries in 2003 were calculated to be:

- 45,760 Euro for W1;
- 61,971 Euro for W2; and
- 79,353 Euro for W3 (see Berning, 2004, p. 163).

Traditionally, most junior and intermediate academic staff at institutions of higher education were employed on a fixed-term contract. If funds for salaries were derived from external research grants, the work contract could not exceed the research grant period. If staff were employed with the help of the university's position, the fixed-term contract might have extended to at most five years (for general employee positions) or six years (for provisional civil service positions). For many years, the Science Council and other key actors of higher education policy recommended that at least 70 percent of the non-professorial academic positions should be filled through fixed-term contracts in order to avoid a petrification of the staff. In 2004, in fact, 69 percent of persons employed as junior and intermediate academic staff (*Dozenten, Assistenten, wissenschaftliche Mitarbeiter*) at German institutions of higher education had a fixed-term contract (Statistische Bundesamt, 2005a).

Recently, most institutions of higher education reduced their period of employment for academic staff positions to four years. Concurrently, the new national legislation for academic staff stipulates that academic staff can be employed in the whole German public higher education and research system

at the doctoral stage for at most six years and on the post-doctoral stage for at most another six years (more than six years is possible only if they were employed for a shorter period at the doctoral stage).

Professors traditionally are employed as life-time civil servants. This is viewed as essential for guaranteeing academic freedom. Permanent employee contracts for foreign professors should provide the same guarantee. Fixed-term contracts, in rare cases, are negotiated only if a certain disciplinary field is established for a limited time period. In recent years, some universities have enlarged the number of disciplinary areas in which they recruit professors only for a limited time period, and some *Länder* have introduced regulations according to which new professors might be awarded permanent employment only one or two years after successful work. Altogether, the proportion of professors of the two highest ranks at German universities and *Fachochschulen* employed on fixed-term contract was, as we estimate on the basis of available statistics, about 7 percent.

About one-third of persons in academic staff positions at German universities are employed part-time. This holds true notably for persons at the doctoral stage of their career. Their net income is not substantially higher than that of persons awarded a doctoral fellowship but they share the social benefits of other employees.

Available information suggests that, on the whole, most professors in Germany express a high degree of job satisfaction. They appreciate their work autonomy and their opportunities to undertake creative work. They enjoy the close link between teaching and research, even though for many professors research plays a larger role as far as their identity is concerned. They criticize the low level of salaries in comparison to those of other leading occupations, the administrative work load, the decline of basic funds for research within the university budget, and the growing managerial power of presidents and deans. Representative surveys have not been undertaken recently, however. Therefore, this account by and large represents earlier findings, as well as opinions expressed, for example, in the journals of the associations of professors of universities (*Hochschulverband*) and universities of applied sciences (*Hochschullehrerbund*).

Junior and intermediate academic staff at German institutions in comparison to those of other countries are in a relatively favorable position in some respects: the majority of doctoral candidates, as already pointed out, earn their living as employees at universities, even though many of them are on a part-time salary. Most of them have access to reasonable research resources through close working relationships with their supervisory professors. Furthermore, most junior and intermediate academic staff at German universities have a very low teaching load in order to qualify for advanced levels of the academic career primarily through research achievements.

There is a widespread consensus, however, that junior and intermediate academic staff at German institutions of higher education tend to be dissatisfied by the uncertainty about their career and by a low degree of independent work and general job role (see Enders, 2003; Berning, 2004). In response, a number of reform efforts are being made, including increasing the number of formal doctoral programmes instead of relying on the clear dominance of an apprenticeship relationship between the

doctoral candidate and the individual supervising professor; and establishing junior professorships and research groups leading to intermediate-level academic positions in order to increase independence and responsibilities prior to the appointment to senior academic positions. In the framework of junior professorships, steps are also being taken towards establishing visible opportunities for tenure and promotion within the same university. It should be pointed out, however, that the steps in this direction are small and cautious. For the time being, doctoral programmes are likely to serve the minority of candidates while the old system prevails with *Assistenten* preparing for a *Habilitation* and *wissenschaftliche Mitarbeiter* holding a doctoral degree. Only some of the latter will actually be on a tenure track.

Work Appraisal and Evaluation

Traditionally, junior and intermediate academic staff at German universities were assessed on three occasions:

- when at university positions for a career stage they got an initial contract for at most three years which could be extended – in the case of a positive interim assessment by their professorial supervisor – for additional two or three years,
- if they were hired for an externally funded research project, those whose work was appreciated by their supervising professor could hope that the professor would again raise funds and offer them a subsequent contract, and
- last but not least, when the doctoral degree or the Habilitation was awarded was the crucial assessment.

In the past, professors in Germany were assessed only if they applied for external and, in some cases, for internal research, or if they wanted to publish in a peer reviewed journal, book series etc. They were assessed according to modes typical of awards of research grants and of peer review of academic publications. Last but not least, they were assessed if they applied for another professorship. This meant that low research achievers, working within the framework of the dominant modes of research fund-raising and academic publishing, were never assessed anymore after having become professors, and that assessment of teaching was not customary at all. This also meant that formal assessment of professors almost always was undertaken externally.

Since the 1990s, various modes of regular, all-embracing and partly internal assessment were introduced by the *Länder*. They ranged from elaborate external evaluation systems (similar to those established more than one decade earlier in the Netherlands) to scattered self-evaluation activities under the control of individual higher education institutions. In 1998, the revised Framework Act for Higher Education stipulated that all institutions of higher education had to introduce evaluation systems including students' ratings. The achievement and function oriented remuneration system of

professors introduced in 2002 is a further step in this direction. Concurrently, many universities decided to allocate staff and material resources to professors no longer for life-time or extended periods, but rather only for a five-year period after which an assessment is scheduled for a possible extension.

In addition, various other assessment mechanisms of the academic sub-units and in some cases of the whole institutions of higher education have been put in place. The consulting agency *Centrum für Hochschulentwicklung* (CHE) regularly publishes rankings of departments with respect to both teaching and research. At several universities, contracts were introduced between the university and the faculties or departments regarding certain targets to be achieved within a few years. An accreditation system was introduced of the new bachelor and master programmes (see Schade, 2004) which is somewhat similar to study-related evaluation of departments, but seems to have the effect of undermining some of the evaluation activities established immediately prior to the establishment of the accreditation system.

Finally, the Federal government and the *Länder* governments agreed in 2005 to commission the selection of ten excellent universities as well as a larger number of research clusters and graduate programmes in order to provide preferential funding for a period of five years. Most of these mechanisms are not yet fully implemented. Thus, it is not possible to assess their impact on the academic profession comprehensively. However, discussions are already underway similar to those in countries such as the Netherlands and United Kingdom – countries which embarked on major assessment activities more than a decade earlier than Germany – to determine whether ways can be found to reduce the overall assessment activities to an acceptable work load.

Concluding Observations

The 1992 Carnegie survey turned out to be a very valuable study to highlight the real situation of the academic profession in Germany in comparative perspective. There were few studies of higher education earlier or later which succeeded as well in getting public attention as this one. The most striking findings were the following (see Enders & Teichler, 1995):

- In spite of the widespread debates about deficiencies and needs for reform in higher education, the German university professors seemed to be relatively satisfied with their work and its context compared with professors in other countries surveyed.
- In 1992, German university professors no longer worked as much in the evenings, weekends and holidays as did their predecessors surveyed one decade or a longer time earlier, but still estimated their weekly work time as more than 50 hours – clearly more than university professors in Sweden and the U.S., for example.
- Contrary to widespread views, German university professors spent a similar proportion of their work time on teaching and teaching-related activities as professors in the UK and the

U.S., *i.e.* countries known for a stronger emphasis on teaching and communication between professors and students.

- Also contrary to widespread beliefs, there was no indication that the proportion of German university professors' work time spent on research has declined as a consequence of a rising student-teacher ratio over almost two decades.
- *Fachhochschule* professors in Germany have an exceptionally high teaching load. As a consequence, they spend substantially less time on teaching-related activities per teaching hour than university professors.
- Junior and intermediate academic staff at German universities differs from university professors more strikingly in terms of a lower degree of satisfaction than in other countries surveyed, though they are not in more difficult employment situations and though their access to research resources seems to be good. This suggests, as the authors concluded, that the feeling of dependency is more pronounced among German junior academics than among their peers in other countries surveyed.

When the Carnegie survey was undertaken, a few other surveys of the academic profession were undertaken in Germany which showed similar results. After 1992, no representative survey of the academic profession has been undertaken in Germany. As a consequence, a new survey certainly is likely to meet with a high degree of public attention.

Obviously, the situation of the academic profession has changed substantially in many respects since 1992. The power of the university presidents, deans and external stake holders increased at the expense of detailed supervision by government and was accompanied by the declining power of the professoriate. Activities of evaluation and other assessment exercises began to play a major role. Steps were taken to strengthen the independence and status of middle-level academics. Basic funding of research through the university budget decreased, and the need for fund-raising increased. The introduction of incentive-based salaries, the evaluation activities, the spread of contractual relationships between governments and universities and partly between universities and departments, all suggest that rewards and sanctions may become a feature of the daily life of the academic profession in Germany. Moreover, the popularity of the term "knowledge society" does not merely suggest that systematic knowledge is more highly appreciated but also that universities are more strongly expected to the visibly useful for technology, economic growth and societal well-being. Last but not least, academic life has been internationalized even further.

We do not really know, however, how much these changes affect the daily life of the academic profession. And we do not know what the real impact of these new conditions is on quality, relevance, and efficiency of teaching and results. A renewed internationally comparative study on the academic profession certainly will highlight many issues under discussion. What is next? Where do we move to? Does the academic profession loose it attractiveness? Do professors become extrinsically

motivated assembly-line workers? Do only smart managers and status-seekers among the academic profession succeed? Does teaching loose out or does research come under pressure? Do the risks involved in junior academic careers increasingly reduce interest in academic careers and undermine productive academic work in early career stages, or does this new flexibility "work"? Do we have a loss or a gain of quality, relevance, and efficiency in teaching and research? A survey of the academic profession can help to provide responses to these vitally important questions more successfully if it is undertaken as an international comparative study and the results can be compared to the previous major international comparative study.

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The Academic Profession in India[1]

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The Changing Context of Higher Education

After a long period of protected expansion with state patronage until the mid-1980s, higher education in India has been passing through a period of stunted growth with an uncertain future. A complex turn of events has thrown higher education into a vortex of change, inevitably impacting on the teaching community, too. The foremost among such events was the adoption by the Government of India in 1990 of structural adjustment reforms. Influenced by the World Bank-International Monetary Fund combine, structural adjustment has meant the gradual withdrawal of state patronage for higher education and a coterminous privatization of that sphere.

State investment in education in India has always been inadequate for meeting the needs of "education for all", and structural adjustment has meant a drastic cut in public expenditure on higher education: Between 1980-90 and 1994-95, the share of higher education in plan expenditure decreased from 12.6 percent to 6 percent, where as the same in non-plan expenditure declined only from 14.2 percent to 11 percent (see Tilak, 1996). The annual growth rate of public expenditure on university and higher education, which was 13.1 percent between 1980-81 and 1985-86, had fallen to 7.8 percent between 1980-81 and 1995-96 (Shariff & Ghosh, 2000, p. 1400).

Thus, the state, which had hitherto been the dominant partner in funding higher education, is finding it increasingly difficult even to maintain the same level of funding for higher education. The state universities and their affiliated colleges (which in the early 1990s, accounted for a stupendous 88 percent of more than four million student enrolment in higher education) are the ones in financial doldrums. It is in these state universities and affiliated colleges that the bulk of the teaching community is employed.

The gradual withdrawal of state support from higher education has been accompanied by its inability to address the need for reforms within the conventional higher education. The National Policy on Education (Government of India, 1985) and the Program of Action (Government of India, 1986), and their review by the Acharya Ramamurti Committee (see Singh, 1991) were all pre-structural adjustment reform initiatives. Neither the phenomenal fall in the demand for conventional courses in the B.A. and B.Sc. streams, nor the remarkable spurt in the demand for courses in such

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areas as computer science and information technology, biotechnology, and management studies, was anticipated.

The fact that the state is unwilling and unable to invest in the new areas of education explains the growth of private institutions. The so called "self-financing institutions" are of uneven quality, ranging from centers of excellence to roadside teaching-shops. These new entrants to the arena of higher education raise questions of autonomy and accountability (since they do not depend on state funding) on the one hand, and issues concerning teachers (like qualifications and recruitment, career options, pay and working conditions, etc.) on the other. Thus, private initiatives in higher education are fraught with serious implications for the academic profession.

Similarly, the falling demand for conventional courses and the drop in their enrolment have impacted on the academic profession. The lack of a link between conventional courses and the job market seems to have become too apparent to students and their parents. The situation has got aggravated with the structural adjustment reforms, which demand types of knowledge and skills generally not possessed by the conventional degree holders. It is only natural that many of those (including the "not-so-bright" ones) who have been hitherto using the conventional courses as waiting rooms are either seeking entry into the job market early, with the option of obtaining formal university qualifications later, or entering courses that carry better job prospects. Those who still seek the conventional graduate courses are generally the leftovers and dregs or the first generation students from rural and indigent backgrounds, especially those who are supported with financial assistance by the government. All this has implications for the size, working conditions, and quality of the academic profession.

The Declining Status of Teachers

During the five decades of her independence (in 1947), India has built up a massive system of higher education (Government of India, 1999).[2] In 1998-99, there were 214 (198 state and 16 central) universities, 38 institutions "deemed-to-be universities," 11 institutes of national importance, 9,703 colleges, and 887 polytechnics. The system now employs 321,000 teachers and caters to 6,755,000 students (though estimated to be covering hardly 6 percent of the population in the relative (17-23) age group).

An important consequence of this phenomenal unbridled expansion, which took place mainly in

[2] The term "higher education" suggests too much of homogeneity. Even a casual review of the educational scenario would reveal the enormous structural diversity within the system of higher education in India (see Jayaram 2006: 749-752): There are different types of universities (the Central, the State, the Deemed, and the Open); Institutions of National Importance; an assortment of institutes under the umbrella of the Councils of Research in Science and Industry (CSIR), Social Sciences (ICSSR), History (ICHR), and Philosophy (ICPR); and the traditional institutions of higher learning in religion and theology; besides a large number of varied university or government run colleges and grant-in-aid or purely privately run affiliated colleges. Obviously, the objectives and the source of finance of these institutions are different. More important, these institutions vary as to their objectives and sources of finance, and the academic preparations, abilities, motivations and commitment of their faculty and students. The focus of this paper is mainly on the state universities and their affiliated colleges, which together employ the overwhelming majority (over 85 percent) of teachers.

the 1970s and 1980s, was the unprecedented demand for teachers. An increasing number of postgraduates churned out by the state university system found in teaching an easy employment avenue. The cumulatively adverse consequences of the reckless manner in which teachers were recruited and allowed to function soon became evident. In its all-India survey covering a "proportionate stratified random" sample of 8,450 teachers (2,144 in 27 universities, 6,306 in 304 colleges), 2,114 students, and 1,658 members of the wider community, the National Commission of Teachers (NCT) recorded the "widespread feeling that no profession has suffered such downgrading as the teaching profession." This it found reflected in "the low esteem given to the profession and the unfavorable image of teachers held by parents, students and by the people at large" (NCT, 1985, p. 21). The NCT's observations referred to the situation in 1983-85, and there is no evidence suggesting that the situation has changed for the better since then. In what follows we shall discuss some dimensions of the erosion in the social status of teachers.

Shrinking Academia The prospect of employment as a college or university teacher has become dim, and the security of employment, which was once taken for granted in the academic profession, is increasingly becoming problematic. Even in 1983, the NCT had found that only 70.7 percent of the university teachers and 68.5 percent of the college teachers had permanent employment with all statutory benefits. The others were either "temporary" (with no guarantee of continuation) or "ad hoc" lecturers (appointed against a leave vacancy for a short period of time). Besides, new categories of teachers such as "part-time" lecturers (who teach for a specified number of teaching hours in a week) and "guest" lecturers (who help the college/department "to complete portions of the syllabus") have been added. Such teachers are paid on an "hourly basis," and they do not enjoy other privileges that go with a permanent or even a temporary or an ad hoc appointment.

The decline in the employment prospects in the academic profession has to do with the combined effect of the structural adjustment reforms and the market forces operating in higher education. The expansion of conventional courses seems to have outstripped the demand for them by students. For several years many colleges have been facing a decline in enrolment in these courses, and some of them are in dire straits with absolutely no enrolment in certain courses. For some grant-in-aid private colleges it has even become difficult to find work for their teachers. In fact, there are cases of colleges in which the teachers, so that they are not released, pay for the dummy admission of students. Reputed colleges are not in the red yet, but it may be a question of time for them too.

Most state governments have imposed an embargo on the recruitment of teachers. This has meant a freeze on the establishment of state-supported colleges, downsizing the number of permanent teachers in existing colleges, and optimization of resources by redeployment of teachers through a policy of transfers. Besides, most governments have also introduced "voluntary retirement schemes" (giving incentives to teachers who want to retire from permanent service before they complete their tenure) and some state governments are contemplating reducing the retirement age for college and

university teachers. Not surprisingly, temporary part-time teaching positions have almost become a permanent feature of higher education in most states. The downsizing of the academic profession is now a pan-Indian phenomenon. Moreover, it is not confined to the conventional liberal science colleges. The Swaminathan Committee (see All India Council of Technical Education [AICTE], 1994), which examined the issue of resource mobilization in technical education, strongly advocated the rationalization of teaching workload so as to reduce the salary bill. It recommended the reduction of the share of regular faculty to 60 percent and the appointment of the remaining 40 percent on a part-time and contract basis. It also suggested the downward revision of the staff-student ratio from 1:10 to 1:15 in degree courses and from 1:11 to 1:20 in diploma courses. However, in those burgeoning fields such as computer science, information technology, and biotechnology, where the expansion has been most rapid, there is a dearth of qualified teachers. The problem of teacher shortage is most acute in medical education, where other considerations inhibit qualified persons taking up the teaching jobs.

Be that as it may, the bulk of the teaching community is engaged in general education. The employment opportunities here have almost dried up, and those who are seeking entry into the profession are those who have been lingering on a part-time or ad hoc basis. That existing teachers are themselves finding it difficult to get adequate workloads does not augur well to the academic profession. The state policy of downsizing the profession is likely to have an adverse impact on the already low morale and commitment of teachers.

Changing Composition The rapid expansion of higher education has altered the social profile of the academic profession. In its all-India survey the NCT found that most teachers in higher education (83 percent in the universities and 77 percent in the colleges) were male and that they came from "educated families." As compared to their male counterparts, the female teachers came from "families in economically better off occupations." Interestingly, "the educational level of teachers serving in private unaided colleges was relatively better than that of teachers in other types of colleges" (NCT, 1985, pp. 12-13).

Analyzing secondary data, Karuna Chanana has found that "The higher the level of education, fewer are the women teachers..." In 1993-94, women constituted about 35 percent of teachers at the higher secondary level (*i.e.*, those who teach classes ix-xii), whereas they formed only 18.8 percent of the 291,048 teachers in higher education. Their representation was better in affiliated colleges (21.0 percent) as compared to university colleges and teaching departments (11.6 percent) (Chanana, 2000, p. 1019).

It is intriguing that the proportion of women in the academic profession has fallen over the decade. Perhaps the downsizing of the profession is negatively affecting the entry into it of women much more than that of men. Some state governments have introduced a provision of reservation of teaching posts for women. Moreover, women's colleges generally prefer women candidates for teaching jobs. Addressing the problem of career development of women teachers, the NCT had proposed granting of

age relaxation to women whose careers are interrupted due to problems of maternity and child care needs, and counting of total experience (not continuous service) for benefits of vertical mobility (NCT, 1985, p. 51).

Interestingly, the decline of the academic profession has coincided with the broad basing of its social composition. Thanks to the policy of protective discrimination, during the last three decades, a significant section of the candidates belonging to the scheduled castes, scheduled tribes and other backward classes (the traditionally disadvantaged sections of the population identified for special benefits and concessions) have entered the academic profession. In some states teaching posts are reserved for specific caste groups and communities, and the provision governing the de-reservation of posts has been scrapped. The new entrants into the profession, many of them being the first generation in their caste and community groups to have acquired postgraduate qualifications, have hardly any exposure to the cultural moorings of the profession and they are confused about the ethos of a declining profession.

Parochialism and inbreeding have become an integral part of higher education. Educational institutions run by minority religious communities have always shown preference for candidates belonging to their own religion or sect, and similarly those dominated by particular caste groups have shown bias in favor of their caste fellows. Universities and state governments too prefer candidates belonging to their own jurisdictional areas or states. The adoption of the state language as the medium of instruction in higher education precludes the employment of the vast majority of eligible candidates from outside a given state.

As a matter of policy, the UGC is supportive of inter-institutional mobility of teachers, which is hoped to infuse fresh blood into a system which would otherwise become stagnant. It is also expected to result in cross-fertilization of varied experiences of different institutions. While inbreeding inhibits mobility, it is not the only impediment in the path of mobility. Reduction in the chances of promotion as a result of moving from one institution to another would discourage lecturers and readers from leaving the institution in which they are working. State government rules governing the recognition of services of teachers for retirement benefits being rigid, senior teachers would be wary of moving out of the state in which they are working.

Voluntary mobility of teachers should not be confused with their compulsory transfer. Transfer of teachers from one government college to another has been in vogue right from the beginning. Some states have now incorporated a provision of transfer of teachers from one grant-in-aid private college or university to another. This provision is generally invoked for administrative convenience or for the redeployment of excess teaching staff. However, there have been cases where transfer has been used as an instrument of favor by powerful politicians or as a mode of punishment for “recalcitrant” teachers. Both inbreeding and compulsory transfer are deleterious to the system of education: While inbreeding results in systemic stagnation, compulsory transfer erodes teachers’ sense of loyalty and commitment to the institution.

Deficient Professional Preparation Studies on college teachers have invariably underlined the sad deficiency of academic preparation of the people entering the profession and their declining commitment to it (see Kaul, 1993, pp. 224-240). The NCT (1985) bemoaned the fact that most of the teachers are making a living and not following a vocation. This has, no doubt, a lot to do with the deplorable standards obtaining at the postgraduate level education. More important, however, is the fact that for decades most masters' degree holders easily found employment in colleges, and even in universities, with absolutely no training in or orientation to teaching, and with doubtful aptitude for that vocation.[3]

To arrest this trend and to ensure proficiency in the subject and aptitude for teaching or research on the part of candidates aspiring to become teachers, the UGC introduced the National Eligibility Test (NET). This test, jointly conducted by the UGC and the Council for Scientific and Industrial Research (CSIR) in about 90 centers in the country, is held twice a year. Many state governments have been permitted by the UGC to conduct a State Eligibility Test (SET), which is treated as equivalent to the NET.

As a screening mechanism, the NET is a step in the right direction. Nevertheless, the lacuna of inadequate academic preparation of teachers for discharging their professional responsibilities remains. Professions such as architecture, law and medicine require their prospective recruits to undergo a specified period of internship. Even a high school teacher is expected to acquire the Bachelor of Education (B.Ed.) degree. To become a lecturer in a college or university, however, no prior training or experience is necessary! While this anomaly is recognized, there has never been a consensus among educators as to the nature and extent of the additional qualifications required for entry into the academic profession.

Ritualising Training Program The NCT had observed that every person inducted into the academic profession must undergo "a training course relating to a proper orientation toward the profession and its values, skills in pedagogy, curriculum construction, use of audiovisual aids, communication skills, educational psychology, evaluation methods, as well as the use of the medium of instruction" (NCT, 1985, p. 47). This was reiterated by the National Policy of Education (GOI, 1986), and following their recommendation, starting in 1987 the UGC has established at least one Academic Staff College (ASC) in each state with the mandate to improve standards of teaching through "orientation courses" (focusing on pedagogy and social relevance of education, for young lecturers) and "refresher courses" (providing up-to-date information on the contents of various disciplines, for senior lecturers). By 1994, 45 ASCs had been started and 71,385 teachers had attended

[3] The NCT (1985: 13 and 49) found that nearly 73 percent of college teachers had only a masters' degree in the subject, and 6.6 percent an M.Phil. degree. Even among university teachers only a little over 61 percent possessed doctoral degree, and 32.6 percent had nothing but a masters' degree. Most teachers with a doctoral degree (76.5 percent of college and 77 percent of university teachers) had acquired it after joining the profession.

the orientation (27,675) and refresher (43,710) courses. In terms of sheer numbers, the program appears to be impressive. However, the functioning of the ASCs is far from being satisfactory (see Indiresan, 1993).

The ASCs were entrusted with conducting programs for properly orienting the new entrants into the profession, and improving the knowledge and skills of those already in it. To instill a sense of seriousness, an element of compulsion has also been introduced: Those entering the profession are required to attend an "orientation course" before they complete their probation. Those in service are required to attend two "refresher courses" to become eligible for career advancement or promotion. As with all initiatives carrying an element of compulsion, the original objectives behind the establishment of ASCs are lost and the courses have been ritualized.

Salary, Career and Service Conditions

There have been two major revisions of pay scales during the last two decades: the first one was in 1987 (following the Mehrotra Committee Report), and the latest one in 1998 (following the Rastogi Committee Report). It can hardly be denied that in absolute terms, if not in relative terms, the current pay scales are the best deal that the teachers have got, especially considering the nature and amount of work that they do and the little accountability that is demanded of them.

The pay package announced by the UGC in 1998, was generally made effective from 1 January 1996 (UGC, 1998). In addition to the basic pay, teachers are entitled to a dearness allowance (linked to the cost of living index according to a fixed formula), a city compensatory allowance (in the case of those working in cities), and subsidized housing or house rent allowance. Besides, the teachers are entitled to leave/home travel concession and medical aid. Programs such as provident fund and pension are available to teachers, and the retiring teachers get gratuity.

While the UGC pay package has been accepted in principle all over the country, there are significant variations in its implementation by different states. This is partly due to the authority vested in the state governments to alter pay scales and the date from which they will be implemented. While some states have postponed the date of implementation, a few have not given arrears accruing from delayed implementation of the scales. Thus, the gross salary of different categories of teachers in terms of their institutional affiliation is not the same across the country. Even so, the increased gross salary of the teachers has practically brought every teacher into the income tax net.

The central government met 80 percent of the additional expenditure to be incurred by the state governments for implementing the revised pay scales. However, the state governments were to take over the entire liability after the 1 April 2000. The burden of the massive expenditure on this account is now being felt. In many states teachers' salaries are not being paid regularly. In other words, though the new pay scales have been introduced, the teachers cannot take the security of their salary for granted.

Career Advancement The academic profession has traditionally been pyramidal: there are more lecturers than readers, and more readers than professors. This has meant that irrespective of the academic achievements and proven professional development, after a specified span of service in any cadre, a teacher was destined to stagnate. While stagnation for a good proportion of their working life-span was inevitable for all categories of teachers, the period of stagnation was relatively longer for the lecturers. The NCT survey found that "a fairly large percentage of teachers stagnated in the same position for ten or more years." The degree of stagnation was "alarming" at the level of lecturers; it impacted negatively more for college teachers than their university counterparts (NCT, 1985, p. 47).

If stagnation has an adverse impact on the morale and commitment of the members of a profession, career advancement makes the profession attractive to qualified and capable young persons. Earlier efforts at introducing career advancement, such as a "merit promotion scheme" and "time-bound personal promotion scheme" were inspired by the bureaucratic notion of "promotion." Laying emphasis on seniority, with little or no reference to professional achievements, they resulted in reckless promotion of teachers to the levels of readers and professors. For this reason, the NCT had recommended making career advancement and professional development "contingent upon each other and intertwined in a sequential system" (NCT, 1985, p. 47).

To give appropriate opportunities for vertical mobility to teachers at multiple stages in their career, while notifying the new pay package, the UGC has incorporated a career advancement plan based on the professional development of teachers. A person entering the system as a lecturer can move into the grade of lecturer (senior scale) after four, five or six years, depending upon whether s/he possesses a Ph.D., M.Phil., or only a masters' degree, respectively. After five years of service as lecturer (senior scale), a teacher can move into the grade of reader (if s/he holds Ph.D.) or lecturer (selection grade) (if s/he does not hold Ph.D.). That is, only teachers with a Ph.D. are eligible to become readers. After eight years of service as a reader, a teacher will be eligible to be considered for appointment as a professor. In brief, a person with a Ph.D. degree entering the system as a lecturer can hope to become a reader after nine years of service and a professor after 17 years of service. The UGC has also proposed the creation of a new position, namely, professors of eminence, for teachers who have completed 28 years of service.

The cases of teachers seeking career advancement are processed through selection committees which are generally constituted for direct selection of candidates. Consistently satisfactory performance appraisal reports are a prerequisite for advancement from one level to another. Participation in orientation and refresher courses, publication of books and articles, attending seminars and conferences, a good record in teaching, contribution to educational innovation and curriculum development, enhancement of the corporate life of the institution, engagement in extension and field outreach activities, etc. are given due credit. While this plan is well thought out, its effective implementation cannot be taken for granted, especially considering the experience of the now abolished merit promotion scheme.

Retirement Age Presuming that a college or university teacher enters the profession when s/he is 23-27 years of age, depending upon whether s/he has acquired a Ph.D. degree or not, the prevailing retirement age being 58-60 years, s/he will be able to put in a maximum of 31-37 years of service. This is at least 4-5 years lower than in other jobs in the government service. On the one hand, this curtails the retirement benefits available to teachers, and on the other hand, it is a loss to the society, as the teachers with experience and professional achievement will no more be actively involved in education.

The UGC (1998, p. 14, 18) notification regarding pay package fixed the retirement age for university and college teachers at 62. It further recommended that a maximum of three years benefit in service should be provided to teachers entering the profession with a Ph.D. degree, so that they too will get full retirement benefits accruing to those who have put in 33 years of service. However, only the central universities and a few state universities have accepted the recommendation to fix the retirement age at 62. As a consequence, there is no uniformity in retirement age across the country.

Workload The notification of the new pay package also prescribed the number of teaching days and the workload of teachers (see UGC, 1998, pp. 13-14). A minimum of 180 "actual teaching days" in a year has been stipulated for universities and colleges. Universities are to devote 72 days and colleges 60 days for admission formalities and the evaluation of students. University teachers are entitled to eight weeks vacation, and in lieu of two weeks vacation they are to be credited with one-third of the period of "earned leave." College teachers are entitled to 10 weeks vacation and no earned leave, unless they are asked to work during the vacation, for which they too will be credited with one-third of the period as earned leave.

The workload of teachers in full employment has been fixed at not less than 40 hours a week for 30 working weeks (180 teaching days) in an academic year. Of these, 16 hours of direct teaching has been prescribed for lecturers (including senior scale and selection grade lecturers), 14 hours for readers and professors. Professors engaged in administration, research and extension are given a remission of two hours. Furthermore, it is necessary for teachers to be available for at least five hours daily in the university or college. These prescriptions have been accepted by teachers, though not whole heartedly. Going by past experience, they are sure to be observed more in breach than in practice.

As regards workload, state governments have insisted that teachers in grant-in-aid colleges having the prescribed workload (especially the number of direct teaching hours) because it is helpful in downsizing the number of teachers, The state governments have even redeployed teaching staff having less than the prescribed minimum workload. Though universities have not as yet been insistent on the minimum workload, fearing downsizing of staff, some university departments have inflated the workloads, which shows up in their dummy timetables.

Teacher Evaluation The need to make career advancement contingent upon professional development was alluded to earlier. Evaluation of the performance of its members is sadly lacking in the academic profession. Hitherto, performance has not been a criterion for teachers to be recognized and rewarded. As noted earlier, in practice even the merit promotion scheme emphasized performance only nominally, and it was, in fact, based almost exclusively on seniority in service. In the absence of clear-cut objective indicators of performance, it would hardly be surprising if the latest proposals for career advancement are also similarly diluted.

Incidentally, except in some universities and the Indian Institutes of Technology (IITs) and Management (IIMs), peer review or student evaluation of teachers is virtually nonexistent in the traditional colleges and university departments. Any proposal for such a review would be vehemently opposed by teachers' unions.

The National Policy on Education envisaged the creation of an open, participative and data-based system of teacher evaluation. It even contemplated laying down "norms of accountability" "with incentives for good performance and disincentives for nonperformance" (GOI, 1986, p. 25). Following this, the UGC had announced a format and procedure for "self appraisal" by teachers, both at the time of entry into the profession and annually after that. However, this has either not been introduced or perfunctorily done and, as such, it has seldom formed the basis of any action. Realizing this, the UGC has now made "consistently satisfactory performance appraisal reports" mandatory for career advancement.

As a step in the direction of quality control in higher education, following the National Policy of Education (GOI, 1986), in 1994 the UGC set up an autonomous body called the National Assessment and Accreditation Council (NAAC). Initially the assessment and accreditation was voluntary, but the idea of an external institution doing this was not received well by universities and colleges. After all, for obvious reasons, the good ones did not need it, and the bad ones did not want it. By the end of September 2000, the NAAC had been able to assess and accredit only 14 universities and 115 colleges. Not one of these colleges or universities is located in the backward states of north India. Now the scheme has been made mandatory, and the universities and colleges were told that they had to get NAAC's accreditation by December 2003, failing which they were to be deprived of developmental grants. It is still to be seen how far this will improve the state of affairs in the academic profession, even if indirectly.

Academic Autonomy and Professional Ethics

Barring a few rare exceptions, academic freedom can hardly be said to have been denied to the teachers in India. In fact, the instances of teachers abusing it are plenty, and these take many forms, such as non performance of role obligations (teaching and research), resisting change in curriculum and pedagogy, indulging in malpractice in evaluation, etc. This calls for governmental intervention, just as it raises the question of the professional obligations of teachers.

Governmental Intervention Teachers often complain about encroachment on academic autonomy by governmental authorities. In view of the state funding of higher education, governmental intervention in the university and college affairs is inevitable and necessary. Most public universities cannot generate sufficient funds of their own, and the predicament of private colleges receiving grant-in-aid from the government is no better. If a university or college does not toe the lines of the government, it is reined in through holding back grants. Complaints of corruption and inefficiency on the part of universities and colleges make such intervention justifiable. There is no denying that a political stranglehold over education in the guise of governmental control has been on the increase.

Interestingly enough, teachers have been opposing the idea of granting autonomous status to select colleges. Against a target of 500 colleges envisaged by the UGC, hardly 110 have got autonomous status, even 10 years after the target year (1990). Teachers know that autonomy calls for greater accountability than what they are accustomed to. They are also worried about the enormous control that autonomous status will give the college managements over them. Thus, if greater accountability is demanded of them and if their job security is at stake, teachers are ready to part with academic autonomy.

Code of Professional Ethics The NCT devoted considerable attention to the professional ethics and values of the academic community. Its survey covered not only the values which the university and college teachers cherish but also those which they ought to, but do not" (see NCT, 1985, pp. 55-65). The National Policy on Education (1986) also recognized the need for introducing discipline into the system. However, no plan of action has followed. In 1988, a task force set up by the UGC prepared a Code of Professional Ethics, in consultation with the All India Federation of University and College Teachers Organizations (AIFUCTO) (see University Grants Commission 1989). There was nothing in this Code which could make it enforceable, either legally or morally. Interestingly, it was addressed to the vice-chancellors rather than the teachers. Apparently, most universities have ignored this Code, though on its part, the UGC has been ritually reminding them about its implementation. Even those universities which have implemented this Code in principle, are not enforcing it in practice, either due to administrative inertia or the fear of agitation by teachers.

Private Tuition Charging private tuition by college teachers is one issue which has attracted critical attention of governmental authorities and members of the public alike. With the existing colleges being unable to teach effectively and the students wanting to sharpen their competitive edge, private tuition has become a vital supplement and is thriving. The dynamics of this dimension of education is seldom covered in discussions of the privatization of higher education.

Since teachers involved in coaching classes are, by and large, formally employed in colleges on a full-time tenured basis, charging private tuition raises the question of professional ethics. On the one

hand, their being engaged in private tuition is a reflection of the substandard teaching that their colleagues in the college are doing. On the other hand, since they know that students anyhow go for private tuition, they themselves do not take their teaching in the college seriously. Often the success of private tuition is attributed to the "leaking" question papers by such teachers. In brief, private tuition seems to have caught the teachers and the taught in a vicious circle.

Private tuition by individual teachers or by a group of teachers, is not a new phenomenon. It has now become a money-making enterprise and is institutionalized. Institutes offering coaching classes even advertise in the newspapers and claim credit for the success of students in the merit lists of various examinations. Some reputed teachers have taken voluntary retirement or resigned from their jobs in their colleges to engage themselves in this profitable enterprise.

The UGC has always been critical of the college and university teachers involved in private tuition schemes, but has not been able to do anything about it. State governments have been ambivalent about private tuition.

Politicization of the Academia

After a prolonged period of political apathy, mainly due to its middle class moorings, the teaching community has been gradually politicized. It is a matter of concern that this politicization has coincided with the decline of the profession. It is not that academia has become an arena of party politics or ideological battles, though in some universities even this has happened. Rather, "the politics of scarcity" has more direct bearing on the academic profession now than ever before, and the teachers have become politically more conscious, though their organizations have been unable to articulate the issues effectively.

Democratizing the Academia Over the last two decades, measures of internal democracy have been introduced in the university system, though not uniformly. Most universities have constituted "departmental councils" consisting of all or some teachers for arriving at decisions affecting the routine functioning of the departments. More important, in many universities "headship" of the department is no more a permanent office. Under the principle of "rotation of headship," the position of the Head or Chairperson of the department is occupied by turns by teachers of specified designations for two to three years.

Apart from instilling a sense of democracy into the functioning of departments, rotation of headship envisages that a person by becoming the head of the department does not have to invest all her/his time in routine administration and committee work. In practice, however, rotation of headship has generally implied a discount on leadership. With the duration being limited, even serious academics are reluctant to take initiatives. In universities where even a lecturer can become the head of the department, this has upset the conventional notions of academic hierarchy. Furthermore, personal animosities among teachers assure that no head will be effective.

Some universities with a large number of affiliated colleges have bifurcated the boards of studies, so that each subject now has two boards, one each for the undergraduate and postgraduate courses. Election for teachers' representatives on academic council, senate and executive council has been in vogue for many decades. This principle is now being extended to other bodies (like board of studies) and offices (like dean). Since "elections are often based on considerations other than academic...they may result in choosing representatives of limited appeal and sometimes in monopolies of groups with a set of opinions" (NCT, 1985, p. 37).

Teacher Unionism Practically every university has one or more teachers' unions, euphemistically called organizations or associations, to distinguish themselves from the working class trade unions. The growth in the number of such unions does not necessarily denote a healthy development of the profession. An integral feature of the development of teachers' unions has been the multiplicity and fragmentation of organizations. Generally, two significant divisions within the ranks appear along geographic and professional lines. To this split may be added the further segmentation within any one level. For instance, college teachers in every state are organized at state and local levels, as postgraduate and undergraduate teachers or both, as employees of government or private or university managed colleges, and based on the faculty of study. Such a proliferation of teachers' unions through a process of fragmentation and segmentation has weakened the teachers' movement and hindered their professionalization.

Teachers' unions are not strong anymore. Even the All India Federation of University and College Teachers Organizations (AIFUCTO) does not command the mass support it once did. Given the middle-class economism of teachers, pay scales is the only issue on which they can be mobilized. On a closer review it appears that whatever strength teachers' unions manifest is not due to any intrinsic qualities, but due to the soft attitude of the government toward them. The predominant mode of protest of teachers' unions still continues to be the strike. Generally, the issues that sustain any strike have to do with pay scales, promotions and service conditions. In the recent past teachers in various parts of the country have gone on strike demanding the implementation of new pay scales, and modifications of some of its provisions. Repeated strikes have not only affected the self-esteem of teachers, but they have also become increasingly less inhibited about being absent from work.

Conclusion

Higher education in India is undergoing an uncertain transition. With the structural adjustment reforms and liberalization of the economy, the state is gradually shedding its responsibility for higher education. The UGC has been virtually reduced to be a mere fund-disbursing agency, incapable of enforcing its own recommendations. Educationally, the Indian university system has progressively become nominalized and marginalized. Being outside the purview of the UGC and to a large extent, the state governments too, the emerging private educational initiatives may have a different story

to tell, but for that we will have to wait.

As regards the academic profession, the decline which was noticed over a quarter of a century ago (see Chitnis & Altbach, 1979) is now almost complete. Entering the profession with no prior professional preparation other than a postgraduate degree, assured of tenure, doing unchallenging work without any accountability, and with their performance being no more than its own reward, teachers in colleges and universities have been largely reduced to the lowest common denominator. Every laudable policy to improve the situation has been ritualized in practice. It is true that the situation is better in some centers of excellence, the institutions of national importance and a few university departments and colleges. They are, however, drops in the ocean of mediocrity.

Ironically, the improvements in pay scales and service conditions have come when the profession has almost sunk. Teachers are largely happy with the pay package, but they are also worried about the gradual withdrawal of state patronage to higher education. In the meantime, politicians and people think alike, and not unjustifiably so, that teachers are a pampered lot, who are getting more than what they deserve.

Note

It is common in the US to distinguish between teachers at the elementary and secondary schools and faculty at colleges and universities. If you want to make this distinction, we would want to replace “teacher” with “faculty” in many sentences in this report. In India, no such distinction is made. Those who teach at the school level are ‘school teachers’ and those who teach at the college/university level are ‘college/university teachers.’ Hence, no change is necessary.

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The Changing Academic Profession:

The Case of the Netherlands

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The Dutch Higher Education System

A main feature of Dutch higher education is its binary structure, which separates universities from institutions for higher professional education – Hoger Beroepsonderwijs, or HBOs. Universities and HBOs developed under very different historical conditions and are based on different rationales and purposes.

The history of Dutch universities dates back to the sixteenth century when the University of Leiden was founded, followed by the universities of Amsterdam, Groningen and Utrecht. Other universities were established during the twentieth century, including denominational universities which, despite their private status, are funded by the state under similar conditions as the other Dutch universities, and some universities which resulted from an explicit government policy to further economic activity in the region.

The HBO sector dates from the late 1960s, when colleges for higher vocational training were upgraded. Formally, HBOs belonged to secondary education until, in 1986, they were legally acknowledged as a sub-sector of the higher education system. Because of this sector's fragmented character, the government initiated major reforms in the 1980s. These resulted in the merging of more than 400 smaller institutions into large institutions, currently providing a wide range of professional courses with a standard period of study lasting four years. Today there are around 50 HBO institutions.

The Higher Education and Research Act of 1992 defines the respective goals and functions of both universities and HBOs. This legal framework encompasses a range of regulations that apply identically to all institutions. There is also a tendency to seek more homogeneity in organizational and administrative matters on both sides of the binary line.

The main objectives of a university education include training for the independent pursuit of scholarship and preparation for the professions. These goals are to be achieved through teaching and research. In addition, it is an explicit aim of universities to ensure that knowledge is transmitted for the benefit of society.

The main goal of HBOs is to provide theoretical and practical training with a clear vocational orientation. They also have the important task of transferring and developing knowledge

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for the benefit of the professions in both the industrial and service sectors. Their role is to support regional and local needs, although, increasingly, they tend to operate nationally and internationally too. In the context of the internationalization, HBOs have adopted the name "universities for professional education."

The main difference between universities and HBOs is the status of research. For universities, this is a main task, but for HBOs it is only permitted where it is applied research or research in the context of professional development. Upgrading and academic drift of HBOs is manifested is the claim of HBOs to be eligible for government research funding and to offer courses on the doctoral level. Some universities have entered into partnerships with some HBOs with the aim to collaborate and to enhance the mobility of students (and some staff) between them.

In addition to the two main sectors, the Open University (founded in 1984), provides both university and HBO degrees through distance learning. Also, a number of new private providers have entered the higher education market, mainly through distance learning. These providers are not eligible for public funding, but require formal recognition by the Ministry of Education, Culture and Science through accreditation.

Drivers of the National Context

National Demographics

Table 1. Structure of the Population: 1991 and 2005

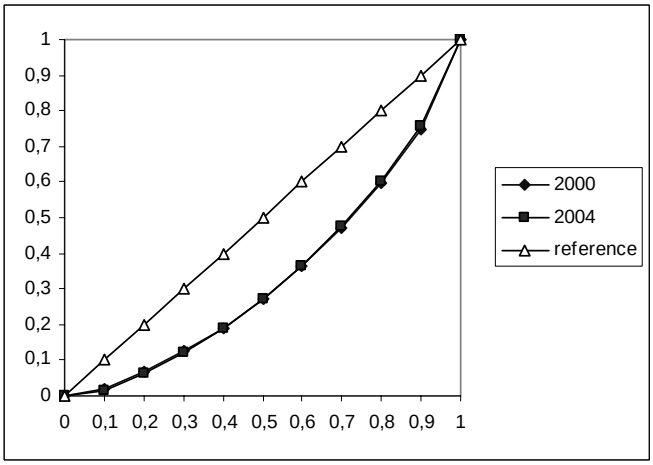
	1991	2005
Total Population	15,010,445	16,305,526
0-14	18.2%	18.5%
15-24	15.4%	12.0%
25-54	44.1%	43.7%
55-64	9.4%	11.9%
65+	12.9%	14.0%
Annual Growth Rate	0.79%	0.29%
Percent Male	49.4%	49.5%
Percent Female	50.6%	50.5%
Percent Non-Dutch	4.6%	4.3%
Percent Emigration	0.38%	0.46%
Percent Ethnic groups	6.2%	10.4%*

Source: Centraal Bureau voor de Statistiek (CBS) Statline 230106
Notes: Major groups are from Turkey (2.2%), Suriname (2%), Morocco (1.9%). Other Non-Western (3.5%).

Measures of Equality in Society The Human Development Index was in 0.908 in 1990 and 0.943 in 2003. This is Rank 12. The Poverty index is 8.2%, Rank 3 (see UNESCO, Human Development Statistics).

The Gini coefficient can be calculated on this Lorenz curve: the basis of the mean income of households (in deciles). It appears that the Dutch income distribution has hardly changed between 2000 and 2004. The Gini-coefficient is 0.328 in 2000 and it is 0.329 in 2004.

Figure 1. Lorenz Curves: 2000-2004



Source: CBS

Higher Education Policy, Legislation, and Regulations The Dutch higher education system can be characterized as egalitarian. There is a standard duration for all courses and virtually no differences in quality, while standards of entry and teaching are basically the same. There are also standard tuition fees and standard financial aid programs. The system is very horizontal with no special pecking order in the university respecting the HBO sector.

Recent government papers advocate moving away from this egalitarian principle by introducing selection at the entrance, particularly for the master programs, differentiation regarding institutional goals and missions, and differential fees. Some institutions have introduced honors programs at the undergraduate level, which are quite selective for students.

In the Higher Education and Research Plan (Ministry of OC&W, 2004) the government defines the ambition for higher education and research:

> Maximal participation and more highly qualified people in the workforce. In the context of the Lisbon-objectives the government aims at increasing the enrollment ratio in higher education to 50 percent by 2010;
>
> More excellence to create an internationally stronger profile with more focus and concentration;
>
> • More research dynamics and competition with greater opportunities to attract and keep additional researchers and other knowledge workers;
>
> Young adults should be competent to function adequately in a complex society; combinations of learning and work are becoming increasingly important;
>
> Higher education institutions should contribute more to the innovative capacity of the Dutch economy as well as of societal sectors like health and education. This requires more

interaction, a permanent tuning of higher education to labor market needs, and more focus on knowledge valorization.

These ambitions are advanced in the context of strengthening the international positioning of Dutch higher education in Europe and globally. The bachelor-master structure which is now standard in virtually all programs and disciplines, is a structure which makes it possible to attract students from abroad.

International mobility of students and researchers is stressed in various policy documents as this is considered to have a positive effect on the quality of both education and research as well as contributing to the development of the European Higher Education and Research Area. In order to enhance the international positioning of Dutch higher education, a number of instruments exist, such as the Huygens scholarship program and the establishment of 'Centres of Excellence.'

Marketisation and Competition At present a new law on higher education is in preparation which aims at strengthening the position of the student, employers, and other stakeholders as actors in the steering network. This would transform the higher education system into a more differentiated and market-driven system where students and institutions gain more freedom and responsibility.

The new funding system will be based on the provision of learning entitlements. This allows students to 'cash' their entitlements for (parts of) education at any place and time. Such a demand-led system, already operational in Australia, aims to increase the flexibility and freedom of students within the available time limits. Students who run out of entitlements will have to pay higher tuition fees. Higher education institutions will receive public funding on the basis of number of students enrolled with learning entitlements. This demand-driven system is supposed to turn students into critical consumers, and higher education institutions into responsive providers, that offer quality and meet the needs of an increasingly heterogeneous student population.

Research System

Research providers are universities, affiliated research institutes, and independent research institutes and, of course, industry R&D, which is by far the largest resource.

Most of the university research budget is provided by the Ministry of Education, Culture and Science (and Ministry of Agriculture for agricultural universities). The Ministries promote academic research by means of direct funding (first flow of funds) and via the research council NWO (indirect funding mechanism or second flow of funds). In addition, the universities receive research funds through contract research for individual companies, industry groups, government departments and other organisations in both the private and public sector (third flow of funds).

Independent research institutes (independent from universities), play an important role in the overall research agenda. Some have a private status, others a public one.

In 2003 the Netherlands spent €8.4 billion on R&D, an increase of 4.5% compared to 2002. The R&D intensity (share of GNP) is 1.76% which is below the EU mean (1.85%) and well below the OECD mean (2.24%).

Table 2. R&D Expenditure, 2002 and 2003, in millions of Euro and percentage of BBP (GNP)

	2002	2003	2002⇒2003	% of BBP2003
Universities	2312	3456	+1.9%	0.50
Research institutes	1164	1216	+4.5%	0.25
Industries	4543	4804	+5.7%	1.01
Total	8019	8376	+4.5%	1.76

Source: Knowledge and Economy (CBS)

Trends in Research Funding and Research Structures The core funding of, academic research (first flow) is largely based on historical considerations – its roots lying in an agreed upon number of academic staff. This is known as the 'strategic research component' and its value differs across universities. Plans to reallocate this component of funding across universities based on assessments of research performance and societal needs, as well as transferring the research budget from the basic allocation to the budget of the Research Council, have all been resisted by the universities.

A current topic of debate is the establishment of thematic or targeted research areas, in both the fundamental research at universities and the research funded by the Research Council. One of the key issues is whether and to what extent greater competition and incentives are needed in order to foster a more dynamic research landscape. Although research assessments provide overviews of the quality, productivity, relevance and sustainability of research at Dutch universities, it is not clear to what extent this should have implications for funding.

The Committee on Research Dynamics (Commissie Dynamisering, 2006) considered the role played by research assessments in the programming and funding of university research and concluded that performance-based funding of research should not be intensified. Other agencies, like the Advisory Council on Science and Technology Policy (AWT) advocate a further development of performance indicators, including the academic and societal impact and networking of research (see Jongbloed *et al*., 2005). Universities are generally reluctant to do this and argue that the present indicators, including citation scores and quantitative information (such as numbers of publications or researchers) are not developed to constitute a basis for the distribution of research funds, and therefore are not desirable. The universities prefer a dialogue with the ministry in which national research priorities are agreed upon.

Two other developments are worth mentioning here. One development is the stronger involvement of universities in European research programs which require a financial matching with university funds. This matching has been criticized by universities because this withdraws (lump sum) funds intended for fundamental research.

The other development concerns the establishment of research schools which are nation-wide and based on inter-university collaboration. Under the auspices of the Royal Academy of Sciences (KNAW), the research schools contribute to a better structuring of the educational part of doctoral education making it more attractive for young graduates interested in pursuing a research career. At the same time universities are in the process of developing American-type graduate schools. There is some tension between these two kinds of institutional settings, but at the same time there are chances for fruitful co-operation and synergism between them.

Enrollment and Participation

Table 3. Student Enrollment by Type of Institution, Major Disciplines

	Universities		HBOs	
	1990/1991	2004/05	1990/1991	2004/2005
Total Enrollment	181,990	199,350	242,660	346,210
Part-time Enrollment	15,200	14,240	50,720	65,660
Education	5,170	7,900	55,860	75,960
Humanities	30,820	25,220	14,020	19,630
Social Sciences	86,800	102,510	66,180	112,610
Natural Sciences	18,050	19,140	14,590	23,050
Engineering	19,260	18,030	33,920	26,630
Agriculture	4,400	2,350	6,550	6,540
Medicine/Health	16,570	23,420	43,870	65,920
Services, Logistics	910	780	7,680	15,880

Source: Ministry of Education, Culture and Science (2005b)

The government has established a goal for the rate of participation in higher education 'in the direction' of 50 percent by 2010. This aim is in line with the targets set in the UK and Sweden. To achieve this target, participation from underrepresented groups as well as those from upper secondary vocational graduates are stimulated. Moreover, completion rates of students in higher education should be increased.

In recent years an increasing proportion of young people are enrolled in higher education institutions. Of the 1972 cohort (born in 1972 at 23 years of age in 1995) about 32 percent enrolled in higher education institutions, whereas of the 1981 cohort at 23 years of age 44 percent were enrolled. Later cohorts show a further increase, but the differences become smaller. Extrapolation shows that the aim of 50 percent participation will be achieved in 2012, when the 1985 cohort is 27 years of age.

An international comparison of participation rates is difficult since an exact calculation for each cohort in most countries is not possible. Therefore international statistics like OECD's *Education at a Glance* work with 'synthetic cohorts' whereby for a particular year the enrollment by age group is divided by the population in the same age group and all percentages are summarized. This may lead to an overestimation of the participation rate (*cf*, Kaiser & O'Heron, 2005).

The number of women enrolled has increased considerably and they have exceeded the numbers of men enrolled in both universities and HBOs between 1990-91 and 2004-05, from 43 percent to 54percent in universities and from 47 percent to 52 percent in HBOs. The proportion of students

with a non-Dutch background in both universities and HBOs is about 15 percent.

The System of Academic Appointments

University Sector The typical academic rank order in the university sector is:

- Professor (*Hoogleraar*);
- University main lecturer (*Universitair Hoofddocent* – UHD); and
- University lecturer (*Universitair docent* – UD).

These three ranks are mostly permanent positions. All staff in these ranks have both teaching and research duties, but it is left to the individual universities and faculties as to how the different job tasks are to be assigned. Some faculties are adopting the American terminology of full professor, associate professor, and assistant professor, which broadly speaking correspond to the three Dutch ranks.

In addition to these basic ranks the following positions exist:

- Other academic staff: research and teaching associates. These staff are mostly associated with research institutes, either on a temporary or permanent basis. This category includes postdocs: a temporary position of two years.
- Research trainees (assistant-in-Opleiding – AiO) leading to the doctoral degree. Research trainees have an employment status with the university for a four-year period and, in principle, this is not a student status (apart from a few exceptions, though the issue is recently being debated again). They are charged with teaching and other obligations up to a maximum of 25 percent of their total working time, while at the same time conducting their own doctoral research.

HBO For the HBOs a broadening of the basic mission of the institutions is on the agenda: besides initial education there is more demand for other forms of education including contract education, life-long learning, and co-operative education. Generally, there is demand not only for flexible patterns of learning but demand for applied research and consultancy, as well. This means new requirements for the staff members who are becoming increasingly involved in innovation processes. The demand for staff will increase. In addition to the quantitative aspect, the professionalisation of staff and enhancement of their career perspectives will be a dominant theme in the coming years.

An important new function in HBOs is the establishment if the lector as the highest rank. Additional funds have been made available for a four-year period to appoint a substantial number of lectors. It is important to note that a lector should not be associated with the traditional rank of lecturer or reader at universities. Lectors in HBOs have highly qualified profiles with much expertise

in their subject field and in their professional domain. The leading idea is that lectors will not be appointed as isolated staff members, but as leaders of a so-called "knowledge circle" consisting of a group of 10 to 15 staff members. The knowledge circle aims to enhance contacts and knowledge exchange with industry (for example in the field of applied and developmental research, and consultancy).

Faculty and Staff

Table 4. Universities (Numbers in FTE) and Percent Women

	2004			1991		
	Total	Men	Women	Total	Men	Women
Professor	2,324	2,108	217 9.3%	2,385	2,306	79 3.3%
UHD's	2,195	1,883	312 14.2%	2,390	2,243	147 6.2 %
UD's	4,464	3,261	1,203 27.0%	6,059	5,069	990 16.3%
Other academic	5,463	3,486	1,977 36.2%	5,865	4,111	1,754 29.9%
Doctoral trainee	7,443	4,376	3,076 41.3%	5,119	3,663	1,456 28.4%
Student assist.	550	299	251 46%	843	537	316 37.5%
Total acad. Staff	22,440	15,404	7.036 31.4%	22,661	17,919	4,742 21.7%
Total non-academic	18,874	10,164	8,710 46.1%	20,946	12,653	8293 39.6%
Total	41,314	25,568	15,746 38.1%	43,607	30,572	13,035 29.4%

Source: Vereniging van Universiteiten (VSNU), WOPI statistics (2004).

Table 5. Distribution of HBO Positions (in FTE):

	1991*	2003**
Total Academic Staff	12,540	13,670
- Instructor (3 levels)		2,094
- College teacher		4,078
- Senior college teacher		6,938
- Senior lecturer		290
- Lector		270
Total Non-Academic Staff	7,462	10,454
Total		24,124

Source: *CBS statistics (1993); ** HBO-Council (2005).

In the HBO the occupational grading structure has become rather differentiated over the years. Until 1993 there were two main grades, teacher (docent) A and teacher B. Since then much has changed so that comparisons are difficult to make over time.

Faculty/ Student/ Support Staff Ratios For HBOs as a whole, the student/staff ratio was 13.5 in 2004. For universities this ratio is generally less overall, but very much dependent on the discipline.

Table 6. Non-Academic Staff as a Percentage of Total Staff (FTE)

	1991	1995	2000	2004
Universities	48.0%	48.0%	47.2%	45.7%
HBOs	39.9%	38.9%	42.1%	43.7%

Source: VSNU statistics and HBO Council.

Unfortunately, the Dutch statistics do not generally provide information on the mobility between the different types of positions, such as people moving upwards, faculty turnover, or leaving the system. They only give trends in the number of people in the different positions and turnover rates cannot be deduced.

Procedures for Recruitment and Selection

Major Locus of Decision-Making Staffing in Dutch higher education has been decentralized to a large extent so that in principle all decisions on staffing are made by the institution and even further down by lower levels. Since 1999 terms and conditions of service are no longer determined by the government, but are settled bilaterally between employers and employees through their representative bodies. The underlying argument for this decentralization was that institutions would be better able to cope with external constraints and to introduce modern instruments for personnel management (*cf.* De Weert, 2001). In this process of transferring powers and responsibilities from the government to universities and HBOs, there is a movement away from uniformity in dealing with staffing issues, and towards the devising of personnel management systems that allow for individual, subject, or market differences and flexible reward systems. At the central level the labor unions negotiate with the employers' organizations – the Association of Dutch Universities and the HBO Council, respectively – about the conditions of employment service and pay of personnel.

The current university governance structure, which dates from 1997, invests deans and executive boards with clearer managerial authority and budgetary responsibilities and delegates authority for staffing issues. Deans can delegate further responsibilities to course directors, who in turn are charged with the organization of the curriculum, and research directors, who are responsible for the organization of research.

Decisions on Recruitment and Appointments Although the faculty and/or departmental level is the most important for the creation or redistribution of positions, decisions are primarily made within the financial conditions as set by the central level of the universities and HBOs. Generally the 'formation principle' is the most common rather than tenure track positions which are still the exception. But given these framework conditions faculties have considerable freedom in creating positions and appointing personnel.

An important exception to this rule concerns the rank of professor (in universities) which is subject to the general plan on chairs as defined at the central institutional level and the general proportion between the different staff categories. Another exception is the position of lectors in

HBOs which is determined by a national organization.

Academic staff are recruited and selected by individual institutions, following advertisements and a public application procedure involving a special selection committee. For lower-level posts, recruitment can be restricted to internal candidates only. There is a general tendency, however, to search first within the organization to determine whether there are suitable candidates. Many institutions advocate internal mobility as much as possible before starting to recruit from outside. Some institutions use a right-of-way rule in case of vacancies.

Regarding the recruitment of professors, universities have their own special procedures. A most common procedure is the following: First, faculty boards establish a selection committee which writes a job description, personnel specification and job advertisement and sets up a selection procedure. Second, faculties at other universities throughout the country (and increasingly from abroad), covering the same or related disciplines, are asked to draw the attention of possible candidates to the post and are consulted about possible candidates. Third, following advice from the selection committee, faculty boards recommend one or two candidates to the board of governors and the rector, who ultimately take the final decision and appoint the candidate. For the appointment of the university main lectures (UHD), the approval of the central governance is also required.

Promotion and Access to Permanence For universities it is common practice to recruit staff mainly on the basis of their publications, since it is generally believed that those who have demonstrated knowledge and understanding in a particular field of study are best qualified for an academic post where teaching is a major task. The formal qualifications required are their scientific or scholarly credentials, and, increasingly a doctoral degree. Teaching qualifications are not required, but some universities are asking for teaching skills and experience. Training facilities are offered and although voluntary, this is increasingly becoming a part of staff development.

Professors are classified in three functional categories. To the extent that a professor is more authoritative in the field, more managerial, or leads a larger group, the higher the status and appraisal scheme. Other selection criteria include managerial abilities and capacity to attract external research funding. Generally, contacts with the world of professional practice are becoming increasingly important, especially for professorships and UHD's. Some faculties require research experiences from abroad before becoming eligible for a permanent position.

For the university lecturer (UD) and senior lecturer (UHD) there are two levels, a starting level and an advanced level with a combination of teaching and research tasks. The traditionally combined teaching and research tasks are assessed on a higher scale than the teaching-only and research-only staff.

In HBOs, on the other hand, professional experience, preferably for a minimum of five years , is considered an important criterion for appointment. Further, staff are expected to have relevant professional networks. Lectors in HBOs normally have a university degree. About one-third have

a doctorate and about 20 percent combine the lectorship with an appointment at a university.

Evaluation of Teaching Quality and Research Quality An appraisal interview is an annually recurring interview that is an important opportunity for both the staff member and the immediate superior to record the expectations and arrangements with respect to current and future performance. The past year is evaluated, and new arrangements are made for the coming year. Sometimes agreements are reached with the executive board of the institution to cover specific subjects during the interviews, such as the subject of workload.

Since 2003 a new system of job profiles has been implemented. All staff members have been assigned to this new job profile. For the individual staff members, there can be more clarity about their functioning regarding what is expected from them, how they can flow through the various profiles (both vertically and horizontally within the same rank), and what competencies are required for further career mobility in the functional structure of the organisation. The development plans of individual staff members constitute an important component of the appraisal protocolss. In these protocols, price negotiation is not a common element. There can be some negotiation, but generally flexibility is rather limited.

Specific Policies on the National Level Although staffing issues have been decentralized, government and other national bodies are launching particular programs which affect academic appointments. Examples are the 'innovation impulse', a governmental scheme to provide young talented researchers with financial opportunities to develop their own research into a research program and women scientists who can apply for the Aspasia program to develop their research further. A new program is the 'Rubicon' program which is especially intended for those who are in the period between their doctoral traineeship and a postdoc.

Another initiative is the Academy Professorships Programme of the KNAW to make permanent positions available for young researchers with the potential to become professors.

The employment status of research trainees remains an important issue. Universities advocate more diversity regarding employment conditions of research trainees by adopting their student status rather than the employment status. This would imply that research trainees will become more dependent on scholarships and on private funding. The government, however, is not in favor of such a change and stresses that more career opportunities in science should be made possible. The minister, on the other hand, stresses the need for a coherent policy on the research training, the careers of young researchers, and the position of women and ethnic minorities in science. The minister demands more attention to the career opportunities of young academics, such as the development of tenure tracks, research funds allocated to individual researchers rather than to the institution (personal budgets), and the maintenance of the employee status of research trainees (Ministry of OCW, 2005a).

Student Trajectories

The Feeder System The Dutch system has, in principle, an open admission system in the sense that anybody who meets the standard qualifications in secondary education as demonstrated by national examinations is eligible to enter higher education. For universities and HBOs the entrance qualifications differ, depending on the type of secondary education. There are, in principle, no further tests or entrance examinations with the exception of some courses such as in performing arts. The policy-objective of 'higher education for the many' from the 1970s implies the aspiration to make and to keep the higher education system accessible to as many people as possible.

For some subjects – which are nationally determined – there is *a numerus clausus* based on capacity limits or manpower planning, such as in medicine (university) and in HBOs (mostly in the health sector).

There are considerable opportunities to advance through the system. The bachelor-master system especially allows for more permeability and mobility. Students who took their undergraduate courses in some discipline are eligible to enter a master in another field. For HBO graduates master programs are an interesting option and several universities have created special programs for them to facilitate this transition.

Types of Curricula, Graduation Criteria, and Time-to-Degree There are a large variety of types of curricula, sometimes on the institutional level, and sometimes between disciplines at the same institution. Examples are modular-based programs and curricula designed to incorporate problem-based learning concepts.

Some institutions have rather broad programs, such as the Utrecht University College, a kind of liberal arts program of three years after which students can take a more specialized major in a master program.

The time-to-degree is basically three (bachelor) plus one or two years (master) for universities. For HBOs the bachelor degree is after three years. In HBOs students on average need 47 months to graduate. This study duration has remained quite stable over the years. Also, the success rate in HBO is constant: of all the students who started in 1997 about 58 percent graduated within five years of study. In the university sector the time-to-degree varies from about 60 months in the sector 'behaviour and society' to about 70 months in law and humanities.

Governance and Degree of Institutional Autonomy

The university governance structure was reformed according to a law in 1997. This structure tends to transform the traditional task-oriented organization, in which academics have a large amount of professional autonomy, into a market-type organization, which stresses the managerial aspects of education and research, and emphasizes effective decision-making processes. Integrated management on all organizational levels, clear internal authority relationships, a new supervisory board at the top of

universities and generally executive leadership are among the key elements of this new governance structure. In 2005 this law was evaluated (*cf.* De Boer *et al*., 2005). One of the outcomes was that a strong university management is not viewed as negative. Dutch universities have clearly strengthened their executive leadership, without categorically excluding staff and students from key decision making processes, although their involvement in decision-making process remains a concern.

The following table indicates the distribution of decision-power at the national level, independent organization, and institutional level. The relative strength of power at these levels is indicated in number(s) of asterisk(s).

Table 7. Levels of Decision-Making Power

Decision-Making Areas/Locus of Authority	National Level	Independent/ Buffer Organizations	Institutional Level
Academic curriculum	**	*	***
Academic standards for student entry	***		*
Academic standards for student graduation	**		***
Student assessment criteria	*		***
Opening/closing courses, programs, and degrees	**		**
Research agenda	*	**	**
Academic appointments			***
Support staff appointments			***
Staff assessment/promotion, and termination, *e.g.*, a) academic staff b) administrative staff c) support staff d) research staff			* * * a+b+c+d
Budget decisions	*		***
Major funding sources	***	**	**
Allocation and reallocation of funds and generating new revenues (in research and education)	*	*	***
Staff compensation levels and benefits, e.g., a) academic staff b) administrative staff c) support staff d) research staff		***	*
Institutional goals, mission	*		**
Institutional and unit (department, faculty, chair) governance procedures	**		**
Student participation in governance and program assessment if at all	**		**

The indication of decision-making powers is subject to some discussion. On the national level the government is the most important player, but also other national bodies like the accreditation body (see 10 below) and the Inspectorate play their role. As buffer organizations the VSNU (Universities) and the HBO-council (for HBO) also exert their influence on different issues, especially regarding labor negotiations with the labor unions. Regional levels of decision-making do not exist.

Funding and Its Change

The total public funds available for higher education is determined independent from performance-

indicators. The budget is only corrected by developments in wages and prices. In addition, the budget can be adapted on the basis of projected change in student enrollments.

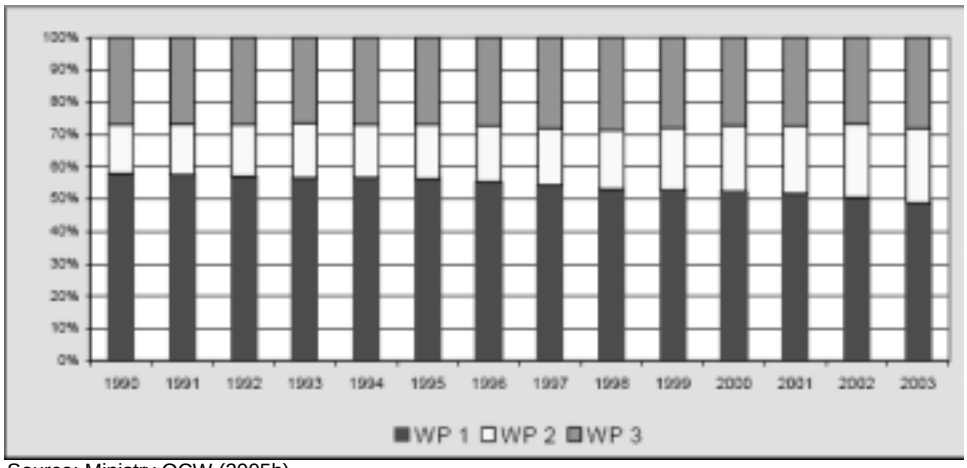
The distribution of the total amount of public funds depends partly on indicators such as the number of diplomas, the number of first year students, and the number of dissertations. Universities and HBOs receive their funding as block grants: they can decide how to allocate the funds among the various activities and investments. Thus, universities have autonomy in determining their priorities to use financial support for research and education.

Table 8. Government Expenditure Figures (total) and Calculated per Student

	2000	2002	2004
Expenditure Universities*	2577.2	2906.3	3144.7
Expenditure Per Student Universities**	4.7	5.1	5.0
Expenditure HBOs*	1283.7	1545.8	1658.8
Expenditure per student HBOs**	4.4	5.1	5.1

Source: Kerncijfers Onderwijs, Cultuur en Wetenschap
Notes: * (x € 1million); **(x € 1000)

Figure 3. Trends in Shares of Support for Research, 1990-2003



Source: Ministry OCW (2005b).

Figure 3 presents the relative proportion of the three main streams of research funding: government, research council, and contract research as well as the relative changes among them over the last 14 years.

This figure shows that the first flow of funds (from government) decreases gradually and is in 2003 just below the 50 percent (decreasing from 58 percent in 1990). The proportion of the second flow (WP2: research council) has gradually increased.

Concluding Remarks

The present government proposed a new higher education law in 2005. The basic philosophy of the law is that the government's role focuses on the functioning and strategic orientation of the

higher education system and its responsibility is focused on quality, accessibility, and effectiveness of the system as a whole. The higher education institutions are primarily responsible for the quality of education. They should be able to determine the quality norms by taking into account the national and international standards, developments in the subject areas as well as the mission and profile of the institution. The accountability of higher education is assured through the accreditation system as carried out by the Dutch-Flemish Accreditation Organization (NVAO).

The government remains responsible for the quality of higher education as far as the standards are concerned according to which the Dutch higher education (both nationally and internationally) is transparent and of discernible quality.

In line with this, the accreditation process increasingly takes place on a European level. The NVAO has contributed to the establishment of the European Consortium for Accreditation in Higher Education (ECA) and is an active member of the European Association for Quality Assurance in Higher Education (ENQA). These initiatives are clearly in the context of enhancing the international mobility of students and researchers, and the emergence of the European Higher Education and Research Area.

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The Changing Academic Profession in Japan:
Its Origin, Heritage and Current Situation

Akira Arimoto

Introduction

Higher education in Japan is changing rapidly as a result of pressures from both outside and inside the higher education system as well as the individual institutions. From outside, many social changes – such as the emerging knowledge society, globalization, and marketization – are forming dominant pressures. From inside, significant advances in scientific knowledge are also forming dominant pressures leading to recent reforms and innovations in higher education. It is also true to say that parallel changes are occurring in the academic profession as a result of the same kinds of pressures.

In this context, there are some characteristics particular to the Japanese academic profession as well as the Japanese higher education system. Some typical examples are as follows: a stronger orientation to research than teaching as shown in the 1992 Carnegie international survey of the academic profession; a pinnacle type of social stratification of the higher education institutions into a hierarchy; the conflicts between the German and American models are visible manifestly and latently in the process of constructing the modern higher education system; female professors are still a fairly small share of the total number of academics; and a chair system is emerging owing to the introduction of new categories of academic positions such as Junkyoju (associate professor) and Jokyo (assistant professor) to stimulate high productivity among academics.

Probably some historical and social reasons underlie these phenomena. Some of them are likely to be changing while some of them are not likely to be changing. This paper will consider these important phenomena.

The Japanese Higher Education System: The Origin and Heritage

The Establishment of University of Tokyo and Characteristics of the Modern Japanese Higher Education Systems Tokyo University was established as a modern university in Japan, in Meiji 10, or 1877, by the integration of the various former institutions originally developed since the Tokugawa age. However, the real modern university was established in Meiji 19, or1886, by the Imperial University (Teikoku Daigaku) which possessed five Faculties including Law, Economics, Literature, Science, and Agriculture. The name was chanaged to Tokyo Imperial University (Tokyo Teikoku Daigaku) in 1897 when Kyoto Teikoku Daigaku was established, followed by other imperial universities such as Tohoku, Kyushu, Hokkaido, Osaka, and Nagoya (Table 1**)**. These seven imperial

universities are still leading institutions today in the national higher education system in terms of history, status, prestige, sector, hierarchy, culture and climate.

Table 1-1. Teikoku Daigaku by Establishment Order

1886 (Meiji10)	Tokyo Teikoku Daigaku
1897 (Meiji 30)	Kyoto Teikoku Daigaku
1907 (Meiji 40)	Tohoku Teikoku Daigaku
1910 (Meiji 43)	Kyushu Teikoku Daigaku
1918 (Taisho 7)	Hokkaido Teikoku Daigaku
1924 (Taisho 13)	Keijo Teikoku Daigaku
1928 (Showa 3)	Taihoku Teikoku Daigaku
1931 (Showa 6)	Osaka Teikoku Daigaku
1939 (Showa14)	Nagoya Teikoku Daigaku

Source: Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Before World War II: Introduction of the German Research-Oriented Model During the early stage of the establishment of the modern universities in Japan, the government tried to import advanced models from Western countries. As Shigeru Nakayama described, “window shopping” was done in the process of selecting the most appropriate model to be imported. Through a trial and error process over many years, the German model of the university was introduced into the Teikoku Daigaku. For example, a chair system was established in Teikoku Daigaku in Meiji 28, or 1895, in order to establish a solid status for the academic profession in terms of an academic career with a strong research orientation (Amano, 1977). As Ikuo Amano pointed out, the academic profession was not an attractive profession for students who graduated from Teikoku Daigaku because there were many careers other than academic careers available to these expected elite people at that time. In fact, introduction of the chair system as a working unit in academic organizations was aimed primarily at keeping these people within academia as researchers.

Before that time, in 1886, when the Imperial University of Tokyo was established, the national government asked Hozumi Norishige, who was an international student sent to the UK by the government in order to study English law, to move from the UK to Germany (Prussia) to study German law. He became the first Japanese professor in the Faculty of Law where French professors had previously been teaching French law in French since the establishment of the Faculty. Unfortunately, those students who could not understand French automatically could not follow lectures in the classrooms. However, from the stage of German law’s hegemony, students studied German as their foreign language in all national universities which followed the Imperial University of Tokyo (Nakayama, 1978). For example, even during the postwar period when the author of this paper was a student at a national university, it was natural that all students were almost always asked to study German as their compulsory second language. Of course, this tradition has changed recently as students can now freely elect other foreign languages such as Chinese, Korean, Italian, Russian, or

Spanish, as their foreign language instead of German.

Naturally, the introduction of the German model of university created a climate in which Japanese higher education was inherently oriented to research as had developed earlier in the German system, though Wilhelm von Humboldt's idea was originally directed toward an integration of research and teaching (Humboldt, 1970; Clark, 1995).

Since World War II: Influence of the American Model

After the war, in 1947, a new system was introduced into higher education on the basis of the new education law which was guided by the American model. New universities were established in two categories: first, by restructuring the old universities, and second, by establishing a new type of university which was developed from the former professional schools (senmon-gakko). Imperial universities (teikoku-daigaku) lost the name of "imperial" and their status as well as prestige was decreased when they were given the single name of "university" (daigaku) which was equally adapted to new comers even though they retained a lower status than the former imperial universities.

Based on this American model, the single track was implemented in the school system with 6-3-3-4-year arrangements. The prewar hierarchy of higher education institutions was abolished to the extent that all institutions came to possess equal status under the same name of daigaku (university), although the former imperial universities have, in actuality, continued to enjoy their higher status and prestige until today, thanks to their protection by the national government in the process of resource allocation among the higher education institutions.

In addition, the German system has lasted covertly and latently in the national system of higher education as well as in the academics' consciousness to a considerable degree. Especially, the research orientation was not easily changed to a teaching orientation for many years since then until today, even though the American model, or Anglo Saxon model, was introduced at the undergraduate level through an introduction of general education. Before the war, the system had general education at the high school level and professional education at the undergraduate level. After the war, the previous system was changed to a new system in which general education was carried out in two-year Kyoyo-bu, or Faculty of General Education, in the undergraduate curriculum.

Current Higher Education System

Three Major Types of Institutiona: Daigaku (University), Tanki Daigaku (Junior College) and Senmon Gakko (College of Technology) During the postwar period Japanese higher education has diversified into three categories of institution: university as an historical type, and junior college and college of technology as new types. These categories have been quite responsive to the increasing massification of Japanese higher education. According to Martin Trow's model of higher education development, Japanese higher education system remained in the elite stage from 1877 when the first university, Tokyo University, was established until the middle of 1960s. The massification

stage lasted from the mid-1960s until the early 2000s; this stage lasted as long as forty years, probably including the post-massification stage (Ehara, 1994; Arimoto, 1996 & 1998). The universal stage began in the early 2000s.

In 2006, the share of students who enrolled in the category of university among all 18-year-olds reached 45 percent – which means the share still remains at the stage of massification, though the share of those enrolled in the category of daigaku, including universities and junior colleges, reached 52 percent, and further, the category of post-secondary education reached approximately 85 percent which is moving substantially toward the universal stage.

As was described previously, this kind of differentiation of institutions resulted in the diversification of the academic profession.

Three Major Sectors: National University Corporations, Local Public Institutions, and Private Institutions Japanese higher education institutions are divided into three sectors: national, public, and private sectors. These sectors consist of the pre-war category of university and the professional schools which were promoted to ***daigaku*** as previously mentioned. The establishment of the three different sectors has also brought about the diversification of the academic profession today.

Remarkable Characteristics of the Japanese Higher Education System Making an international comparison with regard to the differences of higher education systems among countries, we can identify some interesting characteristics particular to the Japanese higher education system.

First, among the three sectors, the private sector constitutes the largest sector in Japan in terms of the numbers of both students and institutions. The legacy of the pre-war hierarchical and privileged higher education system and the post-war reforms have created two distinct groups of Japanese universities: the national and public universities that are controlled and also sponsored by the national and local governments, and the private universities that are controlled by the national government to some degree but are mostly controlled by market mechanisms.

It is important to note that in Japan higher education is made up of two sectors: the national (and public) institutions and the private institutions, while in European countries, most institutions are national or state universities and controlled by the national or state government.

The American system is similar to the Japanese system in that it has both public and private sectors, though strictly speaking it has three sectors: public, private no profit, and private for profit. The private for profit one is small in size and so American system is almost same as Japanese system in which the two national and private sectors are no-profit like American system. Accordingly, the share of the two sectors is almost opposite: the share of the private sector in the United States is only approximately 30 percent while in Japan it is approximately 75 percent.

An international trend of marketization and also privatization is manifestly occurring at all levels owing to the shortage of public budget allocations to higher education institutions. If we pay attention

to this trend, it is reasonable to observe that the Japanese system has started as a front runner many years ago and, as a result, it has been successful to a considerable degree in sustaining the massification of higher education.

Second, the Japanese higher education institutions form a hierarchical structure which was established intentionally by the national government in the process of organizing the modern higher education system. Burton Clark pointed out that the Japanese system with a pinnacle was similar to the British system where Oxford and Cambridge formed a pinnacle and to the French system where the Grandes Ecoles formed such a hierarchical structure (Clark, 1983).

This landscape is different from that of the American system with its intermediate levels in the hierarchy of institutions and also from that of the German and Italian systems with their flat structure. In international comparison, it is interesting to observe that the Japanese system belongs to the same type as that in the UK and France which have a higher education history and tradition about 800 years long since the establishment of their universities in the Middle Ages, though Japan has only about 130 years since the establishment of its first modern university.

An institutional hierarchy was gradually established over the history of Japanese higher education since the Meiji Restoration when the modern higher education system was set up by introducing the advanced models from Europe. In this process, the stratification of institutions was formed by both government control and market mechanisms. Ikuo Amano described the structure of "two sectors and two stratifications", in which the national (and public) sector is superior in status to the private sector and, in addition, the universities are superior to the professional schools (Amano, 1986). This hierarchy was formed during the pre-war period.

In the post-war period, a hierarchical order was established headed by the former imperial universities, and then the national universities the public universities, and lastly the private universities. In addition, the junior colleges were subsequently joined at the bottom of the hierarchy. It is evident that there is a great gap in the allocation of funds from the government between the national and private sectors, and also between the universities and junior colleges.

Among 744 Japanese four-year universities in 2006, approximately 30, or 4 percent, belong to the category of "research university." Among these top universities in the stratification of higher education institutions, the former imperial universities stand in the highest group including Tokyo, Kyoto, Osaka, Tohoku, Kyushu, Nagoya, and Hokkaido followed by some national universities including Hiroshima, Tsukuba, Hitotsubashi, Tokyo Kogyo, Kobe, and some private universities including Keio, Waseda, Doshisha, and Ritsumeikan.

The Academic Profession in Japan

Definition of the Academic Profession From a comprehensive perspective, the academic profession in Japan is defined as follows: the academic profession is a generic name of a group consisting of full professors, assistant professors, lecturers, and assistants, who usually work in

universities, specialize in an academic discipline, engage in academic work, and possess their own culture (Arimoto, 2005a). In Japan, professors are those who meet the qualification of professor according to the university chartering criteria of article fourteen. "(1) to have a doctoral degree or its equivalent degree abroad and in addition to it to have academic achievement comparable to the first criterion, experience in the career of professor; (4) to have experiences of associate professor and in addition to it to have achievement in research and teaching; (5) in the fields of arts and athletics, to have special excellent skills and to have experience of teaching; (6) to have especially excellent knowledge and experiences."

Since this is a very generic definition of the academic profession, a more detailed definition is needed.

First, the academic profession is one of the professions and especially a "key profession" among many professions. Harold Perkin earlier described the academic profession as a "key profession" which trains human resources not only in the academic profession but also in other professions (Perkin, 1969).

The profession has the following characteristics. "(1) The profession exclusively offers service and is based on highly organized knowledge and skills; (2) The offer of the service is conducted primarily for public good rather than for profit; (3) Autonomy in its activity and self-control through its own professional association are socially recognized to a considerable degree" (Arimoto, 2005a).

Second, the academic profession is defined by the academic disciplines which are related to the functions of knowledge. In other words, the academic profession is connected with discovery, dissemination, application, and control of knowledge so that it is has a connection with research, teaching, service, and management and administration, respectively.

Teaching is one of the functions, which was institutionalized in universities when they were established in the Middle Ages. Research was institutionalized in modern universities in the 19th century when the academic profession was born because research was considered necessary for academic careers, according to the paper by Donald Light (Light, 1974).

The Japanese academic profession was also initiated for the first time at this stage, with importation of several advanced models from European countries, especially from Germany, stressing research orientation more than teaching orientation. The first chair system was introduced into Teikoku Daigaku in 1995 as previously described, demanding that the incumbents succeeding to the former chair holders become researchers in the field of the chair so that they would succeed academic disciplines to be specialized in the chair. In other words, chair is responsible to succeeding of given discipline from the former incumbents to the new incumbents. This pattern of stressing research and researcher orientation more than teaching and teacher orientation has been reinforced until today through the strong conformity of academics who happened to get positions in the national, public, and private institutions.

Third, the academic profession possesses its own beliefs and culture reflecting the effects of

knowledge and disciplines. Academics are usually seeking to establish principles such as academic freedom, freedom of teaching, freedom of research, freedom of science, and academic autonomy.

These principles and philosophy are bringing about differentiation of the world of academics as is shown in the differentiation of the many academic associations. In Japan, in the field of higher education research, for example, there are at least four large associations: Daigaku Kyoiku Gakkai (The Liberal and General Education Society of Japan); Daigaku Kanri Gyosei Gakkai (Japanese Society of University Administration and Management); Kotoh Kyoiku Gakkai (Japanese Association of Higher Education Research); Daigakushi Kenkyukai (Research Association of University History). In the field of education research, there are at least 100 associations. As Burton Clark said in the Academic Profession, it is true even in Japan to say "Small Worlds, Different Worlds" (Clark, 1987).

Fourth, both massification and stratification are simultaneously proceeding in academic profession. Key concepts to describe it are massification, diversification, and complication. For example, if we use the postwar statistical trends between 1950, 1980 and 2006, the trends are clearly documented (Table 2). As for the number of universities, there were 201 in 1950, 446 in 1980, and 744 in 2006. As for the number of students, there were 224,923 in 1950, 1,835,312 in 1980, and 2,859,207 in 2006, respectively. As for academics, there were 11,534 in 1950, 102,989 in 1980, and 164,483 in 2006, respectively. The numbers of junior colleges for each category also increased just like those of the universities. As far as universities are concerned, the numbers in 2006 compared to those in 1950 increased 3.7 times, 12.7 times for students, and 14.35 times for academics.

It is clear that massification was promoted rapidly in half a century. It is also clear that diversification was gradually promoted in accordance with massification as we see the trend of the academic profession in the given period in terms of the following factors.

Table 2. Trends in Number of Universities, Students, and Academics between 1950 and 2006

Academic year	Universities	Junior colleges	University students	Junior college students	University academics	Junior college academics
1950	201	149	224,923	15,098	11,534	2,124
1980	446	517	1,835,312	371,124	102,989	16,372
2006	744	469	2,859,207	202,197	164,483	11,279

Source: MEXT

In 1955, immediately after the war, there were 38,000 academics, of which 59.7 percent belonged to the national sector, 11.6 percent to the public sector, and 28.7 percent to the private sector. In 2006, there were as many as 164,000 academics, of which 36.9 percent belonged to the national sector, 7.1 percent to the public, and 56.0 percent to the private. It is apparent that the national sector has declined, while the private sector has increased. In addition to these permanent full-time academics, there are 164,000 part-time academics, of which 20.5 percent are in the national sector, 7.3 percent in the public, and 72.2 percent the private. It is also apparent that the share of the part-time academics is lower in the national and public sector, while the share is higher in the private sector.

Considering the number of academics in graduate schools, there are 94,532 academics, or 57.5 percent of all academics. Among all graduate school academics 54.5 percent belong to the national sector, 7.6 percent to the public, and 37.9 percent to the private. The national sector has a large share of the academics in graduate education.

Diversification is recognizable not only in sectors but also in gender as we underline the differences in shares of employment between male and female academics. The share of the female academics increased from 5.2 percent in 1995 to 17.4 percent in 2006. The corresponding share was 8 percent (possibly calculated on a slightly different basis) in the Carnegie international survey which was conducted in 1992. The Japanese percentage of female academics was the lowest among the 14 countries which participated in the Carnegie survey (Altbach, 1996; Arimoto & Ehara, 1996; Arimoto, 2005b). The situation has improved to a considerable degree, but even so the present percentage still remains at a level which the institutions desire to increase. While the overall share of females among the total number of academics is 17.4 percent, there is a much lower share of females among all academics in the national sector. Some national universities are reportedly intending to establish a goal for the share of female academics at close to 25 percent.

As shown in Table 3, if we survey in more detail the 164,000 permanent academics, of which 17.4% (28,597) is female staff in 2006, it is clear that the share is different among positions as follows: among 712 presidents 7.6% are female; among 672 vice presidents, 5.5% are female; and among 66,128 professors, 10.5% are female; among 38,845 associate professors, 17.7% are female; among 20,762 lecturers, 25.2% are female; and among 37,374 research assistants, 25.2% are female. There are fewer females in higher positions, while there are more females in lower positions. At the national university, the figure reveals these conditions more drastically. The average share of females among all academics is 4.2%. The share of each position is as follows: president 0.3%; vice president 0.7%; professor 2.2%; associate professor 5.2%; lecturer 3.9%; and research assistant 7.1%. The law of "higher and fewer" prevails. The share of female academics who are teaching in the graduate schools is 10.8%, while the share of female academics among all academics is 17.4% as mentioned previously.

The provision of the posts to foreign academics is also restricted to a large degree as we see from the relevant statistics between 1995 and 2003. In the former year, there were 3,858 foreign academics teaching in Japanese universities and colleges and in the latter year the counterpart numbered 5,724. This result is a 1.48 time expansion, although it is probably not sufficient expansion in response to the globalization of higher education.

A glimpse of the statistics related to the academic profession can really explain the increasing massification, diversification, and complication in the world of the academic profession. Actually, more complicated situations will be recognized when we observe in more detail the individual institutions, organizations, and groups expanding under the national system.

Perhaps more diversified and complicated situations will be observable as we make a case study of the Japanese academic profession in the higher education system from various perspectives including

Table 3. Number of University Academics by Position (Permanent Staff)

	Total			National			Public			Private			Foreigners (recitation)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Total	164,483	135,886	28,597	60,712	53,762	6,950	11,739	8,862	2,877	92,032	73,262	18,770	5,724	4,323	1,401
Presidents	712	658	54	87	85	2	76	64	12	549	509	40	4	4	—
Vice Presidents	672	635	37	252	247	5	40	34	6	380	354	26	4	3	1
Professors	66,128	59,154	6,974	21,932	20,493	1,439	4,028	3,416	612	40,168	35,245	4,923	1,646	1,373	273
Asso. Professors	38,845	31,960	6,885	17,569	15,543	2,026	3,142	2,384	758	18,134	14,033	4,101	1,777	1,342	435
Lecturers	20,752	15,523	5,229	4,825	4,010	815	1,656	1,110	546	14,271	10,403	3,868	1,595	1,083	512
Research Asso.	37,374	27,956	9,418	16,047	13,384	2,663	2,797	1,854	943	18,530	12,718	5,812	698	518	180
(recitation)															
Graduate Schools	94,532	84,337	10,195	51,529	46,608	4,921	7,194	6,068	1,126	35,809	31,661	4,148	…	…	…

Source: MEXT (2006).

system, sector, institution, organization, group, and individual faculty member. Within the domain of the institution, for example, there are a wide range of additional factors that bear in different ways on the academic profession, including types of institutions, such as research university, graduate-level university, comprehensive university, professional university, liberal arts university; four-year college, and two-year junior or community college. In addition, types of working situations within institutions, have an impact, such as faculty, school, department, chair, institute, center; graduate school, undergraduate school, academic discipline, and field of specialization, as well as the status, rank, and age of individual academics,

The academics are likely to be affected directly by these many individual factors so that their cultures, behavior patterns, and consciousness produce no single, integrated set of characteristics. In other words, no single picture of the academic profession can be generated with regard to these groups which work in different climates and which are inclined to posses various kinds of culture, behavior patterns, and consciousness. We can recognize in this situation a picture of a “small worlds and different worlds.”

Typical Academic Ranks in Japanese Higher Education Institutions Correspond to Four Levels: Assistant (Joshu), Lecturer (Koshi), Assistant Professor (Jokyoju), and Professor (Kyoju) Before 1 April 2004, academic faculty in both the national and public sectors were civil servants, while in the private sector faculty were governed by contract. After that date, a new system was introduced and applied to all sectors. The new ranks are: assistant (Joshu), assistant professor (Jokyo), associate professor (Junkyoju), and professor (Kyoju) (Central Education Council, 2004). Positions such as Koshi and Kyoju remained without any change. In the new system, the former Joshu was separated into two groups: Jokyo, a new position, which is a career of researcher leading to Kyoju in the future; and Joshu which is committed to the main task of providing assistance in the academic work of research and teaching.

A Jokyo is engaged on the basis of a contract for several years, probably five to seven years, with the expectation of being promoted subsequently to the position of Junkyoju, which is almost

equivalent to Kyoju in terms of responsibility for academic work.

Before the new system was introduced, a Jokyoju was expected to support kyoju but this duty was essentially abolished to the extent that both positions are now almost equal. The former Jokyoju is defined by School Education Law as "an assistance to Kyoju's work" and internationally it was apt to be considered as "assistant." As a result, it was changed to Junkyoju. At the same time, the former Joshu was also reconsidered with regard to naming of Joshu or Jokyo which leads to Kyoju in the future. The new names were selected on the basis of having the same name in the past and also escaping confusion with using the former Jokyoju.

Concluding Remarks

(1) Japanese higher education has its own distinctiveness as we observe its origin and heritage. There was no formal heritage of higher education, especially of a university tradition, before the Meiji Restoration, when several advanced models of university were introduced for the first time approximately 130 years ago. The advanced models of university were actively imported from the west, especially from Germany which was thought to have the leading university model.

(2) The most prestigious higher education institutions were established by the national government based on the advanced models of university, with investment in them of as much resources as needed to catch up with the advanced countries by training human resources at the level of higher education. These institutions became the most prestigious places at the pinnacle of the hierarchical pyramid of Japanese higher education institutions

(3) Prominent people who had been educated in the universities, particularly in Teikoku Daigaku, had many attractive professions and vocations outside academia so that students did not necessarily choose academic careers after graduation from the universities. In this situation, the first chair system was introduced into Teikoku Daigaku, a pinnacle, in 1895, which has become a model of the academic profession throughout the country for many years. In addition, research orientation rather than teaching orientation was established from the origin of the academic profession.

(4) After the second world war, the American model of higher education was introduced and therefore academic reforms were conducted to a considerable degree. Some reforms were successful so that general education and various kinds of innovations were realized at the higher education system level and also at the level of individual institutions. However, some traditional ways and climates which had been established before the war period faced difficulty in changing in the context of importing the American model. For example, teaching orientation rather than research orientation, or at least integration of the two, was not realized at all in spite of a lot of pressure from the American model.

(5) Today, Japanese higher education is moving to the stage of universal access after the stage

of massification. The system has been confronted with massification, diversification, and complication in the process of establishing its own identity, and it is true that the academic profession is also faced with the same kind of problem in establishing its own identity.

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The Academic Profession in Japan:[1]

Major Characteristics and New Changes

Futao Huang*

Introduction

This article deals with the academic profession in Japan. The academic profession can be and has been described in a vast number of ways, depending on the time and place. Even in the Japanese context, the "academic profession" can be interpreted in both a broad sense and a narrow sense. The definition of the academic profession in a broad sense refers to all persons who teach or conduct research, or produce publications based on scholarly research at higher education institutions or research institutes inside or outside colleges or universities. In a narrow sense the academic profession means faculty members who are mainly involved in teaching and research activities at a college or university. By focusing on the academic profession in its narrow sense, this article will address two major research questions. First, what are the distinguishing characteristics of the academic profession in Japan? And second, what changes have happened to it since the last half of the 1990s?

The article consists of the following three major sections: (1) the origins, heritage, current situation, and major characteristics of Japanese higher education; (2) a review of the specific aspects of the academic profession based on existing studies; and (3) a rationale and strategy for reforms of the academic profession in Japan at both the system and the institutional levels, especially since the latter part of 1990s.

The article documents enormous changes occurring at both the system and institutional levels in such areas as curriculum development and governance arrangements. The article concludes by arguing that driven by strong external forces, especially those flowing from the central government, significant changes have taken place not only in the basic institutional structure in Japan but also in many important parts of the academic profession. It is, however, extremely difficult to identify the impacts of all the policies for improving the academic profession in Japanese universities.

The Japanese Higher Education System and the Academic Profession

The Origins and Heritage The University of Tokyo is the first modern higher education institution in Japan, founded by the Meiji government in 1877. By the end of World War II, another six national universities had been established, which are usually designated the "former imperial

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universities." As Amano has pointed out, as early as the later half of the 19th century, the basic structure of the Japanese higher education system had already formed. The system was split into two sectors: national and private; it provided short-cycle programs and undergraduate programs (Amano, 1989). In order to learn from the advanced universities in European countries, the central government dispatched many students abroad in the early Meiji era, mostly to Germany, Frances, and the USA. At the same time, the government also hired many excellent foreign scholars to work in the Japanese national universities and institutions. In 1876 alone, there were 78 foreign faculty members who were involved in professional and language teaching activities, and in most cases taught in foreign languages (Ministry of Education [MOE], 1992). In fact, establishment of the modern university in Japan was modelled on the University of Berlin, although there were significant differences in mission and internal academic organization between the former Japanese imperial universities and the German research-oriented universities. For example, a Faculty of Technology originated through engineering courses in the University of Tokyo but no such Faculty existed in the University of Berlin.

For governance arrangements, these imperial universities combined governmental control with a considerable measure of internal academic freedom, as in Germany. Moreover, in addition to teaching activities and writing popular articles, the tradition of conducting research by Japanese professors was also based on the German model from as early as the late 19th century. Until recently faculty members in all national university were civil servants, indicating that almost all their missions and activities could be regulated by the government. Yet, as the basic educational, research, administrative, and political unit of these universities was the academic chair, which was headed by a full professor, a lecturer, and one or two assistants, at an institutional level, professors could enjoy some academic freedom and autonomous power.

In addition to institutions in the public sector, private universities were also established in this period. Although they were not supported by the government and they focused on the humanities and the social sciences, a majority of the students graduated from the private sector. By the 1930s, the Japanese higher education system, in common with universities in other countries provided an elite system with only approximately three percent of high school students entering a university, and with the graduates moving into positions that served the government's aims of modernisation within traditional Japanese structures.

After the Second World War during the Occupation period the Japanese higher education system, influenced by American models, was fundamentally reorganized. Among many reforms of higher education, policies of democratization and massification were implemented. With a rise in the number of newly founded higher education institutions and strongly stimulated by government, by 1963 the percentage of enrollment of 18 year-olds had already surpassed 15 percent. This indicated that Japan had entered the stage of mass higher education in the early 1960s according to Martin Trow's definition. With massification of higher education, tremendous changes took place in the roles and characteristics of the academic profession in Japanese higher education institutions. One of the big

changes was the widespread growth of interest in research and establishment of various academic societies: in particular academic faculty became more research-oriented, engaging in both pure research and applied research (Cummings & Amano, 1977).

Current Higher Education System Structure and Characteristics Contemporary Japanese higher education consists basically of three major types of institution: universities, junior colleges (*Tanki Daigaku* in Japanese) and colleges of technology. Among these, the two-year, junior colleges were first established in 1950, initially as finishing schools for women, which awarded terminal degrees; and colleges of technology which were first established in 1961 for vocational education, with lower entrance standards. By sector, the higher education system comprises the national university corporations (whose precursors were the former national universities), local public institutions, and private institutions. All the universities and colleges in the national sector – which used to be administered by and financed through the Ministry of Education, Culture, Sports, Science and Technology (MEXT) together with the very few academies or professional colleges (*Daigakkou* in Japanese) under the control of Central level ministries and agencies – were incorporated in April 2004 as nominally independent corporatized institutions. At present, however, almost all of their budgets still come from the central government. In universities both undergraduate courses leading to bachelor's degrees and graduate courses leading to masters' and doctoral degrees are provided while in junior colleges two-year short-cycle programs are normally provided. According to MEXT (MEXT, 2004a), universities are intended to conduct teaching and research in depth in specialized academic disciplines and provide students with advanced knowledge.

The rate of student enrollment in post-secondary education institutions reached 75.9 percent in 2004, with 50.7 percent of the students going to universities, junior colleges or colleges of technology (fourth year), and the remainder to correspondence schools, the University of the Air (regular courses) and specialized training colleges (specialized courses).

There are several striking characteristics of the Japanese higher education system. First, the private sector constitutes a large proportion of both institutions and students. As of 2004, there were 87 national institutions, 80 local public institutions and 542 private institutions. The percentage of students in private universities and junior colleges amounted respectively to 79.6 percent and 88.2 percent of the totals and private universities and junior colleges also comprises a similarly large share of the totals (MEXT, 2005a).

Second, the legacy of the pre-war hierarchical and privileged higher education system and post-war reforms have left two distinct groups of Japanese universities: the national and public sectors that are controlled by government, and the private sector that is market-oriented. The national, public and private sectors, established by different founders, are expected to play different roles and fulfill diverse functions. The national universities are expected to facilitate the advancement of basic and applied scientific research, some of which is large-scale (with substantial funding, often supported by the

national budget) and which provides students from different backgrounds with general and professional education, and provides higher education opportunities for the community (Hata & Huang, 2004). Yamada states that higher education policy in Japan has treated national universities better than private universities. Government policy has resulted in a situation where most of the science and technology departments, which require considerable finance, belong to the national and public universities. The imbalance between national universities and private institutions can also be seen in the allocation of public grants and the ratios of faculty members to students. For example, in 2000, 73 percent of Grants-in-Aid for Scientific Research were allocated to national universities and only 14 percent of these grants were assigned to private universities (Yamada, 2005).

Third, higher education institutions conform to a hierarchical structure. This is evident not only in the wide gap in the allocation of funds from government between the national and private sectors, but is also reflected in universities and junior colleges at different levels even in the same sector. In contrast with the private sector, the vast majority of national universities remain more prestigious and are the centers of most graduate work at the PhD level. In the national universities and junior colleges, even now the former imperial universities, together with a few other older universities, enjoy a higher academic standing and social prestige than any other of the national institutions. They usually receive more funding from government and generate more external revenue, including research grants, as well as producing far more PhDs. than most of the local national universities that were established after the Second World War. Whereas in the private sector, some of the older universities with long histories such as Waseda University and Keio University are considered among the top universities in Japan, they are limited in number and provide much more favorable environments and conditions for teaching and research than other private institutions. Academically and socially, they are always treated as similar to the former imperial universities and regarded as flagships in the Japanese higher education system.

The Academic Profession in Japan and its Specific Aspects The term “academic profession” can be defined in a number of ways in Japan. In a broad sense it generally refers to scholars or researchers who work within higher education institutions as well as to those who work in research outside of these institutions. Those who work outside higher education institutions can be further split into two groups: those mainly concerned with research activities in public research institutes; and those in private institutes, organizations, or companies. Normally those who conduct teaching and research activities in higher education institutions are identified as university professors or faculty members (Daigaku kyojyusyoku in Japanese). As of 2004, the total number of the academic profession was 830,545 (National Institute of Science and Technology Policy, 2005); among which, the full-time faculty in colleges of technology, universities and junior colleges numbered 175,983 (MEXT, 2005b). This indicates that the number of faculty members constitutes only a small share of the total academic profession.

Typically, in Japanese higher education institutions there are four academic grades or levels: assistant (Jyoshu), lecturer (Koshi), assistant professor (Jokyoju), and professor (Kyoju). There are no substantial differences in the duties of assistants, assistant professors or professors between Japanese universities and foreign universities. The position of lecturer is not clearly defined, however, and there is some ambiguity in its academic responsibility.

Before 1 April 2004, academic faculty in the national and public sector were civil servants whose status was governed by the National Public Service Law or the local Public Service Law. Civil service status in Japan provides the functional equivalent of tenure. It was given to all faculty members in the national and public universities by the Public Service Law. There are, however, variations in procedures designed for the universities. Appointments in the public sector are governed by the Special Law for Employees Serving in Education, which exempts higher education from the normal requirements of competitive examinations for public posts. Instead academics are recommended by an appointments committee. There is then a vote of the faculty. At Hiroshima University, for example, the faculty senate votes, and the recommended person is then appointed by the president provided two-thirds of the faculty agree. The appointment is for life as a public servant.

Procedures for promotion are similar. The public service law mandates performance appraisals, which are carried out by faculty based on their evaluation standards, not by the presidents or the higher administration. In other words, there is a large measure of collegial self-government and peer evaluation in the functioning of the state universities. The law prohibits strikes and the creation of collective agreements in the public sector.

In the private sector, faculty employment is governed by contract, where the chief director or "school juridical person" is the employer of all staff including the President. Academic faculty are, however, protected by the Labour Standards Law, which applies to all employees in most private organizations. Tenure is given through local employee contracts between the individual employee and the "juridical person" who is, in name, the employer. In practice, however, the local contract is implicitly a contract for lifetime employment, and faculty enjoy a large measure of self-government. Most faculty members in the private sector, other than teaching assistants, have tenure. There is a limited right to collective bargaining in the private sector.

As many existing studies indicate (Boyer, Altbach, & Whitelaw, 1994; Yamanoi, 2003), distinguishing characteristics concerning the academic profession in Japan include:

- Mobility of faculty both in the academic marketplace and within the organization is very low;
- Research universities in particular have a strong tendency to recruit from their own graduates which results in inbreeding;
- Colonization of neighboring institutions by appointment of graduates from designated research universities is advancing;

- The academic marketplace in Japan is strongly male-oriented: the proportion of women is extremely low, especially by international standards;
- Despite a trend toward internationalization of higher education, the academic marketplace in Japan is not fully open to the international academic community, so few foreign faculty members are recruited;
- A large gulf between universities and society at large is one cause for limited mobility of staff between universities and the wider community; and
- Inter-departmental mobility of teachers within the same university is low.

Additionally, some of the major characteristics of the Japanese higher education system are also directly reflected in the academic profession. For example, the faculty members in private universities and junior colleges account for a substantial share of the total, in contrast with the numbers of faculty in national colleges of technology, which were established directly by the central government with the purpose of training manpower for industry (see Table 1, 2, & 3).

Table 1. Full-Time Faculty in Universities

Year	Total	National	Local	Private
1960	44,434	24,410	4,725	15,299
1970	76,275	36,840	5,342	34,093
1980	102,989	47,842	5,794	49,353
1990	123,838	53,765	6,592	63,481
2000	150,563	60,673	10,513	79,377
2004	158,770	60,897	11,188	86,685

Source: MEXT (2005). *Statistical Abstract*, Tokyo: Japan, National Printing Bureau, p. 92.

Table 2. Full-Time Faculty in Junior Colleges

Year	Total	National	Local	Private
1960	6,394	211	927	5,256
1970	15,320	363	1,248	13,709
1980	16,372	861	1,707	13,804
1990	20,489	1,305	1,989	17,195
2000	16,752	713	1,863	14,176
2004	12,740	240	1,418	11,082

Source: MEXT (2005). *Statistical Abstract*, Tokyo: Japan, National Printing Bureau, p. 93.

Table 3. Full-Time Faculty in Colleges of Technology

Year	Total	National	Local	Private
1962	298	128	44	126
1970	3,245	2,474	324	447
1980	3,721	3,190	340	191
1990	4,003	3,478	346	179
2000	4,459	3,893	399	167
2004	4,473	3,936	379	158

Source: MEXT (2005). *Statistical Abstract*, Tokyo: Japan, National Printing Bureau, p. 77.

Before April 2004, when the national universities became national university corporations, faculty members were civil servants, with an implication that almost all of their missions and activities could be regulated by the central government. In practice, however, at the institutional level professors enjoyed comparatively great academic freedom and autonomy. This is well illustrated by the fact that, even in the national sector, Japanese faculty have had more power in approving new academic programs, making faculty promotion and tenure decisions, and especially determining the distribution of budgets. These aspects of governance were decentralized in Japan from the start and Japanese faculty have enjoyed even greater autonomy in the governance in their institutions than typical in the U.K., Germany, Sweden or the Netherlands.

Furthermore, as the modern Japanese universities were developed on the German research-oriented model, this tradition has dominated Japanese universities, including the national sector, for a long time. According to the results of the International Survey of the Academic Profession, conducted by the Carnegie Foundation in 1992, Japanese faculty published more scholarly papers than faculty in any of the other countries surveyed. Approximately 75 percent of Japanese faculty members think that it is important for a faculty member to have a strong record of successful research activity, a percentage much higher than in most of the other countries (Arimoto, 1996). One consequence is that faculty members in the Japanese national universities are more research-oriented and devote less time and energy to teaching than those in most other countries.

A special mention should made that though there has been a gradual rise in the percentage of female faculty over the last decade, as shown in Table 4, the percentage of women in high academic and administrative positions is still quite low.

Table 4. Percentage of Female Faculty at Universities by Position

Year / Position	1995	2000	2004
President	4.5	7.4	8.0
Vice-president	2.5	4.1	4.2
Professor	6.1	7.9	9.7
Assistant professor	10.2	13.1	16.1
Lecturer	14.0	18.8	22.9
Assistant	16.4	20.0	23.3

Source: MEXT (1996, 2001, & 2005). *Statistical Abstract*, Tokyo: Tokyo, National Printing Bureau, pp. 86, 94, & 92.

The 1992 Carnegie survey also shows that there was a higher than usual percentage of faculty members in Japan suffering considerable personal strain. The survey found, for example, that 55.9 percent of Japanese academic faculty think that their jobs are a source of considerable personal strain, which is the highest percentage among all the nations participating. Similarly, less than 20 percent of Japanese faculty are satisfied with the facilities available to do their work including, in particular, the technology for teaching (14.4%), and research equipment and instruments (14.1%).

Changing Characteristics of the Academic Profession

Rationale and Drivers Since the latter half of the 1990s, tremendous changes have occurred in the academic profession in Japan. These changes are driven by a combination of both domestic socio-economic factors and international trends. As Amano has argued, these drivers of change are responding to critics from both outside and inside the universities: the outside critics include the parents who send their children to universities and, by extension, citizens, industry, and government. Critics within the university are found among the students, and the, university trustees, as well as the university professors, especially professors in the fields of science and engineering (Amano, 2005).

Two powerful factors have directly affected changes in the academic profession in Japan in recent years. One is curriculum reform and the other is incorporation of national universities.

Curriculum reform, which was initiated in 1991, began with deregulation of the "Standards for Establishment of Universities" and the consequent delegation of more power and autonomy to individual national universities for the design and implementation of curricula according to their own missions, goals and objectives. One of the most significant outcomes of curriculum reform is that all faculty members are required to contribute to general educational programs through restructured educational organizations in the university. While encouraging individual national universities to revise the structure of their undergraduate education in accordance with their own objectives, the government also urged institutions to conduct self-monitoring and self-evaluation to make their teaching and research activities more accountable and to assure their educational quality. By 1993 all national universities had set up appropriate structures with responsibilities for self-monitoring and self-evaluation and 50 of the 98 national universities had already published their results (MOE, 1993).

Incorporation of national universities is the other factor that has directly influenced the changes in academic profession in Japan. According to the outline of the *National University Corporation Law*, the system of national university corporations is characterized by the following major points (*National University Corporation Law*, 2003).

- Individual corporate responsibility – breaking away from support of the national universities in the style of an "armed convoy."
- Deregulation of the institutional budget and personnel affairs leading to a competitive environment derived from university autonomy.
- Production of attractive education and research by the national universities.
- Introduction of management techniques based on private-sector concepts – top-down management by a board of directors centered on the president.
- People from outside the university appointed as executives and participating in approval of management plans.
- Improved processes for selecting the president – establishment of a Presidential Selection

Committee in which external non-university experts participate in identifying well-qualified candidates both from inside and outside the university

- Selection of personnel who do not conform to the civil servant type – introduction of **a** diverse and flexible personnel system with promotion on the basis of capability and performance.
- Evaluation and disclosure of information - allocation of resources based on results of third-party evaluation thus ensuring transparency to encourage increased public participation.

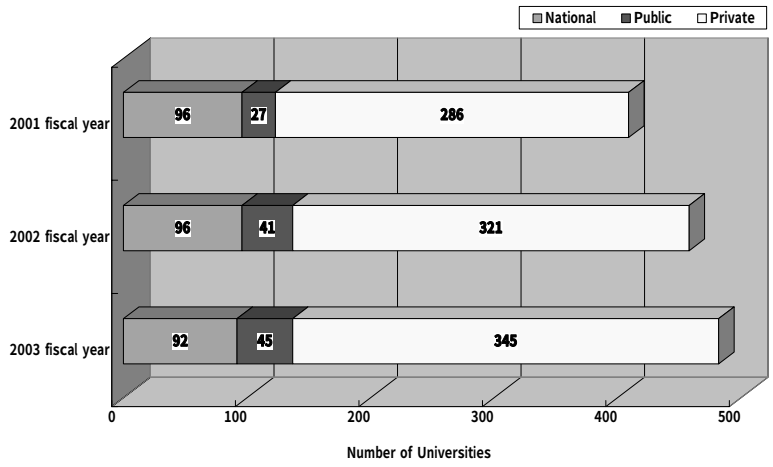
New Changes in the Academic Profession As early as the 1970s, the Central Council of Education attempted to implement various reforms of the academic profession. In many reports submitted by the Central Council, issues were raised, such as introduction of a fixed-term system, external evaluation of researchers, and encouraging mobility of faculty members, but no significant changes occurred till the 1990s. As mentioned above, since 1991, with deregulation of the "*Standards for the Establishment of Universities2*, more responsibilities have also been placed on faculty members especially in the national universities. Moreover, in 1994, a national University Council report made several important reform proposals including enhancing faculty mobility, employing faculty members from outside the university, and expanding the numbers of foreign and female faculty appointments (University Council, 1994). Based on these proposals, in 1997 "*Legislation of the Fixed-Term System for Faculty Members*" was enacted, though many universities strongly object to its implementation.

Based on government policy and the recommendations made by the University Council, a number of substantial changes to the academic profession in Japan can be perceived. One of the most remarkable changes is that professors are asked to pay more attention to their teaching activities. Initially, faculty members have been required to exercise self-monitoring and self-evaluation but more recently third-party evaluation has been implemented, with an emphasis on improving the quality of research and teaching. For example, by 2004, all national universities had implemented self-monitoring and self-evaluation and published their results. Further, the proportion of national universities that had conducted third-party evaluations had increased from approximately 61% in 1998 to nearly 93% in 2003, constituting the largest proportion in the three sectors national, public and private (MEXT, 2004b). As faculty development is considered to be a very effective way to improve educational quality with the strong encouragement of the government, there has been a substantial increase in the number of institutions implementing faculty development since the latter half of the 1990s (Figure 1). Comparison of the data from surveys in 1989 and 2003 indicates a steady rise in the percentage of faculty members who recognize the importance of being engaged in educational activities, including faculty development (Research Institute for Higher Education [RIHE], 2004)

Though it is difficult to say how significantly the educational quality has been improved, faculty members have made a great deal of progress in achieving accountability of their educational activities. In a major sense, Japanese university professors are now not only asked to conduct research but also

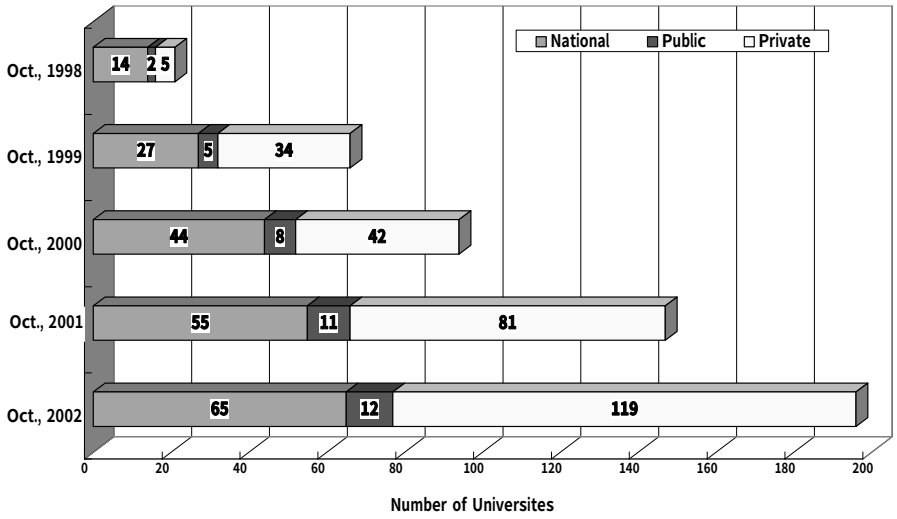
required to be involved with more teaching activities and spend more time in enhancing the educational quality.

Figure 1. Universities Implementing Faculty Development



The introduction of the fixed-term system posed a big challenge to a faculty appointment system that has a long tradition and has taken deep root in the Japanese higher education system, especially in the national sector. Many faculty members think the law of 1997 will affect academic freedom and institutional autonomy and, therefore, many of them have expressed their strong objection to its implementation. However, as shown in Figure 1 and Table 5, since 1997 the number of institutions and faculty members involved has gradually increased.

Figure 2. Number of Universities introducing the Fixed-Term System to Faculty



Source: MEXT (2005). online information at http://www.mext.go.jp

Table 5. Grades of Faculty Appointed under the Fixed-Term System, by University Sector

	Professor		Associate Professor		Lecturer		Research Associate		Unknown*	Total	
National	730	(3.5%)	513	(3.0%)	322	(6.1%)	1,979	(11.5%)	2	3,546	(5.8%)
Public	35	(1.0%)	39	(1.5%)	24	(1.5%)	33	(1.2%)	0	131	(1.2%)
Private	274	(0.8%)	89	(0.5%)	239	(1.8%)	948	(5.4%)	21	1,571	(1.9%)
Total	1,039	(1.75%)	641	(1.8%)	585	(2.9%)	2,960	(7.9%)	23	5,248	(3.4%)

Source: MEXT (2005). online information at http://www.mext.go.jp
Notes: * The answers are unable to identify the grade.
1) The values in parenthesis are the proportions of the total number of faculty on the Fixed-Term System by university sector and grade.

The importance of the *National University Corporation Law* cannot be overemphasized, for incorporation of the national universities has significantly changed the relationship between government and individual institutions. It has also influenced the patterns of governance at the institutional level, including issues concerning the status and role of the academic profession.

The biggest change is that faculty in all national universities are no longer public servants. Evaluation of university plans and performance will be implemented basically according to six-year medium-term statements of goals and plans. The Evaluation Committee of the National University Corporations will evaluate each corporation every six years. Based on their evaluation, decisions on the plans and resources for the forthcoming six-year period will be determined. Government funding will be appropriated to each national university corporation in block grants, and therefore more flexibility will be achieved. Hence, to a large extent, government is to take more account of *ex post facto* evaluation and to place less emphasis on advance regulation than previously. Regarding changes in the pattern of internal governance in the national university corporations, more powers have been placed on governing bodies at the institutional level with a reduction in the autonomous rights residing in faculty meetings. Instead of the sole deliberative council in individual national universities prior to April 2004, the governing bodies at the institutional level now comprise a Board of Directors, an Education and Research Council and an Administrative Council. Further, as emphasized by the *Law* of 2004, the President is the head of the corporation and chairs the Board of Directors and the Administrative Council, as well as being a member of the Education and Research Council. Accordingly, the President of each corporation becomes the chief executive and carries the greatest powers. In addition, while the Education and Research Board is totally composed of internal representatives and is mainly responsible for important educational and research activities, both the Board of Directors and the Administrative Council should be open to participation by non-university external experts, who are expected to be involved in internal governance and management. Therefore, each university corporation should be more responsive to the needs of society; and cooperation with associated industrial fields can be promoted. Consequently, the traditional pattern of governance in the Japanese national universities has fundamentally changed. With reduced autonomy of the faculty, the power of the bureaucracy within each university has been expanded far more than that of the academic staff. In particular, leadership from the top by the President has become greatly emphasized.

Furthermore, at an institutional level, as reported by OECD, according to the new governance pattern, the executive authority of institutional leaders has been greatly reinforced, with a corresponding loss of authority and decision-making powers on the part of faculty. There has also been a parallel increase in participation on governing or supervisory bodies by individuals from outside each university corporation.

The change in the academic grades is another notable reform for faculty members. According to the government report of 2005, a new system of academic grades will be implemented. The new system differs from the current one and ,consists of five levels: assistant (Joshu), assistant professor (Jokyo), lecturer (Koshi), associate professor (Junkyoju), and professor (Kyoju). Compared with the present academic grades, though slight differences can be found in responsibility or academic role in other four academic ranks, the academic rank of associate professor (Junkyoju) has been newly established: previously it did not exist in Japanese universities. It is expected that on the one hand, an associate professor should be equipped with profound knowledge, ability and outstanding academic records in research; and on the other hand, he or she should be able to provide lectures to students and be involved in training students through teaching activities.

The percentage of both female faculty and non-Japanese nationals in Japanese institutions, especially at university level, is low and much lower than in many other countries selected for survey in 1992-93. However, in recent years, as indicated in Table 6, there has been a gradual and steady increase in the percentage of female faculty. In particular, the percentage of female faculty at junior colleges has increased very quickly since the latter half of the 1990s. In contrast with a rapid increase in the proportion of female faculty at junior colleges, the percentage of non-Japanese faculty in universities has maintained a steady rise, but the percentage of non-Japanese faculty in junior colleges had dropped by 2004 (Table 7).

Table 6. Percentage of Female Faculty in the Full-Time Faculty

Year	Universities	Junior Colleges
1995	10.7	39.8
2000	13.5	43.8
2001	14.1	44.6
2002	15.3	45.5
2003	15.3	46.1
2004	16.0	46.3

Source: MEXT (2005). *Statistical Abstract,* Tokyo: Japan, National Printing Bureau, pp. 92-93.

Table 7. Percentage of Non-Japanese Faculty in the Full-Time Faculty

Year	Universities	Junior Colleges
1995	2.80	3.40
2000	3.34	2.96
2004	3.42	2.54

Source: MEXT (1996; 2001; & 2005). *Statistical Abstract*, Tokyo Japan, National Printing Bureau, pp. 86-88, 94-95, and 92-93

Concluding Remarks

As discussed earlier, directly regulated by government, initiatives for improving employment or appointment policy of faculty members at policy level have been reinforced both by deregulation and curriculum reform since 1991 and by incorporation of the national universities from 2004. With relaxation of the "*Standards of Establishment of Universities*", it is true that more academic freedom, especially in designing curricula, has been delegated to institutional and faculty levels, but this does not necessarily mean that government has abandoned control over individual universities or individual faculty members. Rather, by exercising new strategies, the Japanese government still plays a leading role in affecting faculty members. For example, growth of information on self-monitoring and self-evaluation by individual institutions and publication of the results of evaluation by various external or third party organizations shows that a large number of educational activities at departmental and subject levels are more vulnerable to governmental or third party interference. In fact, not only does strong control from government continue, but also other external stakeholders and society at large seek involvement in the academic life of university professors.

Many new reforms have been applied and noticeable changes have taken place in the academic profession since the latter half of the 1990s. This is likely to continue and will give a rise to structural changes in the academic profession in Japan. As yet, however, there are no clear examples of significant enhancement of faculty mobility; nor is it easy for faculty members to change their own longstanding traditions and culture overnight: currently it is extremely difficult to identify the outcomes of all these strategies for improving the academic profession in Japanese universities.

Strong pressures have been exerted by various participants - including government as policymaker, former onlookers such as third-party organizations and parents and students and other stakeholders – in attempts to influence the academic life of university professors. Yet it seems that all of these stakeholders have neither been able to affect the most essential part of the academic profession in the Japanese universities fully, nor has an effective way been adopted to change the nature of the academic profession overnight. Perhaps only university professors at institutional, departmental or program level really know what they are pursuing and ultimately know how to improve the academic profession by themselves.

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The Third Revolution of Higher Education:
Becoming More Relevant

William K. Cummings*

The third revolution of higher education, which began several decades ago, is exerting increasing influence on the ideals and practice of institutions of higher education (IHE) in many part of the world (though Japan is among those areas most resistant). In the third revolution, universities and colleges, like other modern organizations, are making dramatic efforts to reach out to their environments in order to cultivate networks, create business opportunities, and thus expand revenues.[1]

In the first revolution, which began in the middle ages in continental Europe, universities gained the special privilege of offering licenses to practice the various professions and semi-professions such as medicine, law, the clergy, and public administration. Universities became teaching institutions and were guaranteed an expanding flow of students prepared to pay tuition for the lectures and licenses. Within their locality, each university enjoyed a monopoly of professional education.

The second revolution, beginning in the early nineteenth century, sought to include basic research as an important activity of universities. Governments and other donors, for various reasons, were willing to surrender substantial amounts of funding to university scholars in the expectation that the fruits of scholarship, in some indirect way, might have a beneficial effect. Research could advance civilization, if not the particular economy where the university was located or the particular interests of the private donor. Thus Rockefeller gave to the University of Chicago, Carnegie to Carnegie Tech and so on.

What is behind the Outward Shift?

In both the first and second revolutions, universities largely turned inward to their community of scholars for wisdom on what to teach and research. Thanks to favorable demographic, economic and political trends, the universities were able to attract adequate resources with relatively little effort. The current third revolution involves an outward shift of increased responsiveness to social demand. Table 1 below suggests some of the features of the emerging university, as compared with its predecessor.
This shift is occurring because (1) the demand for the traditional activities of universities has peaked; (2) society is interested in new types of knowledge products relative to those traditionally supplied by universities and (3) there are new competitors, other than the established universities, that are asserting their ability to supply these products.

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[1] These remarks draw from the research of Project SUN (the Service University Project) that was coordinated by William K. Cummings, Arild Tjeldvoll, and Olga Bain.

Table 1. The Research and Service Universities Compared

Research University	*Service University*
arts & letters centered	**"professional" schools**
two-tier instructional program	**post-baccalaureate degree & training programs tailored for clients**
year long courses	**one-week to four-month courses**
life-long personnel	**many adjuncts**
research organization layered on top of teaching organization	**service carried out in parallel units**
decentralized choice of research agenda	**central planning and contracting of service**
funding by gifts and grants	**funding by contracts**

Much has been said in Japan in recent years about the decline in the prospective student population. What needs to be appreciated is that this decline is not unique to Japan but rather is common to all of the developed world. Partly due to the decline in the number of traditional students, some universities have expanded their program for new groups of students – older students, executive training courses, and so on. In some countries, limits are being reached not only in the traditional student population but also among other groups such as mature students, and outreach students. In the U.S. today, over half the students enrolled in IHE are over the age of 25. The saturation of student markets places limits on the increments in revenues that universities of the developed world can expect from their teaching function. In contrast, in the developing world the student population continues to grow. Hence, one way for universities in the developed world to expand their teaching activities is to poach on the excess demand in the developing world.

Similarly, concerning research, through the mid-eighties, the governments of most developed societies were willing to progressively expand their financial support. But from the late eighties, their interest began to peak. For some governments, research support was associated with national defense, and the end of the cold war removed that rationale. Many governments also faced new pressures to cut back in various programs in order to pay for increasingly costly welfare and health programs. So despite a rhetoric in favor of more research and development, governments of the more developed nations tended to restrain their support. Often they urged the private sector to pick up this responsibility. While private sector funders have tended to increase their support for research and account for a growing share of national R&D expenditures (over 80 percent of Japan's R&D, over 70 percent of Germany's R&D, and now over 50 percent of US R&D), they have tended to be skeptical of offering unrestricted support to academic researchers.

While government budgets for science and technology research and development may be peaking, there are other social areas that wish to use the knowledge and analytical skills that are found in universities. Governments seek experts for overseas development projects, for surveys of public

health and the quality of life, and for various exercises in planning.

Universities have the knowledge resources to respond to many of the demands of the private and public sector. But as universities have been traditionally organized, they are not skillful in appealing to these sectors. Meanwhile other actors have emerged that are inclined to appeal to these sectors. The competitive success in research of private sector firms is well known. They have pioneered in the new industries of computers and biotechnology, outperforming university laboratories.

Less well-known but of potentially greater significance is the success of private firms in higher education and advanced training. Perhaps the most noted is Motorola University which has its main headquarters in Chicago. This university offers a wide variety of non-degree courses in areas vital to its (and many other) corporations' goals: management science, finance, accounting, computer basics, applied computer techniques, personnel management, and so on. The basic catalogue is nearly 60 pages. Motorola University now has branch campuses in several other cities including Singapore. Companies such as Arthur D. Little and Price Waterhouse have similar offerings. Several years ago a major Korean firm purchased land in China with the intention of establishing an Asia-oriented management university. These corporations, even though they bypass the normal accrediting and degree-certification processes associated with higher education as we know it, are able to attract large numbers of students to their programs. Among the reasons for the success of the private sector education firms is their reliance on high technology and their recruitment of faculty with real-life experience, which today's mature students prefer.

How Big is the Knowledge Market?

What we see in these recent trends is a lowering of the boundary between the non-profit educational sector and the for-profit corporate sector. Universities are finding that their traditional sources of revenue are peaking (even declining), and hence if they wish to maintain financial health they need to consider new approaches, they need to reach out and attract clients. Thus universities are exploring various options including offering continuing education at off-campus sites, adding programs to actively improve their social and physical environments, creating contract research units, and serving as centers of culture and entertainment.

As universities explore these changes, they move into the knowledge market, sometimes in direct competition with for-profit firms. How big is this market? We lack good studies of its size, but common sense provides some guestimates.

Japan's universities, which are relatively less adventurous in appealing to the knowledge market, receive about 0.7 percent of the GNP in revenues (about 0.4 percent for their student related activities and 0.3 percent for their research activities). In comparison, the universities of Western Europe and the U.S. tend to receive from 1.2 to 1.4 percent of GNP. This suggests there is at least room for a doubling of the scale of activities of Japanese higher education.

But I suspect the knowledge market offers even greater opportunities. Concerning research, Japan

spends 3.0 per cent of its GNP. With only 0.3 percent coming to the universities, there is an additional 2.7 per cent for which universities could compete. Japan spends 1 per cent on Official Development Assistance (ODA), and at least .2 per cent of this is technical assistance for which universities could compete. Japanese corporations spend large amounts on training, but little of this comes to Japanese universities. Public health provides another opportunity for Japan's universities; about 8 per cent of the Japanese GNP is spent on health, but only a small fraction goes through university hospitals. Finally, there are over 1 million students outside of Japan seeking an attractive place for overseas study, and Japan only receives 50,000 of these. Looking at all of these markets (and there must be more), I estimate the overall size of Japan's knowledge market to be between 14 and 20 per cent of its GNP. Higher education today only receives 0.7 per cent. There is much room for growth.

How National Higher Education Systems Differ in their Responsiveness

To account for differences in the degree of national responsiveness of higher education systems to the emerging opportunities to serve society's knowledge needs, it is helpful to review several factors outlined in Table 2, which also provides a rough comparison of recent national experience (Cummings, 1998).

Table 2. Comparing National Cases

	US	Norway	Russia	Korea	Japan	Indonesia
Context:						
S.Ideology	+++	++	++			+++
Diversity	+++		++	+	++	++
Autonomy	+++	+	+	+	+	++
"Collective"		++	++	+		++
Crisis:						
Political	++			+++	++	+
Economic	++			+++		++
Leadership:						
National	++	++	++			++
Local		++				
Institution	++	-	++		--	--
Consensus:	++		+			+
Activities:					+++	
Structure:						
External	++		+++			
Research	++					
Teaching	+		++			
Personnel	+					
Finance:	++R					

Context Each of the national systems under consideration has many institutions, and it is difficult to develop generalizations that apply to the diversity of internal differences. The American system has for some time been highly differentiated with some IHE showing much greater interest in

service than others. In Russia, the differences were formerly captured in a system of national hierarchy, whereas with the new policy of regionalization, new opportunities are opened for diversification.

A fundamental contextual factor is the relative autonomy of universities. In more centralized systems, the debate concerning a shift to service might first take place in a national legislature, and then be issued as an order to the respective universities. In contrast, in more decentralized nations with considerable institutional autonomy, the debate is more likely to center in particular institutions.

Distinct from university culture is the ideology of work which in more collectivist countries such as Japan and Russia provides a basis for universities to take on new innovations such as the collective sharing of profits from university services, while in others there is likely to be resistance (The main import of these differences may be, simply, to place relatively more weight on a top-down or a bottom-up movement).

A Sense of Crisis An important precondition for change is a sense that something is wrong. In several of the nations under consideration there has been a decline in the ability of governments to collect sufficient revenues to meet various national needs, leading to an increased concern with prioritizing expenditures. The sense of financial decline has often led to a reexamination of the allocations for higher education.

Thus most of the university systems under consideration have experienced challenges to their claims on government revenues. In the United States, these discussions are carried out at the state level, leading to proposals that universities shift from being state-supported to state-assisted. Elsewhere it is simply proposed that universities which once drew all of their revenues from the central state should draw more from local governments and/or private sources.

In the background of these proposals is a growing faith in market mechanisms for the allocation of resources in contrast to command mechanisms. Russia is a somewhat extreme example of this philosophical shift; Russia is also extreme in the extent to which center resources have declined. Moreover, the unstable Russian currency has caused great hardship for those living on public sector salaries.

Norway is an interesting variant where the national government has rather enjoyed an increase in revenues, but even so believes the higher education sector needs to reduce its dependence on government funding.

Quite distinct from financial crises are other variants such as moral crisis, political crisis, economic crisis, and environmental crisis. The nations vary in the extent and intensity of their respective crises, with Russia perhaps facing the most difficulties and Norway the least.

Leadership/Vision In the face of these crises, leaders may emerge to propose new approaches. In centralized systems, central leadership is most crucial, but even in centralized systems change will

not occur unless key people in the various universities agree. In more decentralized systems, leadership may appear at various levels. In formerly centralized Russia, the major thrust in higher educational policy is regionalization – solve your own problems. This central thrust says little about service. It leaves room for the leaders of particular institutions to devise their unique approach.

Proposals for a new service approach are most evident in the United States articulated both by the leaders of individual universities and also by key spokespeople of national university associations. In Norway the central government offers strong suggestions for service which have not been picked up by university leaders. In contrast, in Russia the leaders of individual universities seem to provide the main thrust. In Korea and Japan, while a crisis atmosphere is prevalent, the solution proposed is an increased focus on basic research and improved teaching; service is not part of the discourse. All of the studies need to give more attention to the arguments and actions of the key people promoting service.

Comparisons in leadership style are also of interest. Of particular interest in the Russian case is the ability of the Kemerovo University Rector to adapt so rapidly to the new crises and identify various opportunities for his university to serve the local society. Other Russian universities, perhaps because they are older and more entrenched, are less able to change.

It is important in analyzing the words and actions of leaders to seek to understand the centrality of service in their thinking. The concept is clearly a primary concern on some American campuses, while being given lip service at others. The concept is rarely brought up in Korea or Japan.

Just as some leaders advocate service, others may emerge who sharply question the impact of "commercializing" higher education. These voices of doubt are apparently most evident in Norway and Korea.

Building Support/Consensus In U.S. universities leaders have been able to reach out to key faculty members, thus leading in some institutions to faculty proposing new rules for academic evaluation and other acts of support. In Russia there also appears to be a certain level of support among the rank and file academics for some changes, though more with respect to work load and remuneration than concerning academic evaluation. This tendency is not yet evident in the other countries.

New Activities With growing support there are likely to be new activities. For Buffalo there is an official publication listing over 200 initiatives. The case studies are thus far somewhat weak in documenting new activities.

New Structural Initiatives As universities become more engaged in these activities, they reorganize to improve their capability to provide service. This reorganization may occur in any of several areas, and take on any of the following characteristics:

External Linkages At one extreme is the ivory tower that periodically proposes external projects consistent with the research agendas of individual faculty. At the other extreme would be an approach of providing rapid response to a myriad of local demands. Intermediate is the approach of building a working body to identify university resources on the one hand and regional needs on the other, and then seeking to establish matches between the two. Accompanying this identification would be plans for mobilizing resources that are mutually beneficial. Such working bodies might encompass all university faculties, as seems to be case in Kemerovo or they might be more decentralized as in the case of Buffalo. Sub-components of external linkages are those that might be forged between universities so as to better pool resources to work with outside groups.

University Research The extremes range from classical basic research carried out in university laboratories to private consulting that professors carry out on their own initiative in corporate laboratories. Intermediate are such devices as incubators and industrial parks where universities set up special facilities to promote collaborative work. As M. Ryu points out (Cummings, 1998), the "independent consulting" or entrepreneurial model causes professors to think in terms of university work which they openly acknowledge and other work which they hide; some negative consequences are personal strain, inequities in faculty income, and loss of revenue to the university.

Teaching In response to external needs for learning, the classical approach has been to invite interested individuals to attend announced classes as special students. In contrast would be the willingness of universities to provide instructional packages tailor-made to the demands of individual clients. Intermediate is the determination of universities to establish special institutes that periodically teach courses aimed at particular niches such as semi-annual courses on investment, quality management, computer software, or high-demand foreign languages. Especially notable in the Russian and Chinese cases has been the success of humanities programs in developing "for fee" courses in foreign languages.

Work-load and Faculty Evaluation As faculty are expected to spend greater proportions of their time in service activities, it becomes necessary to change rules on work-load, remuneration, and promotion. Such changes depend heavily on faculty support of service. In none of the systems under consideration, have there been major steps in this direction.

New Financial Procedures The expansion of external activities requires universities to develop new mechanisms for finalizing contracts and administering them. In many U.S. universities, centralized offices for sponsored programs and for grants and contracts are established. Such offices have apparently recently been established in Korean universities, but it would appear they are not yet established in Russian or Norwegian institutions.

In the absence of such offices, the accounting for service revenues lacks transparency. In such cases, the risk of misuse of funds is substantial.

It is conceivable that such offices might also be established at the level of individual faculties, to take better account of the special circumstances of the respective academic units. Similarly, in that service has a different character than basic research, new regulations on such aspects as overhead may be appropriate (in U.S. institutions, overhead is calculated taking into account the heavy equipment costs of the natural sciences and may have little relevance for the softer fields of the humanities and education).

With the increasing provision of services will arise competition between universities. A particular example is the marketing of overseas training. For universities that seek to expand market share, there will be pressure to offer competitive prices. Thus another potential development will be the differential pricing for various university products. Prices for a physics service might be different than for an education service, reflecting different cost structures.

New Outcomes While the above changes all focus on process, it can be expected that the shift to service will eventually have some impact on outcomes such as the revenue picture of universities, or the rate of development of the adjacent region. Several of the case studies hinted at the amount of revenue being generated through contracts – though generally the discussion was imprecise.

The Changes Associated with the Third Revolution

The shift towards an outward orientation for higher educational institutions can lead to many changes, several of which I will discuss below:

Adding Outreach Actors and Offices Often the first action of a university that recognizes these changes and opportunities is to hire new people for selected activities. An early action may be to expand the staff in admissions offices so as to improve the chance of recruiting the right number and mix of traditional students. Development officers are hired to work with alumni in the hopes of attracting gifts. Athletics programs may be upgraded in the hopes of boosting ticket sales. Continuing education offices may be established with the aim of expanding enrollments among new populations. Staff may be appointed to seek out new opportunities for contract research from government bureaus and local corporations. In U.S. higher education today, the fastest growing jobs areas are in development, athletics, and research administration. A major set of issues as these new actors are added is whether they should be associated with the standing faculties or the central administration and what should the nature of their appointment (professors, contract professors, staff). Partly because of the additions noted above, a typical American university today has more full-time administrators and staff than full-time faculty.

Recruiting Faculty with Real-Life Experience Learning from the competitive strategies of the for-profit educational companies, many universities are modernizing their instructional formats to make greater use of technology and self-instructional formats so that students can learn on their own, without attending class (*e.g*. through listening to tapes, working with computer-based instructional programs, and so on). Another strategy for enriching instruction is to recruit more faculty with real-life experience. Japan, however, may be behind in these respects. For example, in the 1991 Carnegie Survey Japan ranked lowest in terms of the proportion of faculty who had ever been employed outside of higher education.

Table 3. Proportion of Professors Who Have Ever Worked Outside of Higher Education, and Average Years Outside – by Country

	% Ever Outside	Average Years
Brazil	87.4	10.2
Chile	79.2	7.8
Germany	99.9	5.4
Israel	79.8	8.2
Japan	**50.7**	**5.3**
Korea	68	4.7
Mexico	82.4	7.8
Russia	71.8	8.1
UK	71.8	7.1
USA	65.4	6.5
Sweden	79.3	7.6
Hong Kong	80.3	5.9
Australia	84.8	8.1

Changing the Curriculum The classical university centered in the Arts and Sciences, with these subjects providing the foundation for graduate and professional education. Thirty years ago in the U.S. two-thirds of the enrolled students were in the departments associated with these core disciplinary subjects. In the years since, responding to the societal demand for more applied learning, many new programs have been created. Today in the lead universities, two-thirds of all students are enrolled in courses associated with the applied professions (including business, engineering, law, medicine, policy studies). To attract students, English departments offer courses in business English, foreign language departments offer courses such as Japanese for engineers or Chinese for business. A similar trend is starting in Japan with junior colleges that once specialized in foreign languages seeking to merge with senmongakko and universities that specialize in more marketable subjects.

Changing the Place of Teaching The traditional university conducts all of its classes on campus, usually during the day-time. This setting and timing is fine for those students who can devote full-time to their studies. But adult students often have jobs that prevent them from attending day-time classes. One option is to shift classes to the evening and weekends. Another is to offer courses at the students' work-site, either through faculty going to that work-site or through some form of distance

education. Of course, making the change in the site requires planning and the agreement of the professor, especially as teaching off-campus may be more time-consuming.

Changing the Nature of Research With increasing competition for scarce basic research funds, many professors are shifting their research to more applied topics. The exact line between basic and applied research is never clear, but there is a clear difference between a research grant that gives a professor much freedom and a research contract that specifies research outcomes, dates for delivery, and who has the right to the associated patent or copyright. Much academic research now is supported through contracts. Indeed it was recently reported that nearly 80 percent of the total annual revenues of MIT derived from contract research.

Changing Prices Universities cherish the principles that all within are equal before the god of learning, and that research is a pure and high-minded activity that should be undertaken for the sheer pleasure of discovery. These high-minded principles have tended to influence the amounts universities charge clients. For many services such as advice, public speeches, or the use of university premises for public meetings, often there is no charge. When universities charge tuition to students, the amount may be the same for all even though some students sit in classes with hundreds of other students while others sit in small classes and do experiments with expensive equipment. Similarly, universities may welcome research funds from outside sources without adding charges for the use of university facilities or the time of faculty. These relaxed price policies are put under pressure as universities reach outward. New costs are involved in providing classes at irregular times or in off-campus locations, and large contract research projects may require universities to hire additional people. With these new financial pressures, universities are likely to examine costs, and begin to relate prices to costs. The easiest, because less visible, changes occur with research pricing. More provocative are adjustments in tuition depending on the subject matter with students in the labor and capital intensive faculties of medicine, science, and engineering being charged more than their “equals” in the social sciences.

Concomitant with changes in pricing, many universities are now shifting financial operations from a centralized to a decentralized structure. With the decentralized approach, each unit is expected to generate the major proportion of its revenues from its own teaching, research and outreach activities. If a unit cannot generate these revenues, it may be asked to reduce its size. Conversely, those units that demonstrate an impressive ability to generate surplus revenues may be allowed to grow. Shifting to the market principle is an obvious threat to those “purer” units of the university that have difficulty in attracting clients.

Enhancing Flexibility of Faculty Deployment Pricing has two sides, the number prepared to buy a service and the number prepared to deliver the service. In the inward-looking university, both

sides of the equation were reviewed in a relaxed manner. Who would dare measure the price of a mathematics class with one professor and two students, one of whom might be a future Einstein? But in the future university, either Einstein may have to pay more or the class will be cancelled. Canceling classes implies flexibility in the provision of instructors.

The need for flexible provision is at least as pressing when providing contract research. This is because the rhythm of applied research is different from the rhythm of traditional university work. Many applied tasks have shorter time horizons and require the full-time attention of researchers. It thus becomes impossible for a professor to both do applied research and observe a normal teaching schedule; one or the other of these responsibilities has to be given priority.

To minimize the friction between these different rhythms, universities often establish special institutes for the applied research. In some universities, these applied institutes become separate units independent of the core faculties in terms of governance and staffing. An alternate approach is to preserve close links between the core faculty and the applied institute, allowing professors to spend certain months of the year with the institute and other months with the faculty.

Table 4. Proportion of Professors Who are Part-Time Or Hired with a Contract

	Part-Time %	Contract %
Brazil	45	35
Chile	22	40
Germany	18	-
Israel	19	24
Japan	**1**	**6**
Korea	0	68
Mexico	39	36
Russia	5	14
UK	6	48
USA	10	38
Sweden	18	33
Hong Kong	1	55
Australia	5	39

There are different ways to meet this challenge of flexible provision. One approach is to classify the continuing education or contract research (*e.g.* social surveys, designing bridges, hospital laboratory work) as less essential, and to create separate units for this work staffed by temporary workers. Just as in Japan's famed lean production system where only a small proportion of all workers are permanent employees. In many of today's universities a significant proportion of the professors are part-timers who draw a pay check only when there are enough students to teach or there is a contract research project that requires their skills. A recent survey indicated that 40 percent of the academic staff in the U.S. are part-timers and/or contract employees. In Latin America, the proportions are higher.

An alternate model, attempted at Michigan State University and several other American institutions, is to mainstream the outreach work, urging core academic units to take on as much of the flexible work as they can through mobilizing their core staff. Mainstreaming is possible if other adjustments are introduced, especially in workload assignments and incentives.

Of course, drawing a distinction between what is core and what is marginal in a university may be difficult, especially when the so-called marginal work begins to bring in as much revenue as the core work. Indeed, some institutions are already facing this dilemma. This raises the question as to why those in the core sector are given permanent appointments while those in the marginal sector are given contract appointments. From a business point of view, the reverse may seem equally logical. These contradictions have led some observers of higher education to propose an abolition of the institution of academic tenure.

Changing Work and Workload The increasing involvement of universities in outreach activities results in a potential diversification of the academic role. Along with teaching and research in the university, professors can also engage in off-campus teaching and research. In some systems, faculty are simply asked to do more…and more. The Japanese system tends to operate that way, adding new functions to old functions. A professor of a graduate school is expected also to teach the normal load of undergraduate classes. A professor who has a large research grant is still expected to teach all of his/her classes. Another approach is to define the amount of work involved in the various tasks a professor undertakes. An off-campus class might take 12 hours a week, and on-campus class 8. A research project might take 20 hours as week. A committee might require 5 hours. If agreement can be reached on these, professors may be allowed to exchange two off-campus classes for three on-campus classes, or be allowed to reduce their teaching because their research project brings compensating revenues to the university. The challenge of a unit head is to insure that these individual workload agreements result in a collective outcome that enables a completion of all of the essential work.

Japanese universities have difficulty in making these changes. Rather new types of work are added to the old. Thus in the Carnegie survey, the Japanese professors reported working longer hours than the professors in other systems, and they reported more role strain.

Changing Salaries/Bonuses and Regulations for Promotions and Tenure There is contradictory information on the attitude of academics toward taking on the various new assignments that are likely to emerge in the new university. However, it is clear that few are willing to take on any of them if they perceive it will work against them. Even though the relation between work and rewards in universities is very uneven, most faculty are very sensitive to the signals coming from the reward structure. Improved salary or bonuses for taking on new work is an important incentive.

Table 5. Average Hours of Work Per Week Reported by Professors, and Proportion Who Report, "Job is a Source of Considerable Personal Strain"

	Hours Per Week	Job Causes Strain
Brazil	38.9 hrs.	24.90%
Chile	42.2	…
Germany	46.7	36.3
Israel	48.4	18.2
Japan	**50.2**	**55.6**
Korea	48.2	49.8
Mexico	37.6	20.2
Russia	….	49.9
UK	46.6	47.3
USA	48.2	36.6
Sweden	43	44
Hong Kong	46	38.4
Australia	46.7	47.5

Japanese regulations on salaries are exceptionally rigid. Thus, Japanese professors report the least amount of income earned from extra work, and, according to my analysis of the data from the Carnegie International Survey of the Academic Profession, Japan has among the highest correlations of pay with bureaucratic predictors such as age and academic rank.

Even more important are the criteria associated with promotion (and tenure). Most faculty correctly assume that the only thing that counts is writing academic articles. To induce faculty to take on the new activities, it is essential to show how engaging in these activities will be related to personal advancement.

With the increasing tendency to place some faculty on a temporary or contract basis, a special challenge for personnel systems is to establish a bridge between the permanent and the temporary workers. When outstanding work in the non-routine assignments often associated with outreach enable faculty to gain a permanent job, then it can be said that the new functions have gained appropriate respect.

A Transnational Revolution

The current period is best described as a transnational revolution because, more than ever before, developments of particular universities have a direct impact on the developments of others, no matter where they may be. Todai's competition is no longer just Kyodai, or Waseda's competition is no longer just Keio. These universities must look at the challenges from Oxford, Berkeley, Temple, the University of Hong Kong and so on. For example, English and American universities facing downsizing in enrollments at home seek to establish off-shore branch campuses in Japan, Malaysia and elsewhere where the demand for higher education is expanding. American students, who cannot get into medical programs at home, seek entrance in Mexican, and European institutions. A similar pattern is seen among young Japanese students.

Also in the arena of contract research, universities in one setting seeing a decline in domestic sources of research funding look to foreign sources. The most noted example is the interest of U.S. universities in Asian research money. Indeed, it is reported that Japanese corporations today spend more on contracts with U.S. university based research teams than they do on Japanese university teams. And, of course, today many Russian universities and scholars, experiencing a shortage of domestic funding, are happy to seek clients elsewhere.

Within systems, some universities will be able to adapt to the new competition, while others will either be unable or unwilling. I expect that most of those that fail to change will face serious difficulties. One short-run prediction is that the size distribution of higher educational institutions is likely to disperse. At the one extreme will be a new group of IHE that are relatively large, either on their own, or because they are the center of a conglomerate system of institutions that may span many locations, both domestic and international. In the U.S. we have Ohio State, Michigan, Penn State and so on; in Japan the mammoth universities are in the private sector. At the other extreme will be many small and declining institutions.

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Remaining Competitive: Faculty Recruitment and Retention in the University of California

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As higher education grapples with the complexities of a rapidly changing environment, to say nothing of the new pressures of globalization, responses have ranged from a benign indifference to carefully considered policy reforms. In fact, there are whole new ways of speaking about higher education, a new language that was not in use when I joined the faculty at the University of California, Los Angeles (UCLA) in 1973. The terms decentralization, accountability, assessment, strategic planning, privatization, autonomy, the service university, branding, corporatization, competitiveness and others, unthinkable back in the seventies when talking and writing about public higher education, now slip easily off the tongue. In fact, just last year, a UCLA task force called the "Competitiveness Task Force" completed its work and turned in its report to the Chancellor.

In it, the members of the task force recommend actions that would maintain and enhance UCLA's quality and "competitiveness" as a world-class research university in "an era of shrinking resources." Recommendations include finding alternative revenue streams through self-supporting degree programs, developing strategies for retaining the best faculty through innovative compensation plans and other incentives, and restructuring the budget and planning process around three to five-year strategic plans with annual budget management reviews based on performance in relation to the unit's strategic plan. These proposed measures and others like it in the UC system and other US universities, and increasingly in Asia, promote two complementary but tension-filled goals: institutional autonomy and institutional accountability.

This has taken place in a context of competing views of what the university means in the 21st century. In the United States and in Europe one might identify two major belief systems as to what higher education is all about. One view sees the university primarily as a cultural institution, the familiar and comfortable ivory tower where ideas and academic endeavors are prime. The other view sees the university as a public service institution with a responsibility to those who fund it, to society at large, and where accountability to society is prime. Of course, there are those who would see that it should do both in a balanced way. What seems to be clear, however, in the US, Europe and Asia, is that a shift has occurred toward the service end of the spectrum, toward a more contractual model and away from the democratic, egalitarian model; toward what many are calling the "New Managerialism"; a management approach very familiar to private universities (Berdahl, 1999, p. 14).

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This new public management approach is a mix of procedural freedoms and responsibilities with more utilitarian goals, more state guidance or steering than state control (Salmi, 2002) (in the UC system we refer to ourselves as a "state assisted" university, others talk about the supervisory state). Market mechanisms have been strengthened and decision-making decentralized, public enterprises have been the focus of privatization efforts and the notion of a corporate identity for higher education has been introduced, closely coupled with sophisticated fund-raising and development strategies and bureaucracy.

These new governance approaches, at least in California, have been institutionalized in the new "compact" with the Governor of California that guarantees stable funding over the next five years while demanding specific, measurable forms of accountability. For its part, the state of California agrees to provide "adequate financial support" for a five-year period in such areas as basic budget, core academic support, and enrollment funds. Both UC and the state agree on a structure for student fee increases with a goal of minimizing them and linking them to the rise in per capita California income. Additional funding agreements allow for one-time outlays for infrastructure and other needs. For the first time, the UC system is committed to achieve specific outcomes that are a high priority for the state. These include maintaining enrollment levels consistent with the Master Plan (space for the top 12.5 percent of graduating seniors), ensuring appropriate courses and services for the students, providing course articulation for community college transfer students, and maintaining appropriate progress toward a reasonable time to degree. UC further agrees to various quality measures, student and institutional outcomes (efficiency in graduating students, utilization of system-wide resources, student level information, and faculty workload information). UC agrees to provide all these data in a single comprehensive annual report to the Governor, Secretary of Education, the fiscal committees of the Legislature, the Legislative Analysts Office and the Department of Finance. This level of commitment on the part of both the state and the UC system, and this level of specificity and reporting represent a dramatic shift in accountability policy and practice (University of California, 2005). In a way, this constitutes a counter to the decentralization and privatization that has been taking place in public higher education institutions. These policy shifts have created a variety of tensions throughout the higher education system in California and I suspect elsewhere as well.

Nowhere has the tension been greater than in efforts to recruit and retain the best faculty during a time of great competition among institutions. Faculty now find themselves in a world (even if as my colleague Burton Clark maintains, it is a "small world"; Clark 1987) quite different from that which existed just thirty years ago. The economic pressures created by the new emphasis on accountability has impacted academics at all levels and while the situation may not be as bad as Altbach (2003) suggests (" . . . the conditions of academic work have deteriorated everywhere.") it is of enough concern that many institutions have responded with a renewed look at recruitment and retention policies.

In this brief paper I will review some policy reforms focused on recruitment and retention

(hereafter R & R) in the UC system. These policies cover all academic areas but are especially relevant for the academic fields focused on science, technology, engineering, and mathematics (STEM).

In January 2005 the UC President's office announced it would conduct an electronic survey of faculty recruitment and retention issues. Department chairs, department staff and occasionally deans and other academic personnel officers were sent the survey via secure web-based instruments. They were asked to provide lists of all ladder rank faculty whose appointments had become effective between July 1, 2004 and June 30, 2005 for the recruitment portion of the survey. The retention portion included all ladder-rank faculty whose resignations from the UC system became effective between July 1, 2003 and June 30, 2004. Tenured faculty were reported separately from non-tenured and successful retention cases were not included (for the complete report see: "University of California, Report on Faculty Recruitment (2004-05) and Retention (2003-04)", www.ucop.edu).

In order to remain competitive UC has devised a number of hiring incentives. The most utilized incentive was research support, received by 85% of new hires, and a large percentage (80%) of new hires received some type of enhanced salary: 60% received an above or off scale salary; 46% received some type of summer salary; and 3 % received a stipend. Compared with data from the 1970's when most faculty were "on-scale" this represents a tremendous deviation from the "standardized" salary schedule and scale that had come to epitomize the equity and fairness environment of the large public research university. With such large numbers of faculty off the scale, the scale has in effect become obsolete. The use of this incentive is especially critical for STEM faculty hires if UC is to remain competitive, but it has created morale problems.

Other incentives regularly utilized for new faculty hires are computer and equipment support (down from 87% in 1999-00 to 60% in 2004-05), moving expenses (also down from 86% in 1999-00 to 69% in 2004-05), course relief (down from 68% in 1999-00 to 60% in 2004-05), housing assistance (remains constant at 60%), spousal employment assistance (remains constant at 18%).

Salary surfaces as the key incentive utilized to remain competitive, and inasmuch as the other incentives have been declining due to budget cutbacks it is not surprising that funds have been shifted to augment salary. Despite these efforts roughly 10% of those offered a position declined appointments. The reasons given were, in order of frequency (more than one was cited): better salary elsewhere (33%); family reasons (33%); geography (31%); housing problems (22%); inadequate facilities *e.g.* labs, etc. (14%); lack of public support for UC (14%); spousal employment (12%); and more research money (12%). What is interesting about these data is the large percentage of those who declined the position based on family reasons. This is a trend that has been increasing since 1990. In 1995 28% listed this as the top reason for declining. We will look more closely at the family issue later in the paper.

The 2003-04 retention profile offers other insights into the difficulties facing the academic profession and the academy. The UC campuses reported 104 faculty resignations in 2003-04; 30% of

those were in the STEM fields and if health sciences are included it rises to roughly 40%. These numbers have been gradually but steadily increasing, up by about 5% since 1996. The largest single share of resignations was in the social sciences (23%), followed by arts and humanities (19%) and the physical sciences (19%). Reasons given for leaving show a contrast with trends observed in 1998-99 where 22% left for salary reasons and in the current survey this number jumps to 40% for tenured faculty. But 20% left for family reasons, and another 19% for spousal issues which added together means that about 40% left for reasons having to do with their quality of life somewhat unrelated to salary. In fact, some respondents indicated that because of the "family" nature of their reason for leaving, a retention package centered on salary would have been futile. In almost all cases, those who left the system did so for a combination of reasons, many of which had to do with quality of life and family issues.

When department chairs were asked to identify the impediments and strengths to UC recruitment and retention several key issues were mentioned:

- Location: this is both an asset and a liability; California remains a desired location because of climate, industry, professional networks among other features, but the high cost of housing and living in general counteracts this to some degree.
- Academic support: high academic national rankings remains a primary strength in recruitment, as does the impression of collegial faculty and quality graduate and undergraduate students. However, there is concern that the persistent funding problems of the UC system may limit the university's ability to attract quality students.
- Salaries, financial support, and campus facilities: competing with our peer institutions and industry for salary is the most frequently cited reason for difficulty recruiting and retaining high quality faculty. The official "scale" is non competitive and thus faculty are increasingly hired "off-scale" which creates shortfalls in other areas as well as morale problems with faculty who were not hired in that manner. For the STEM fields deteriorating campus facilities and laboratories are another frequently mentioned impediment to recruitment and retention.
- Family issues, spousal/domestic partner problems: The second most frequently mentioned set of problems with recruitment and retention involves spousal/domestic partner employment and quality of family life.

As a result of these data and other surveys conducted by individual campuses and departments, policies have been proposed to address the most difficult areas. One such effort has been recently released as a report funded by Alfred P. Sloan Foundation entitled: University of California, Faculty Family Friendly Edge: An Initiative for Tenure-Track Faculty at the University of California – hereafter FFFE (Mason, Stacy, Goulden, Hoffman, & Frasch, 2005). In it, the authors outline the

challenges facing the UC system in faculty recruitment and retention and suggest a series of policies and programs the help new recruits achieve a "satisfying and productive work life."

They refer to the survey discussed above which identifies work-family concerns as one of the major reasons cited by faculty (both men and women) in either declining an offered position or in leaving the university for positions in other higher education institutions or in the private sector. They also note that women will soon be the majority of doctoral and professional degree recipients in the U.S. thus exacerbating an already critical problem. The University of California will begin an accelerated period of hiring during the next ten years as a large cohort of senior faculty starts to retire. In competing with the private sector and other regions of the nation, the UC system will have a particularly difficult time in resolving basic salary and family issues. The cost of living of UC campus locations as a percentage of the national average range from a high of 183% at UC Santa Cruz, to a low of 106% at rural Merced. In other words, there is no campus that is at or below the national average in cost of living. This is of particular concern for faculty with families, women, under represented minorities (URM), and those in fields where higher salaries can be obtained outside the academy (*i.e.* STEM and other professions).

There are problems all along the route to tenure in the academy, from the pipeline where family and gender play an important role (or as one UC faculty member noted: "You should know that female graduate students are telling us over and over again across the nation that they are not going to become faculty members because they do not see how they can combine work and family in a way that is reasonable", Mason *et al.*, 2005, p. 5). Women Ph.D. recipients leak out of the pipeline at several points prior to getting tenure. This leakage and the general difficulty hiring either men or women will have a detrimental effect on critical fields such as the STEM fields where significant efforts have been made in recent years to increase diversity. But it is particularly critical for women applicants. Women generally are under applying to the best research universities; at UC Berkeley although women constitute 40% of Ph.D. recipients from top-ranked U.S. graduate programs, they constitute only 30% of the applicant pool at Berkeley. As the report notes: "This disproportionate loss of women from the academic pipeline results not only in an inequity in gender balance among tenured faculty, but also in an overall diminution of the pool of potentially excellent scholars who could fill the faculty ranks.

Men and women, singles and families, are opting out or being pushed out of the academy. The tension between work and family responsibilities are one of key reasons for this shift in the attractiveness of the academic profession. The balancing act between professional work, housework, and care giving is becoming more difficult as both men and women report greater hours per week in each of the categories (51.2%, 14.6%; 35.5% respective in each category for women with children; and 55.6%, 12%; 20.3% respective in each category for men with children). Changing care-giving patterns for children as well as aging parents has increased the workload for both men and women. This has had the effect of slowing down career advancement and overall quality of life: "work and family life, is therefore, a central concern for faculty, and universities that can best address this issue

will hold a distinct advantage in recruiting and retaining top-flight faculty and maintaining their academic excellence"(Mason *et al*., 2005, p. 8).

In response to these and other challenges in recruitment and retention the UC Faculty Family Friendly report has proposed a series of policy reforms to seek the most cost-effective way to quickly increase the attractiveness of a faculty position in UC. Two major steps have been proposed. The first step focuses on improving *existing* family friendly policies for tenure-track faculty. These policies have been in place since 1988 but studies have found a surprising lack of knowledge about and use of them among faculty most in need. One of the key policies is the "active service-modified duties" (ASMD) policy. Only about half of faculty surveyed were aware of this policy. Efforts are now being made to make faculty more aware of this and other policies (such as tenure clock stoppage; paid leave; unpaid leave). While ignorance of the policies can be most easily addressed, a more systemic cultural problem exists in that faculty who were aware of the policies chose not to avail themselves for fear of negative repercussions to their professional advancement or worse, were counseled not to utilize the policies by department chairs who were concerned about departmental workload being effected or budgetary issues. The University of California Office of President (UCOP) recently has taken steps to address some of these obstacles through centralized funding mechanisms, changes in the language of the academic personnel manual which states unequivocally that these programs are *entitlements*, and by setting up work/family advisory committees and counselors, as well as department chair orientations. But the culture-change problem remains and will demand more aggressive policies if these programs are to work to the point that they can counteract the concerns that drive faculty away from the academy. As one faculty member noted, the corporatization of the academy has had a deleterious effect on R&R: "Over the course of my career [as a UC faculty member] I have observed the university increasingly taking on a model of corporate culture. I am not surprised that so few of my junior colleagues have decided to have children. Graduate students pick up the signal very early: devote time to family or community at your own risk" (Mason *et al*., 2005, p. 15).

Improving existing policies may help with the overall R&R effort but the report notes that a series of new policies, resources and benefits will be necessary if the university is to remain competitive in the future. They propose nine new initiatives, some of which exist at other universities but thus far have been resisted in the UC system:

1. Flexible part-time options for tenure track faculty: this would allow faculty to shift between part-time and full-time as life cycle needs demand (childbirth, adoption, family illness, personal health issues, adult dependent care responsibilities, phased retirement, etc. Faculty surveyed supported this idea in large numbers.
2. Relocation counselor: this would be especially helpful in the recruitment phase to assist with geographic relocation issues, spousal, family partner, parental relocation, among others. It would also assist with retention when dual career issues arise.

3. University sponsored infant and childcare: these resources are available on all campuses but have proven to be insufficient; a recent study demonstrated that the UC system needed at least twice the number of such facilities as is currently available.
4. Emergency back up childcare: none of the campuses currently has a program in this area, although it is common in the private sector and at private universities such as Stanford. Vendor relationships with private companies are contracted at low rates to allow faculty to have access to high quality emergency back-up childcare services.
5. Discount resume gaps related to care giving: time elapsed since receipt of the Ph.D. due to family care giving is another issue that hiring committees often view negatively when making hiring decisions. Academic personnel policies would have to be changed to discount such gaps and combat the loss of potentially excellent scholars.
6. Adoption benefits: competing universities and the private sector often offer their employees adoption benefits such as reimbursement for adoption-related expenses. This becomes more crucial as many families delay childbirth into their late thirties and want more children when they have gone beyond childbearing years.
7. Tuition reimbursement for self and dependents: While many universities offer this benefit, the UC has not done so; it is a significant retention tool for parents and has been recommended over the past ten years by various studies.
8. Care-giving expenses related to travel: the report recommends "that funds be allocated to provide infant or child care for mothers who bring them to meetings or conferences, or to pay for care when a child or dependent is left at home" (Mason *et al.*, 2005, p. 21).
9. Elder/adult dependent care counselor: Data show that 63% of UC Berkeley faculty and staff provide regular or ongoing assistance to an elder/adult dependent. Data on other campuses is similar. Yet, the campuses offer little in the way of counseling on the variety of issues that can arise in such a care-giving environment. A counselor devoted to this task would be highly valued among the faculty.

Each of these proposed measures would likely increase the competitive stance of the UC campuses in R&R. Some of them, like the flexible part-time option, would require that we re-imagine what the university is about, and think about new forms of higher education, more fluid, more able to match the flexibility of the private sector, and at the same time remain true to the essence of the academy. The trend however is fairly clear. Recruitment and retention of the best faculty is becoming increasingly difficult, even in the first tier research universities. One can imagine the difficulties in the second and third-tier institutions. Salary alone is no longer the most important incentive but stands beside quality of life issues and other issues that have much to do with the attractiveness of the academic profession. The data collected in the various UC studies and presented in recent reports have resulted in a number of policy recommendations. At this point, the data have not been organized around field of study and

discipline in any rigorous manner so we are not able to comment in any detail about the effect of R&R on the STEM fields. Our current proposal intends to help fill that gap.

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The American Academic Profession:

Context and Characteristics

Martin Finkelstein* and Carol Frances**

Historical Overview of the American Higher Education System

The US Constitution does not identify a specific role for the federal government in education at the primary, secondary or tertiary level. As a consequence, from a legal perspective, education in the United States has always been a function reserved to the states. Historically, the American states built their educational systems from the top down – that is, they established colleges *before* they established systems of primary and secondary education. Preparation for entry into college until the late 19th century was largely in the hands of local ministers and private academies or seminaries; although many colleges established preparatory departments to help prospective students meet admission requirements in the absence of a formal secondary school system.

The mechanism by which the states established colleges was to grant a *charter* to a petitioning group of citizens (typically a church or religious community) to organize and administer an educational (or, in legal parlance, an eleemosynary) *corporation*. While chartered by the state to serve a specific educational function – the granting of baccalaureate degrees for completion of a fixed four-year course – a board of trustees composed of private citizens (and only incidentally of government officials) assumed broad responsibilities for organizational governance. Indeed, the US Supreme Court decision in the Dartmouth College case (1819), reaffirmed the sanctity of charters and effectively proscribed state government from intervening in the affairs of corporate boards of trustees operating within the parameters of their charter.

While the early 19th century saw the chartering of several state universities, i.e. public corporations, to join the predominantly private collegiate sector (to be sure, public-private distinctions in the 18th century were not as clearly etched as they are today), the development of a substantial public sector in American higher education was stimulated by the passage of the first and second Morrill Acts in 1862 and 1895 This federal legislation granted federal lands to the states for the purposes of establishing colleges for the benefit of agriculture and mechanical arts. While financed by the income from the federal land grants, these public corporations were chartered and governed by Boards of Trustees, nominally, at least, independent of state governments. Indeed, in the cases of states like Michigan and California, the state universities were recognized in the state constitutions as a fourth branch of government having legal autonomy from the legislative, executive and judicial branches of

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government.

The late 19th century saw the emergence of the research university model on the American scene, first at Johns Hopkins University. Concurrently, graduate education emerged in the United States, along with the academic professions. While granting the first PhD in America, Yale's graduate school remained relatively unimportant until the beginning of the 20th century. By the end of the Second World War, the research university (in contradistinction to the baccalaureate college) was becoming the dominant institutional form in American higher education.

With passage of the Servicemen's Readjustment Act of 1944, popularly known as the GI Bill, the American system embarked on a wave of unprecedented massification – transitioning in three decades from a system serving 15 percent of the traditional 18 to 24 age group to one serving close to half of this group. This massification was largely achieved by the establishment on the part of most state governments of the first large-scale public systems of higher education, including publicly financed four-year colleges (usually former normal schools which prepared teachers), as well as a new system of two-year colleges focusing on vocational preparation. The 1960s witnessed explosive growth of the community colleges followed by expansion of the four-year publicly financed colleges and universities. Thus, the center of gravity of the American system has shifted from the private to the public sector while the research universities' historic dominance is now being challenged by the emerging institutions of massification.

While there remains no formal legal role for the federal government in higher education, over the last 50 years the American system has been shaped by two key federal policies: the first related to research and the second to student aid.

The US federal government's research strategy developed in the 1950s and 1960s. It was memorialized most cogently in Clark Kerr's classic volume, *The Uses of the University.* Rather than invest in a national research infrastructure, the US decided to "outsource" federal basic research to non-government organizations, primarily universities. Implementing a federal research agenda by contracting research out to the universities with the most resources and the most talent is a very efficient strategy from the government perspective. From the perspective of the individual institutions, it has led to intense competition for federal research dollars and a re-organization of the enterprise to optimize success in the competition. This includes significant shifts toward research orientation in the criteria for appointment and promotion of faculty members. It has also frequently required the channelling of institutional resources into developing more competitive infrastructure for attracting federal research dollars.

The federal government's student financial aid policy embodying a commitment to broaden opportunity to enroll in college was set forth in the 1972 Amendments to the Higher Education Act of 1965. The federal government established the Basic Educational Opportunity Grants, now well-known as Pell Grants. These grants represent a major strategic shift in federal policy. Historically federal funds had been channeled directly to institutions through grants to be used at their discretion.

The Pell Grant program put the lion's share of federal student aid dollars directly in the hands of students and permitted them to make their own choice among institutional providers. This policy shift has re-engineered the higher education market – putting significantly more power in the hands of consumers (students and their parents) and forcing colleges to compete, often fiercely, for the best students.

Both the research and student aid components of federal policy are continuing to impact campuses just as state governments have begun pulling back on their investments in higher education, precipitating a wave of privatization in the public sector and promoting an entrepreneurial explosion in the private sector.

Drivers of Future Demand for Faculty

Prospects for the professionals who teach in the American colleges and universities, as in those of all industrialized countries, are likely to be affected fundamentally by the interaction of forces shaping future demand for faculty and future supply. Historically, economists including Alan Cartter (1976) and Bowen and Schuster (1986), sought to predict demand for faculty based on enrollment growth, replacement demand (chiefly as a result of retirement), and assumptions about demography, the labor market (including immigration) and political realities. Currently. marketization of American higher education, reflecting a fundamental shift from the use of planning to market forces to allocate resources to higher education, is increasingly dominating demand for college faculty.

A graphic sketch of the conceptual framework, or model, designed to be used in a systems approach to the analysis of the future demand for college and university faculty is shown on the following page:

Examining this basic framework, we then ask "How is each one of these complex of forces likely to be impacted in the future by information and communications technology?"

Oversimplified, one basic question is:

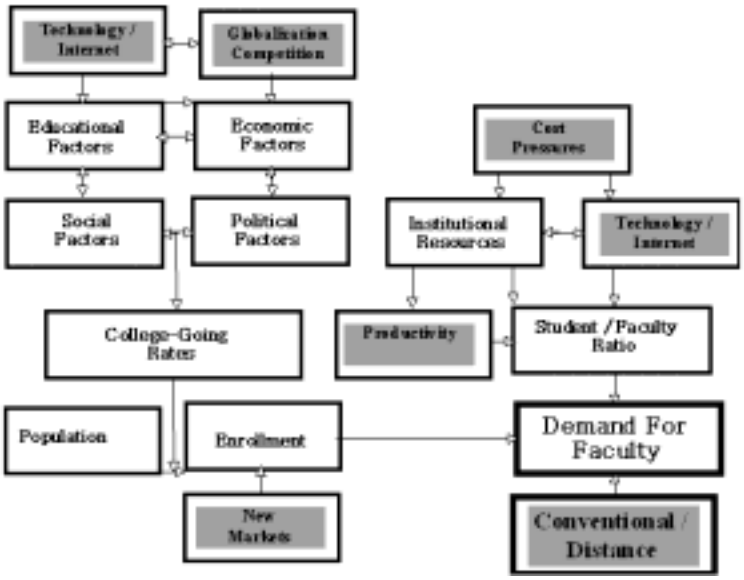
Will technology result in increases in teaching and learning productivity that will, in turn, lead to decreased demand for college and university faculty?

Or, will technology enable institutions to expand their markets, reaching more people older than the traditional 18-24 college age; and/or reaching farther geographically into other regions, or even other countries, thus increasing the demand for college education and, consequently, increasing the demand for faculty?

Future prospects for college and university faculty in the United States as well as in other countries, depend to a significant extent on the ultimate impact of technology: Will it decrease or increase demand?

If we show in the basic model the areas which are most likely to be impacted by information and communications technology we have the following result, as shown in Figure 1:

Figure 1. Possible Impact of Technology on the Future Demand for College and University Faculty



US National Data We will present the U. S. national data requested by the Changing Academic Profession (CAP) project within this framework constructed for analyzing future demand for faculty. To the extent possible we will also present the requested data elements as trends to help us begin to understand the dynamics of the forces interacting to shape future prospects for faculty globally.

1. Demographic Trends in the United States

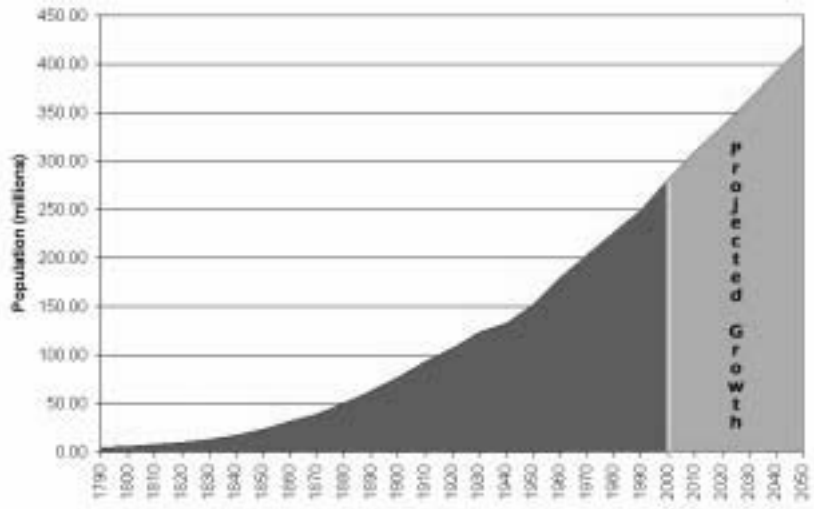
Total Population The US Bureau of the Census reports that as of October, 2006, the total population of the United States reached 300 million. Between 1990 and 2000, the US population increased by close to 30 million people. The increase was accounted for by about 18 million net population increase of births over deaths, and 10 million net in-migration, resulting from net in-migration of slightly more than 10 million and a small number, about 250,000, of out-migrants.

This 30 million increase in population was the largest number ever over a single decade. The percentage increase of 13.2 percent over the decade was, however, only the fifth highest. The decade from 1900 to 1910 was the ten years with the highest percentage population increase in the US Population grew over this period by 21 percent, that is, by slightly more than one-fifth.

Over the five years from 2000 to 2005 US population increased by almost 15 million. The two components of the population increase were (1) natural increase of 8.6 million (21.3 million births minus 12.7 deaths) and (2) net international in-migration of 6.3 million people.

Middle-range projections of US population over the next several decades are based on an assumption of a slight decline in the annual rate of growth, down from 1.0 percent per year to 0.9 percent. At this rate of natural increase and in-migration the US population is projected to exceed 400 million by about 2045, as shown on Figure 2:

Figure 2. Historical & Projected US Population



Developing Population Data Suited to Education Policy Analysis Raw population data should be regrouped to be more useful for education policy analysis. The age groups most relevant for education policy analysis in the United States are:

0-17 Preschool, elementary and secondary education students
18-24 Traditional college-age for undergraduates
25-34 Age of many graduate students
35-64 Workforce, continuing education / life-long learning students
65+ Older population, retired, avocational students

From charts showing trends and projections of the population in these age groups we can draw the following observations and implications:

0-17 After sharp increases this population age-group levels off, resulting in (1) less pressure to expand elementary and secondary facilities, (2) reduced pressure to hire more teachers, who are trained by colleges of education, and (3) somewhat reduced competition with higher education for resources.

18-24 After declining for many years from the early 1980s until the mid-1990s this college age-group burgeons, which will likely lead to a (1) steadily increasing demand for college from this traditional college-age group for several years to come, (2) pressure on higher education resources, including student financial aid, and (3) increasing demand for college and university faculty.

25-34 This age group also increases and as a result, (1) demand for graduate education may increase and (2) demand for faculty could increase.

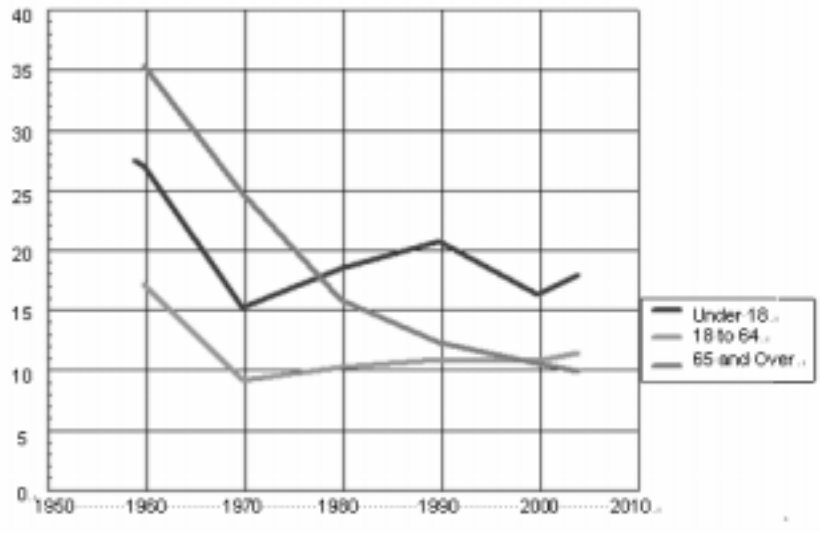
35-64 This age group expands substantially with the result that the labor force may well expand, thus increasing the ratio of the people in the workforce in relation to the age groups

generally not in the workforce which include the young people in school and the older retired generation, thus decreasing the "dependency ratio." Depending on budget priorities, this could conceivably reduce the fiscal pressure on the US education budgets.

65+ The elderly population is increasing. A higher percentage of older people vote than of younger people. Federal and state budgets reflect their preference for health care, security, and retirement benefits over education. This could portend continuing political difficulty in reordering national priorities to shift toward greater investment in education.

In fact, in the space of only about one generation, America has transformed the face of poverty from the elderly to young children. A larger percentage of young children than of the elderly are in poverty in the United States, as shown on Figure 3:

Figure 3. Trends in Poverty Rates by Age



Source: U.S. Department of Labour, Bureau of Labour Statistics.

Population Trends by Gender Demographers track gender ratios by calculating the number of males per 100 females by age group. In the US there are more women than men, even among comparatively young age groups. This might help explain the fact that since the early 1970s there have been more women than men enrolled in college in the United States.

Population Trends by Race/Ethnicity The US Bureau of the Census reports that in 2000 the percentage of the population by race was as follows:

	Percent
Total	100.0
White	80.4
Black	12.8
Asian	4.2
Indian	1.0
Other	1.6

People of Hispanic or Latino ethnicity can also be of other races. To avoid double counting they are counted separately. The Census Bureau reports that about 14 percent of the US population is of Hispanic or Latino origin.

The increase in the US population over the last decade, in particular, has been the result of increasing numbers of young people from minority populations. This means than older white people are being asked to increase spending for the education of younger children of color. Serious underfunding of elementary schools, inadequate e ducation, and lack of preparedness for college of these minority populations, as well as underfunding of student financial aid, may well result, which would affect future demand for college of potential students from these groups, and consequently affect future demand for faculty.

Population Trends by Location**:**

Urban, Suburban, Rural Suburbs with predominantly White populations are growing, while inner cities with predominantly Black and Hispanic populations, and rural areas are emptying out. The result is widening differences in property values. As a consequence, there are often vast differences in resources for schools levied from local property taxes. Taxing local property is the predominant way of funding elementary and secondary education in the US, which results, in turn, in huge differences in the education spending between the rich and poor school districts, which difference are, in many cases, only partially offset by equalizing distributions from the state governments.

Region The northeast has the greatest concentration in the US of colleges and universities, particularly private institutions. The fastest growing region, however, is the west. California, with over 33 million people has by far the largest state population in the nation, and is notorious for limiting spending on education – through referenda and legislation – with the result that scores on student achievement tests have fallen from mid-range to near the bottom of 50-state rankings. This may affect preparation for college, though under California's newly updated Master Plan, only the top one-eighth of the students are eligible for the University of California branches, and only the next one-third are eligible for the State Universities. As a consequence, more than half of the California students are tracked initially into the two-year community colleges and they have mixed success in transferring to four-year colleges and universities.

2. Political Trends Political preferences are reflected in budget priorities. From a fiscal perspective, education is viewed in the political arena as consumption rather than an investment in the future. As a result, education is slipping among overall federal and state budget priorities, losing over the long term, slowly but steadily, to entitlements for the older generation, health care, and prisons, and more recently to war and natural disaster.

Americans generally believe they are "overtaxed," though they clearly are not compared with

other developed nations. State tax funds per $1000 of personal income has actually declined significantly in the United States since the mid-1960s, as shown on Figure 4. Marginal tax rates have also declined at the federal level as well. Believing they are overtaxed, however, Americans, continue to vote for tax cuts, even when the benefits of the tax cuts redound primarily to the rich, and even though the result is staggering deficits. These deficits will put pressure for many years into the future on spending for domestic discretionary programs, of which education is among the hardest hit.

Figure 4. State Tax Funds per $1,000 of Personal Income in the United States

Source: Calculated by Tom Mortenson, Postsecondary Educational Opportunity, Downloaded November 7, 2005.

3. Economic System and Performance

Economic System The economic system in the United States is capitalistic, with heavy reliance on markets to allocate resources.

Economic Performance After a sustained period of comparatively rapid economic growth of gross domestic product in the 1990s, the United States has experienced slower growth. This slowdown can be seen in the following Figure 5, which shows the year-over-year percent change in the US gross domestic product per capita.

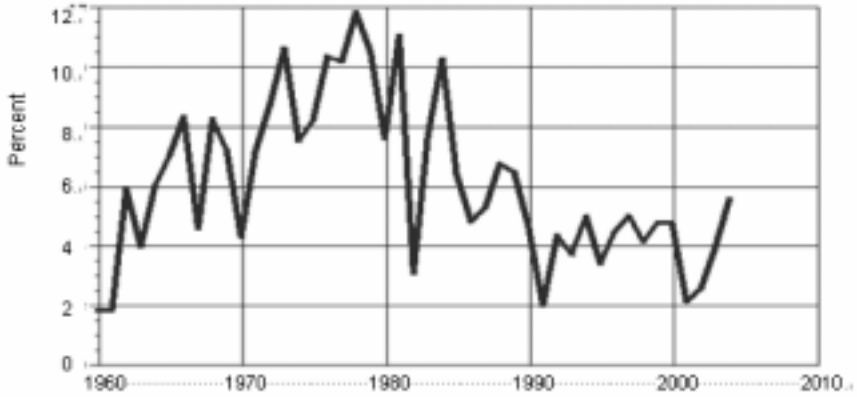
While profits have increased, the rate of job growth has been disappointing. In previous years low-wage manufacturing jobs were exported but more recently middle-income service jobs are beginning to be outsourced overseas as well.

In a comparatively short time the economy has been fundamentally transformed in a very dramatic way. The American economy has evolved from manufacturing as the basic industry exploiting natural resources, to an economy where most products and services incorporate intellectual capital. Thus, education has become the basic industry.

Imports and Exports as a Percent of GDP US exports grew almost as fast as imports in the early 1990s but beginning about 1997 US exports levelled off and even declined. At the same time, imports continued to climb. This resulted in a huge trade deficit, reaching a staggering gap of close to $600 billion in 2004. The trade deficit in both goods and services continues to grow as shown in

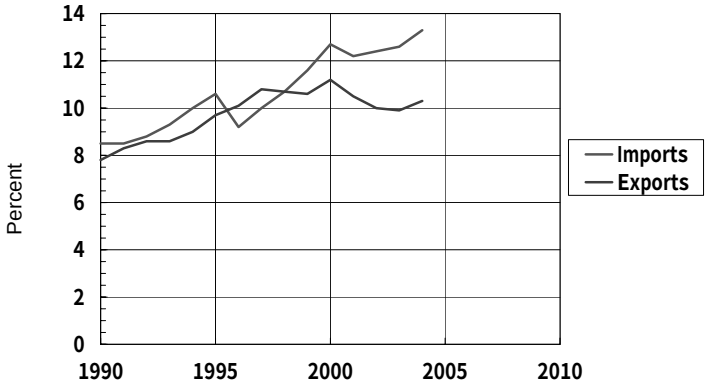
Figures 6 and 7.

Figure 5. Gross Domestic Production per Capita: Year-Over-Year Percent Change, 1960-2004



Source: Council of Economic Advisors, Economic Report of the President

Figure 6. Imports and Exports as a Percent of Gross Domestic Product, 1990-2004



Source: Council of Economic Advisors, Economic Report of the President 2005

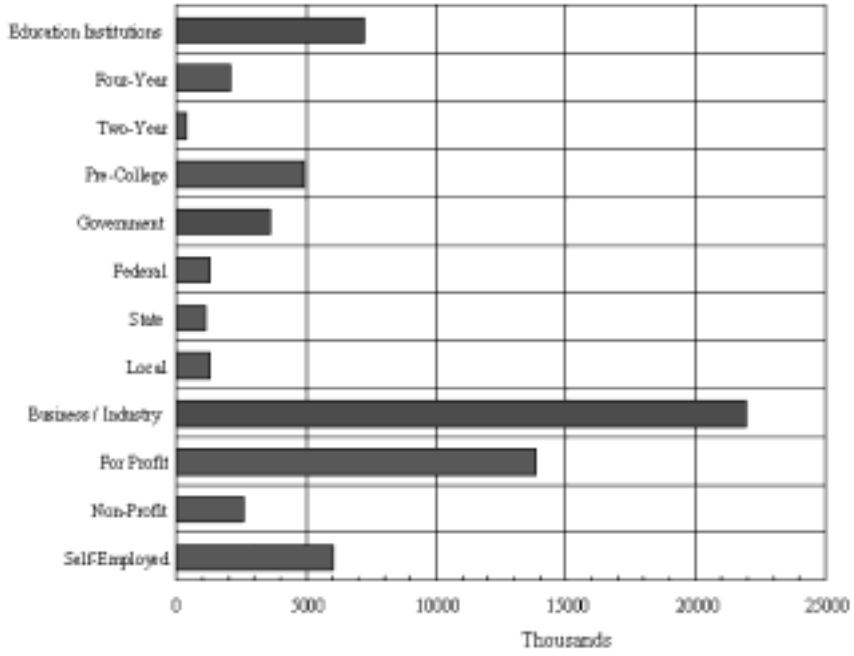
Figure 7. US Trade Balance in Goods and Services, 1960-2005

Source: US Census Bureau, Foreign Trade Division.

5. Labor Force Total US employment of workers age 16 and over reached 145 million by the end of 2006. The unemployment rate dropped from a peak of almost 8 percent in 1992 to 4 percent in 2000 after which it climbed rapidly back up to 6 percent in 2003 and then has edged down to under 5 percent throughout 2006.

The employment of college graduates by sector is shown for 2003 in Figure 8.

Figure 8. Employment of College Graduate by Sector, 2003



Source: National Science Foundation, Division of Science Resources Statistics, National Survey of College Graduate (2003).

6. Measures of Income Equality/Inequality Americans believe that we have a country in which upward economic and social mobility is characteristic, largely through hard work and educational achievement. While individual and inter-generational movement up the scale is possible, the country is currently experiencing an increase in income inequality. This is the result of tax cuts benefiting the rich and the loss of high-wage manufacturing jobs that had in the past assured middle-income status.

The Gini coefficient is often used as a measure of inequality, with a value of 1 indicating inequality and 0 equality. The Gini coefficient for the United States is just over 0.4 and it has been increasing in recent years, indicating increasing inequality. International comparisons of Gini coefficients shows that the US has greater income inequality than many of the other developed countries.

7. Research and Development American higher education is characterized by the close connection between teaching and research in the major universities. Indeed, the line drawn between

the major universities and the comprehensive four-year colleges is based largely on the dollars of research performed by the major universities.

While some of the R and D funds are awarded to universities through a legislative process known as “earmarking,” most of the R and D funds are awarded on the basis of peer review of research proposals. The effect of the peer review process is to concentrate the R and D funds in relatively few institutions. In fact, the top 100 universities receiving federal R and D funds accounted for about 80 percent of the total awarded in 2005, for instance.

The National Science Foundation produces a matrix of data showing both the sources of funds for R and D in the United States, and which organizations perform the R and D. This matrix can be scanned to identify the role of the universities in each domain.

Universities perform close to 60 percent of the basic research in the United States and 20 percent of the applied research. These shares are eroding, however, in competition with industry which may have better access to funds and can more easily establish laboratories and purchase the most advanced equipment. This may be a factor in the ability of industry to compete more and more successfully with academic institutions for qualified researchers.

Patterns of support for R and D performed by universities may be instructive in looking for sources of financial pressure on the universities Whereas the federal government in the 1950s provided $7 for every $1 of self-funding of research provided by the universities, this has fallen steadily over the subsequent decades so that the amount now stands closer to $2 dollars of federal support for R and D performed by the universities for every $1 of self-funding. The increasing share of R and D funds coming from the universities themselves is one additional source of financial pressure on the universities and one additional source of competition for funds to support faculty.

According data reported by the Science Resources Division of the National Science Foundation, about 22 percent of college graduates are employed in academic institutions, 11 percent in government, and 67 percent in industry.

PhDs are more heavily concentrated in academic institutions: Again, the Science Resources Division reports that 45 percent of the PhDs are employed in academic institutions, 36 percent in industry, 6 percent in government, and 4 percent in nonprofit organizations.

Faculty engaged in research are generally paid more than faculty who are not. Faculty reporting on how they spend their time indicate that there is some tension between research and teaching. Faculty research often results in opportunities to consult. If faculty consult with business and industry, there may also be tension between academic responsibilities and private client requirements, as well as attenuation of commitment to students, or on the other hand faulty onsulting may create opportunities for student internships with private employers.

8. Higher Education Constitutional Framework, Policy, Legislation, and Regulation

Americans do not have any right to education embodied in the federal constitution. Most state

constitutions, however, include a provision mandating the state to provide the equivalent of a "thorough and efficient" public and free education to children of a certain age, such as from 5 to 15. This does not generally extend, even at the state level, to a "right" to a college education.

Furthermore, none of the federal programs for the education of young people are entitlements. Entitlements are guaranteed to those people who by law are eligible for a specified benefit. Most of the federal programs for the elderly are enacted in legislation which creates entitlements to retirement or health benefits. In contrast, federal programs for the education of young people, as they are not entitlements, are subject to the availability of funds appropriated (annually) for the purpose by the legislature.

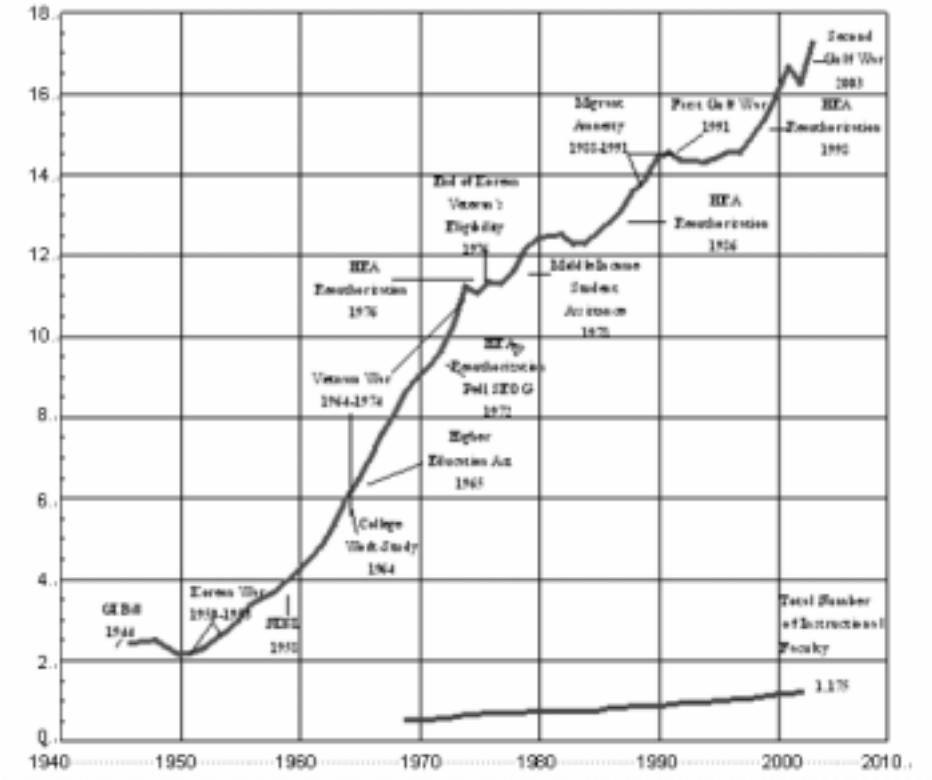
Federal higher education policy is now embodied primarily in the Higher Education Act (HEA) of 1965 and the amendments enacted in subsequent reauthorizations of the HEA in 1972, 1980, 1986, 1992, and 1998 and the partial reauthorization of 2006. The fundamental thrust of the 1972 Amendments was to broaden opportunity for college education by creating student aid programs to overcome financial barriers to enrollment. Thus, federal funds to support higher education were to be channelled through the students, rather than directly to the institutions.

Federal education policy is currently being debated as part of a reauthorization that should have taken place in 2004 on the expiration of the previous provisions, but with annual extensions was still being debated in 2006. The major unresolved issues of higher education policy currently are (1) the extent of the shift from need to merit as a basis for awarding student financial aid; and (2) the extent of the ability of the for-profit institutions to participate in the federal education programs in competition with the public and non-profit institutions

Federally provided veterans' benefits also affect enrollments in American colleges and universities. The enactment in 1944 of the GI Bill providing educational benefits to veterans returning from World War II fueled a surge of college enrollments. Military service during the Korean war caused a dip in college enrollment, and college education deferments during the Viet Nam war contributed to a steady increase over ten years in college enrollment, as shown on Figure 9 which depicts enrollment trends from 1947 to 2005, with major education milestones marked on the Figure.

9. Internationalization The United States has a long history of absorbing highly educated people from the rest of the world, benefiting so enormously from this "brain drain" as to cause loud complaints from some of the sending countries. The United States has also been the destination of choice in the past for the largest share of international students seeking education in another country. Since 9/11 this may be changing, however The US Department of State has been slowing down the award of visas to people wanting to come to America to study. Meanwhile, other countries – particularly other English-speaking countries, including Australia, New Zealand, and India, in addition to Great Britain – are becoming aggressive in challenging the US and attempting to gain a greater share of the rapidly growing global education market. Still, close to 600,000 international students

Figure 9. Comparison of Trends in American College Enrollment and in Faculty Employment



Source: Enrollment and faculty data. U.S. Department of Education, National Center for Education on Statistics, *Digest of Education Statistics* (2005).

studied in the US in 2005. The country currently sending the most students is China, though the patterns change dramatically over short periods in response to both their own and US policies.

While many colleges and universities are reexamining their core curricula, and some are seeking to "internationalize" their curriculum across the board, less is happening than meets the eye. American focus on Western civilization leaves us ignorant of much of the rest of the world.

New technology is, however, facilitating amazing increases in cooperation and collaboration across national borders of individual faculty as well as of departments and institutions. Most academics are enthusiastic about international exchanges but alignment of the details of calendars, credits, and curricula tends to slow implementation. Sources of funds are not very well developed for international activity--indeed, in some areas there appear to be fewer funds now than previously.

10. Privatization, Marketization, and Competition

Privatization Privatization of higher education preceeded "marketization." By "privatization" we mean the shifting of funds for higher education from public sources to private sources. Thus, as public funds from federal, state, and local appropriations and research contracts have failed to keep up with enrollment increases and inflation, the colleges and unive4rsities have

been forced to rely more and more heavily on private sources of funds, including funds from the students and their families in the form of increased tuition;, private donations from alumni, non-alumni, corporations and foundations; endowment income; and sales from auxiliary enterprises, including dormitories, cafeterias, and bookstores. Some public universities have shifted from calling themselves "state universities, to "state-assisted universities" and even to "state-located universities."

Marketization "Marketization" is a comparatively new term in the United States, but the phenomenon in not new. The idea of "marketization," though not that particular term, has a long history in the United States. More than three decades ago, the major thrust behind the 1972 amendments to the 1965 Higher Education Act was to provide financial aid to the students who would then be able to chose the college or university which best met their needs. They would thus, in the words of the federal proponents of student financial aid, "vote with their feet." The rationale for funding students instead of institutions was expressly to increase market competition among the colleges and universities and thereby, it was argued, increase educational quality.

Competition For more than half of its history in the United States, higher education has been characterized by competition. Though originally a private phenomenon as primarily religious groups founded educational institutions to train ministers, in 1862 and 1890 the first and second Morrill Acts provided for the establishment of public institutions to be financed with sales of land-grants to the states. These public land-grant institutions were established to promote agriculture and the mechanical arts and, in effect, began the creation of a public sector which grew to compete with the private sector. Now approximately 75 percent of total college enrollment is in the public sector and 25 percent is in the private sector. A much higher percentage of enrollment at the four-year level is in private institutions.

There are many forms of competition in American higher education, including sectoral (public vs. private), level (university vs. four-year vs. two-year), selectivity (elite vs. non-elite), size (large vs. small), and even wealth (well-endowed vs. tuition driven). Within institutions there may be competition between undergraduate and graduate programs, and between teaching and research.

In recent years, competition among higher education institutions has moved from tuition price competition to quality competition. Higher price education has become associated with higher quality education.

One important form of competition among colleges and universities is the award of institutionally funded student aid. Increasingly, this aid is awarded, not on the basis of the financial need of low-income students but on the basis of "merit" to students they seek to attract. Greater and greater reliance on this form of competition for high achieving students in the guise of enrollment management has become very expensive to the institutions, squeezing funds that would otherwise be available for new educational programs or increased faculty salaries.

Trends in Faculty Employment

Since the 1960s, the American academic faculty has grown close to four-fold, from a corps of a quarter million to over 1.1 million in 2003. This growth is shown back in Figure 9, which shows a comparison of the trends in faculty employment with trends in college enrollment.

Of the total number of faculty in 2003, 793,000 are employed in public institutions, and 382,000 in private institutions. Within the private sector, 331,000 are employed in the private non-profit sector and a small but rapidly rising number of 52,000 are employed in the private profit-oriented sector.

The percentage of faculty employed part-time has risen from just over 20 percent in 1970 to almost half at 46.2 percent in 2003.

Overview of the Structure of the Academic Professions

While in some sense, the big story is the sheer magnitude of the growth in the numbers of faculty, there has also been a shift in the overall shape and character of the academic profession, including.

(1) **Institutional and Disciplinary Venues** – The center of gravity of the academic professions has shifted from the research university sector (from about 45 percent of the total number of faculty in 1970 to about 33 percent today) to the two-year community college sector (from about 10 percent in 1970 to 30 percent today) and the public four-year college sector. Moreover, the center of gravity has also shifted from the traditional arts and science fields to the professions. Indeed, the majority of the newly hired faculty are in the professions.

(2) **Demography** – The proportion of women in the academic professions has increased overall from about 25 to 35 percent since 1970. However, if one examines new entrants to the academic professions over the past decade, one finds that about 45 percent are women (and in some fields in the humanities and social sciences as well as some professions such as education, the majority of newly entering faculty are women). At the same time, there have been notable, albeit less dramatic, increases in the representation of foreign-born faculty (especially Asians and especially in the natural sciences and engineering) and faculty from domestic racial and ethnic minority groups (Asian, Black and Hispanic).

(3) **Types of Appointments** – Over the past one or two decades, and largely under the radar screen of most observers, colleges and universities in the US have been engaged as well in the restructuring of *full-time* faculty appointments. Nominally, that restructuring has involved the introduction of a parallel system of fixed-term contracts alongside the traditional tenure system for full-time faculty.

It is important to understand two important features of this development:

(1) First, the extraordinary rapidity with which this parallel system of full-time, fixed-term

contracts has grown. Since 1993, the majority of new full-time faculty hired in American higher education have been appointed OFF the tenure track, and

(2) The fact that this new type of full-time appointment differs not only (or even primarily) from traditional tenure appointments in contract duration, but rather in function. These appointments involve functionally more specialized roles that differ from the Humboltian model of a single individual playing a functionally integrated role combining teaching, research, and service. The result is a largely tacit, unexamined departure from the traditional faculty role in the US.

The rise of this new parallel system of faculty appointments and re-specialized faculty roles is associated with a new definition of the faculty's relationship to their employing institution and a new bifurcation of academic career paths.

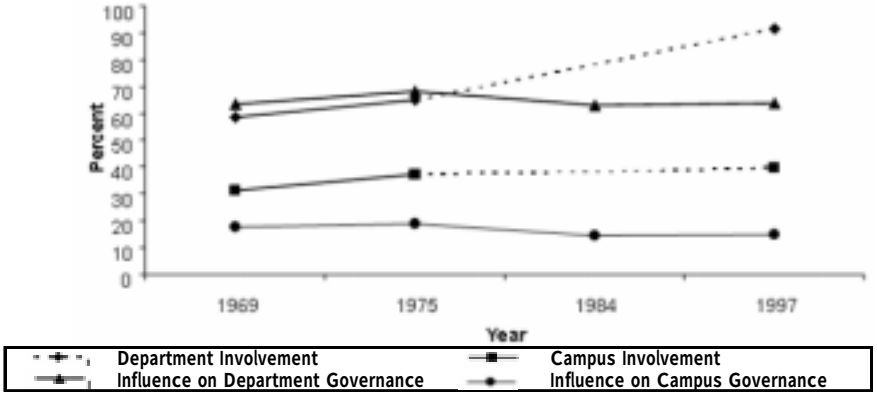
The Shrinking Faculty Role in Campus Governance

Beyond the salience of teaching and research in defining academic work, a significant – if less time-consuming – component of faculty work includes faculty participation in the governance of academic departments and the wider campus. Current debates in American higher education suggest that academic citizenship may be withering – a victim at once of declining faculty loyalties to their home institution (itself a function in part of the rise of temporary and part-time appointments), as well as the increasingly managerial orientation of administrative leadership (Slaughter & Leslie, 1997; Baldwin & Chronister, 2001). What do the national faculty surveys tell us about changes, if any, in faculty perceptions of their role in departmental and campus affairs over the past quarter century?

Figure 10, perhaps surprisingly, shows that an increasing proportion of faculty members report "more than average" involvement in departmental affairs (escalating from about three-fifths to nine-tenths) and, to a lesser extent, in campus-wide affairs as well (rising from about 30 to roughly 40 percent).

Thus, self-reported involvement in governance (as seen relative to other colleagues) has become *more* rather than less pervasive – contrary to conventional wisdom. Not surprisingly, twice as many faculty members are likely to report high levels of involvement in departmental decision-making compared to participation in campus-wide affairs. Involvement in the former is modal; involvement in the latter is not. Controlling for faculty career age, we find – again, as would be expected – that new faculty (that is, those in the first six or seven years of an academic career) are significantly less likely than their more senior colleagues to report involvement in campus affairs – both a quarter century ago and now. However, these new entrants are involved in department affairs almost as much as are their more senior colleagues. The senior faculty cohort, meanwhile, show a rising trajectory of departmental involvement at the same time as a lower, albeit consistent, involvement over time in institutional affairs (Schuster & Finkelstein, 2006).

Figure 10. Percent Reporting High Involvement and Influence in Department and Campus Governance, Full-Time Faculty, 1969-1997



Source: Carnegie/American Council on Education Surveys (1969, 1975, 1984, and 1997).

How should this pattern of rising faculty involvement in governance be interpreted? In part, itmay be a consequence of trends in the increased use of part-time and temporary full-time appointments. That is, perhaps fewer faculty, by virtue of the kind of "regular" appointment they hold, are now expected to participate in governance, thereby leaving those core faculty who are "eligible" to shoulder greater responsibility for – and hence involvement in – governance. Or, the explanation may lie, in part, in that most faculty simply rate themselves as "more than average" on any measure one cares to take. Or, then again, it may simply be that greater (self-reported) involvement, perhaps occasioned by the advent of new committees and task forces, is at least as demanding as ever, leaving aside whether the results of greater faculty involvement – that is, actual faculty influence – may have dwindled at the same time.

Indeed, the data on that score shown in Figure 11 (*i.e.*, actual faculty influence as distinguished from mere involvement) suggest, first, a strong and consistent pattern of about two of every three faculty members perceiving a high level of influence on their department. At the same time, many fewer faculty (15 to 20 percent) report wielding high levels of influence over campus-wide affairs. Moreover, there appears to be a subtle pattern of declining influence over time: the one-sixth of faculty members who had reported "high" campus influence in 1969 had declined to only about one seventh by 1997. On the other hand, the proportion reporting "no" campus influence rose from one third to about 40 percent. When we control for career age, we find, as would be expected, that senior faculty members are much more likely than their junior colleagues to report higher influence on both department and campus affairs. For both groups, however, substantial proportions report considerable intra-department influence over time whereas only a small, and declining, minority report "high" campus-wide influence. For the senior faculty cohort, the 20 percent reporting high campus influence in 1969 had shrunk to barely 14 percent by 1997.

The picture that emerges, then, is one of a profession consistently involved, especially at the senior ranks, in processes to shape their academic departments, although, to a considerably lesser degree,

their campus. Thus many faculty members experience an increasing disjunction between their departmental and their institutional spheres of influence; in their perception they appear to be losing their grip on institutional affairs while they continue, and even reinforce, their focus on their own departments.

The Tracks/Troughs of the "New" Academic Career

The changes we have documented in faculty roles and the increasingly specialized nature of academic work spill over as well into the traditional model of academic careers. Over the past half century, a singular, predictable, lockstep academic career track developed in the four-year collegiate sector in the US as follows:

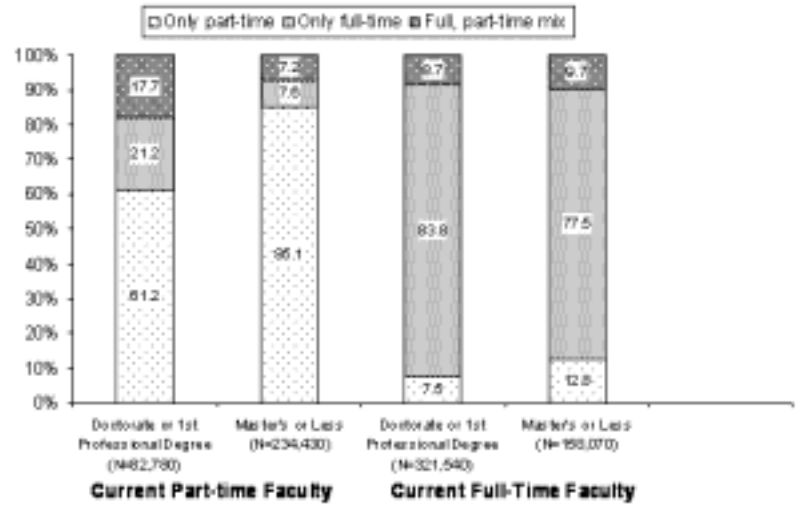
- PhD awarded
- Initial appointment to full-time, tenure-ladder rank position as an assistant professor
- Review for tenure after a six- to seven-year probationary period
- Tenure review based on success in the trinity of teaching, research/publication, and service (institutional and external), and
- Promotion to Associate Professor
- Promotion to Full Professor

Newly available evidence from the US Department of Education's National Study of Postsecondary Faculty suggests that this modal, homogeneous pattern is fast becoming a thing of the past. Figure 11 compares the previous work experience reported by then current full-time and part-time faculty in 1998. It is clear from these bar graphs that among part-time faculty, the vast majority of previous work experience is also part-time; and for full-time faculty, primarily full-time. When we control for highest degree, the relationships are even more pronounced. Among Master's degree holders, part-time work constitutes what amounts to a separate career track, *i.e.*, 85 percent of current part-timers have always worked exclusively on a part-time basis. Among doctorate holders, part-time work can serve as a temporary stepping stone to full-time work. Among those who held full-time appointments in 1998, eight of ten had always worked exclusively on a full-time basis.

Figure 12 examines only current full-time faculty and compares the work experience of fixed-term contract appointees with tenured/tenure-track appointees. The data suggest clearly that current tenured/tenure track faculty usually start out that way – about three-fifths had reported only previous tenure-track/tenured experience. At the same time, two-thirds of the current fixed-contract faculty typically pursued their careers entirely in fixed contract positions. There is some permeability between fixed contract and regular tenureable full-time appointments (about one-quarter move from fixed term to tenure track). Nevertheless, these two tracks have come to constitute for the majority of American faculty quite independent career tracks. It should be noted that these data are retrospective – supplied by "survivors" reconstructing their academic career trajectory. It is not possible to estimate the proportion of individuals who began their careers in part-timer and/or fixed-contract appointments

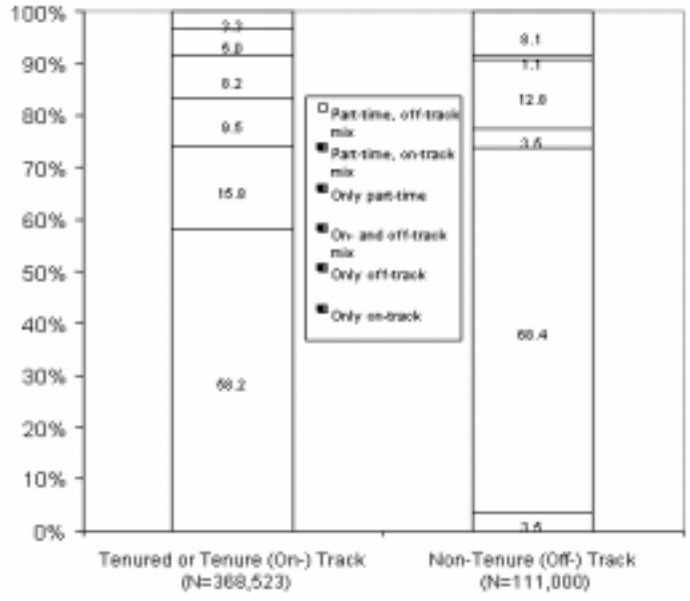
and subsequently abandoned their academic career. If we assume that many of these were unable to "cross" tracks, then our data likely underestimate – perhaps considerably – the independence of these alternative career tracks. Table 5 summarizes the findings for those 1998 faculty who reported one or more job changes during their career.[1]

Figure 11. Previous Academic Experience by Current Employment Status (Part- or Full-time) and Highest Degree, All Faculty, 1998



Source: 1999 National Study of Postsecondary Faculty, NSOPF-99

Figure 12. Previous Academic Work Experience, by Current Tenure Status (On- or Off-Track), Full-Time Faculty, 1998.



Source: 1999 National Study of Postsecondary Faculty, NSOPF-99.

[1] That is, those faculty who remained in their first teaching appointment beyond graduate assistant are excluded from the analysis here. .

Table 1. Overall Mobility between Part-Time and Full-Time, between Off- and On-Track, Faculty Who Reported One or More Job Changes During Their Career, 1998.

	All Faculty		Degree Held: Doctorate or First Professional Degree		Degree Held: Master's or Less	
	Number	Percent	Number	Percent	Number	Percent
All Faculty	317,815	(100.0)	225,759	(100.0)	93,312	(100.0)
Moved from part-time to full-time	87,570	(27.6)	51,890	(23.0)	35,683	(38.7)
Moved from on- to off-track	9,103	(2.9)	6,226	(2.8)	2,875	(3.1)
Moved from off- to on-track	105,929	(33.3)	86,402	(38.3)	19,446	(21.1)

Source: 1999 National Study of Postsecondary Faculty, NSOPF-99

How Will These Trends Likely Play Themselves Out in the US in the Next Decade?

While the developments we are describing have affected every institutional sector and academic field in the American system, the available evidence suggests that they have affected some institutional sectors and some academic fields more than others. What initial patterns do we see?

The Institutional Nexus of Restructuring In the first place, it appears that the elite providers – the Ivy League and the major research institutions, all totalling perhaps 100 to 200 institutions of the nearly 4,000 public and private not-for-profit colleges and universities in the United States – are most likely to maintain the most traditional staffing patterns. The data suggest that while non-traditional appointments continue to grow, even at the elite providers, they continue by-and-large to maintain predominantly full-time appointments in traditional, tenured, full-time faculties. Indeed, the research universities, in particular, have always had a modicum of specialized (research-only) appointments and an army of teaching assistants to which some teaching-only full-time faculty appointments are now being added (especially in a few "service" fields such as foreign languages, writing, and mathematics).

The case of the mass provider (principally comprehensive four-year colleges and universities) and convenience institutions (primarily two-year community colleges) (Finn, 1999)[2] – the remaining 3,800 or so institutions – is less clear and clearer, respectively.

The mass provider institutions have typically moved to a contingent workforce by increasing their part-time workforce marginally, while they have sought to move to a system of full-time term appointments--indeed, the majority of their new hires in the 1990s fit into this category! We can anticipate, however, that over the first decade of the twenty-first century, some of these institutions will gradually move to staffing entirely by contingent faculty, while others will maintain a bare majority full-time core. As such, it is in the category of the mass provider institutions that we are

[2] Former Assistant US Secretary of Education Chester Finn argues that American higher education in the early 21st century can be tri-chotomized into three basic types: elite providers, *i.e*. those 100 to 200 colleges and universities that are very selective in their admissions; mass providers, *i.e.* most of the rest of the four-year sector who admit most applicants to their traditional programs, and convenience providers, including public two-year community colleges and other for-profit or non-traditional providers.

likely to see the most frenetic staff restructuring on campus as well as the development of autonomous academic subunits that operate entirely with a contingent and part-time staff (*e.g.*, online, or continuing education ventures).

The community colleges, have already transitioned to a contingent workforce with a small core of permanent faculty buttressed by a growing corps of part-time faculty (see Gappa & Leslie, 1993; Palmer, 1999).

Differential patterns of restructuring are also discernible by academic field. Several fields – in the humanities most notably, English and foreign languages, and others, including mathematics and business – are on their way to becoming collections of transients, even at the research universities. The health sciences, including medicine as well as the health-related professions (*e.g.*, nursing, physical therapy, etc.), are also moving to a contingent staffing model (in the case of medicine, with the expectation that appointees will earn their salaries by generating clinical fee revenues and research grants/contracts). Moreover, both of these lines of demarcation (institutional and disciplinary) are crossed by a third – that of gender. The great influx of women into college teaching in the United States is substantially accounted for by these transient and temporary positions. That is simply a descriptive fact and offers no judgment about whether this trend reflects an exploitation of women who may be less geographically mobile than men or indeed an accommodation en masse to women's preference for more flexible and balanced careers.

Summary and Conclusion

What can be learned from this review of the higher education system and the academic profession in the Unites States? In the first place, higher education in the United States, as it is elsewhere, is in a period of discontinuity and re-adjustment to new realities – educational. demographic, economic, political, and technological. Indeed, information technology remains the "wild card" in extrapolating from these new developments. Nonetheless, we can say with certainty that the structure of academic careers in the US, which had paralleled the emergence of the research university and dominated the academic landscape for the past century – with the growth of graduate education culminating in the PhD degree – that the regularized flow of junior faculty on full-time appointments through a probationary period at a single institution (frequently seasoned with mobility across academic institutions once having demonstrated academic promise), all anchored in disciplinary expertise, is rapidly receding.

This revolution in faculty appointments has, in the American context, coincided with parallel public policy efforts to diversify the faculty and, in particular, to promote both gender and racial equity of opportunity. Indeed, the very success of affirmative action in the American academic context has produced what is the most significant demographic transformation of the academic profession: its increasing feminization. Nearly half of all new full-time academic appointments over the past generation have gone to women. This demographic fact has served to highlight in bold relief what are

now perceived as the "constraints" of the traditional academic career. The demands of the traditional tenure clock, and their timing, clashed with the equally unyielding demands of the biological clock and the "new" American family. To what extent, and in what ways, could the traditional academic career accommodate these new demographic realities? Finally, despite the ending of mandatory retirement, demographic realities – including the increasing age structure of American faculty in the face of the impending wave of new students (the baby boomlet) – have given rise to renewed concerns about recruitment of the next generation faculty, making this a particularly complex question in the light of the changing realities of faculty appointments and demographics.

So where does current research leave us in light of the emerging new realities of American higher education in a global, knowledge-based economy? The data presented here (and which is described in much greater detail in Schuster and Finkelstein [2006]) suggest that largely underneath our collective radar screens, a new "model" or prototype of the academic career has emerged – or more accurately, a multiplicity of such models has emerged. While the tenure-based prototype continues to exist (tenure systems have not been, and are not being, replaced by fixed-term appointment systems in a process of one-for-one substitution), there has emerged a *parallel* system of full-time faculty, fixed-term appointments that have become the modal prototype among new hires for more than a decade and, if present trends continue, will become the prototype of full-time faculty work. Moreover, the available evidence – however preliminary – suggests clearly that these new types of full-time appointments differ both in the nature and scope of work responsibilities, the characteristics of their incumbents, and also in the career paths to which they lead. For the most part, at least two separate career tracks exist among full-time faculty: a fixed-term and a tenure-track. Each of these is further distinguished by one or more different, specialized roles – teaching *or* research *or* administration. Reinforcing the shaping influence of the new appointments on academic careers is, of course, the increasing majority of "professional school" faculty in American higher education, supplanting the modal "arts and sciences" professor. Professional schools have always departed from the norms of the traditional liberal arts in terms of the faculty roles and rewards; and this only reinforces current movements towards greater specialization in the academic role.

So, what are the implications of these developments for the future of the American academic profession? In the first place, the available evidence suggests that we will need to diversify our assumptions about the foundation. That is, we will need to assume that there are multiple models of academic careers and at once be more precise in distinguishing one from another at the same time as we continue to consider the relative independence or permeability of these tracks. This requires, we would argue, undertaking a basic mapping process for these alternative (and emergent) careers in the 21st century much as has been done for the tenure-track, liberal arts-based model of the academic career in the second half of the 20th century: the analysis presented here may contribute to this process. How are careers pursued off the tenure track? And who pursues them? How do different career tracks support academic work in the professional as opposed to the liberal arts fields? How are part-time

careers shaped? How do "new providers" and new modes of teaching and learning shape these new career tracks?

A related set of assumptions concerns the boundaries or scope of academic labor markets. Traditional academic careers have been shown to operate in national, discipline-based markets. Is this still true? And what about "non-traditional" full-time fixed-term and part-time faculty careers? Emerging evidence suggests that academic labor markets are at once becoming both more *local* and more *international*, that is, less bounded by national borders. Preliminary empirical as well as impressionistic evidence has suggested that part-timers and some varieties of full-time fixed-term appointments operate in decidedly local or, at most, regional markets. Moreover, the increasing presence of foreign-born faculty, especially in the natural sciences and engineering, amid declining native-born doctoral production, suggests that supply in certain high demand fields has expanded globally. While the US has benefited substantially from this "brain gain" from the developing world, new evidence suggests that formerly sleeping giants in Asia, especially China and India, are now seeking to develop their institutional infrastructure to attract native sons and daughters to academic opportunities in their own countries.

What this suggests is that in addition to mapping the career trajectories of new types of academic appointments, discussions of the American academic profession will need to distinguish more clearly among academic disciplines (perhaps even as arenas within the various new appointments) as venues for academic careers that differ not only in degrees of employment opportunities, but also in their geographic boundedness.

While we can continue to use the knowledge we have learned about traditional academic careers in the liberal arts and sciences, a new map of academic careers must be drawn on the basis of the new and discontinuous realities of American higher education in a global, market-driven, knowledge-based age.

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Governing Japanese Higher Educational Institutions

Takekazu Ehara*

Introduction

Since the last decade of the twentieth century, higher educational institutions around the world have faced significant changes. Immense changes are also under way in Japanese universities. It is a direct consequence of the simplification and broadening in 1991 of the Standards for the Establishment of Universities Act. Contemporary higher educational reform in every country focuses on reforming university governance and building leadership capacity of individual colleges and universities.

In Japan, the Ministry of Education, Culture, Sports, Science and Technology (MEXT), has reformed the system of higher education over the last decade on the basis of a "new governance philosophy," which aims at promoting so-called "higher education policies by small government." Part of the reform will make colleges and universities less dependent on traditional government subsidies and more sensitive to the discipline of the marketplace, as well as changing administrative structures to provide greater freedom for presidential leadership.

Firstly, this paper describes briefly the state of university governance in Japan by comparing it to that of the United States in the early 1990s, and examines the direction of its reform. The author chooses this particular comparative approach because the present Japanese approach to questions of university governance is largely based on the American Model of Universities. In attempting this, the results of the re-analysis of the Carnegie Foundation for the Advancement of Teaching's International Survey of the Academic Profession (1992-93) are used as a base.

Secondly, the development of Japanese higher education policies for the reform of university governance over the last decade is discussed, with emphasis on the incorporation of national universities.

Faculty Perceptions of University Governance in the Early 1990s

In 1992-93, the Carnegie Foundation for the Advancement of Teaching carried out an International Survey of the Academic Profession. Faculty members working in thirteen countries and Hong Kong were surveyed. Of the questionnaires mailed to them, 19,486 were returned (40.6 percent response rate): 3,529 from the United States (46.5 percent response rate) and 1,889 from Japan (47.2 percent response rate).

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I re-analyzed the original data from the Carnegie Foundation's International Survey of the Academic Profession. The data reanalyzed cover four-year higher education institutions. Cross tabulations are used to illustrate the analysis, and, all tables are significant at the one percent level. On the basis of the reanalysis, I wrote a paper, whose title was "Faculty Perceptions of University Governance in Japan and the United States." It appeared in *Comparative Education Review*, (Volume 42, Number 1) published in 1998. A revised edition was published in 2005 as one of the chapters in the collected papers edited by Anthony Welch. The title is *The Professoriate: Profile of a Profession*, published by Springer, the Netherlands.

Let me introduce to you several findings. First of all, where did the authority of university governance lie in the early 1990s?

Differences in university governance depend on who holds decision-making authority. In a completely centralized system, all executive decisions are made by the administrators or the governing body, while faculty control decision making in a completely decentralized system. In reality, of course, governance arrangements lie somewhere between these extremes, with the holder of authority depending on the nature of the decision at hand.

Table 1 shows faculty views on the extent to which authority was centralized in a number of areas in the early 1990s. Determining budget priorities and selecting key administrators were perceived as quite centralized, with the significant exception of faculty at Japanese national universities.

In contrast with those two areas, faculty input was valued in personnel matters, such as hiring new faculty and promotion and tenure decisions. The case of Japanese private universities was an exception. Determining overall teaching loads, setting admission standards for undergraduate students, and approving new academic programs lay somewhere between the two. It means that both administrator and faculty opinions were important.

In the United States the location of governance authority barely differed between public and private universities. But this authority was seen as decentralized in Japan's national universities and centralized in its private universities. Japan's private universities resembled the U.S. institutions. Moreover, the majority of faculty who responded that personnel decisions were centralized was from Japanese private universities.

In contrast, Japanese national universities were extremely decentralized, with faculty decisions carrying more weight than those of administrators. Less than 40 percent of faculty answered that governance was centralized on every issue. The highest percentage was the determination of budget priorities (37 percent). In American universities and Japanese private universities, faculty perceived the selection of key administrators as highly centralized compared with 8.6 percent at Japanese national universities. This is somewhat surprising. It is because the Japanese Ministry of Education determines the total budget for each national university, and the appointment of president, vice-presidents, deans, and directors of major institutes depends on legal notification by the Minister of Education.

Table 1. Percentage of Respondents Who Answered "Centralized" to Survey Questions Regarding Governance Arrangements

Type of University	Selecting Key Administrators	Choosing New Faculty	Making Faculty Promotion and Tenure Decisions	Determining Budget Priorities	Determining the Overall Teaching Load of Faculty	Setting Admission Standards for Undergraduate Students	Approving New Academic Programs
United States:							
Public	79.2	15.0	30.5	88.4	55.1	62.7	51.4
Private	86.1	21.0	33.0	87.1	51.1	67.2	43.5
Japan:							
National	8.6	13.4	16.8	37.2	14.4	22.0	25.4
Private	79.3	47.5	54.9	85.8	41.5	51.6	47.3
Total	68.6	21.8	33.2	79.1	44.8	54.4	44.5

Source: Ehara (2005), p. 60.

The second finding is on satisfaction with university governance. The Carnegie survey revealed that more than half of the American and Japanese faculty overall were satisfied with their jobs in the early 1990s. American faculty members were most satisfied with the courses they were assigned to teach. Differences between those in public and private institutions were negligible. Faculty expressed strong satisfaction regarding the opportunity to pursue one's own ideas, job security, and relationships with colleagues. The lowest degree of satisfaction involved the management of institutions (24 percent in public and 32 percent in private institutions).

For Japanese faculty, the opportunity to pursue one's own ideas (73 percent in national and 67 percent in private institutions) was rated highest. It was followed by job security and courses assigned. The lowest degree of satisfaction, as in the United States, pertained to the way institutions were managed (25 percent in national and 34 percent in private institutions). In short, close to 70 percent of both Japanese and American faculty was dissatisfied with the governance of their universities.

The third finding is about faculty influence on university governance. Sixty-five percent of the faculty in both countries said that they had personal influence on administrative decisions at the department level. At the institutional level, however, only 34 percent of faculty overall reported having influence. Comparison of faculty influence on governance among the four types of universities showed that personal influence at the department level was weakest in Japanese private universities. It is interesting that although university governance was regarded as extremely decentralized by faculty at Japan's national universities, personal influence was not as great as one would anticipate. In other words, while faculty decision making as a group at Japanese national universities was respected, personal influence at each organizational unit level was not especially strong.

Fourthly, improved communication between administrators and faculty was generally desired, especially at Japanese private universities, where three-fourths of the faculty believed that top-level administrators provided competent leadership but were dissatisfied with their contact with these administrators. In contrast, faculty members in Japan's national universities rated communication

between the two groups much higher, although they viewed administrators as autocratic.

Furthermore, although more than 40 percent of faculty overall in both countries favored more faculty involvement in decision making, increasing such opportunities would not necessarily result in greater satisfaction because participation could also prove burdensome.

Fifth, the majority of faculty members overall believed that administrators and faculty should control university governance. But they ignored the need for formal channels to permit staffs, students, and other university members to express their views.

The sixth finding is about government influence on university governance. Faculty members in both Japan and the United States were generally positive about the state of academic freedom in the early 1990s. However, they are somewhat critical of governmental interference. A significant difference existed between the views of the U.S. and Japanese faculty on government influence. Few American faculty expected the government to be responsible for higher education policies (12 percent in public, 7 percent in private institutions), and only about a third found governmental interference to be much of a problem (34 percent in public, 32 percent in private institutions). On the other hand, more Japanese faculty expected the government to be responsible for policies (19 percent in both national and private institutions), and also many more were critical of governmental interference (55 percent in national, 42 percent in private institutions).

Finally, faculty in both systems believed that administrative work negatively affected their teaching and research. Although administrative work might have become an unavoidable duty for faculty, the majority of the professoriate regarded such activity as troublesome and trivial and a detriment to teaching and research, which were their primary responsibilities. It may be that this dislike of administrative work lies at the root of criticisms of university governance.

Almost twelve years have passed since the Carnegie survey was conducted. One of the common denominators of higher education changes worldwide during the last decade has been the gradual loss of institutional autonomy. In the United States external forces that lead universities to become more managerial and market oriented, and to increasingly emphasize accountability, translate into increased demands on faculty. These structural changes in universities are transforming faculty's teaching and research, and are pushing faculty beyond traditional roles.

In Japan it seems that the government leads universities to apply the same measures. More faculty members in both national and private Japanese universities are gradually becoming interested in teaching and promoting industry-university cooperation. However, fewer faculty show interest in the improvement of administrative structure. Faculty members in national universities, in particular, face serious confusion and conflicts of opinions, as the government is implementing a policy which facilitates the incorporation of national universities.

Current Higher Education Reform in Japan

The Japanese higher education system has been reformed dramatically since 1991, when the

Standards for the Establishment of Universities were deregulated. There are three off-campus factors, which facilitate higher education reforms not only in Japan but worldwide. They are (1) globalization, (2) higher education policies by small government, and (3) virtualization by the development of information technology.

In October 1998, the University Council submitted a comprehensive report entitled "A Vision for Universities in the 21st Century and Reform Measures: To Be Distinctive Universities in a Competitive Environment." The University Council was established by MEXT in 1987, as an organization to consider concrete approaches to higher education reforms. It was restructured as the Subdivision on Universities of the Central Council for Education in 2001. Major systemic reforms by MEXT have been implemented on the basis of reports submitted by this Council. Universities and other higher education institutions have been carrying out various reforms in response to those changes.

Reform Measures for Universities' Individualization recommended by the University Council in Chapter Two of the 1998 Report are summarized in Table 2. The list of reform measures indicates what is going on at each campus (University Council, 1998).

As for the improvement of the administrative structure, which is the third one, they recommend (1) the establishment of a new independent and autonomous structure that is open and active enough to meet current social demands, (2) the establishment of a whole-university administrative structure with the president at the center, and (3) listening to public opinions and clarifying the universities' responsibilities to society. This is because reforms in the curriculum, in the evaluation system of universities' educational and research activities, and in a variety of other areas can not succeed without the effective management of universities.

From a comparative perspective, colleges and universities are coming into the Era of University Management. Ian McNay presented models of universities as organizations. They are collegium, bureaucracy, corporation and enterprise. All four co-exist in most colleges and universities, but with different balances among them. These differences depend on a range of factors including traditions, mission, leadership style, and external pressures (McNay, 1995, pp.105-108; pp.111-112). I believe that university management as a whole is moving from collegial and bureaucratic university management to corporate and privatized management in most countries. It is true in the case of Japan, though belatedly. Related to them, I will examine the incorporation of national universities in more detail.

Incorporation of National Universities

An important decision respecting a basic plan for simple and efficient national administrative organizations was made by a cabinet meeting in April 1999. It was decided that the transformation of the national universities into independent administrative institutions would be one of the reforms of universities leading to university autonomy, which was intended to be accomplished by 2003.

Regarding the system planning after turning national universities into corporations, a final report of the Study Team established in MEXT was submitted by intellectuals and academics in March 2002. MEXT planned a new system according to the final report, and submitted the National University Corporation Law to the Diet in February 2003. This law was enacted in July 2003, and in April 2004 national university corporations were realized (MEXT, 2003). Table 3 shows a brief summary of the Law released by MEXT, which is available on its homepage (Table 3).

Table 2. Reform Measures for Universities' Individualization

1. Cultivation of Ability to Pursue One's Own Ends
- Quality Improvement of Education and Research -
(a) Restructuring of Undergraduate Education
1) Model Course Content - Cultivation of Ability to Pursue One's Own Ends -
2) Improvement of Teaching Methods - Responsible Class Management and
3) Implementation of Rigorous Grading -
(b) Advancement and Diversification of Graduate School Education and Research
1) Model Formation of Graduate Schools
2) Specification of Goals and Roles of Graduate School Program
3) Promotion of Establishment of Graduate Schools that Specialize in Practical Education for Training Professionals with Advanced Specialities
4) Formation of Graduate Schools as Centers for Excellent Education and Research and Supporting Measures

2. More Flexibility in the Systems of Education and Research
- Securing Universities' Autonomy -
(a) More Flexibility for Diverse Learning Demand - Positive Evaluation of Students' Independent Learning and the Learning Results -
1) Undergraduate Level
2) Graduate School Level
(b) Measures to Facilitate Universities' Independent and Flexible Efforts
1) Flexible Planning for Educational and Research Organizations
2) Promotion of Administrative and Financial Flexibility
(c) Promotion of Cooperation with Communities and Industry
(d) Promotion of International Exchange

3. Responsible Decision-Making and Implementation
- Improvement of the Administrative Structure -
(a) Establishment of a Responsible Administrative Structure
1) Establishment of a New Independent and Autonomous Structure
2) Specification of Allotment of Functions in Individual Universities
3) Listening to Public Opinions and Responsibilities to the Society
(b) Active Offering of University Information

4. Establishment of a Plural Evaluation System
- Individualization of Universities and Continuous Improvement of Education and Research -
(a) Improvement of Self-Monitoring and Self-Evaluation
(b) Adoption of the Third Party Evaluation System
(c) Effective Allocation of Resources and Evaluation

5. Establishment of a Firm Basis to Advance Higher Education Reform

Source: University Council (1998).

Several issues of the incorporation of national universities have been debated. First of all, there is great anxiety that the universities' operational expenses, which the government provides as grants at the stage of incorporation, will be decreased step by step. The quality of education and research will

Table 3. Incorporation of National Universities

Direction of the Reform
- A dramatic reform of university since the era of Meiji
- Universities will be expected to develop their distinct educational and research functions on the basis of their management autonomy and independence
- The government will have a responsibility to support national universities in terms of promoting academic research and producing professionals with the highest capabilities

(1) Incorporation Respectively of Each National University
- Breaking away from a support for national universities in the style of a convoy of transport ships
- Deregulation of budget and personnel will lead to a competitive environment by ensuring university autonomy
- National universities will positively produce attractive education and research

(2) Introduction of Management Techniques Based on 'Private-Sector Concepts'
- Top-management by the board of directors centered on the president

(3) Participation of People from outside the University in Management
- Participation of people from outside the university as executives and in consideration of management plans

(4) Improvement of Process of Selection of the President
- A president selection committee, more than half of whose members are appointed among non-university members of an administrative council, will select well-qualified candidates for the president whether from inside or outside the university

(5) Introduction of Non-Civil Servant Personnel System
- A diverse and flexible personnel system on the basis of capability and performance of personnel

(6) Thorough Disclosure of Information and Evaluation
- Proper allocation of resources based on results of third-party evaluation
- Assurance of transparency and increase of contribution to the public

Source: MEXT (2003).

become poorer if the support is decreased, and the Japanese universities will not be able to sustain world-class activities.

Secondly, introducing efficient funding policy aiming at proper allocation of resources based on results of third-party evaluation may reduce basic research and decrease investment in long-term research and development, particularly in the fields of humanities and social sciences. I believe that objective evaluation procedures are still underdeveloped.

Thirdly, it is questionable whether national universities will be effectively managed and governed, even if they are given corporate legal status, because administrators of national universities have not been professionally trained It will take a long time for each university to introduce a proper whole-university administrative structure, consisting of the president at the center, and three deliberative bodies – that is, board of directors, administrative council, and education and research council – and auditors.

Fourthly, while some prestigious national research universities may adapt themselves to their new situations, it is uncertain whether local and small-sized national universities, which do not have

enough resources, can survive after turning into corporations (Yamada, 2001, pp. 284-285).

The governmental support for higher education in Japan is about a half in terms of percentage of GDP, compared to other industrialized countries. Even in the U.S., which is a typical market-oriented society, federal support for research and development at universities has continued to grow, while federal support to postsecondary education as a whole has been uneven since 1976.

MEXT has been promoting so-called higher education policies by small government. I believe, however, that it must be much better for the Japanese Government to increase its support to higher education double at first, and then develop effective and fair procedures to distribute funds to higher education institutions which are really diversified and hierarchical, if they want to keep Japan's present status as one of economically advanced nation-states in the future.

Reform of University Governance: Japanese Experiences and Implications for Reforms in Other Countries

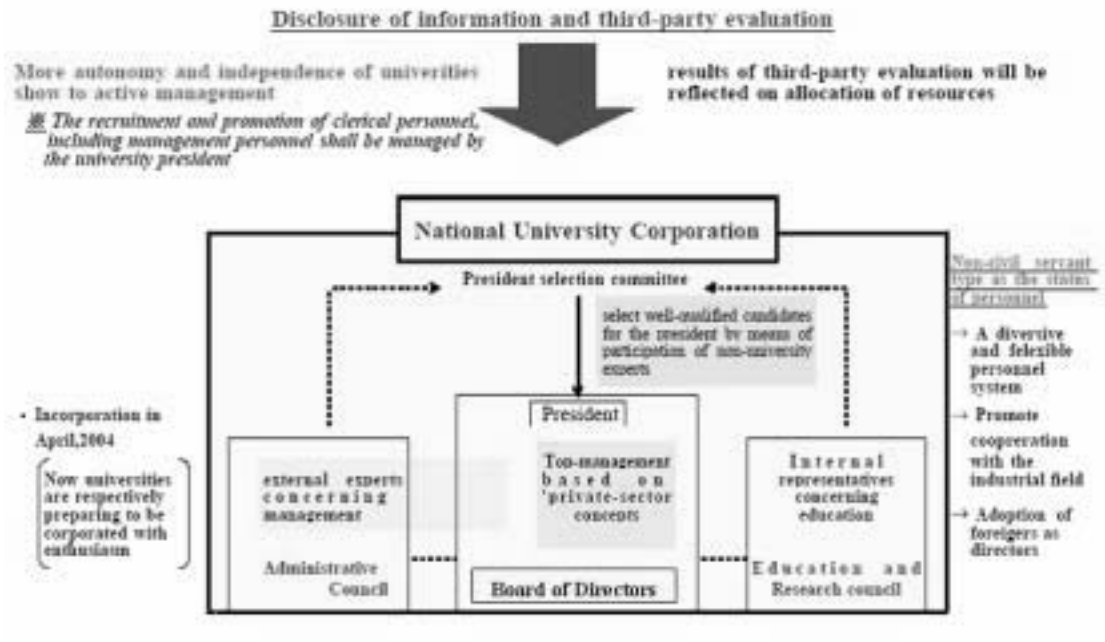
One of the main purposes of the conversion of the national universities to national university corporations is to improve the administrative structures of these institutions, including the establishment of more responsible and centralized decision-making. Under the new system, institutional distinctiveness is encouraged and universities are required to propose six-year academic plans and establish their own six-year institutional goals. However, these goals must be approved by MEXT, which uses third-party evaluation organizations to monitor their achievement. It means that the reform will not be effective unless MEXT not only permits institutions to make their own decisions but also to make their own mistakes.

The role of the presidents of national universities is designed to be strengthened under the new system. This is because presidents are legally given the authority to appoint members of the board of directors, their vice-presidents and other administrators, and all faculty members. Presidents can also influence the allocation of financial resources, and decide on the structures, processes, and personnel for university administration. Presidents are very influential in making final decisions for institutions as the chairperson of the board of directors, administrative council, and education and research council – all of the three bodies which were newly established at national universities. It is doubtful, however, whether strengthening structurally the decision-making of presidents alone will help their institutions to reform administrative structures effectively.

For example, under the new system, a faculty meeting is still established as a deliberative body at each faculty. In Japan faculty meetings have legally held strong decision-making authority in university governance, and presidential leadership has been relatively weak. Presidents are usually elected by the faculty from among their own members, and they have little control over the allocation of total budgets of institutions. Deans are also elected by their faculties. In the future, the faculty will have to become more involved in working with the president to develop institutional policies and plans in more efficient and effective ways than before (Birnbaum, 2004, pp. 8-9).

Secondly, each university should introduce more appropriate deliberative bodies on the basis of its own circumstances. Legally the Board of Directors, composed of the president and the appointed members, supports the president through a consensus concerning important matters of the university corporation. The president is responsible for selecting the external directors, considering the situation and the management strategy of the university corporation.

Figure 1. System of National University Corporation



Source: MEXT (2003).

The Administrative Council, the majority of whose members are to be from outside of the university, deliberates on important matters concerning university management such as drawing up budgets. The Education and Research Council, composed in principle of only internal people including faculty members, deliberates on important matters concerning university education and research such as hiring new faculty and promotion, and university-wide curriculum policies. In addition to these three deliberative bodies, each university has a president selection committee, which is composed of an equal number of external members of the Administrative Council and internal members of the Education and Research Council.

I believe that actual roles and functions of these deliberative bodies should differ from university to university, depending on such factors as the history and tradition of the university, social reputation, accessibility to resources, total enrollment and number of faculty, and the organizational culture of the university. Considerable time has passed since the national university corporations were established in April, 2004. Most of universities are still groping their way in the dark, however, trying to

introduce more appropriate deliberative bodies appropriate to their circumstances.

Let me introduce you some concrete aspects of reform processes on the basis of my own experiences. I retired from Kyoto University in 2005. Kyoto University is one of the most prestigious national research universities in Japan. By the end of March, 2005 I had been working there for twenty-two years as an associate professor and a full professor of comparative education at the Graduate School of Education. I was a member of the former University Council of Kyoto University for one year from April, 2003 to March, 2004. I was also a member, for one year from April, 2004 to March, 2005, of the current Education and Research Council of Kyoto University, which was restructured based on the former University Council. I believe that the roles and functions of both Councils were almost the same. The length of Council meeting was usually only ten to thirty minutes. All agendas were just approved with few questions. Both Councils were really only nominally deliberative bodies.

I have been an external member of Administrative Council of Nara University of Education since April, 2004. I am also an external member of the president selection committee. Nara University of Education is a prestigious but small-sized national university of education, whose total enrollment is less than 1,500. Staffs working there are very eager to carry out higher education reforms for survival but it is still in progress. I can not imagine how much the role of the president has been actually strengthened. It will take the university several years to introduce a more appropriate management system.

In addition, training programs for academic administrators should be established. There is a strong need for professionally trained administrators for contemporary diversified and complex universities. In Japan, not only senior administrators including presidents, vice-presidents and deans, but also middle-level administrators typically have no specific training for the administrative roles which they perform. However, when universities have to meet social demands independently in rapidly changing circumstances, presidents should be supported and advised by professionally trained administrators who understand both the academic and managerial aspects of the organization.

Japan is beginning to provide such training programs for academic administrators. For example, the Center for National University Finance and Management provides several programs in cooperation with the Japan Association of National Universities. The Japan Association of University Administrative Management, which was established mostly by non-teaching academic administrators in 1997, publishes an academic journal and holds al conference every year. It has also developed programs and services, such as seminars on strategic university management, and workshops on personnel policies and organization. The Consortium of Universities in Kyoto, whose members are fifty colleges and universities located in the City of Kyoto, City Hall of Kyoto and four local economic organizations, provide similar programs.

The United States and other major English-speaking countries including the United Kingdom, Canada and Australia now have university-based programs for academic administrators. Such

programs will continue to grow in response to the need for career-level administrators who are knowledgeable about higher education and educated in the application of management theory, legal issues, student psychological development and other social science-based disciplines (Altbach, 2000, pp. 16-17). Several Japanese universities, such as Obirin University, Nagoya University, Hiroshima University, and the University of Tokyo are beginning to provide training programs for administrators. Ritsumeikan University is planning to establish a graduate school offering a two-year professional degree course for in-service academic administrators in 2008.

I believe that these kinds of programs should be expanded more rapidly, not only in Japan but also in other countries. However, growth in the numbers of these programs has been actually very slow in Japan.

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Principles of Comparative Higher Education Research

Ulrich Teichler

The Universal Nature of Comparison

Comparison is the most natural instrument in almost any analysis of higher education. If somebody tells us "Japanese professors often say that are very busy", this person signals us his or her conviction that Japanese professors point this out more frequently:

- either than many other professionals in Japan,
- or than professors in many other countries.

Often a person stating such an observation is not even aware that he or she is employing a specific method of analysis, thereby implicitly providing information about comparison groups possibly not clearly defined.

Comparison is a universal method in the social sciences. If we state that junior academic careers up to the first appointment to a senior professor position last for a long period, we have at least in mind that this period could be shorter for many academics. We could ask why we discuss this comparative method at all if it is more or less a universal instrument in any logical observation of social phenomena.

We discuss the relevance of comparison in higher education research notably by referring to international comparison. International comparison might be useful in any thematic area of higher education research, but, obviously, it is indispensable in the analysis of macro phenomena of higher education. It is worth talking about Germany as a "binary system" of higher education only if we have information about higher education systems in other countries and if not all of them are more or less "binary."

Prevailing Comparative Approaches

In addressing the character of comparative higher education, we can refer to an impressive list of interesting publications on theories and methods of comparative social science research or on theories and methods of comparative education research. Also, in the domain of comparative higher education research, a range of ambitious publications can be named (*cf.* the overviews presented in Clark, 1984; Mitter, 1992; Teichler, 1996; Altbach, 1997). But most internationally comparative studies in higher education just compare without explicitly discussing the comparative concepts and methods employed.

This can be viewed as natural – given the universal nature of comparison in social science research, but most studies called comparative could have been more valuable, if they had been more explicit about their comparative approach from the outset of the analysis.

On the one hand, we note many studies of "higher education abroad." Some scholars are experts on a single foreign country. A foreign expert on Japanese studies might be superior to an expert on comparative educational research in analysing the impact of traditional modes of social interaction in Japan on the professor-student relationships in Japanese higher education. Similarly, an expert specializing in education in Japan is likely to explore in the best possible way the extent to which professor-student relationships in Japanese higher education differ from those in secondary education. Profound and precise knowledge is the strength of these experts, some of whom devote all their professional life to improving their expertise on the single country and even a single sector of society within a single country. This is most often the case, if the language of that country is not widely known, if information on that society is not easily accessible in other respects, and if this society is characterized by many unique features. But, often, a high price is paid for this concentration of expertise. Many of these experts have so little knowledge of other areas and countries than that of their area of concentration that their yardstick for makings comparisons is not sufficiently grounded or is even arbitrary.

On the other hand, many comparative studies just provide information on single phenomena across a broad range of countries. We are impressed by an overview of, for example, the student-teacher ratio in twenty or more different countries. But often so little background information is provided that we do not know the extent to which we are presented simple artifacts that encourage us to make unfounded speculations in our efforts to explain the seeming differences presented.

Certainly, both "extreme" approaches to international comparison, *i.e.* the in-depth study of a single country and the superficial study across many countries, are needed in higher education research. As a rule, however, we have to strive for options between these "extremes." We have to provide both explanations based on a reasonable depth of knowledge and comparisons across a substantial number of countries.

Growing Interest in Comparative Education

Higher education research only became a sizeable area of research in the 1960s and 1970s when many traditional views and practices in higher education were fundamentally shaken and a broad range of substantial higher education reforms were undertaken in many countries. When higher education as a formal field of study began to extend beyond scattered individual inquiries, a strong interest in comparative analysis could be observed at the outset. However, we do not note any steady growth trend in this respect.

First, we note changes over the last five decades. At times when concern grew about problems in

higher education and its readiness for reform, comparative analysis was more likely accepted as a "gold mine" helping to identify a possible range of options. In reverse, when less need was felt for changes or less readiness existed for reforms, scholars lost interest in comparatively analysis.

Second, we note different attitudes across countries towared comparative studies. In some countries, debates about problems and possible approaches to reform are limited to their own country options, whereas in other countries a search for information on other countries is customary at any time an important education policy decision is to be made. In general, we can argue that interest in comparative studies is more widespread in relatively small countries, but other factors come into play as well. For example, Japanese scholars and politicians have a stronger tradition of paying attention to other countries in their search for understanding of societal problems and for improved solutions than any other large economically advanced country.

By and large, we note that most attention is paid to those phenomena in higher education in other countries which are viewed as universal or as general across countries. We are inclined to compare curricula in chemistry, but we do not note similar enthusiasm to compare curricula in literature. Higher education is universal and international in many respects, and cosmopolitan values are widespread among academics in this field. This notwithstanding, a surprisingly high number of issues are regulated nationally, such as institutional types, curricula, governance and funding (see Kerr, 1990). Therefore, experts and decision-makers on the national scene often care little about respective solutions in other countries, describe the situation in their country as "not comparable," and embark on idiosyncratic debates.

Supra-national organisations have played a major role in strengthening the "comparative argument" in analyses and reform debates in higher education: for example UNESCO, the World Bank, and the OECD. In addition, various regional organisations are active: for instance in Europe, the Council of Europe and the European Commission. It is certainly justified to underscore that the OECD has played a major role in economically advanced countries as a think-tank for undertaking systematic studies of higher education and for developing cross-national reform concepts based on comparative arguments.

In recent years, interest in international comparison has increased substantially in higher education research across most countries (*cf.* analyses of the state of higher education research in Neave & Teichler, 1989; Sadlak & Altbach, 1997; Teichler & Sadlak, 2000; Altbach, 2002; Tight, 2003; Teichler, 2005). This is due to a growing interaction between national higher education systems. Cooperation, mobility, trans-national educational and border-crossing competition are on the rise. "Internationalisation" of higher education seems to be an irreversible trend, and the term "globalisation" has become popular in recent years suggesting that in the wake of strong global forces for changes and of increasing border-crossing activities, the boundaries between countries is now more and more blurred as far as higher education is concerned (see the overviews in Enders & Fulton, 2002; Arimoto, Huang, & Yokoyama, 2005).

A close look reveals, however, that comparative analysis is, by far, more praised as desirable than really conducted. In most cases, we observe studies of individual institutions, programmes, and countries interpreted with references to other cases and countries. If at all, when comparative analyses are undertaken, scholars from various countries write parallel national country reports using available information regarding a common theme, *e.g.* access to higher education in countries x, y and z. The number of comparative studies in which substantial efforts are made to generate knowledge regarding a common theme across various countries has remained low.

The Major Virtues and Problems of Comparative Studies in Higher Education

In choosing the single most valuable virtue of comparative analysis – in the area of higher education, but certainly in other areas as well – we can argue that comparative studies help us to challenge beliefs in a single solution and a single best solution. Without comparative analysis, we tend to believe that the phenomena we experience at home are the best ones, the functionally appropriate ones, or the inevitably mediocre or bad ones. International comparison is valuable in opening our eyes to alternatives. This is also the reason why short-term international mobility of students between economically advanced countries became so popular. Certainly, study abroad for a whole degree programme in a country with a higher academic reputation than that of the home country in order to enhance academic learning in general has remained the most frequent pattern of student mobility, but temporary study abroad in another country of more or less similar academic quality recently became enormously popular in Europe, and has such an eye-opening function.

This strength is certainly linked with weaknesses. First, we ideally would like to have a good theoretical basis at the beginning of comparative research. But even if we start with a convincing concept, comparative analysis is likely to open our eyes to information which does not fit into our initial conceptual framework and force us to revise our concept or even develop a new one.

Second, comparative research seldom can be undertaken strictly in terms of hypothesis testing. For example, the number of explanatory factors to be taken into consideration in a statistical analysis, as a rule, is much higher than the number of country cases we can include in a comparative study. Interpretation of comparative data seems to remain an art rather than a science.

Third, comparative higher education research is highly appreciated for its practical value. It is often undertaken in order to identify a broad range of options, to find “best practices,” and to undertake thought experiments to identify necessary and possible changes for the sake of improvement. As a consequence, however, many comparative studies are often overloaded with value judgements as regards the most desirable higher education, when national pride and political fashions play a stronger role than the readiness to overcome one’s limited knowledge and to change one’s views as a consequence of new insight.

By emphasizing the heuristic function – the discovery function – of a comparative inquiry we do not want to play down the relevance of theory in comparative higher education research. Without a

good conceptual start, observers of other countries may be swamped by abundant information and often get lost in endless bits and pieces. Comparative research is most successful when starting off with general, but principally open, concepts which are revised by iterative processes of inductive and deductive analyses. This requires a strong interest in conceptual frameworks but without dogmatic adherence to them.

In the deductive-inductive interplay, comparative research helps to open eyes to functional equivalents of established practices. For example, binary systems of higher education are often based on the belief that a certain curricular thrust is served best if it is pursued under a specific "roof" of an institutional type. Through comparative study, we notice that higher education institutions might vary in their curricular thrusts without being under the "roof" of a specific institutional type and we notice, as well, cases of intra-institutional diversity of curricular thrust: different curricular approaches are pursued within a single institution of higher education. This leads us to questions such as the following: Is it possible to pursue a variety of curricular thrusts more or less equally well through different patterns of higher education? Is one pattern more effective under certain circumstances, and another more so under other circumstances? Both would be arguments of "functional equivalence." Or is a certain pattern generally superior, ensuring a coexistence of different curricular thrusts? Or does the comparative analysis show that higher education is equally acceptable everyhere if there is hardly any variety of curricular thrusts?

Personal Experience

Reflecting the strengths and weaknesses of comparative research, we become aware that our concepts and observations are not only driven by the logic of inquiry but also by the strengths and weaknesses of our personal potentials and by our own inclinations.

I would like to explain briefly my own personal history of comparative research in higher education to illustrate my point. I was lucky to start my research activities in the Max-Planck-Institute for Research in Berlin, Germany – an institution recently founded to counteract the historical idiosyncrasies of educational research in Germany and to emphasize interdisciplinary and internationally comparative analysis more strongly than was customary in the past. I had to read more texts in foreign languages and study more phenomena in other countries in my area of inquiry than most young social scientists of my generation in my country, Germany, but certainly more than many scholars of my generation in other countries, as well. I happened to live abroad and analyse higher education in another country for the first time in Japan. Japanese society poses an enormous challenge to the frequently Euro-North American centric views of societies because the Japanese society turned out to be modern and economically successful, though clearly different cultural patterns prevailed. When studying higher education in Japan, I experienced a shift of perception of Japan as a cultural curiosity to Japan as a culturally distinct successful modern society. That allowed me both to look at the specifics and to start from a general conceptual framework, noting a shift in the explanation of the

relationships between higher education and employment in the process of education expansion, from an “over-education” paradigm to a “vertical substitution” paradigm.

During almost three decades of research at the Centre for Research on Higher Education and Work (recently renamed International Centre for Higher Education Research) I was involved in dozens of comparative projects with different frameworks, concepts, modes of inquiry and – last but not least – different modes of cooperation with scholars from other parts of the world. The studies covered topics such as patterns of higher education systems, graduate employment and work, cost and funding of study, as well as internationalisation approaches. The potentials, but often the sub-optimal conditions of comparative research, became most obvious when I played a key role in three large multi-year comparative research projects , each involving more than two dozen scholars: first, in a comparative study of different national approaches regarding student mobility undertaken in the 1980s (Burn, Cerych, & Smith 1990; Opper, Teichler, & Carlson, 1990); second, in a study of the academic profession undertaken in the 1990s (Boyer, Altbach, & Whitelaw, 1994; Enders & Teichler, 1995); and third, in a more recent study of graduate employment and work in twelve countries (Schomburg & Teichler, 2006).

Without any detailed analysis we certainly can claim that the number of comparative studies in the domain of higher education has substantially increased. Scholars interested both in improving the quality of higher education research and in strengthening comparative studies established the Consortium of Higher Education Researchers in 1988. This network obviously facilitates efforts to establish international teams of researchers undertaking comparative studies.

I enjoyed constantly broadening my knowledge of various higher education systems, I liked the permanent implicit critique of my concepts and values, and I would not have missed the cooperation with about 200 scholars from more than two dozen countries in this work.

I have observed comparative projects strongly guided by specific theories, individual scholars, and driven by questions deriving from the issues of an individual country – often, even the study team was composed of researchers of an individual country. Such a homogeneous, top-down approach to comparative studies is helpful in ensuring a coherent and efficient study. However, I was more impressed by projects in which scholars from different countries and led by different conceptual frameworks embark in time-consuming and conflicting processes of finding a compromise regarding concepts and methods. This opens eyes to distinct “logics” of national systems amidst some common rationales and conditions. It ensures that the participating scholars are exposed to many surprises and that a continuous process takes place of establishing and revising conceptual frameworks.

But even if I were willing to pay the price for such a complex process of relearning, I must admit that my experience with comparative approaches and projects was no joy in other respects:

- I came across so many “experts” whose comparative observations are shaped by “comparative chauvinism” and by blind belief in the views of a modern or well-functioning

higher education system dictated by the current "Zeitgeist." Unfortunately, comparative analysis is not a perfect system of demystification of those habits and beliefs.

- It is deplorable to note that country choices in many comparative studies are more strongly dictated by the language proficiencies of the scholars involved than by a choice of relevant or challenging cases.
- Comparative studies in the framework of international research teams are most valuable because we are forced more strongly to take seriously the logics of different higher education systems and diverse concepts harboured by scholars shaped by different systems. However, problems of research management can grow disproportionally in international research teams as a consequence of a vast variety of different research traditions, areas of expertise, language problems, culturally different styles of communication and work habits, different modes of funding and administration, and limited occasions for face-to-face communication.

As a consequence, the findings of most comparative projects are enormously rich, but the final reports often do not reach the desired quality and depth. This calls for a careful design of each comparative project conceptually and pragmatically in order to keep the gap between potentials and results within limits.

Renewed Efforts to Analyse the Academic Profession Comparatively

In 1990, an initiative was taken for the first time to compare the academic profession internationally with the help of a questionnaire survey. The late Dr. Ernest Boyer, at that time President of the Carnegie Foundation for the Advancement of Teaching, located at Princeton, New Jersey (U.S.) invited scholars from more than a dozen countries to join a comparative study in this thematic area. The Carnegie funds helped to bear the coordination and cooperation costs, the U.S. study and parts of the other country studies. The survey undertaken 1992 in more than a dozen countries addressed the academic careers, the tasks and functions, the employment and work conditions, the views and self-understanding, and the institutional and wider context of the academic profession (see Boyer et al., 1994). The findings of the comparative study in general, and notably the bench-marking opportunity, turned out to be so interesting that not only the scholars involved in this project, but others as well, discussed again and again the potentials of doing a sequel to the original study.

At the same time, the scholars involved in the first international study of the academic profession certainly did not want to copy the project faithfully. The major calls for improvement made at that time are not reiterated here to downgrade the achievements of the first study but to point the way to possible advances. Complex comparative studies have hardly been in the position to avoid major problems.

First, a study of the US academic profession preceded the international comparative study (Carnegie Foundation for the Advancement of Teaching, 1989). The U.S. initiators believed that the US questionnaire could be employed with minor modifications in the comparative study. This caused extended debates about internationally common elements versus specific views in different countries about the basic issues of the academic profession. Eventually a compromise was reached which is neither a view from the U.S. towards other parts of the world nor a genuinely comparative questionnaire.

Second, different views about the character of higher education caused disagreements on key issues of data presentation and analysis. For example, it is difficult to compare the academic profession in different countries if the number of junior academic staff included in the survey is on one extreme more than five times as high as the number of professors in ranks comparable to full professors and associate professors and on the other extreme not half as high as the number of professors. No agreement could even be reached about a common sub-grouping of the academic profession.

Third, the academic profession differed substantially in various respects among the more than a dozen countries involved. The first internationally comparative survey-based study of the academic profession was more successful in demystifying many beliefs about internationally common phenomena than in reinforcing world-wide convergent recommendations for improvement of the conditions and provisions for the academic profession. This raises an obvious question about the extent to which the diversity among the countries involved can be viewed as substantively interesting or just becomes faceless heterogeneity.

Fourth, the scholars of the various countries participating in the comparative study were asked to write country reports by merely focussing on their own country data (see Altbach, 1996). This clearly under-utilizes the main potential of the study to improve the understanding of the academic profession in individual countries through explicit comparison with other countries. Fortunately, additional analyses were undertaken in individual countries (see for example Arimoto & Ehara, 1996; Enders et al., 1995) and in regions (*e.g.* Maassen & van Vught, 1996) in which this genuine strength of comparative research was exploited more fully.

Fifth, the participants of the first international academic profession did not succeed in undertaking a thorough review of prior research focussing on various research concepts potentially helpful to guide such a study. Although general knowledge both of higher education research and of the issues addressed in debates on the academic professions ensured a highly interesting and relevant study, opportunities were missed for checking the concepts and methods thoroughly on the basis of available prior concepts and research findings.

Sixth, the conditions for the individual countries were extremely diverse as far as availability of resources, stability of personnel participating in the study, and prior knowledge of research on the academic profession was concerned. In many cases, few staff were available after the first

impressions were reported and when time was needed for an in-depth analysis.

When scholars from various countries met for the first time in 2004 in order to explore the feasibility of a renewed study of the academic profession, agreement was reached with ease that efforts should be made to overcome some of the shortcomings of the first study. On the other hand, the initiators of the new study had to admit that ambitions for improvements had to be modest because there were no financial resources in sight which could promise thorough conceptual and methodological preparation.

The researchers involved in undertaking a second survey of the academic profession are convinced that we need hypotheses about common issues relevant to the academic profession. Without this conceptual framework, comparative research will not be more than collecting a bewildering variety of diverse curiosities. But these hypotheses should serve as flexible guides rather than as strong spotlights which leave any phenomena in the dark which have not been illuminated from the outset.

The researchers were convinced that common issues of the academic profession often addressed in the past were too strongly shaped by the prevailing values of the academic profession. This holds true for the first widely shared perspective of the academic profession of being "under attack" and experiencing gradual losses in the domains of independence and power, of guaranteed resources, and of secure employment and relatively high socio-economic status. Also, the second widely shared view is deeply rooted in value-laden ideas about the academic profession, though in a more controversial way. This view of that the academic profession is often characterized by a strong polarization between the independent, influential and socially secured professoriate and young academics exposed to high risks and enjoying the privileges of the academic life only in a restricted way. A comparative study taking these issues as starting point of analysis could be overwhelmed by value-laden public debates on these issues.

One might hope that this new project on the academic profession will yield more interesting results because the scholars involved agreed on taking common recent key societal challenges to the academic profession as an hypothetical framework for the comparative analysis, including expectations of the growing relevance of higher education, the increasing powers of a managerial regime in higher education, and trends towards internationalisation and globalisation of higher education. These challenges seem to be inevitable in general but sufficiently open so that the comparative analysis will gain from common assumptions without immunizing itself against surprising variety.

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Outline of Workshop

21st Century COE Program,
'Construction and Quality Assurance of 21st Century Higher Education'
Changing Academic Profession Project Workshop
"Quality, Relevance, and Governance in the Changing Academia: International Perspectives"

Date: Tuesday, February 7, 2006 — Thursday, February 9, 2006
Venue: Hiroshima Garden Palace, Hiroshima City
Major Agenda: (1) Reports on COE, (2) CAP (Changing Academic Profession) Project Workshop
Organized by: Research Institute for Higher Education, Hiroshima University, the 21st Century COE Program
Cooperate with: the Changing Academic Profession Project

Program

Topics and Procedures

Tuesday, February 7: Speech and Discussion on Academic Quality in Japan and Abroad

9:00 - 9:15	**Opening Remarks**	Taizo Muta, President, Hiroshima University, Japan
	Orientation	Akira Arimoto, Director & Professor, RIHE, Hiroshima University, Japan
		Chairs: Motohisa Kaneko, Professor, The University of Tokyo, Japan
		Jürgen Enders, Director & Professor, Center for Higher Education Policy Studies (CHEPS), Twente University, Netherlands
	Quality Assurance	
9:15 - 9:25	**Brief Account of CAP**	Ulrich Teichler, Professor, Kassel University, Germany
9:25 - 9:55	**COE Program Report**	**Institutionalization of Faculty Development: A Focus on Japan**
		Akira Arimoto, Director & Professor, RIHE, Hiroshima University, Japan
9:55 - 10:25		**Strategies for Enhancing Quality: Japanese Academic Market and Academic Productivity**
		Atsunori Yamanoi, Professor, RIHE, Hiroshima University, Japan
10:25 - 10:55	Discussion	
10:55 - 11:10	Coffee Break	
11:10 - 11:40		**Changing Academic Profession: The Driving Forces**
		John Brennan, Professor, Open University; Director, Centre for Higher Education Research and Information, UK
11:40 - 12:10		**Globalization, Internationalization, and the Profession**
		Jürgen Enders, Director & Professor, Center for Higher Education Policy Studies (CHEPS), Twente University, Netherland
12:10 - 12:20	Commentator	Shinichi Yamamoto, Director and Professor, Research Center for University Studies,University of Tsukuba, Japan
12:20 - 12:40	Discussion	
12:40 - 13:45	Lunch	
		Chairs: Aya Yoshida, Professor, National Institute for Multimedia Education, Japan
		Gerard Postiglione, Professor, University of Hong Kong, China
	Profiling the Academic Setting	
13:45 - 14:15		**Comparative Approach to Profiling**
		Christine Musselin, Director of Research, Centre for Organizational Sociology, France
14:15 - 15:30	**Country Reports with Discussion**	
	Australia	V. Lynn Meek, Director, Centre for Higher Education Management & Policy, University of New England, Australia
	China and Hong Kong	Hong Shen, Director & Professor, Center for Study of International & Comparative Education, Huazhong University of Science & Technology, China
		Gerard Postiglione, Professor, University of Hong Kong, China
	France	Christine Musselin, Director of Research, Centre for Organizational Sociology, France
	Germany	Ulrich Teichler, Professor, Kassel University, Germany
15:30 - 15:45	Coffee Break	
15:45 - 18:15	**Country Reports with Discusssion**	
	India	N. Jayaram, Professor and Senior Scientist, Tata Institute of Social Studies, India
	Netherlands	Jürgen Enders, Director & Professor, Center for Higher Education Policy Studies (CHEPS), Twente University, Netherlands
	Japan	Akira Arimoto, Director & Professor, RIHE, Hiroshima University, Japan
		Futao Huang, Associate Professor, RIHE, Hiroshima University, Japan
	United Kingdom	John Brennan, Professor, Open University; Director, Centre for Higher Education Research and Information, UK
		Rajani Naidoo, Director of Studies, International Centre for Higher Education Management, University of Bath, UK
	United States	Joseph Berger, Associate Professor and Director, Center for Policy Studies, University of Massachusetts-Amherst, USA
		Martin Finkelstein, Professor, Seton Hall University, USA
		John N. Hawkins, Professor & Director, Center for International & Development Education (CIDE), University of California, Los Angeles, USA
18:30 - 20:30	Reception	Hiroshima Garden Palace
		MC: Tsukasa Daizen, Professor, RIHE, Hiroshima University, Japan
		Keiko Yokoyama, Assistant Professor, RIHE, Hiroshima University, Japan

Wednesday, February 8: Speech and Discussion on CAP

Chairs: Takashi Hata, Professor, RIHE, Hiroshima University, Japan
V. Lynn Meek, Director, Centre for Higher Education Management & Policy, University of New England, Australia

Relevance and Governance

9:00 - 9:30		**The Relevance of the Academia** William K. Cummings, Professor, George Washington University, USA
9:30 - 10:00		**Governing Higher Educational Institutions** Takekazu Ehara, Professor, Ritsumeikan University, Japan
10:00 - 10:30	Discussion	
10:30 - 10:45	Coffee Break	

Comparative Study of the Academic Profession

10:45 - 11:30		**Principles of Comparative Higher Education Research** Ulrich Teichler, Professor, Kassel University, Germany
11:30 - 12:00	Discussion	
12:00 - 13:00	Lunch	

Chairs: Ikuo Kitagaki, Professor, RIHE, Hiroshima University, Japan
William K. Cummings, Professor, George Washington University, USA

International Survey on CAP

13:00 - 15:00		**Draft Survey** V. Lynn Meek, Director, Centre for Higher Education Management & Policy,University of New England, Australia
15:00 - 15:15	Coffee Break	
15:15 - 17:00	Discussion	
17:00 - 17:30	**Concluding Remarks**	
		Akira Arimoto, Director & Professor, RIHE, Hiroshima University, Japan William K. Cummings, Professor, George Washington University, USA

Thursday, February 9 (Only for Guests from Overseas)

9:00 - 11:00	**Meeting for CAP Members**	
		Chairs: William K. Cummings, Professor, George Washington University, USA **Ulrich Teichler, Professor, Kassel University, Germany**
12:00 - 13:30	Lunch	
13:30 - 17:00	Field Trip	
18:00 - 20:00	Farewell Dinner	

List of Participants

(as of February 2006)

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Chairs

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