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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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

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CONSORTIUM GOVERNANCE
EXPERIENCES OF THE SWEDISH LADOK CONSORTIUM

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ABSTRACT

This paper discusses organisational experiences with consortia in Sweden, especially in the maintenance and further development of a complex national computer based system for student admission and documentation and other IT services about students. It summarizes an approach that may help solve a problem that is common in European university systems: how to manage the transition from centralised government control to greater emphasis on how universities can help themselves. Work is this area has been accomplished through a new organisation, the LADOK consortium, Local Admission and Student Documentation.

The consortium for Local Student Admission and Documentation System (LADOK) unites almost all Swedish institutions of higher education in the collection, analysis, and distribution of student records, from admission through final academic records. These functions include individual student and institutional data, and aggregating the data for a wide variety of comparisons. The information is a major factor in allocating government funds to institutions and individual students.

The distinctive character of LADOK stems from its emphasis on self-governance and co-operation in:

- planning and research;
- data processing and analysis;
- specification and purchase of hardware and software and special services;
- design and supervision of security safeguards.

Practically all work is performed on campus by university officers and faculty, or staff under their supervision.

The impetus for LADOK's distinctive organisation were the educational reforms enacted by the Swedish government in recent years, which aim to encourage greater initiative by individual universities and their chief officers.

The government's new system for institutional financing of undergraduate studies provides significant financial incentives for innovation and leadership. Funds are allocated to institutions on the basis of individually negotiated contracts between the ministry of education and each institution, spelling out targets that each university is expected to reach in respect to enrolment and student achievement during successive three year periods. A shortfall in student performance, through low enrolment or failed courses, will lead to reductions in financial support. Nor does the new system encourage over-enrolment: no extra funding is provided for students enrolled beyond the agreed upon target.

The consortium approach has moved management and development procedures from a centralised, top-down government agency to a nearly flat co-operative organisation. Leadership is in the hands of experienced university officers and faculty, elected by representatives of all member institutions.

The LADOK budget is drafted and reviewed by university representatives, and approved by the annual meeting of all member institutions. The performance of task groups and professional staff are reviewed regularly by the Board and outside experts from a wide range of backgrounds.

The annual membership meeting controls funding for the next fiscal year, and also some major projects that require two or three year commitments. This ability to plan beyond just the next fiscal year adds stability in planning and budgets for both LADOK and its members. The current budget includes allocations for some projects until fiscal year 2000.

Each member's voting strength is proportional to enrolment. The Annual Meeting is the major occasion for all members to meet, discuss the past year's performance, and to elect the LADOK Board. The twelve-member Board exercises leadership of LADOK, recommends senior staff, and maintains general overview of LADOK affairs.

Day-to-day management is conducted by the LADOK Group, a department of the University of Umea. The Project Manager of LADOK has a dual reporting relationship – to the Board of Directors of LADOK, and also to the University of Umeå.

LADOK's core professional staff of 20 have a dual reporting relationship to their university and to LADOK. Most system developers are employed directly by the LADOK group; a few were hired from consulting companies or a university computer centre. Most analysts, system testers and system developers work part-time for the consortium and part-time for their home institution. The benefits of these arrangements are several:

– security and loyalty;
– political acceptance, when institutions explicitly are included in development efforts;
– easier to attract skilled personnel if they can work on challenging projects with interesting colleagues they may already know;
– local and central access to knowledgeable and reliable references.

Another twenty LADOK staffers work at other member universities. To compensate for such scattering of a small staff, LADOK arranges extensive information routines, by e-mail and WWW and also meetings in small working groups.

Maintenance of continuing projects is financed by yearly contributions from Members. Proposals for new activities are financed from a variety of sources:

– yearly membership contributions;
– special assessments of members;
– external sources.

LADOK is currently facing several problems that have their roots in a government-mandated revision of curricula and grades for all Swedish secondary schools. The net effect is to force all universities and colleges to adjust their procedures for evaluating the grades of an entire class of incoming applicants for admission. These changes are being implemented against very tight deadlines. For such projects, a special assessment from members is necessary.

Some projects are of interest for the consortium but are too large to include in the regular budget of a single year, or involve risks that should be negotiated separately. In such cases the LADOK Board may seek special financing from foundations or commercial sources.

Deployment and production of LADOK products at each location are paid by each member, and are normally performed by the various university computer centres, without charge to LADOK. LADOK maintains close communication with the centres, assuring uniformity of deployment, system performance, and control of error rates and system stability.

The LADOK group works with external vendors in three ways:

– Gifts or no-charge long-term lease of hardware tests portability. Vendors want their equipment to be functional with the LADOK systems, and the LADOK group uses their equipment for development work and testing.
– Substantial discounts to universities and the consortium. LADOK software does not compete with commercial products. Vendors may refer to LADOK use in marketing a product, as an indicator of quality. The consortium present a valuable opportunity to gain visibility for vendors.
– Co-operation in development projects. Consortium members offer a unique beta-testing environment for new vendor software and systems. The non-profit environment with qualified users gives the vendor important feed-

back on performance under a wide range of operating conditions – and early warning of problems with compatibility and failure modes information.

LADOK has the advantage of being able to offer opportunities with such "hot" technology as networking on the Internet. Powerful university networks offer domestic and international co-operation and development programmes with telecommunication vendors. Long-term contracts with the consortium add stability and reliability in development projects.

Internationalisation has become increasingly important, both for universities and their students. Students can study one or more semesters at other institutions and have that work credited towards earning a degree at their "home university". This requires procedures for verifiable exchanges. European certificates of "transfer credits" are being developed within the framework of the EU-financed SOCRATES project. The European Credit Transfer System (ECTS) has been developed and is currently being installed in several European countries and also in the LADOK software packages.

Consortium performance is regularly audited by external reviewers. This is extremely important since the calculations for funding undergraduate studies at member institutions is based on LADOK data. The LADOK board regularly engages professional reviewers for performance monitoring of the LADOK group and projects.

Periodic reviews by senior system developers from main vendors focus on efficiency in the utilisation of technical equipment. LADOK has found such reviews helpful in training its staff, and in adapting routines to new capabilities.

The consortium has built a substantial track record in bringing new software and routines on-line, on schedule and within budget. The consortium has been conservative in accepting new development projects. Usually, the critical limitation has been the shortage of qualified personnel. This focuses attention on core applications of most direct interest to members.

Some current projects:

- PING system, for compiling and distributing the academic transcripts that a student builds if he chooses to attend two or more universities during his academic career;
- standardised system for recording and analysis of secondary school grades;
- "smart cards" to authenticate a student's identity, to be used in delivery of sensitive data and control of high-value goods and services.

Institutions of higher education, government agencies, and individual students have all been able to become direct beneficiaries of LADOK services. This runs the entire range from standardised transcripts and admission certificates for individual students to enrolment reports for funding decisions. The co-operative nature of the organisation has given the universities an easily-understood form of self-governance and a broad base of support on campuses and in the government. It has become much easier to evaluate proposed system revisions.

One of the key areas of interest in university management is institutional research, since it can give a steady flow of hard data to orient senior officers and government officials, to help set priorities, and to measure progress. A key ingredient in institutional research is data about students and their progress through the university. In the past, both institutional research and especially student data were largely the domain of government agencies. That domain has now been transferred to the universities themselves, a very important ingredient in helping them exercise intelligent self-governance. Given these relationships, and the central role of student data, we need to pay close attention how we manage the effort. The development of LADOK has given us valuable experience with the use of a semi-autonomous consortium. The time may be ready for exploring how to apply that experience most effectively to other dimensions of institutional research.

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Special thanks for comments and suggestions by University Director Mats Ola Ottosson of the University of Umea, my colleagues Bengt Wäppling and Peter Lundberg at the LADOK Group at the University of Umea, and Professor (emeritus) B.P. Goldsmith of Carnegie-Mellon University.

STRATEGIC MANAGEMENT AND UNIVERSITIES: OUTCOMES OF A EUROPEAN SURVEY

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ABSTRACT

Over twenty European universities took part in a survey that examined their ability to develop and implement strategies. One of the features of the research was that it focused on the views and opinions of decision-makers at the highest levels of institutional hierarchies. All the universities said they had a plan, and under a half implement it on a short-term basis. Planning is often explicit, and it plays an incentive rather than a prescriptive role. The professional bureaucracy model is clearly a key element in the operational model adopted by universities, but it needs to be complemented by a more pluralist approach that embraces other (e.g., rational, contingent, political, incremental and even interpretative) concepts of organisation. Other systems of university governance are converging towards a model that sets great store by discussion and consensus, but we identified a dual development that suggested a hypothesis whereby European universities differentiate from one another through the existence of two centripetal or centrifugal sub-models.

INTRODUCTION

Much research into universities focuses on the processes of producing knowledge (*e.g.* the functioning of laboratories, the emergence and development of scientific discoveries, and networks of researchers),[1] the trajectories of universities (*e.g.* socio-economic profiles and professional careers)[2] and the users of this knowledge (*e.g.* student profiles, aspirations, success rates, methods of learning).[3] Economic factors such as the production of technological innovation in a national, international and regional context also come in for sustained scrutiny,[4] but paradoxically universities are not seen as "organisations" in the way that enterprises and

public administrations are. It is as if they were homogeneous entities boasting their own specificity, yet with no attention being paid to how they function, to the dynamic of the structures or to the decision-making processes that take place within them.

The study of universities as **organisations**, rather than as institutions in the broad sense of the word, is a recent development.[5] This concern has come to the fore because the European university system has to cope with an increasingly turbulent environment characterised by stagnation and a decline in budgetary resources, together with a growing number of students and unfavourable staff/student ratios; the university system is also having to face up to shifting and contradictory expectations with regard to its aims. It follows that systems of managing universities need to incorporate a wide range of constraints and changes and, therefore an unprecedented degree of **complexity** that calls for a more "managerial" approach.[6]

SURVEY OBJECTIVES AND OUTCOMES

The objectives

The *objectives* of the survey aimed to clarify the reactions of universities with regard to their **ability to develop strategies** and put them into practice. The exploratory survey did not aim to describe in any detail the practices and processes used by European universities in forming strategies, or to develop a country-by-country analysis; instead it sought to make an **initial approach** to the phenomenon prior to preparing for a subsequent, more intensive and more systematic survey.

In this context, one of the features of our survey was that it focused on the views and opinions of decision-makers at the highest level of institutional hierarchies. Specifically, the survey set out to discover whether European universities had (normalised, explicit or implicit) strategic plans and, if so, to throw light on the nature of the formal and informal processes used in drawing up strategies and plans.[7]

Methodological approach

The survey relied on a two-part *methodological* approach consisting of **in-depth interviews** with senior academics at the highest levels of five universities and a **standardised questionnaire** posted to some 20 senior officials of European universities (see Annex). The objective of the in-depth interviews was to acquire an understanding of the specific context of organisations that are highly differentiated not only by national, regional and local environments, but also by types of internal structure (*e.g.* management bodies and distribution of power).

As non-homogenous entities, universities are clearly bound by contingent factors described as "universal" (*e.g.* demographic shifts, scarce State funding, and the search for alternative resources), but they are mainly linked to more "contextual" elements such as historically and culturally based academic traditions, a specific

political environment, and the distribution of roles and relative weight of internal and external influence factors.[8]

The first section of the survey was "technical": type of university (whether or not offering a full range of subjects), staffing (*i.e.* academic and administrative), student population, and budgetary information. Open and multiple-choice questions in the second section focused on strategic issues; these included the nature of the role played by the supervisory authority and the weight of internal and external influence factors, the relative importance of missions that the university assigns itself, the specific objectives of the last few years, the existence or otherwise of strategic planning processes together with the form they take and the fields in which they operate, structural elements in the decision-making processes, and nature and duration of institutional leaders' terms of office, the role of administrative staff, and what would happen if the budget were to rise (or fall) by 10 per cent.

Altogether, the 18 questionnaires that were returned cover a wide range of universities: 11 offer a full range of subjects and 7 are specialist institutions; they vary in size from 6 559 to 55 142 students; the **percentage of undergraduate students** ranges from 56 to 100 per cent while **growth rates of postgraduate students** are higher (from 10 to 285 per cent). Their degree of openness as measured by the number of legitimately enrolled **foreign students** ranges from 30 to 5 926; to summarise: 9 universities are "exporters" (*i.e.* the number of students leaving is higher than the number of students coming from another country) and 7 universities are "importers" (*i.e.* there are more students arriving than leaving). **Budgets** (teaching hospitals excluded) vary from 15 900 000 Ecus to 396 052 630 Ecus.

The status of strategic planning

The issue of the existence or absence of a strategic plan: although it was **established from the outset** that all respondents had a long-term plan, fewer than half implement it in the short term (one year); under long-term planning, provision is also made for a regular review of plans in 11 out of 17 institutions (the time horizon ranges from one to ten years). Planning is usually **explicit** and takes the form of a **written document**, and for the most part plays an **incentive** or **indicative**, rather than prescriptive, role. To put it in another way, plans provide guidance for action, and the implementation is open to negotiation and agreement according to who are affected by the plans and depending on exceptional circumstances. In only two universities do plans appear to have the "force of law".

The drafting of these documents often relies on **internal audit** procedures (in 12 out of 17 cases). Five respondents refer to an external stage in the planning process that the university has initiated. Several documents exist side by side as a function of: the addressee(s) of the document (*i.e.* internal or external), the question covered or the issue under consideration (*e.g.* planning expenditures, internationalisation and contacts with industry), and the extent of operationalisation; the general

document may be divided up into documents dealing more specifically with the Department concerned.

The questionnaire asked for attention to be drawn to **initiatives** that had been taken in a number of fields; these included the transition from secondary to university education, the training of teachers and researchers, the promotion of inter-disciplinary work, internationalisation, the spatial/geographical expansion of campuses, research, technological challenges and administration. Other strategic initiatives related to public relations policies (particularly dealing with local authorities), universities cultural policies, quality assessment at all levels, the re-instatement of the teaching of ethics and of research in this area, the equal opportunities policy and the development of computerised communications tools.

These initiatives make up a general list and need to be **placed in order of importance**. One question in the survey allows us to make a start on providing an answer, as it focuses on the weighting given to a number of missions normally allocated to universities. It asked respondents to mark nine activity sectors from 1 to 10, with 10 given for a mission seen as the most important and 1 for the least important (Table 1). It will be necessary to evaluate the weighing given to the same activities in the future using the same scale.

All weightings in some of the more important sectors are increasing between now and a point in the future, for example continuing education (+2.5), contacts with industry (+2) and applied research (+1.5). Basic research and undergraduate teaching are, and will continue to be, the two most important of universities' key missions, but the increasing importance of postgraduate education appears to have "caught up".

Implementing the priorities: how do senior academics apply strategic priorities? For 16 universities, **discussion** and **seeking a consensus** are among the most frequently used ways of achieving this; the dominant model is still **collegiate decision-making** but, although it continues to be the ideal method, it is seldom the only one. In-depth **interviews** throw light on these dimensions, and all leaders stress that a university

Table 1. **Summary of replies to the "double" question**

Nature of the mission	"Average" mark for the present	Rank	"Average" mark for the future	Rank
Undergraduate/graduate education	8.5	2	9	1
Postgraduate education	7.5	3	8.5	2
Education for the elderly	2	8	3	8
Continuing education	4.5	6	7	5
Basic research	9	1	9	1
Applied research	6.5	4	8	3
Social services	4	7	5	7
Cultural services	4.5	6	5.5	6
Contacts with industry	5.5	5	7.5	4

Source: Authors.

cannot function on the basis of a "top-down" model; in fact, without the active participation of faculties and departments, no initiative has any chance of success as it is always possible for "resistance" and "diversion" manoeuvres to render it meaningless.

The authorities assume a role involving incentive, leadership and regulation, and with a view to persuading rather than imposing their views, except in a crisis when they might well resort to coercion. However, the replies indicate that the authorities also seek to "manipulate" the situation through the use of more restrictive measures (*e.g.* promotions and control procedures) which enable them to "give and take". The emerging picture is one of a **mixed model**; this combines "top-down" and "bottom-up" systems, and balances global projects drawn up at the highest level (by leaders taking external constraints on board) and local interests (where leaders defend the constraints and opportunities relating to their disciplines). That is why there is a mixture of reactive and pro-active strategies which aim not only to respond to threats from the environment but also to try to respond to the most urgent demands.

The influence of external constraints focuses on the following issues:

- **the budgetary priorities of the supervisory authority:** all universities make repeated references to the influence exerted by the supervisory authority's priorities (the authority is often seen in terms of restrictions on financial resources or, sometimes more directly, on staff resources;
- **the expectations of future students:** these are acknowledged to be important, but some people believe that this "parameter" is all too often relegated to a subsidiary role because of the absence of qualitative databases setting out students' expectations (which therefore become impossible to identify), and because of a university context protected from competition by national legal systems (*e.g. numerus clausus*) or by a quasi-monopoly situation at regional level;
- **the need for internationalisation:** this is seen as an essential and beneficial element promoting the development of universities;
- **the situation with regard to competition:** all universities recognised how influential this is; four institutions believe that its role is one of positive development, while two underline the difficulty in overcoming the loss of identity of university education (as distinct from higher education) as a setting where teaching can be developed on the basis of research;
- **the expectations of future employers:** these are viewed at different levels and in different ways, for example by employers' representatives being members of internal committees, the setting up of consultative procedures specifically designed for that purpose, the use of surveys carried out by consultancy firms and, indirectly, the acknowledgement of performance indicators such as recruitment rates of young graduates;
- **the judgement of the international scientific community:** not surprisingly, this is of vital importance, together with an insistence on its role in the fields of research and postgraduate training.

The budgetary constraints test and their impact focused on what respondents would do if budgets were to decrease or increase by 10 per cent. If there was an **increase**, the outcome was as follows (assuming comparable jobs were grouped together and classified in descending order of popularity): promotion of teaching; development of new teaching techniques; construction, renovation and upkeep of buildings; development of IT networks and of telecommunications materials; increase in research funds in the form of independent funds and assistance for individual initiatives; improvements to scientific equipment. In other words, the majority of replies placed emphasis on the promotion of teaching.

If there were a **decrease** in the budget, the outcome was as follows: contraction or carry-over of building costs and infrastructure costs; job losses or freezing of vacant posts, and a reduction in administrative budgets; cuts in research funds and the abolition of the least "profitable" teaching areas. Four universities said they would work up alternative sources of revenue, and that this would include the development of fee-paying activities in continuous education.

Influence factors

The questionnaire identified five forces likely to influence the way universities functioned: the supervisory authority (for budgetary control and the control of programmes and appointments), ethical and/or professional standards currently applied, the influence of the "academic oligarchy" (*i.e.* the coalition of academics); the influence of the academic community (a reference to the collegiate model of decision-making), market pressures. Institutions were asked to evaluate the impact that each of these forces would have in the fields of teaching and research.

The influence of the supervisory authority: all universities are affected by **budgetary control** as they are all State-funded. Several parameters intervene here: the degree of dependence on funding (*e.g.* the existence or otherwise of their own funds, and alternative sources of revenue); the fact that public funding is allocated on a post-by-post basis or as a lump sum; or else it comes in the form of separate grants that are earmarked for specific activities (*e.g.* teaching, research, infrastructures or equipment). Only three universities said they were not influenced by the supervisory authority as far as control of programmes was concerned.

The influence of ethical and/or professional standards: this corresponds to the influence of "culture" that is often to be found in the private sector. This concept, which is central to an institution such as a university, is hard to identify. A simple solution would be to see these standards as the totality of the (often implicit) rules and principles that influence or shape the internal and external behaviour of the various actors in university life.

The issue of ethical rules has been interpreted in different ways by reference to:

– charters or mission statements which often date from the distant past and deal with general operational principles; these include academic freedom, *petitio principii* relating to the climate of confidence in relations between aca-

demics, efforts made to achieve a general culture, respect for the hierarchy, transparency in how the institution functions, an open-door policy to foreigners, open relations (*i.e.* between teachers, researchers, technicians and students), the principle of participation of all groups in the running of the institution, and a rejection of political extremism and any form of fundamentalism;

– respect for equal opportunities between the sexes and social classes, the rejection of revealed truth, and the search for excellence;

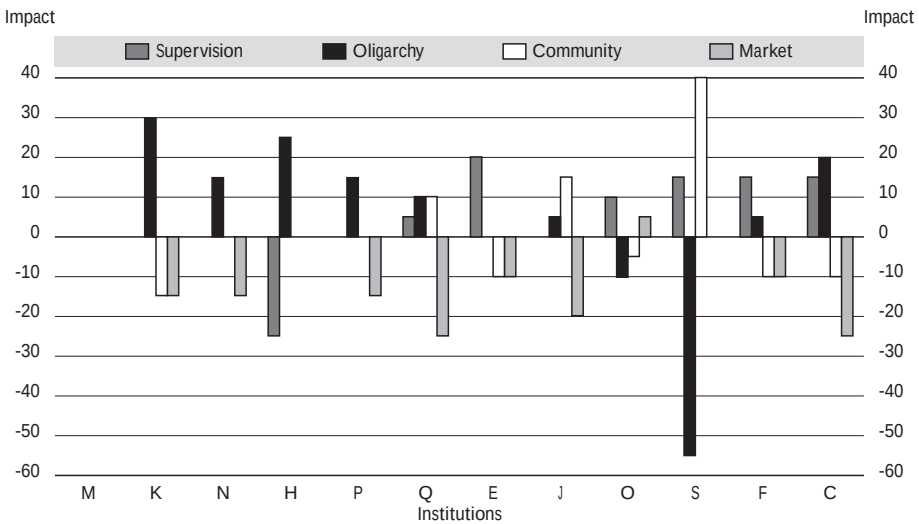
– national and international inter-university agreements.

The impact of internal and external influence factors: We calculated the difference between the impact made in each of the areas (*e.g.* "impact on teaching", "impact on research") for each type of influence factor (Figure 1). One positive difference reveals that the impact made by influence factors is considered to be greater in teaching than it is in research; conversely, the lower part of the graph shows that the impact of influence factors is greater in research than in teaching.

The role of structures

The facilitating or inhibiting role of structures. The survey's starting point was that universities are "professional bureaucracies"[9] based on a group of highly skilled operators (*i.e.* teachers and researchers selected at the end of a long learning process) who enjoy very considerable autonomy. The structure is founded on a dual

◆ Figure 1. ***Differential impact of influence factors***



Source: Authors.

(*i.e.* horizontal and vertical) decentralisation in which the hierarchy is controlled by education professionals, who themselves take on significant administrative duties within the university. This type of structure includes a large number of committees which provide overall co-ordination.

To what extent should we be re-considering the model in the light of survey's findings? There is ample evidence that the actors enjoy freedom (although it is often circumscribed by evaluations whose tangible effects are difficult to measure), but the principle of decentralisation poses a problem. For example, it would appear that the structures of organisations are constantly oscillating between centralisation and decentralisation; this suggests that it is difficult to achieve a balance between these poles. They also reveal the huge obstacles that any attempt to impose a top-down system would encounter.

It is a delicate balance because of the dichotomy between creative and innovatory impulses and managerial regulation; in no way does this mirror the distinction between central administrative authorities and the academic community. In this case, the frontiers appear to be relatively "blurred".

More specific problems raised by structural characteristics include: the length of decision-making processes; conflicts of rationality between academics and administrators; the distortion, resistance and blocking practised by "operational" layers (*e.g.* Departments and Faculties) when strategic decisions come to be implemented; cleavage between disciplines; the absence of any involvement on the part of representatives of communities outside the university; the way that some entities join forces with entities deemed to be inadequate; the smallness of the institution (*i.e.* the absence of critical mass) and sometimes its excessive size; the low level of participation or involvement by many actors in the decision-making process. More specific problems on a more general level linked to procedures include the "conflict" caused by the existence of "short" procedures triggered by the principle of an annual budget, and by "long" procedures linked to strategic planning. This relates to the fact that processes of forming strategies take place in parallel with more formal processes imposed by the supervisory authorities.

The issue of the distribution of power highlights:

- The length of terms of office together with the fact that, as a general rule, the terms of office of institutional leaders do not run in parallel: administrators are appointed to long-term contracts whereas the elective terms that are a feature of academic posts (*e.g.* Rectors, Deans, and Heads of Department) are fixed-term and may be renewable, albeit for a pre-determined period.
- The tension between "intermediate" levels (*e.g.* Deans and Heads of Department), which carry out temporary, partial functions (because the post-holders are also involved in teaching and research), and senior administrative officers. To a lesser extent, this may also be observed in relations between Rectors and Deans.
- The fact that, because of the personal investment in time that their jobs require, officials at intermediate levels run the risk of relatively losing touch

with their teaching and research work (and what will "compensate" for this when they step down?).

– More fundamentally, the point made forcibly by one interviewee that the planning horizon is a function of the field affected, and the fact that terms of office do not run in parallel can impede continuity of action. To achieve their objectives, teaching strategies need a period of four years, whereas staffing strategies require a horizon of 10-15 years, and for investments, the term may exceed 15 years).

– The peer-group election method of appointing leaders:
  • at the highest level, election procedures often arrive at a consensual decision and opt for a person who understands the decision-making processes;
  • at the intermediate level, the election system raises the issue of which interests will prevail. There may be a considerable temptation to ensure that sectoral (*i.e.* Faculty or Departmental) interests prevail at the expense of those of the institution as a whole.

– The distribution of power between academics and administrators; academics or their representatives play a dominant role in decision-making processes, but their subordination to one another is not as clear-cut as one might imagine. The administration is sometimes excluded from meetings at which voting takes place, and/or their representation is in a minority; in some cases, the Administrator may have been chosen from among members of the academic body.

– The distribution of power between academics and students: the academic body holds the upper hand, but reference is made in every case to the ways in which students' views are represented; for instance, their role in Councils may be solely consultative, but it may also be fully participative. Students' participation is often deemed to be "weak" but, depending on the institution, their involvement may extend to a number of fields including teacher assessment, teacher appointments and promotions, programme reviews and certain budgetary decisions such as increases in tuition fees.

– The role of trade unions (*i.e.* student unions, teacher's unions and white- and blue-collar unions). Very laconic replies were given: three respondents referred to the existence of student unions, but described their role as declining in the sense that their involvement in management bodies no longer provides them with the role of counter-power. As pressure groups, trade unions play a role that is more focused in the direction of the supervisory authority than the internal structure of the university.

THEORETICAL OPENINGS

The exploratory survey was based on an understanding that, given the challenges that universities are encountering as the 20th century draws to a close, they

need to re-fashion the representations that they have of themselves by adopting appropriate strategies. If they are to achieve this, should they develop a model specific to universities, or is it sufficient to adopt private-sector practices for which there are well-documented normative models already in existence? There is a great temptation to adopt the latter course, except that we have been warned off these normative models on the grounds that their application is self-evidently unclear.[10]

Strategic decision-making: a wide range of models

This critique is based on the fact that numerous descriptive and empirical models exist side by side. The broad outlines of these models are as follows:

- *Normative (or rational) models* separate the phase in which decisions are formulated from the phase in which they are put into practice (phase of implementation). Decision-makers set out the objectives to be achieved, and then seek to optimise them in what is claimed to be a predictable environment. The decision-making process evolves sequentially, and each stage is subjected to more or less sophisticated analyses which are conducted on the basis of comprehensive, reliable information. The evaluation then consists of measuring the outcomes and the extent to which the initial objectives have been achieved.[11]
- *Contingency models* relate change and decisions to variations that take place in the context of the organisation, with groups of senior staff adapting the organisation's strategies and structures so as to optimise internal resources and thereby increase their organisation's efficiency and effectiveness; here, an organisation's performance is assessed in terms of its response to the constraints that arise in the particular context.[12]
- *Political models* in which decision-making processes are marked by power struggles between the actors, their divergences of interests and, therefore, the existence of conflicts;[13] they are based on a recognition of the pluralism of actors and issues, and rely more on the principle of searching for the joint satisfaction of divergent interests.
- *Incremental models* combine the conception and implementation phases, with any fresh formulation of a decision or strategy taking place as previous actions have their effects, but continuing to vary "at the margin" of preceding stages.[14] Here, decision-makers do not enjoy total freedom when formulating and implementing decisions; they rely on earlier choices, and their room for manoeuvre is circumscribed by the influence of structures and by past decisions. The image is "incremental": each new situation is shaped by a previous situation, from which it differs very little. The principle of optimisation states that strategies are adapted by means of a permanent game of trial and error, so that emerging outcomes may be identified as the process is still taking place.
- *Interpretative models* in which constraints arising in a particular context are largely constructed by groups of senior staff trying to make sense of it. The

basis of the analysis is that an organisation is also a set of representations, convictions and values relating to what constitutes its identity and what provides the basis for its smooth running. It follows that any decision-making process involves the members creating and acquiring new models of action and new ways of reasoning and making collective representations. Interpretative models therefore examine the extent to which senior staff have succeeded, or are succeeding, in negotiating a collectively acceptable interpretation by integrating it into the stock of knowledge and experiences accumulated by members of the organisation.[15]

This classification demonstrates that, depending on which analytical model has been adopted, we are heading for a particular form of evaluation that necessarily ignores certain dimensions. For example, one process of change may be a failure from the viewpoint of the rational planning model, but register relevant emergent outcomes in the process or achieve the joint satisfaction of divergent interests. Conversely, success in terms of conforming with initial objectives may bring about a profound dissatisfaction of the interests of the parties involved.

There is therefore ample justification for not immediately clinging to one of these models, and instead embracing a pluralism that is capable of incorporating the complexity and multiform character of decision-making processes.[16] However, a combination of models appears to be an acceptable compromise between the danger of over-simplification (the choice of a single model) and that of an over-detailed approach which would simply succeed in identifying as many strategic decision-making processes as there are organisations.

Strategic decision-making processes in universities

A pluralist approach is well suited to universities, and the exploratory survey highlights a number of reasons for this. For example:

- We immediately observed an enormous range of situations depending on:
  - *The type of university*: whether a specialist institution or one offering a full range of subjects, some specialise in liberal arts and human sciences, some base their teaching on an inter-disciplinary approach, and some concentrate almost exclusively on science and technical subjects. It would therefore appear that the range of decisions that can be taken is broader, and that the complexity to be managed varies: for example, an establishment that specialises in economics and management does not make the same choices as an institution that offers all scientific disciplines.
  - *The structure of the student population*: the relative weight given to undergraduate and postgraduate teaching varies according to whether there is more of the former than of the latter, the choice of programmes and of target populations varies from one situation to another, and that is without taking the financial impact of such choices into account.

– *The locality*: here, too, decisions depend on local, regional and international opportunities; the fact that a university may be situated at a point where several regions meet provides opportunities for creating networks which cannot be found elsewhere.

All of these factors refer to an interpretation of the contingency model as they underline the existence of constraints and opportunities that emanate from the environment, and in a way point to the nature and content of the adjustments that have to be carried out.

- We also observed major differences in the nature of the systems of influence:

  – On a *formal level*, the distribution of power is variable: for example, some universities have a General Administrator and others do not, representation of the different constituencies varies even if the group representing academics has a majority, posts with the same job title do not cover the same tasks, and terms of office very in lengthy, etc.

  – *Room for manoeuvre* varies according to the degree of dependence on the supervisory authority, and opportunities for allocating resources within the university in a more or less discretionary manner have an impact on internal conflicts.

These dimensions refer both to the *political paradigm* and the *interpretative model*. In this respect, the survey confirmed the **relevance** of both dimensions even though they do not offer any opportunity for in-depth analysis at this stage.

- Other differences emerge with regard to the formalisation of strategies:

  – Sometimes they appear to be formalised and to incorporate procedures containing internal and external audits, and are replaced by processes which involve publicity and underline their prescriptiveness.

  – On other occasions, strategies are “action plans” that are less formalised but which still assume the role of internal “signals” for intermediate layers.

The rational model and the interpretative model are both brought into play here, the latter because of the ability that leaders have to legitimate the need for change.

Outside the scope of these divergences, it is interesting to note that modes of university governance are converging towards a model that values discussion and consensus, but also that the purity of this model is not the same everywhere. In fact, we have observed that, when strategic decisions are reached, other devices are triggered to ensure that the measures are “accepted”. This observation caused us to give some thought to the organisational model of universities.

Conclusion

Although all the evidence suggests that universities appear to embrace the professional bureaucracy model, one cannot help being struck by their use of more direct, internal systems of intervention. Indeed, we have pointed out that "centripetal" forces are at work in many institutions; these concentrate power – and particularly the ability to influence decision-making processes directly – at the top. Other establishments, by contrast, are marked by more "centrifugal" forces in that opportunities to influence decision-making are more numerous and more diffuse. Accordingly, we may advance the hypothesis that universities differentiate from one another through the existence of two sub-systems.

Should we see in them the effect of a system that increasingly sees itself in crisis, or should we see an evolution of systems of university governance? If so, what are the determining factors?

The survey is clearly unable to give an answer at this stage, but we thought it was important at this point to indicate the direction in which our research in this field is heading.

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Annex

Universities whose senior officials returned a questionnaire

Belgium:	Université Libre de Bruxelles Katholieke Universiteit Leuven
France:	Université des Sciences et Technologies de Lille Université de Rennes II
Germany:	Freie Universität Berlin Universität Dortmund Technische Universität Dresden
Italy:	Università Commerciale Luigi Bocconi Politecnico di Torino Università di Roma III
Netherlands:	Universiteit Twente
Portugal:	Universidade do Aveiro Universidade do Porto
Spain:	Universitat Autonoma de Barcelona
Sweden:	Kungl Tekniska Högskolan Lunds Universitets
Switzerland:	Université de Genève
United Kingdom:	University of Warwick University of Sussex

MANAGING MAINSTREAM AND MARGINAL RESPONSES TO DIVERSITY

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ABSTRACT

Mass higher education places pressure on university management to develop institution-wide strategies aimed at adapting the academic demands of universities to the changing backgrounds, needs and expectations of students. The expansion of tertiary education increases the critical mass of students requiring substantial academic support to provide them with a reasonable chance of success at university. This paper reviews patterns of institutional responses to increasing student heterogeneity in Australia with particular reference to strategies directed at the first year of undergraduate study. The extent to which institutional responses are integrated across the mainstream practices of the academic programme, or provided at the margins through ancillary programmes, or a mix of both, is an ongoing problem for university management.

Diversity in the background characteristics of the student population in Australia is not a new phenomenon. What is new, is the critical mass of students in classrooms from sub-groups formerly under-represented in universities and the conjunction of this with changes in the students experience and their expectations of university. Heterogeneity in the student population now means considerably more than growing numbers and changing proportions of students from varying social, economic, and ethnic backgrounds. The level and scope of institutional activity currently directed at meeting the diverse needs of students is a clear indication that Australian universities are grappling with a new set of diversity dynamics beyond demographic profiles. A major priority for higher education management is the integration of institutional strategies dealing with the everyday realities of diversity that confront all aspects of university teaching and student administration.

The diversity produced by the rapid expansion of student numbers and the broadening of access has been made possible by the recognition of a wide variety of educational experiences as appropriate for university entry. The impact of these variations on universities has been compounded by shifts in student attitudes, expectations and circumstances. Whereas, until recently, activity for students with special needs was located on the organisational periphery in the form of student support programmes, universities are now under pressure to formulate and finance responsive structures and processes across the full spectrum of academic and administrative activities. The academic responses in Australian universities have typically focused quite separately on incremental adjustments to curriculum and teaching. However, addressing the recurrent tensions associated with the gap between academic and student expectations has taken on a particular urgency with the continuing reduction in government funding, the imminent rise of performance-based funding in various guises, and the increasingly intense competition for students.

In this paper some prevailing forms of student heterogeneity are outlined along with an indication of the ways in which Australian universities are responding to the issues and problems raised by diversity. The focus is on the first year of undergraduate education where the impact of diversity is most keenly felt by universities, particularly since more students are now entering higher education in need of early academic assistance beyond what was once the norm. The discussion draws on work from a recent national study of diversity in the first year experience commissioned by the Committee for the Advancement of University Teaching (McInnis and James, 1995). The study included a mid-year survey of 4 000 first year students conducted in 1994, and case study interviews with staff and students in seven universities representative of the diverse institutional profiles. In addition, all Australian universities were surveyed to explore the nature and range of activities they had developed in response to the changing first year student population.

For both students and universities, the concerns traditionally associated with the transition to first year university are now considerably more complex and problematic than they were for previous generations. For one thing, the cost of attrition rates for institutions are higher in a market driven environment when government funding, institutional reputation and course viability are at stake. The costs of negative student experiences in the first year, especially in the initial transition process, are easily underestimated since they are often revealed as discontinuation or failure in later years (Pargetter, 1995; Tinto, 1995). Despite years of institutional commitment to transition and retention programmes in the United States, recent reports suggest an increase in drop-out rates to around 27 per cent of first year students who do not re-enrol for the second year (*Times Higher Education Supplement, 1996*). There is a clear trend of US universities and colleges again focusing attention on the initial experience as pivotal to the quality of the undergraduate degree (El-Khawas, 1995). In Australia, the discontinuation figures are difficult to pinpoint but most analysts suggest somewhere in the 15 to 20 per cent range.

FORMS OF DIVERSITY IN THE UNDERGRADUATE POPULATION

There are varying and overlapping dimensions of student diversity relevant to the setting of management priorities. The conventional notion of diversity in student backgrounds has most commonly been associated with variables such as sex, age, birthplace and pre-tertiary educational experience. Australian higher education policy in the early 90s identified six equity groups as major targets for university response: Aboriginal and Torres Strait Islanders; women (in non-traditional fields of study), people from non-English speaking backgrounds; people with disabilities, people from rural and isolated areas, and people from socio-economically disadvantaged backgrounds. The national study of the first year experience found significant differences between some of these identified groups on such aspects of transition and adjustment to university as student sense of purpose, the value they attached to learning, and their study habits.

As levels of sub-group representation change, university responses to diversity need to adjust to more subtle patterns of differentiation. Female students, for example, make up a majority of all enrolments (54 per cent) in Australian universities but interest is now focused on their under-representation in traditionally male-dominated disciplines such as Engineering. Likewise, there have been changes in the nature of the diversity associated with overseas students. In twelve Australian universities overseas students exceed 10 per cent of the total student population (DEET, 1996) and target numbers in the order of 25 per cent are being considered by some universities (Gallaugher, 1996). This disguises the concentration of both numbers and proportions of international students in particular courses. However, what is less remarked on is the shift in the gender balance of overseas students with the greatest increase coming from females who now comprise more than 50 per cent of the group. Greater diversity within the overseas group of students is demanding a new set of responses from universities faced with more complex and sharper cultural contrasts.

School leavers generally make up at most around 60 per cent of undergraduate commencers in only a third or so of Australian universities (the national average is just 51 per cent) yet public discussion of transition issues and academic performance is still dominated by the assumption that first year classes are primarily comprised of 18 year old school leavers. Aside from a short period recently when government policy imposed school leaver enrolment targets on universities, large numbers of mature-age undergraduate students have been a feature of Australian higher education. While there is actually a smaller proportion of mature-age students on campus now than there was in the early 1980s – the mature-age share of undergraduate commencement places in 1981 was around 59 per cent – by 1994 they nevertheless made up 47 per cent of commencers. The diversity in terms of the age mix in the classroom differs considerably across institutions and fields of study.

Likewise formal modes of enrolment have not changed as significantly in Australia as might be imagined. Despite the widespread impression that a more open and flexible system has encouraged more part-time and off-campus enrolments, the real-

ity is that a higher proportion of students were enrolled full-time in 1995 (59 per cent) than a decade ago and that the proportion of students enrolled externally (12 per cent) has remained virtually unchanged over the same period (DEET, 1995, 1996). A far more important but less understood trend concerns how much time students spend on campus and what they do in that time. A key issue for universities in a flexible delivery environment is what "full-time" and "on-campus" now means. Bureaucratic categories have disguised the diversity of student engagement and commitment where, in extreme instances, students are enrolled full-time and working as many hours again in paid employment. Full-time enrolment increasingly means *de facto* part-time enrolment. This is a source of great frustration and confusion on the part of academics and challenges the management of programmes. The incremental adjustments made by individual academics in their time-tabling, setting of deadlines for assessed work, and their efforts to provide easy access to resources have set patterns of student (and management) expectations that will need to be acknowledged in processes and structures as the take-up of technology-based instruction increases.

DIVERSITY IN THE CLASSROOM

The problems arising from student diversity occur in the everyday reality of instruction, discussion, and problem-solving in the classroom where the nature and extent of the student mix is crucial. There is a tendency to overlook the impact of these variations in student attitudes and behaviours on the educational climate of the classroom. While one set of curriculum and teaching adjustments is required where there is a strong concentration of a particular sub-group with special needs, another approach might be necessary where there are obvious divides in student backgrounds, or in their modes of enrolment. The relevance and quality of prior education can no longer be assumed to be evenly distributed amongst commencing undergraduate students. In the final years of secondary education Australian students "may now combine academic studies with vocational modules; take a university subject as well as their (school) course; and learn in the workplace, or in Technical and Further Education Colleges" (Anwyl, 1996). This is the face of diversity in the secondary school experience of students that strains the coherence of the curriculum in the first year of university and creates an ongoing ambivalence and tension about standards.

By way of illustration, the skills and motives of school leavers and mature age adult learners differ markedly in ways that demand differential treatment. It has long been recognised that "undergraduate students with some prior experience of higher education tend to demonstrate higher levels of performance relative to students admitted on other bases" (Dobson, Sharma and Haydon, 1996). In contrast, school leavers are a problematic group for universities in that they are less certain of their roles, less diligent in their study habits, and less academically oriented than their adult co-students (McInnis and James, 1995). As always, the differences within the

groups are greater than the differences between them, nevertheless, given the mix of young and adult learners in classrooms, academics have to contend with two often strongly contrasting sets of motives, attitudes and experiences.

Defining the core problem of mass higher education in terms of student heterogeneity focused only on the conventional background characteristics listed above misses a profound shift emerging in the relationship students expect to have with the university and their teachers. For young undergraduates in particular, there appears to be a trend towards academic disengagement, that is, students are increasingly expecting university to fit with their lives rather than vice-versa. According to a 30 year trend analysis in the United States, students are spending more time now on paid work and socialising with friends, and less time studying (HERI, 1996). A Finnish study made the point that the university is no longer central to the lives of students – the relationship is more fragmented (Kuittinen, Hayrynen, and Kekale, 1993). Interviews with Australian academics and students picked up this theme, with academics claiming that young students now expect them to adjust their demands to accommodate the pressures of paid work (McInnis and James, 1995). Incremental changes to flexible course delivery, teaching styles, curriculum organisation, and especially the provision of learning support and enhancement programmes, have coincided with, and perhaps reinforced, changing student expectations of the university experience. These two developments, diversity and "disengagement" (perhaps more appropriately characterised as "selective engagement") suggest a trend towards a less integrated or holistic student experience.

RESPONSES TO DIVERSITY AT THE FIRST YEAR

The problem of diversity for quality management presents itself most starkly at the transition point for the first year of undergraduate education since academics now perceive themselves to be faced with pressure to accommodate significant gaps between student skills and the foundations needed for advanced and independent study. Activities devoted to improving the quality of the first year undergraduate experience have, of course, appeared before – generally in cycles associated with sudden increases in participation rates. In the early 1990s, once Australian universities had come to terms with the immediate and obvious problems of class sizes and physical space produced by the sudden increases in the numbers of students, attention turned to the more subtle and complex problems of dealing with diversity. The level of interest in transition issues will no doubt intensify as universities develop sharper performance indicators aimed at cohort retention and completion rates, and, as performance-based funding provides the motivation.

Student support programmes

The responses to diversity currently in place in Australia vary from broad brush approaches directed at the whole student body to highly specialised efforts for distinctive sub-groups. The traditional focus on transition has taken the

form of an orientation week which included a basic introduction to the facilities and administrative processes of the university, along with a range of social activities and associated rites of passage. Now, however, the problems generated by identified gaps in student readiness, and in their sense of what university study demands, has prompted some universities to combine recruitment efforts with long term familiarisation programmes in feeder schools so that students are well-acquainted with the expectations of university long before they arrive on campus. For example, to facilitate this process in one university, academics are currently working "in residence" in schools, and school teachers in turn are being sponsored by the university to take year long fellowships in academic departments (Monash, 1995).

For targeted sub-groups, the responses to the gaps and gulfs in student readiness take the form of bridging programmes. The strategies vary from essentially remedial, embracing deficiencies in subject specific knowledge as well as in learning skills, to confidence-building acculturation efforts. Bridging and learning assistance programmes have their origins in the access and equity policies of the early 1980s in Australia when they were funded under a series of schemes for disadvantaged students. A learning assistance programme typically provided students with an intensive week or so of (voluntary) pre-semester activities focused on the conventions and skills required to research, compose and present essays, as well as an orientation to the culture of learning in higher education (Webb, 1996). A related and growing focus is on the notion of making the discourse of the relevant disciplines more explicit for students. At its most basic this means telling students how they are expected to learn in the subject. Where once skills programmes primarily attracted mature age students new to higher education and some students from a variety of ethnic backgrounds, more recently increasing numbers of continuing students and school leavers are enrolling in these classes. In some fields of study, most obviously the social sciences and humanities, some universities have long been responding to the special needs of adult students. Now, however, the sciences are finding new pathways for entry through mixes of bridging and supplementary courses sometimes taken simultaneously with initial core first year studies.

Another strategy gaining support in some Australian institutions is Supplemental Instruction, adapted from the United States where it has been a long-standing feature of intervention efforts. This is a particularly telling example of the direction of responses to diversity in the first year since it involves targeting "at risk" subjects (as distinct from "at risk" students) such as first year statistics or computer programming. The approach addresses student fear of failure and lack of specific skills and knowledge, using student peers and mentors and the formation of new "learning communities", to address the teaching of difficult subjects to a mix of student backgrounds. Somewhat ironically this reflects, though in a different form, and for different motives, the assumption from the elite era that students coming to university were joining a community of scholars. These collaborative learning and peer-assisted approaches are structured and closely

controlled learning environments where tutors take on multiple roles under supervision.

These intensive responses to diversity are quite clearly beyond the scope of normal academic responsibilities. A considerable array of ancillary staff and specialist support units across the country now supplement or complement traditional student learning skills and support units. Student support units are typically operated by central administration in Australian universities and are usually responsible to a deputy or pro vice-chancellor. However, as Postle notes, while their central location keeps them close to the institutional mission, the staffing of the units is heavily biased towards part-time appointments and: "The message that such a staffing structure conveys to students and staff is that the unit and its courses are relatively unimportant and a rather marginal operation." (Postle, 1995:33) It might also be said that the marginalisation of such activities is a product of their incremental and often *ad hoc* implementation, either in response to government policy initiatives and associated financial incentives, or as a result of the initiatives of concerned individuals.

Course variations

The responses to diversity at the course and department level in Australian universities have broadly been of two kinds: incremental adjustments to the mainstream curriculum and teaching practices; or, innovations that involve a major rethinking of the organisation of teaching and learning. Examples of mainstream responses from the national survey included a first year Engineering course where up to 15 per cent of students discontinue and only 50 per cent of the intake pass. Staff cited student deficiencies in specific levels of knowledge (Mathematics and Physics) and the lack of study skills as the primary problem. An intensive summer term gave Engineering students who failed first year Mathematics an opportunity to make good in readiness for the second year. A more incremental response occurred in an Economics department with a shift in assessment practices towards multiple choice questions in examinations in preference to traditional essay questions, and short answer questions requiring recall rather than analysis. In a Mathematics course, with around 2 000 first year students, the variation in levels of student preparation has prompted a series of responses. When additional tutorials failed to make an impact, streaming was introduced and, using diagnostic tests, students were allocated to more homogenous classes with differential progress rates.

Alternative responses to diversity also involve foundational programmes or courses in the form of a generalist curriculum with a liberal arts flavour. Faced with a broader range of skills and experience some Australian universities are examining ways to bring students to a common baseline before specialised study proceeds. As well as assuming a lack of student readiness in terms of general knowledge and skills, these approaches work on the assumption that students are not in a position to make informed decisions about their university specialisations. Indeed, the 1994 survey of first year students found that over a third of first year students did not believe they

were ready for university study and about the same proportion said they would have liked a more general introduction to first year (McInnis and James, 1995). Amongst the proposals to change the structure of the undergraduate degree has been a more radical model of an initial two year "associate degree" followed by a two year programme to complete the first degree. It is likely that the pressure for a more generalist first year will accelerate in advance of less specialisation in the whole undergraduate degree.

Often overlooked in the fairly inevitable emphasis on the negative consequences of student diversity is the development of enrichment programmes for high achievers. The first year survey of universities found a number of recently developed accelerated or advanced programmes for talented students in specific subject areas. Their existence owes in part to the view that the wider range of abilities present in large classes forces academics to aim towards the middle and lower range of abilities, and thus the talents and interests of the brighter students are at risk.

IMPLICATIONS FOR QUALITY AND QUALITY ASSURANCE

The current widespread evaluation of quality in Australian universities is in marked contrast to the scene described only a decade ago when there was little evidence of systematic and routine evaluation of institutional performance (Bourke, 1986). While the quality assurance mechanisms and forms of assessment now in place across the country are considerably more sophisticated, they still lack sharpness with respect to the management of student diversity and, for that matter, of the student experience.

The proliferation of marginal responses to the problems of diversity creates difficulties for the management of quality particularly at transition points which are crucial touchstones for quality in a mass higher education system. Large numbers of first year students now arrive at university with little appreciation of the difference between school and university, or are reportedly so lacking in fundamental skills that they are not considered ready to take responsibility for their learning. However, admitting these students places the onus on the universities to provide them with a reasonable prospect of success – provided the students demonstrate an acceptable level of application. The notion of using the first year as an opportunity to weed out the weak students is simply no longer tenable in a mass higher education user pays environment but the point at which bridging and remediation programmes become normative is problematic.

The associated problem for quality that follows from this is the inevitable shift to a narrow focus on instruction at the expense of the total student experience. A preoccupation with narrowly defined learning outcomes in a mass system is likely to be fostered by the very focus of so many intervention programmes on compensating for student skill and knowledge deficiencies.

Of the many programmes devised in response to diversity, few have strong data bases or processes on which to make judgements as to whether their objectives are being achieved. The review of institutional responses to diversity in the first year student population found little evidence of evaluation of individual programmes beyond surveys of student use and their levels of satisfaction. A national report on the management, delivery and effectiveness of student support programmes likewise found the majority did not have a performance evaluation process (DEET, 1993). There is little data indeed that might provide evidence of the effectiveness of these efforts in terms of retention and continuation rates or of general academic outcomes. The evidence on the impact of intervention programmes for students with language and learning difficulties is typically sporadic and uncoordinated within universities. Generic and locally devised survey instruments are widely used in many universities but rarely focus on the outcomes of interventions in terms of behaviours or academic performance, and there is certainly little effort to assess the convergence of responses with specific institutional missions.

The diversity of the student population puts quality under pressure because it places the question of standards firmly back with the universities. The community as a stakeholder expects the universities to maintain standards. Yet in a mass higher education consumer-driven university there is little doubt that the use of intervention programmes of the kind described earlier, places greater obligation on the university to accommodate student needs once they have been selected. The cycle of student support and dependence is difficult to break once student expectations are established. Remediation, modified demands and grade inflation are closely connected when the relationship between academics and students shifts from one of "cultivation", where high levels of support are matched by high work demands, to "indulgence", where the support is high but the demands are low (Little, 1975).

AN INTEGRATED RESPONSE?

The extent to which institutional responses to diversity in the student population become integrated with mainstream academic programmes, or continue to be provided at the margins in the form of support services, or a mix of both, is an obvious concern for university management and strategic planning. Fragmentation and loss of coherence and consistency in the curriculum, assessment methods and standards, is more likely with uncoordinated interventions. A clear priority for higher education is to work towards integrated academic planning where, "if the process is not designed to promote collaboration, it cannot hope to effectively promote strategic choice" (Dill, 1996, p. 40). This is not without difficulties, as Dill observes, and collaborative planning to integrate marginal and mainstream responses to student diversity is likely to be particularly problematic, not least because it requires a rethinking of the academic-administrative interface, but also because it threatens some basic sentiments of academics concerning their roles, and the roles of universities.

Nevertheless, the momentum for an integrated response to diversity has accelerated considerably in only the last two or three years, partly in the wake of a national quality assurance process, and partly as a consequence of the emergence of new stakeholders, alongside students and academics. The ways in which universities respond to the new realities of student populations at a strategic planning level will be as diverse as the populations they aim to serve. The compounding and cumulative effect of increasing numbers of students demanding academic support is so strong that minor adjustments of university programmes and services are inadequate for most universities. Integrated strategic planning is essential if universities are to maintain control over the shape and quality of their academic programmes.

Ironically, at the very time when universities in Australia ought to be rethinking the organisation and management of diversity and the first year experience they are being forced into *ad hoc* planning in the face of a new era of financial stringency. In reviewing Australian higher education management in late 1995 the Hoare Committee noted wide variation in the extent to which universities took a strategic approach to operations. Indeed, the Committee found that links between operational activities and strategic plans were "tenuous or non-existent" and that, "in many instances resource allocation processes, management and development of academic and general staff and management of capital and other assets were divorced from strategic plans" (Hoare, 1995, p. 62).

Activities designed to accommodate the special needs of the changing student population will increasingly compete with mainstream teaching programmes for legitimacy and resources. Organisers of traditional student support services are finding a new mandate to take a lead in dealing with the pressures of diversity in the student population. This is particularly so in new universities with distinctive missions to serve populations with low participation and completion rates. At the same time, an unintended consequence of the introduction of accountability and quality assurance mechanisms is the powerful support given to groups of academics interested in making the curriculum and teaching more responsive to diversity. These new communities of academics, administrators and support staff are clustered around institutional initiatives focused on such aspects as: reforming teaching and curriculum; facilitating student transition and improving retention; monitoring and evaluating the student experience; establishing alternative pathways to entry; and opening up access to information technology.

One clear force for integration will emerge as questions are asked about the cost-effectiveness of accommodating the needs of diverse student populations. This will be difficult but necessary – it will most certainly reveal the expenditure of substantial time and money beyond the formal provision of support services. The reality of the pressure for access and support from sub-groups of students, and the emergence of these groups as stakeholders in their own right creates tensions for universities in a cost-cutting environment. University officers responsible for the co-ordination of strategies to meet the needs of specific students have now formed strong networks of professional associations and pressure groups. Similarly the student groups themselves have become notably more proactive in demanding quality

and flexibility in course delivery, international fee-paying students, for example, are becoming more organised and vocal in their expectations of the administrative units responsible for their induction and welfare.

As the level and profile of activity increases, diversity initiatives have the potential to shift the locus of control for the management of the curriculum from academics to a shared enterprise involving academic co-ordinators, administrators, ancillary specialists, professional development staff, and academics. The formation of new tribes and territories in universities will be driven by a collective realisation that the student experience, in its many and diverse forms, has to be managed systematically in the competitive market environment, and made convergent with institutional missions. The tensions inherent in the competition for resources are clearly heightened where the rapid expansion to a mass system has been followed by declining government support and strained university budgets. As governments reduce their financial commitments – and those of students increase – universities will have to make the hard decisions about the level of resources they are prepared to provide to students with special needs. Universities in some instances are now left with the task of making decisions to maintain programmes they feel they can no longer afford. However, while marginal programmes without strong ties to core academic structures are soft targets for cost-cutting, academics responsible for mainstream programmes are exposed to the threat of losing control over the curriculum and teaching as new and uneasy partnerships with specialist professional staff are forged. The likelihood of a shared enterprise depends on a perhaps overly optimistic picture of the capacity of university staff to overcome divides that separate the usually autonomous fragments of organisational units. Nevertheless, the incremental changes in roles and responsibilities gathering momentum as universities respond to diversity suggest there is little option but to find ways of integrating effort.

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UNDERGRADUATE INTAKES IN AUSTRALIA – BEFORE AND AFTER

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ABSTRACT

This paper examines some of the changes in the composition of the student body entering Australian higher education, before and after the reforms which saw the significant increase in access to the higher education system in Australia in 1987/78. It seeks to correlate these changes with "quality" as measured by students' academic success in higher education. Student "quality" could become an important factor in the future, given the expansion in student numbers and changes to the funding base and funding policy. With the current interest in performance-based funding, the relative performance of different groups of students has the potential to become a more important issue. But the use of student performance as the basis for the distribution of government funds is not likely to affect universities in the same way. Some universities are more dependent than others on government funding, and some attract students who are more likely to be academically successful.

INTRODUCTION

As a result of the opening up of Australia's higher education (following the publication of the higher education White Paper in July 1988), university education became available to many students who in the past would not have gained a

place in the system. Overall student enrolment numbers have increased from 421 000 in 1988 to over 604 000 by 1995. About 116 000 of this increase was in undergraduate numbers. Although increased undergraduate intakes have come both from the school leaver and non-school leaver background students, the non-school leaver background have increased the most. The number of commencing undergraduate students increased from 130 000 to 157 000 between 1988 and 1994, about 10 000 of which had previous experience in education at the university level. Apart from increases in the size of the student body, other new trends have included the diversification of the funding base away from the total reliance on government funds, and a move towards performance-based funding.

This study looks at changes in the composition of student intakes to undergraduate courses "before" and "after" the opening up of university education, and then compares the relative "quality" of different groups of students admitted.

METHODOLOGY

The Australian higher education statistics collection is one of the most comprehensive sets of statistics reported to a government authority any where in the world. Student information supplied three times each year covers all aspects of student enrolments, student load (a measure of the number of equivalent full-time students), programme completions, student liability for fees, as well as files on programmes offered and teaching departments. It is the depth of these data which makes the analysis reported in this paper possible. The statistics have been extracted from unit record data files which Australian universities are required to supply to the Government each year. Not only is it possible to analyse student numbers according to many personal and programme-related parameters, it is also possible to calculate an output measure known as "Student Progress Units" (SPU) for each student. Student Progress Units are generated when subjects (the components of programmes of study) are successfully completed. The successful completion of all subjects enrolled in by a student leads to the generation of one Student Progress Unit by that student. The data available in the Australian higher education system make it possible to perform tests of significance to compare the differences between the mean SPU generated by binary sub-populations of students.

CHANGES IN THE COMPOSITION OF THE STUDENT BODY

Table 1 summarises the change in the composition of intakes into undergraduate programmes over the period 1988 to 1994. It provides an overview of the situation before and after the policy changes since 1988.

Table 1. **Undergraduate commencing enrolments by sex, attendance mode, broad field of study and basis of admission**

	1988		1994		Increase number	1988/94 % increase
	Number	% of total	Number	% of total		
Sex						
Males	59 784	45.9	69 337	44.2	9 553	16.0
Females	70 488	54.1	87 405	55.8	16 917	24.0
Mode of attendance						
On-campus – Full time	92 749	71.2	115 947	74.0	23 198	25.0
– Part-time	22 801	17.5	22 791	14.5	–10	0.0
Off-campus	14 722	11.3	18 004	11.5	3 282	22.3
Broad field of study						
Agriculture, Animal Husbandry	2 749	2.1	3 821	2.4	1 072	39.0
Architecture, Building	2 418	1.9	3 320	2.1	902	37.3
Arts, Humanities and Social Science	34 431	26.4	39 244	25.0	4 813	14.0
Business, Administration and Economics	26 714	20.5	33 215	21.2	6 501	24.3
Education	20 271	15.6	15 869	10.1	–4 402	–21.7
Engineering, Surveying	8 629	6.6	11 735	7.5	3 106	36.0
Health	13 975	10.7	19 067	12.2	5 092	36.4
Law	2 001	1.5	4 904	3.1	2 903	145.1
Science	18 760	14.4	25 248	16.1	6 488	34.6
Veterinary Science	322	0.2	319	0.2	–3	–0.9
Basis of admission						
Completed higher education	12 597	9.7	14 020	8.9	1 423	11.3
Incomplete higher education	10 463	8.0	19 649	12.5	9 186	87.8
Higher education experienced	**23 060**	**17.7**	**33 669**	**21.5**	**10 609**	**46.0**
Complete or incomplete TAFE	3 508	2.7	9 006	5.7	5 498	156.7
School leavers	73 924	56.7	81 632	52.1	7 708	10.4
Mature age	8 871	6.8	8 361	5.3	–510	–5.7
Special entry	3 600	2.8	4 406	2.8	806	22.4
Examination or assessment	2 878	2.2	4 172	2.7	1 294	45.0
Employment	834	0.6	1 703	1.1	869	104.2
Professional qualification	1 774	1.4	2 772	1.8	998	56.3
Other basis	11 823	9.1	11 021	7.0	–802	–6.8
New to higher education	**107 212**	**82.3**	**123 073**	**78.5**	**15 861**	**14.8**
Total	**130 272**	**100.0**	**156 742**	**100.0**	**26 470**	**20.3**

Source: Department of Employment, Education and Training: Aggregated Data Sets (unpublished).

Commencing enrolments by sex

Numbers of women entering higher education first exceeded numbers of men in 1985. By 1988, female students comprised 54 per cent of all commencing students, rising to nearly 56 per cent in 1994. This is in spite of the fact that women represented less than 49 per cent of the relevant age cohorts (based on 1991 Census data). Women's enrolments are not distributed evenly through all fields of study. They are over

represented in Health, Education and Arts/Humanities/Social Sciences, and considerably under represented in Engineering, Agriculture and Architecture. They are still in the minority in Business/Administration/ Economics and Science, but strong growth in recent years is likely to lead to equality of enrolment numbers in these fields by early next century.

Commencing enrolments by attendance mode

Another change to be noted is an expansion in the proportion of the student body attending full time. Overall the proportion of students studying on- or off-campus has not changed. It is possible that the government's emphasis on the admission of school leaver students has lead to relative decline in the popularity of part time study for on-campus students. Table 1 shows the 3 per cent growth in full time numbers, at the expense of part time undergraduates.

Commencing enrolments by field of study

An examination of the fields of study commencing students are enrolled in indicates that Education is the only field which has suffered an absolute decline in numbers. Table 1 shows that the overall proportions of enrolments of commencing students made up by the various fields of study have not changed greatly over the period in question. Again, Education has been the main "loser" since 1988, with its share of enrolments dropping from nearly 16 per cent to 10 per cent.

Commencing enrolments by basis of admission

The Table shows that 10 609 of the extra 26 470 admissions in 1994 compared with 1988 were of students with some experience of higher education, and nearly 16 000 students who were new to higher education. In fact, the proportion of students with previous experience increased from 17.7 per cent to 21.5 per cent of the total. The major reason for this growth is the propensity for students to switch courses before completion, often from a single degree programme to a combined degree programme. To some extent, it might also reflect more permissive attitudes within universities to such changes. It may also reflect the increased diversity of course offerings at many universities following the period of institutional amalgamations in the early 1990s. In fact, the share of total commencements by undergraduate students who were "new to higher education" declined in proportion between 1988 and 1994, from over 82 per cent to 78.5 per cent in 1994.

Of the "new to higher education" students, an additional 7 708 were school leavers, with 8 153 coming from other entry cohorts. The school leaver proportion declined from 69 per cent to 66 per cent over the period. Of the non-school leavers, the group which showed the greatest proportionate increase came from the Technical and Further Education (TAFE) sector. In more recent years, many students with a

TAFE background are able to enter higher education courses with some credit for study already completed. The importance of this group of students in the future would seem to be assured by the fact that several universities are in effect multi-sector institutions, where TAFE colleges actually form part of the greater institution. By 1996, at least one university (Monash University in Victoria) is offering combined course programmes with a neighbouring TAFE college. It is also interesting to note that students admitted on the basis of mature entry declined in number.

The Table shows that enrolments by commencing undergraduates have increased by over 20 per cent since 1988, and that numbers of "first-time" students commencing courses have increased by nearly 15 per cent. This push (particularly by increased numbers of "first-timers") has lead to overall numbers of undergraduate students swelling by 33 per cent. With these additional students in the system, is it reasonable to suggest that the expansion in enrolment numbers has led to a decline in student quality? Does the increase in commencements by students with an incomplete university qualifications indicate that students are failing their first choice course and moving to easier courses?

The increase in numbers of school leavers into the system must by definition have lead to a consequential nominal decline in tertiary entry scores, by admitting greater numbers of students at the margin. In theory, one way to examine this proposition for ex-school students, would be to examine tertiary entry scores between the two years. However, tertiary entry scores may not be a convenient measure to use over time, for at least three reasons. First, states have different scales of values for tertiary entrance. Only since July 1996 has it been possible to match the different nominal scales from each of the states; second, some states (*e.g.* Victoria) have changed the nominal scale used for tertiary entrance; and third, score "creep" in the past has rendered temporal comparison difficult if not impossible.

Students new to higher education who are not school leavers have also increased in numbers but these students do not have a convenient "tertiary entry score" which can be used for ranking purposes. These students are admitted according to criteria which are different for each group, making any sort of common ranking impossible, especially over time.

One way of looking at relative student "quality" is to undertake student progress units (SPU) analysis. The SPU measure was first used in 1979, following the establishment of an Australian Vice-Chancellors' Committee working party. But it quickly fell by the wayside, although a report was published in 1985, summarising a longitudinal study into student progress. (AVCC, 1985). The concept was revived and rejuvenated in the late 1980s by the Linke Report (Linke, 1991). The measure reported on in this paper is an extension of the indicator described by Linke as the "Subject Load Pass Rate" (Indicator P2b).

Results from previous studies have been brought together in this paper in order to examine the relative effects of student progress unit production by different groups of students.

Table 1 noted the expansion in the relative numbers of women. SPU analysis conducted in 1991 (Dobson and Sharma, 1993) for ten institutions found that women significantly outperformed men in all ten institutions. Women undergraduates generated a mean SPU value of 0.856, compared with 0.808 for men. Given this clear superiority in performance, it could be argued that the relative quality of the performance of the student body will be improved by the increased representation of women in the system, as they seem more able to cope with the rigours of university. This proposition would need to be tested, however, by correlating sex and tertiary entry score. It is interesting to note also that women's superiority is not only in those fields of study in which they predominate. A later study (Dobson and Sharma, 1994) examined the gender issue more closely and noted relatively higher performance levels from women in virtually all fields. The only field indicating male superiority (Arts/Humanities/Social Sciences) was not at a level which was statistically significant.

Table 1 also indicated the growth in numbers of full-time students since 1988, whereas part time enrolments had remained static. The analysis referred to above (Dobson and Sharma, 1993) indicated that full time students had produced a mean SPU value of 0.844, compared to 0.800 for part time students. The difference between these means was highly significant at six out of the ten institutions. Perhaps the trend towards full time study would also improve quality.

A more recent study (Dobson *et al.*, 1996) analysed the relative success of commencing university undergraduates according to their Basis of Admission. Table 2 summarises student performance in terms of SPU for 1993 and 1994. It is interesting to note the decline in SPU productivity between the two years irrespective of students' basis of admission. Although it is acknowledged that a decline over a two-year span does not of itself establish a trend, it does suggest that there is a need for trends in student performance to be monitored over time. If this approach is adopted, valid conclusions can be drawn about the nature and direction of student progress in the medium to long term. If the decline in SPU productivity continues, it could imply a

Table 2. **Student performance of commencing undergraduates by basis of admission**

Basis of admission	Mean SPU		
	1993	1994	% change
Completed higher education	0.820	0.818	–0.2
Incomplete higher education	0.831	0.795	–4.3
TAFE background	0.777	0.740	–4.8
School leaver	0.784	0.753	–4.0
Mature age	0.754	0.743	–1.5
Other special entry	0.760	0.718	–5.5
University examination	0.816	0.773	–5.3
Employment experience	0.807	0.765	–5.2
Professional qualifications	0.859	0.808	–5.9
Other	0.791	0.767	–3.0

Source: Dobson, Sharma and Haydon, p. 13.

decline in student quality. It is a pity that it is not possible to undertake this type of testing for years prior to 1993, and that the data required to analyse 1995 student SPU outputs are not yet available.

In the figures which are available, for 1993 and 1994, the smallest decline in student performance was experienced by those students admitted on the basis of previous completion of a higher education qualification (–0.2 per cent) and those admitted under the mature age entry scheme (–1.5 per cent). Conversely, the three student sources showing the greatest decline in SPU productivity include other special entry students (–5.5 per cent), those students admitted on the basis of a university examination (–5.3 per cent) and students admitted on the basis of a professional qualification (–5.9 per cent). The decline in the relative performance of TAFE background students (–4.8 per cent) was slightly higher than the decline in performance of school leavers (–4.0 per cent).

Table 3 summarises the relative performance of school leavers compared with other entry cohorts for commencing students enrolled in 1994. The null hypothesis, that there is no difference between the relative performance of the various student groups, was tested at the .01 level of significance. The null hypothesis would be rejected only if the difference between SPU means fell outside a "t" value of ±2.576, and this would happen by chance alone in only 1 per cent of cases.

These Australia-wide results indicate that the most successful students in terms of SPU analysis are those who have had previous exposure to higher education before their current undergraduate enrolment. Students with both complete and incomplete university studies produced significantly superior SPU means when compared with school leavers.

School leavers outperformed the Other Special Entry category students by a statistically significant margin. While they also produced higher SPU means than TAFE entrants and mature age entrants, the difference between SPU means for these categories was not statistically significant. Students admitted according to

Table 3. **SPU means: school leavers c/f. other categories**

Basis of admission	Mean SPU	"t"
Completed higher education	0.818	–10.05
Incomplete higher education	0.795	–7.29
TAFE background	0.740	1.87
School leaver	0.753	
Mature age	0.743	1.26
Other special entry	0.718	3.34
University examination	0.773	–1.56
Employment experience	0.765	–0.71
Professional qualifications	0.808	–3.54
Other	0.767	–1.85
Total	**0.753**	**–5.06**

Source: Dobson, Sharma and Haydon, p. 14.

the other bases of admission outperformed school leavers, but with the exception of students admitted by virtue of a professional qualification, the differences between means were not significant.

It must be noted that analysis of this type, which is spread across all commencing enrolments, masks the variability which is possible within each basis of admission category. The school leaver category is the one where this variability is most noticeable. Students are not uniformly distributed within Australian universities. There is a distinct pecking order, and students achieving the highest tertiary entry scores tend to be drawn to the traditional universities. More often than not, it is these universities which offer programmes in the much sought after disciplines such as medicine and law.

PERFORMANCE BASED FUNDING, DIVERSIFICATION OF THE FUNDING BASE AND SPU ANALYSIS

The higher education White Paper had as one of its goals that government operating grant funding would be provided on the basis of output, quality or performance measures (Dawkins, 1988, p. 85). This goal has yet to be achieved, but there are various reasons for thinking that it might be still be seen as a desirable end. These include the fact that the Higher Education Council (a government advisory board) recently appointed a consultant to examine the incidence of and scope for performance based funding. In the period since the 1988 reforms, there have been three areas in which funding has been linked to outcomes, even if only partially:

- the distribution of some of the earmarked "quality" money was based on performance indicators;
- the research composite index, which is now being used as the basis for the distribution of some research funding; and
- funding as a result of meeting agreed equity targets.

On 2 March 1996, Australia changed its federal government, and the incoming conservative government holds a set of policies which might even increase the pressure for accountability and the use of performance outcomes measurement. Early signals indicate that tertiary education will not be immune from the requirement for additional justification of existing funding levels. A greater emphasis on performance based funding is a possible reaction.

The introduction of performance based government funding would not affect all universities to the same extent. The two principal variables here are the **dependence of universities on government funding,** and the **relative "quality" of students** (especially school leavers) attracted to the university.

Australian higher education was almost totally dependent on government funding only a few years ago. This situation has changed steadily since the late 1980s, due particularly to the reintroduction of fees of various types. Full-cost recovery fees for overseas students started in 1986. (Part cost recovery fees were first introduced a few years

earlier.) Australian citizen/resident undergraduates have been required to pay a "contribution" towards the cost of higher education, via a contingent tax liability, since 1989. The liability starts once the student is earning a taxable income in excess of about A$28 500 (1996). It is also possible to pay these fees (the Higher Education Contribution Scheme, or HECS) up-front, for a discount of 25 per cent. The level of the HECS charge was set at about 20 per cent of the average course cost, and it is indexed each year against inflation. Postgraduate students also pay fees for many courses. Table 4 summarises the changes in the sources higher education funding, Australia-wide. It should be noted that universities are not uniformly dependent upon government funding. Some have diversified their funding base more than others.

If student performance becomes an integral part of a new focus on performance based funding, universities would need to ensure that they were in the best possible position to maximise the quantifiable performance of their students, in order to maximise their relative share of the diminishing government financial cake. In the recent past, the bulk of government funding has been provided to universities primarily as a "reward" for them having met tight (almost inflexible) intake targets. To date, none of the funding has been directly based on students' academic success. But this could change, and universities would then be keener to know if students' background prior to university entry was a significant factor in their academic success. One way or another, universities could "profit" (in relative terms) by enrolling those students most likely to pass the subjects they are enrolled in.

Those universities attracting school leaver students with the highest tertiary entry scores are less likely to be affected by the introduction of student-linked performance based funding, because the school leaver students they attract are among their best performers. This finding was demonstrated in the study mentioned earlier (Dobson and Sharma, 1993), where school leavers with the highest tertiary entry scores significantly outperformed students with lower entry scores. Universities who find themselves down the "pecking order" could feel moved to maximise their "performance", and hence funding, by looking to those cohorts of students who out-perform school leavers at their own university. In fact, funding based on the performance of school leavers might have to somehow take account of the "value added" by the university. Only the school leaver entrants have a convenient tertiary entry score by which they can be ranked. A university which tended to attract the relatively lower achieving school leavers would best have its performance judged according to

Table 4. **Sources of higher education funding 1981, 1987 and 1994**

Source of funding	1981	1987	1994
Government sources	90	84	62
Fees	–	2	24
(HECS)		(–)	(13)
Other	10	14	14
Total	**100**	**100**	**100**

Sources: 1981 and 1987, DEET (1993), p. 75. 1994, DEET (1996), Table 1.

its capacity to improve those students. Some cohorts might be shunned for their relative lack of success. With the decline in the proportion of funding derived from government sources, the application of performance criteria could provide an additional squeeze on those universities which have a relatively high dependence on this income source. In the national context, students admitted on the basis of professional qualifications significantly out performed school leavers, and might therefore be preferred to say, special entry students, who were relative under achievers. If this situation did eventuate, there could be implications for equity policy, since the special entry cohort is the source of a variety of concessional entry students. Establishing a policy based on student performance might lead to a situation where universities (particularly those higher up the pecking order) started to "poach" successful 1st year undergraduates from other universities.

The argument here is that Student Progress Unit (SPU) Analysis, being a simple quantitative tool and easily operationalised in Australian universities, could see the maximisation of student progress becoming a crucial part of income maximisation for some universities, in particular the ones still heavily dependent upon government sources of funding. The analysis above has shown which groups of students generate the most SPU. Clearly, those students with higher education experience perform the best, but at the "premier" universities students from the school leaver cohort are among the best performers (Dobson and Sharma, 1993). In a performance-based environment each university would have to juggle its admissions to optimise their own performance.

CONCLUSION

The proposition that the advent of mass higher education could bring with it a decline in student quality is one which needs to be monitored. Student quality is relevant not only in its own right, but also because it could become an integral part of performance based funding.

The analysis of undergraduate enrolment trends in Australia provides useful contextual information for the later analysis of SPU productivity. The decline in student performance between 1993 and 1994 indicated a potentially disturbing trend, although it must be stressed that this is a very short term analysis. The student cohorts showing the least change in terms of SPU productivity include students who had already completed a higher education qualification and mature age entrants, which could make these more "attractive" in the quest for undergraduates likely to succeed in higher education.

The relatively large declines in student performance noted for some groups of undergraduates admitted on the basis of professional qualifications (–5.9 per cent), special entrants (–5.5 per cent) and university examination (–5.3 per cent) might also lead to a change in emphasis by universities in the sorts of students sought. These changes in student performance need to be monitored over the medium to long term

so that actual trends can be assessed and corrective action implemented to ensure improvement in, or at least maintenance of, student performance across the Australia's higher education system.

In terms of the "Basis of admission", undergraduate students with some prior experience of higher education (complete or incomplete higher education qualifications) tended to outperform students admitted to Australian universities on other bases. Further, the fact that school leavers in 1994 do not have any claim to superiority of student performance in relation to other categories of first-time entrants to higher education is also an interesting point. Variations in student preference for specific universities as venues of study must also be considered.

Governments, by necessity, must be conscious of more than just numeric measures of student performance in considering policy towards patterns of access to higher education. The recent policy change which has seen a move away from school leaver targets to the establishment in 1996 of "new to higher education" targets for the Australian universities is probably a positive one. This policy change is likely to enhance access to higher education for other groups, especially TAFE articulants.

Australian higher education could readily operationalise the SPU metric as a basis for measuring student performance. However, to ensure desirable outcomes, great care would have to be taken in the implementation of such a policy, to avoid disadvantaging institutions down the "pecking" order.

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THE AUSTRIAN UNIVERSITY SYSTEM IN CHANGE: AN ADEQUATE RESPONSE TO NEW CHALLENGES?

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ABSTRACT

The author looks at the situation of tertiary education in Austria from the point of view of a member of an arts and humanities faculty, trying, however, not to lose sight of the wider perspective. As elsewhere in Europe, Austrian higher education institutions have suffered from the rapid increase of the student population and dwindling resources. The demands of society have changed. The 21st century may need new concepts and new contents, an increased flexibility based on genuine university autonomy, balanced by quality controls. The present attempts at reforms do not always tackle the essential problem: the continuous reduction of standards brought about by massification. What seems to be needed are qualitatively sound undergraduate programmes for the majority of students and graduate (degree) programmes of a high standard based on research. These questions are discussed with reference to the international situation, special attention being given to the German higher education scene.

The titles of two recent studies of universities, *Im Kern verrottet?* (P. Glotz "Rotten at the Core?") and *Ist die Uni noch zu retten?* (M. Daxner "Can the University still be Saved?") paint a sinister picture of the traditional university. The Science Editor of the respected liberal weekly *Die Zeit* entitles his front page article "*Humboldts Erbe wird verspielt. Die Universitäten verkümmern – doch wen kümmert dies schon?*" (Vannahme, "Humboldt's Heritage is gambled away. The universities whither away – yet who bothers about it?") Prof. Dr. Dieter Simon, President of the Academy of Sciences (Brandenburg), sees universities in a transition process turning them into "service stations" deprived of research functions. They will be replaced by Polytechnic Institutions (*Fachhochschulen*) and similar establishments providing a strictly professional training. (*Universität im Umbruch: Der Typ des gelehrten Mandarins stirbt aus, Der Standard,* 4 June 1996, p. A4) These and similar statement characterise the German and,

increasingly, the Austrian situation. The differences are that Austria has a rigid, centralised system headed by the Federal Ministry of Science, Transport and the Arts in Vienna. In Germany, the *Länder* (provinces) administer the universities, the Federal Ministry providing only a legal frame within which the *Länder* are free to move. The Vienna Ministry has only 12 universities and 6 *Hochschulen* (arts and music, design) to administer, Germany has 88 universities and 237 other institutions in the area of tertiary education. (BMB+F, 1996. The figures refer to 1994). This leads to diversity among the *Länder* in Germany, of which there is comparatively little in Austria. (See also below).

The present reform of the university system in Austria goes back to 1993 when the new Law on the Organisation of Universities (UOG 93) was passed. It will still take a few years before the new structures have been implemented at all universities. So far, a minority of institutions are just about to function under the new law. The UOG 93 gives the university more autonomy with respect to hiring staff and faculty as well as greater freedom in the internal distribution of funds. The administration rests in the hands of "monocratic" organs (*i.e.* chairmen, deans, rector). The *Kollegialorgane* (councils with a system of power-sharing between professors, junior faculty, and students) have been deprived of influence in the day-to-day running of the university. They have been reduced to setting long-term policy and controlling the monocratic organs. The next step planned by the Ministry was intended to reform studies at universities. Another law was to reform the Austrian system of teaching posts (*Dienstposten* with civil service status). In 1995 the Ministry produced a draft version of a new Law on University Studies which was heavily criticised and, as a consequence, withdrawn. The final draft came out in January 1997. Following heated discussions and minor changes, it passed Parliament and came into effect as of October 1 of the same year, simultaneously with the law reforming Dienstrecht (*i.e.* legislation governing the terms of employment of contractual and tenured staff). The legislation concerning University studies was supplemented by a ministerial regulation (*Verordnung* – EvalVO) introducing mandatory evaluations. The draft version of this *Verordnung* was also heavily criticised. The final text became available in summer 1997 and became effective October 1, 1997, together with the two aforementioned laws. In combination with the UOG 93, these three measures completed the reforms initiated by the Ministry in the late eighties.

The *Bundesgesetz über Studien an Universitäten (UStG)* (Federal Law concerning University Studies)

The following features of the new legislation have received the greatest amount of criticism:

– The UStG lists criteria such as regional and national demand, financial costs, etc. which the Minister has to check before establishing a course of studies at a university. These criteria must also be applied in an evaluation of the discipline, provision for which has been made in the above-mentioned

EvalVO. This may mean that some universities could lose the right to teach certain disciplines, be it for lack of demand, or lack of funds and teaching positions.

– Departmental Educational Policy Committees-EPCs (*Studienkommissionen*), which already exist for each discipline at each institution, are to set the general framework for the study of a given discipline (overall number of hours, core subjects – *Kernfächer*) and define the so-called *Qualifikationsprofil* (professional profile or orientation) to be reached by graduates of that discipline. These EPCs would draw up the course programme obligatory at a given institution. This can be considered an important step towards autonomy as up till now it has been the Ministry that set up the general framework for a study programme. On the other hand, the utterly utilitarian concept of a *Qualifikationsprofil,* prescribed by the UStG for each discipline, has been criticised by many academics, as it sets aims and goals that are oriented solely towards future professional work of the graduates of that discipline and disregards the traditional concept of *Bildung durch Wissenschaft* (Humboldt). This practical orientation is emphasised in the definition of diploma studies. In addition, the EPCs have to announce their intention to revise the existing course programme or design a new one to public institutions such as trade unions, representatives of industry and commerce, chambers of commerce, etc. All the institutions consulted have the right to submit their own proposals. Once the programme of studies has been drawn up, it has to be submitted to a wider circle of institutions inside and outside the universities, extending from the Academy of Sciences to trade unions and – in case of theological disciplines – the appropriate church(es). The EPCs have to take notice of comments before finalising the new programme of studies. The Dean has to add his comment and the Rector will then pass the proposed programme on to the Minister who will check whether all legal requirements have been met and the financial situation will permit the realisation of the new programme of studies.
– The UStG defines the "Rights of Students" (*e.g.* to choose a theme for the diploma thesis and dissertation; free choice of advisors for the thesis, etc.) but has nothing to say about duties and obligations of students.
– Although a time limit is set for the study of each discipline varying between 6 and 10 semesters, *i.e.* 3 to 5 years, students may interrupt their studies for two consecutive terms. They can also repeat exams up to four times. This may lead to a considerable extension of the time needed to complete their degree work.
– The UStG does not define requirements that have to be met by students in order to receive permission to continue with their studies.
– Apart from the over 100 disciplines listed in the Appendix, a student may choose to put together an *individueller Studienplan, i.e.* he can design his own, individual course programme. To do so, the student has to provide for certain formal requirements such as a definition of the *Qualifikationsprofil,* the

length of the proposed course of studies, the number and type of courses, the exams to be taken, etc. The EPC. has to assess the proposal and the Rector will approve it in case that it is considered equal to a recognised study programme.

- Diploma studies and studies for the teaching certificate have become separate disciplines. All diploma studies will now be **one-subject** studies, which is a radical departure from present usage. Studies leading to the teaching certificate would remain **two-subject** studies to (*i.e.* students have to combine two subjects). The reduction of diploma studies in arts (MA) to just one has received the greatest amount of criticism within the universities. The overall number of hours (*Semesterwochenstunden*, *i.e.* hours per week, course, and semester) in arts and humanities is between 100 and 120, out of which between 40 and 50 per cent have to be set aside as *freie Wahlfächer* (*i.e.* courses to be chosen by the student at will). This leaves only between 50 (!) and 72 hours in four years as obligatory hours defined in the course programme! Technical disciplines, which have a time limit of 5 years, have prescribed between 160 and 200 hours, out of which only between 10 and 15 per cent are to be set aside as optional, *i.e.* to be selected by students at will.
- The EPCs can recommend a combination of courses replacing the 40-50% optional hours providing the students with a kind of miniaturised second subject.
- The curricula for future teachers are to be designed by special EPCs, one for each faculty, the members of which consist of representatives of the given subject and specialists in education. This, too, is a departure from present norms.
- Students can propose the name of their examiner and such proposals "are to be accepted if possible".
- More important and potentially threatening is the evaluation of all disciplines within the next ten years as demanded by the UStG and included in the EvalVO. At the present moment, the Ministry is just about to begin evaluation of technical disciplines, to be followed by business studies and social sciences. The avowed aim of these evaluations is rationalisation, *i.e.* the concentration of disciplines in fewer institutions than at present.

The Ministry has supplied the following motivation for the new legislative measures:

- The reduction of the excessive number of laws and regulations governing university studies: up to 10 laws, 118 nation-wide syllabi and 349 regional (local) "study plans", all of which were designed and/or had to be approved by the Ministry. The UStG sets a general framework and leaves the rest for the universities themselves to define. This does, indeed, increase university autonomy in an important area, but is vitiated by two facts: *a)* the composition of the EPCs (1:1:1; *i.e.* an equal number of professors, junior faculty members *Assistenten*, and students); and *b)* the rigidity produced by the

normative nature of the list of "approved" study courses in the Appendix of the UStG. This list could be changed only by an amendment passed by Parliament – a time-consuming and complicated measure. In other words, the universities have no simple way to try out and/or establish new subjects or disciplines. The heretofore existing possibilities of a *Studienversuch* (a new, "tentative" course of studies, instituted with the permission of the Ministry for a limited period of time in order to test its viability), and the popular *Fächerbündel* (individual combinations of courses taken from different subjects approved by the EPCs in place of a second subject in a combination of two) have been abolished.

- Deregulation and decentralisation. A laudable aim, if the UStG had established genuine autonomy with respect to the organisation of disciplines, the testing and introduction of new subjects and programmes. It does admittedly grant greater autonomy, however, the existing flexibility has disappeared.
- Increased efficiency of the system and a simplification of the present situation. This has been achieved, though at a cost: The result of the UStG may be diverging programmes of studies and diverging standards in the way that exams will be prescribed by the EPCs in different institutions. In the terminology of B. Girod de l'Ain (1997), both the "final certification model", the "cumulative model", and the "aggregative model", or any combination thereof are possible according to the UStG.
- The reduction of the excessive length of university studies in Austria, lasting on the average 14 semesters, *i.e.* 7 years; the reduction of the very high drop-out rates, presently over 50 per cent. Academics doubt that the UStG will reduce either.

The new ministerial regulation concerning evaluations (*Evaluierungsverordnung* – EvalVO)

The main point stipulates that all universities have to organise evaluations of teaching and research at regular intervals. The evaluations are to be done by the students in these courses. These evaluations have to be organised and the results tabulated and published by the "deans of study" (*Studiendekane*) established by the UOG 93, a procedure that may give birth to a costly new bureaucracy. The EvalVO does not foresee any "punishment", nor any "reward" for those teachers who fail or excel in their evaluations. In addition, the EvalVO provides for evaluations of institutes, faculties, disciplines by the Rector, the Minister or the Universities Board, including evaluations of disciplines by the Ministry aimed at deciding in which university a given subject should be offered and where it might be abolished. Such evaluations will take place at irregular intervals. The procedures to be could include peer reviews, consultations of experts (*Sachverständigengutachten*), and the use of statistical indicators (*Kennzahlen*). The results could influence the allocation of funds to the

universities, as the Minister has announced recently ("*Universitäten: Mehr Geld für Spitzenleistungen*", *Der Standard*, July 11, 1996, p. 1 At Klagenfurt University there are at present two types of evaluation being conducted: Evaluations of teaching and evaluations of selected departments. Simultaneously the Ministry is conducting nation-wide evaluations of selected disciplines with the aim of concentration and rationalisation of studies.

Another piece of legislation that became effective in October 1997 concerns the status, duties and salaries of the teaching faculty (*Dienstrecht. 2. BDG-Novelle 1997*) of universities. It regulates the teaching obligation of assistants and introduced changes in the professorial rank. Full and associate professors (o. and ao. Univ. Prof.) have now been grouped together in one category with the title professor (*Universitätsprofessor*); assistants that completed their *Habilitation* and consequently received the title of a *Dozent* are now placed in a new category with the title of associate professor (ao. Univ. Prof.). As a result, Austria has miraculously increased the number of professors at its universities (in daily usage the "ao." is usually disregarded). Limitations of space do not allow a more detailed review of the new *Dienstrecht*.

In order to understand these measures we have to say a few words about the general situation of the university in Austria. The past thirty years have witnessed an unparalleled increase in the number of students. The increase in the number of full-time teaching staff has lagged far behind (Table 1). At the beginning of the 1960s, Austria had about 32 000 students. They increased to 225 000 students in 1995/96. The biggest growth rates occurred in the 20 year period from 1970 to 1990. The teaching staff increased from 4 900 in 1970 to 9 400 in 1995. In 25 years, student numbers increased four times, teaching staff barely doubled over the same period. The age group participation rate rose from 9 per cent in 1970/71 to 22.2 per cent in 1994/95. Elsewhere in Europe it amounts up to 30 per cent, in the Unite States it has reached an impressive 60 per cent. England and Germany are discussing raising their APR to, at least, 40 per cent. Considering that a rather low percentage of the Austrian working

Table 1. **Growth of student numbers and faculty at Austrian universities between 1970 and 1996**

	Students	Faculty
1970/71	51 000	4 900
1979/80	104 000	7 200
1984/85	146 000	7 600
1989/90	179 000	7 900
1990/91	187 000	8 200
1991/92	195 000	8 500
1992/93	199 000	8 800
1993/94	204 000	9 100
1994/95	209 000	9 400
1995/96	214 000	9 400

Source: BMWFK (*Die Presse*, 26 April 1996, p. 6).

population has a university diploma (only 7 per cent at the present time compared to an average of 19 per cent in the industrialised countries), we can expect that student numbers will continue to rise in future years.

A problem is the excessive length of studies (7 to 8 years). Only 14 per cent of our students complete their studies in 5 years. At the other end of the scale, there are 10 per cent who need, at least, 10 years of study. These figures are paralleled by low output rates. One out of 18 students completes his studies every year (Germany: 1 out of 8; France: 1 out of 5).

The Ministry's budget for higher education (*Wissenschaft und Forschung*) increased from 8.8 billion AS in 1961 to 31.5 billion AS in 1994. In 1995 it amounted to 29.76 billion AS, *i.e.* it increased approximately 3.5 times and amounted to 4 per cent of the national budget in 1995. In 1994, Austria spent 1.1 per cent of the GNP on higher education.

Funds for research and development in the European Union amount at an average to 2 per cent of the GNP (USA and Japan: 2.7 per cent) and only 1.7 per cent in Austria. However, 10 years ago they reached only approximately 0.4 per cent of the GNP.

The *Sparpaket* (package of cuts) introduced by the coalition government three years ago foresees that the Ministry's budget should remain at the 1995 level for two consecutive years in order to meet the Maastricht criteria. This necessitates savings of 2 per cent in the area of university posts and puts severe restraints on university budgets. The teaching costs were to be reduced by altogether AS 400 million.

The situation which is characterised by more students on the one hand and less money and fewer staff on the other is exacerbated by the rising costs of running and equipping a university. New technologies with short life spans constitute an additional burden. The reaction of the Ministry has been to try to ease the pressure by reducing the excessive length of studies and, generally speaking, facilitate the flow of students through the institution by reducing requirements. Provision was made in the UStG to reduce redundant departments and study programmes. The measures proposed there have to be seen in this light. The problem is, academic critics agree, that they will hardly achieve their aim, but could lead to a further reduction of standards. This was to be offset by evaluation procedures, putting pressure on teachers to improve teaching, placing responsibility for quality on the shoulders of the faculty.

We have begun this paper by pointing to the widespread scepticism about the viability of the university as it presents itself today. In recent years new institutions have been founded competing with universities. These are *Fachhochschulen* (FH – Polytechnic Institutions) offering four year programmes in applied science, business and applied arts. They have only recently been introduced in Austria. At the end of 1997 there were 43 study programmes being offered throughout the country. They have over 6 000 students. In Germany where they have existed for a longer time, already one third of all students attend a FH. In the Netherlands, there are even more than 50 per cent of all students attending a FH. It can be expected that Austria will

follow this trend. So-called *Berufsakademien* (Professional Academies) in Germany combine the training of a FH with an apprenticeship system. In Austria, students who have completed Secondary school have a number of courses available preparing them for a quick transition to a job. They are offered by WIFIs (*Wirtschaftsförderungsinstitut der Wirtschaftskammer* – Institute Promoting Business – with branches all over Austria). Then there are so-called *Kollegs*, mostly run by the Government, offering specialised training in a variety of fields, numbering about 125 in all of Austria. There are 8 *Pädagogische Akademien* which train primary and high school teachers (plus 7 more run by the churches). Other "academies" (numbering 33) train teachers of religious studies, social workers, *Kindergarten* staff and related personnel. There is a Military Academy, and a well-known Diplomatic Academy. In addition, Austrian universities are offering various *Universitätslehrgänge* (University-type study courses) of one or two semester duration, subject to fees, which provide for special qualifications in certain applied areas. Such courses may also be offered by non-university institutions and, upon application, may be granted the above title by the Ministry. In addition, there are a few private institutions offering special qualifications – some of them primarily engaged in research. There is the prestigious *Institut für die Wissenschaften vom Menschen* (IWM) in Vienna, *Joanneum Research* in Graz, the *Salzburger Institut für Alltagskultur,* the *Internationales Zentrum für Kultur & Management* in Salzburg (offering the European Executive Management Programme for the Arts and Media). Finally, there is Austria's youngest university, the *Donau-Universität Krems*, which offers only advanced programmes, *e.g. Telematikmanagement* (a *Universitätslehrgang*), for which fees have to be paid. The students receive the degree of MAS (Master of Advanced Studies) upon successful completion of the programme.

The development towards greater diversification should be considered a very positive factor in rapidly changing societies as the new institutions may be better equipped to adapt to changing market conditions. On the other hand, their very existence throws into relief the comparatively stable nature of the traditional university, which is much less prone to adapt to changes. Yet the traditional university will have to change. As Prof. M. Daxner (an Austrian who is President of Oldenburg University in Germany) said: "*Aber wir haben keine Zeit. Ich warne: Wenn man die Universitäten noch fünf, sechs Jahre gammeln läßt, dann sind sie wirklich vergammelt.*" ("However, we have no time. My warning is: If one lets the universities idle along another five or six years, they will be ruined") (*Die Zeit*, 26 April 1996).

Central to the problem is the "massification" of the university, the loss of its status as an elitist institution accompanied by a **loss of quality** and compounded by changed social conditions that demand a more practical orientation towards professional skills. When the Government introduced the new magisterial degree which extended the time of study by, at least, two years, it had the chance to raise the level of the doctorate. However, the new regulations governing doctoral studies and exams were patterned on those regulating the magisterial programme. The trend towards a reduction of requirements eventually reached the next higher level, the *Habilitation* (qualification for the professorial rank), which, in the view of many academics,

nowadays is a more or less formal requirement, obtained by writing a second dissertation plus an unspecified number of conference and/or research papers.

What is missing in the Austrian university scene is a clear concept of quality mass education on the one side and quality education on the graduate level on the other. This exists at American universities. There, massification takes place at the undergraduate level. Professional schools provide quality education and concentrate on research. The division between undergraduate studies and graduate schools, supervising magisterial and doctoral studies, is obvious and visible in many ways. Not every professor is a member of the graduate school, not every department has the privilege of offering graduate courses. An accreditation process determines the latter. Training for certain professional disciplines is done in "schools" (Medical School, Business School, etc.) that require a bachelor's degree from prospective students. They set the entrance requirements and determine the number of admissions. They are in control of the academic programme. In addition, as is well known, there is competition between institutions. Austrian universities do not distinguish in a similar manner between a basic university training designed for great numbers of students and graduate studies that demand a basic degree as entrance requirement. There is no essential difference in the way and manner in which one student begins to study medicine or engineering and another history and philosophy. The latter may have no clear perception of any future professional work. In all probability, he has a vague notion of joining the civil service or teaching in secondary schools. The teaching staff, probably, has no clear notion either of the eventual job(s) for which their students are to be prepared. This lack of orientation (apart from the natural inclination of historians to train future historians, philosophers future philosophers, etc.) is reflected in the way in which studies and exams are conducted. There is a certain *laissez-faire* attitude characterising such studies. There is no internal quality control and no external quality audit, and, so far, there have been only a few quality assessments at Austrian universities and it is difficult to make exact statements about quality. This situation will change, of course, when the above-mentioned new legislative measures have been introduced in all universities.

On the other hand, business leaders, managers and other public figures have pointed out that our age of globalisation needs graduates who combine specialised training with a general education that leads to a widening of the horizon – something that neither our secondary schools nor our universities seem capable of providing. However, there are attempts in this direction. A case in point is the renowned private university *Wissenschaftliche Hochschule für Unternehmensführung: Otto-Beisheim-Hochschule* (WHU) in Koblenz, a business school praised and supported by German business. The prospectus lists four special quality marks (*Markenzeichen*) characterising this outstanding institution: *Praxisorientierung, Internationalität, Persönlichkeitsentwicklung* (development of personality), *Technikorientierung*. Part of *Persönlichkeitsentwicklung* is a "*studium generale*" *mit Lehrveranstaltungen in Philosophie, Ethik, Rhetorik, Musik, visueller und verbaler Kommunikation* (a general study programme with courses in philosophy, ethics, rhetoric, music, visual and verbal communication). Another example is the equally well-known private university Witten/Herdecke that has a

renowned Medical Faculty, a Faculty of Business Administration and a Science Faculty. The unusual feature is the obligatory *studium fundamentale* (which has faculty status), consisting of courses in philosophy, the theory of science (*Wissenschaftstheorie*), art history and literature, as well as aesthetics, foreign languages, rhetoric, theatre and music. These are just two examples showing how the demand for a "general education" can be met in a meaningful way.

If we look briefly at the history of universities, we can see that before 1788 (when the *Abitur* was introduced in Prussia), *i.e.* before the times of Humboldt, the "lower" Faculty of Philosophy provided the entrance qualification needed to begin the study of theology, medicine and law. In Austria, this happened as late as 1848, when the two preparatory years of courses offered by the faculty of philosophy were transferred to the *Gymnasien*. Prof. Harro Müller-Michaels (German Studies, Bochum), who has closely followed the developments in higher education for the last fifteen years, has suggested to return to pre-Humboldt times, *i.e.* to introduce "academies" offering a *studium generale* which would also serve as entrance requirement for profession-oriented university studies. (Müller-Michaels, 1994). In Austria, it was Sekt. Chef Dr. S. Höllinger, a senior civil servant in the Ministry responsible for the draft versions discussed above, who suggested in 1993 a tripartite system of university studies, *i.e.* a three year general programme, followed by two years of a magisterial programme, and, for some, a two year doctoral programme. (*Die Presse*, 17 September, 1993). The Chairman of the Federal Conference of University Professors (PROKO), Prof. Dr. J. Koder, has also expressed himself in favour of a three year introductory programme, followed by a two-year magisterial and a three-year doctoral programme. (*Österreichische Hochschulzeitung*, February/March 1994, p. 15). The new German *Hochschulrahmengesetz*, passed only recently, recommends the introduction of bachelor and master programmes.

Concerning the question of quality at the doctoral level, I think that Austria would be well advised to study the Dutch experience. The Dutch *Onderzoeksscholen* (initiated in the early 1990s) are a model for a qualitative doctoral programme. They presuppose nation-wide collaboration in the area of research and the integration of the doctoral candidates in ongoing research projects. The candidates receive a contract limited to four years during which they work as research assistants. The *Onderzoeksscholen* can be compared to *Wissenschaftskollegs* as they exist at some German universities and are promoted in Austria by the FWF (*Fonds zur Förderung der wissenschaftlichen Forschung*). German *Graduiertenkollegs* and French écoles doctorales are further examples. A Dutch observer explains:

> "The new structure for 'research training' is not a programme of taught courses. The assistant … is appointed for a maximum of four years, during which (s)he is expected to prepare a thesis under the supervision of a professor. During the first year a substantial amount of time may be spent on further specialised instruction. The assistant will be assigned a small teaching load (25 per cent of working time at most), in particular routine teaching tasks, while payment is based on the assumption that, in the course of these

four years, his/her share in the research and instruction at the university will increase. Selection of the assistant takes place via an open application procedure. After the first year a formal assessment is to be carried out: a positive assessment will imply supervision guaranteeing that the thesis can be completed and a doctorate conferred within four years." (J.F.M.J. v. Hout: *Onderzoekers in Opleiding… Nijmegen 1988*. I gratefully acknowledge the assistance of my colleague Prof. van Trotsenburg who has made this information available to me. Quoted in van Trotsenburg, 1996).

Obviously, such doctoral studies should prepare for work in research. They should cease to be considered to lead only to a prestigious ornament in front of the name of its bearer, as is still widely the case in Austria.

While the major task remains defining "undergraduate" and "graduate" studies as distinctly separate areas bringing about qualitative changes in both, there are a few further conditions which have to be met to enable Austrian universities to cope with new challenges in our rapidly changing times. Two significant elements of a genuine autonomy would be global budgets with the university being able to shift funds from one category to another including the right to transfer moneys not spent to the next fiscal year and full control over the course programme, *i.e.* the right to try out and establish new programmes and modify or phase out others. This would necessitate creating an accreditation mechanism located outside the Ministry, but with participation of ministerial officers. The already existing *Universitätenkuratorium* (Universities' Board), advising the Ministry on various matters, could be restructured to serve this purpose. Other requirements are the introduction of fees, which, I think, will become necessary (it is being discussed in public already) and the selection of students at the graduate level.

The young German philosopher Markus J. Brach has pointed out another deficiency demanding that, in view of an ongoing credibility gap in the arts and humanities, these disciplines have to think of the social relevance of what they are doing, *i.e.* "their contribution to the self-definition of the coming knowledge society". He has also accused them of lagging behind the technical achievements of the time. "*Während in den Naturwissenschaften längst schon mit virtuellen Labors experimentiert wird, in denen Wissenschaftler aus verschiedenen Kontinenten zeitgleich an Experimenten arbeiten, gilt der PC in vielen Seminaren der Geisteswissenschaften gerade mal als probater Ersatz für die Schreibmaschine, gelten Faxgeräte als letzter Schrei der Technik*" (Brach, 1996: "At a time when natural science has already for a long time experimented with virtual laboratories in which researchers from different continents are simultaneously working at experiments, many departments in the arts and humanities still consider the PC a useful substitute of the typewriter, and fax machines the *dernier cri* of technology").

Equally important is the use of available technology in teaching. Nordrhein-Westfalia – perhaps, the most technically advanced of the German *Länder* – is putting 30 million marks for the next three years into a computer network (NRW-WissWeb) that will be installed in all universities and FHs. Electronic auditoria, tele-learning,

and digital libraries will become a reality. The enterprise is said to serve as a Europe-wide model. (*Rheinische Post*, 24 July 1996).

I should like to conclude this paper on an optimistic note pointing to two studies that indicate a growing need for university graduates after the turn of the century. The IAB (*Institut für Arbeitsmarkt- und Berufsforschung*, Nürnberg) has conducted an investigation together with the *Prognos-Institut* (Basel) which comes to the conclusion that the percentage of jobs demanding higher qualifications will increase to almost 40 per cent (in 1985: only 28 per cent). Jobs demanding little or no qualification will drop to 17 per cent (1985: 27 per cent). Another investigation conducted by the Technical University (Berlin, 1994) upon request of the Federal Ministry (*BM f. Bildung u. Wissenschaft*) came to the conclusion that West Germany alone will need an additional 1.4 million employees with a university or FH diploma by 2010 (See M. Lambrecht, "*Wissen ist die beste Waffe*", *Die Woche*, 3 May 1996, p. 17). So there seems to be a continuing need for university graduates.

If our universities accept the challenges of the age, if those wielding political power provide them with the prerequisite measure of autonomy, if universities adjust their internal mechanisms to deal with these challenges constructively, then their future should be secure despite the pessimism of some observers.

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THE UNIVERSITY SYSTEM IN JAPAN

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ABSTRACT

Today universities in most industrialised countries are having to cope with growing and ever wider demand, and topics such as the "decentralisation", "privatisation" or "diversification" of higher education are at the heart of political debate. To provide a basis for comparison, this paper looks at how Japan's university system has evolved and the stage it has now reached, before concluding with some ideas on the future of Japanese universities.

INTRODUCTION

Individual and social expectations of university education are on the rise in most industrialised countries. Universities are increasingly part of national research systems, yet their effectiveness as institutions is being called into question now that budget restrictions are the order of the day. How can they cope with growing and ever wider demand? Today topics such as the "decentralisation", "privatisation" or "diversification" of higher education are at the heart of the political debate.

Against such a background Japan is an interesting case study on two counts. First, the education system, in particular higher education, has contributed substantially to economic growth; second, Japanese universities have experienced phases of expansion and diversification before becoming what they are today.

This paper will look at how the Japanese university system has evolved and the stage it has now reached, the aim being to provide the debate with a basis for comparison, particularly since there is little literature on the subject outside Japan.[1]

HISTORICAL BACKGROUND

When tracing the origins of the modern University of Tokyo, the oldest in Japan, authors such as Nagai (1983) go back as far as 1684 and the founding of *Tenmon-kata*, the Dutch institute for astronomical research. *Tenmon-kata* did of course evolve and change over the years before becoming the Public University of Tokyo in 1877. However, as an institute attached to the *Shogunate*[2] it focused more on research and the discovery of western knowledge, and had very little in common with higher education institutions. This paper will accordingly take as its starting point the *Tokyo Kaiseigakko* school (of law, science and the arts, founded in 1873) in order to trace the development of Japanese universities.

Once Japan had opened up to the West in 1868, one of the priorities of the *Meiji* government was to make up the ground it had lost compared to western knowledge and know-how in the course of 200 years of isolation.[3] This meant gathering fresh knowledge, passing it on to future leaders and training young people to transmit and expand on that knowledge. It was against this background that a number of institutions of higher education were set up, including the *Kaiseigakko*. They employed foreign academics and in many cases reported to the ministry in charge of their specialist discipline (Gakushiskai, 1986). After merging with the Tokyo School of Medicine, the Tokyo *Kaiseigakko* became the Public University of Tokyo in 1877.

Following the 1885 Order on Imperial Universities, which outlined the mandate of these institutions (to assimilate western culture, serve the country's needs and foster national development), three imperial universities were established. The first was Tokyo – formerly the Public University of Tokyo – in 1886, the second Kyoto in 1897 and the third Tohoku in 1907.

These imperial universities were largely inspired by the German model (Amano, 1994). Exemplified by the University of Berlin dating back to the early 19th century, this typically views research and teaching as the two faces of a single coin, *i.e.* the university. The professors teach students by supervising research or passing on their latest research findings, in a close master/apprentice relationship. The work is confined to a small number of universities. In founding the three imperial universities, Japan sought to create centres of excellence, although research was confined to the translation and presentation of foreign research and was thus less significant than in the German universities.

As Nagai has pointed out (1983), the Order was above all utilitarian and gave the government an even greater hold over the universities. The imperial universities encompassed several autonomous institutions, in particular Tokyo which originally comprised schools of law, medicine, arts and sciences and subsequently engineering and agriculture, before going on to set up its Graduate School.

In 1893, the chair system (*koza*) was introduced as a research unit. Designated by a government board, the title of the chair defined a specific field of research. The professor appointed to a chair was in charge of research, teaching and the supervision of

student research in that particular field. This generated a trend towards greater specialisation, to the detriment of interdisciplinarity (Seki, 1988). At the organisational level, a number of chairs were grouped to form a department (*gakka*). However, in these early days of Japanese universities, chairs did not have their own research budgets, in spite of their stated aims. At that time, the idea that research should be financed had never crossed people's minds, even in government (Ito in Arimoto, 1991). As a result, teaching was given far more importance than research.

As this was happening, advanced education schools (*Kotogakko*) were also being set up to prepare for university entrance and to give specialised instruction following the 1894 Order on Advanced Education Schools; these schools taught foreign languages and introductory courses in one of four chosen areas – law/humanities, engineering/science, medicine and agriculture. Paradoxically, the atmosphere in these schools was nationalistic and based on Confucianism, so that students were constantly juggling with two cultures – the one of their birth, the other of their education (Seki, 1988). The contrast increased the amount of effort required of the students and made them realise that access to scientific knowledge meant assimilating first a foreign culture, and then through it, a "culture" of science.

Once the ruling class had been educated, a white-collar class was needed. Numerous private schools sprang up to meet the attendant rise in demand for higher education, including *Keio*, founded in 1890, and *Waseda* in 1905. But without a solid financial basis or legal status, these schools took second place to the imperial universities (Nagai, 1983).

The 1918 Universities Order changed the internal structure of the imperial universities – henceforth divided into faculties – and conferred university status, on the above-mentioned schools, generating a boom in public and private universities. Because these new universities had not yet produced their own teaching staff, most of the teaching posts were filled by professors and lecturers trained at the Imperial University of Tokyo (Seki, 1988). This institution accordingly became an even stronger model for Japanese universities and its influence has been growing ever since.

The new structure also generated conflicting objectives in the new universities. On acquiring university status, the private and advanced education schools had been forced to drop some of the features that had distinguished them from the imperial universities in order to bring their programmes into line with the educational and research objectives of the latter. This involved, amongst other things, rethinking the status of teaching staff in the schools as well as the proper mix of general and vocational training (Imon, 1994). It is to this transition that Imon traces back the origins of the contemporary Japanese model, which lies midway between the German and the US model and is characterised by a blending of general and specialised education.

After the second World War an *Education Mission*, sent by the United States in 1946, worked with a delegation of Japanese teachers to achieve the broad restructuring of Japanese universities. Its proposals were as follows:

– to democratise the universities;
– to ensure educational independence and guarantee funding;
– to reinforce general education within universities;
– to develop research;
– to enhance the role of women.

First, the *Education Mission* had its reservations about the German model and wanted to restructure Japan's universities along the lines of US institutions; second, it wanted to prevent excessive government control over the universities. It therefore proposed introducing:

– junior colleges offering 2 year courses;
– a body to set chartering standards for new universities;
– compulsory general education.

While most of these proposals were adopted, some were amended and the Mission accordingly failed to achieve some of its objectives.

The 2 year junior colleges have become the favoured higher education pathway for women.

With its chartering standards for new universities, the *Education Mission*'s original idea was to introduce:

– a chartering system to guarantee the quality of university education; and
– an assessment (accreditation) system to maintain or enhance that quality.

This task was to be given to bodies comprising not administrative civil servants but academics (Toda in Iijima, 1990), hence the setting up of the Educational Reform Board and the University Standards Association.[4] The Board was to outline university policy while the Association, comprising university rectors from all sectors, was to put forward proposals on how university education would be organised[5] (Terasaki, 1993). The proposals were adopted in an Order on Chartering Standards,[6] issued by the Ministry of Education. It sets out basic requirements[7] on infrastructure, staffing levels, library resources, the number of students per class, compulsory courses, etc. (Kurobane in Iijima, 1990). Having completed its initial task, the Standards Association saw its authority undermined and to some extent taken over by the Ministry of Education. The aims of the *Education Mission* were thus frustrated on two counts – the Ministry regained control, and the planned assessment of universities after opening failed to materialise (Kitamura, 1991).

As for compulsory general education, the idea met with strong resistance from the teaching profession which feared that specialist degrees would be undermined or even disappear at the undergraduate level. Another argument against its introduction was that secondary education offered a sufficiently vast, solid programme of general knowledge (Amano, 1994). A compromise was found thanks to a suggestion by the University Standards Association that general knowledge be taught in the first cycle and specialised knowledge in the second. This meant that the structure and

content of specialised education did not undergo any radical change (Terasaki, 1993). And so the Japanese model emerged, with a general knowledge component borrowed from US universities and included in the specialised education based on the German model, but without an explicit definition of what the main objectives of Japanese universities were to be.[8]

In fact, the *Education Mission's* recommendations on the status, organisation and functioning of the universities in the post-war period did have some impact on the framework of educational legislation, including the 1947 Basic Education Code, the 1947 School Education Code (Murai, 1976), the 1949 National Schools Code guaranteeing academic freedom and autonomy for universities, and the 1956 Chartering Standards (Seki, 1988). Nevertheless, a number of questions remained as to how these would be applied. Would there be a levelling up or down between the old imperial universities and the other institutions? Would the existing hierarchy among different types of university disappear? Would some universities become a kind of College of Liberal Arts and Science?

Thus Japan's New Universities emerged in 1949. There were 70 national universities, 17 prefectoral/municipal universities and 81 private universities (Iijima, 1993), with the following features (Seki, 1988):

- Compulsory general knowledge courses. Covering the human, social and exact sciences, they were deemed to be indispensable if students were to set their specialised knowledge in the context of knowledge as a whole.[9]
- Two systems of organisation, one being chairs (kozasei) – covering all the academics in charge of teaching and research in a given field – and a discipline-based system (*gakkamokusei*) based on the teaching of specific subjects. Faculties fell into one of two categories, depending on the system used. The first were mainly in the old imperial universities, public universities and faculties of medicine, and the second in all the others.
- More research in the faculties of the first category which became the only ones allowed to award doctorates.

The stated aim of the first of these three features (compulsory teaching of general knowledge) should be viewed with reservations, as explained above.

With regard to the dual system of organisation, the distinction was crucial to the national universities as it defined not only how education and research were to be organised but, more importantly, how budget resources and research staff were to be allocated (Amano, 1993).

The third point, *i.e.* more research, confirmed that the postgraduate cycle remained attached to the faculties, and did not operate as an independent entity like Graduate Schools in the United States which act as research and research-training centres independent of the Undergraduate Schools. In Japan's new universities, postgraduate studies still served primarily to train the next generation of academics, in spite of the government's aim to turn the cycle into a vehicle for research excellence (Amano, 1994).

We now know, with a few decades' hindsight, that in spite of the wind of change that brought democratisation and equal status to the universities under the Education Code, Japan's universities continued to differ structurally and functionally depending on their origin (imperial universities, advanced education schools, private schools). In practice the universities were not all placed on an equal footing, and the Imperial University of Tokyo left its legacy deeply rooted in the organisation of the new universities.

With economic expansion in the 1960s, Japanese universities saw a surge in enrolment and the opening of many private faculties and universities. But as Nagai (1983) has noted, the surge was not accompanied by adequate growth in infrastructure, staff or funding, making the universities victims rather than beneficiaries of economic growth.

At the same time, economic growth increased the demand for specialists, particularly in engineering and the exact sciences. To cope with the pressure from industry, a number of mostly private but in some cases public universities were for the first time allowed to introduce postgraduate courses.

The Chartering Standards were thus revised on several occasions to suit changing circumstances (Sato in *Kôtôkyôiku kenkyûjo*, 1992). The recommendations on general education and the funding system suggested by the Central Advisory Committee on Education in 1963 resulted in an initial amendment to the Standards, providing greater flexibility in the first-cycle curriculum. The 1971 recommendations went even further by proposing to bring down the barrier between general and specialised education and create more synergy between the two (Kurobane in Iijima, 1990). It was also suggested that the education system be separated from research, as in the US model (Amano, 1994). Academics would be classed as either teachers or researchers according to the system in which they worked; this would dispel the ambiguity surrounding the status of teaching staff. These recommendations gave Japanese universities greater freedom to organise general educational courses, the permission to introduce postgraduate studies (but without a Master's degree), more flexible academic and pedagogical requirements for staff recruitment, and other benefits (Japanese Ministry of Education, 1987).

The Ministry of Education's Advisory Committee on Education, established between 1984 and 1987 (Sato in *Kôtôkyôiku kenkyûjo*, 1992) continued the work begun by the previous Committee and proposed an overhaul of the Japanese university system, namely (Japanese ministry of Education, 1987):

- a revision of the Chartering Standards to give more flexibility in the organisation of education as a whole;
- postgraduate studies with more autonomy *vis-à-vis* the faculty;
- closer co-operation between universities via student and teacher mobility, between universities and the outside world via lifelong education and research, and between universities and other countries via student and teacher exchanges;

– a wider range of funding sources, including in the public sector;
– the establishment of a University Board, *i.e.* an independent body to supervise the university system.

These recommendations, which Tôyama (1988) describes as "specification", "diversification", "internationalisation" and "closer links with the outside world" met with a number of practical responses from the Ministry of Education:

– a committee on university reform (*daigaku kaikaku kyogikai*) was set up in 1987 to examine the Chartering Standards;
– two block grants from the Ministry of Education, one of ¥ 3.16 billion in 1987 and the other of ¥ 3.52 billion in 1988, were awarded to universities that had "performed well" in research, so that they could enhance their research infrastructure;[10]
– a national university offering solely postgraduate studies specialising in the exact sciences (mathematics and physics) and life sciences was founded in 1988; another university specialising in leading-edge technology is under consideration;
– as early as 1987 the national universities were given permission for chairs funded by private enterprise; at the same time a number of tax measures were passed to encourage private donations;
– the University Council was set up in October 1987 to advise the Ministry of Education on university policy, its 18 members comprising 9 academics and 9 key figures from other walks of life.

So Japanese universities were being asked to play an increasingly complex role extending beyond their two main functions, namely education and basic research. Aware of this, the authorities attempted to adapt the universities to the changing environment by stepping up research work and revising the regulations in force while maintaining their control (RIHE, 1988). Importantly, however, in spite of all these amendments to the Standards, once a university had been granted permission to open there was virtually no further control over how it functioned or the quality of courses, either by the ministry of Education or by the University Standards Association,[11] and even less control in the form of self-assessment by the university (Amano, 1994).

UNIVERSITIES BY SECTOR[12]

The basic Education Code sets out a general framework for education in Japan, emphasising that educational institutions provide a public service. Under Article 6, only central Government, prefectoral/municipal authorities and the legal entities defined in the School Education Law are authorised to open educational institutions (RIHE, 1988). Universities fall into three categories, *i.e.* national, regional[13] and private.

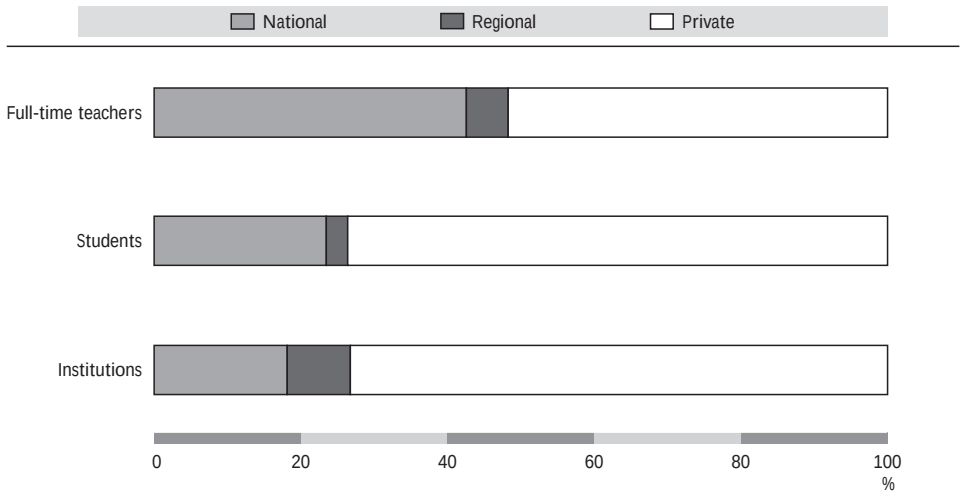
National universities

Because national universities come under the authority of central Government, they are subject to laws, orders and the Chartering Standards (*op. cit.*) Any change of an organisational, functional or financial nature is therefore subject to legislative review. Moreover, the management of administrative and teaching staff, whose members are civil servants, must be endorsed by the Ministry of Education. As the supervising authority, the Ministry exerts direct control over the national universities, and some see this as the fundamental cause of the rigid organisation of such institutions. Major decisions affecting universities are thus subject to political authority (Iijima, 1989).

In 1993 there were 98 national universities, 30 teaching to Master's degree level and 68 to doctorate level. They employed 55 839 full-time and 28 967 part-time teachers for 561 822 students, or 7 per cent of the 18-21 age group (Japanese Ministry of Education, 1994*a* and 1994*b*). The ratio of students to full-time teachers, and of part-time teachers to total staff, is good compared with other types of university (Figure 1).

Being public institutions, national universities are funded mainly from the Ministry of Education budget. In 1991, a block grant of ¥ 1 266 billion (25 per cent the Ministry's overall budget) went to national institutions[14] (Japanese Ministry of Education, 1991). Between 1975 and 1980, the national schools budget rose faster

◆ Figure 1. ***Institutions, students and full-time teachers, by sector (1993)***



Source: Japanese Ministry of Education (1994*b*).

than GNP but subsequently flattened out until the early 1990s. To encourage the democratisation of higher education, university fees were kept quite low until the 1960s. Until then, the development of new national universities, the expansion of science and engineering and the rising social demand for higher education had always been accompanied by an increase in government funding. But in 1970, when a ceiling was placed on the education budget, university fees (annual fee per student) roseat a sustained rate far higher than that of private university fees, and from 1975 to 1994 rose from ¥ 36 000 to ¥ 411 600 (Student Division, 1994). Expenditure stood at around ¥ 1 541 billion in 1990, half of it for staff costs (Japanese Ministry of Education, 1992). Until 1987 the trend in expenditure closely mirrored that of GNP but then declined in relation to GNP.

Regional universities

One of the leading objectives of the universities under the authority of local government (prefectures and municipalities) is to promote the economic and cultural development of their region. By educating and serving the area's youth, they are distinct from the other two categories of university because of their close links with the surrounding district. Some of these universities were established as part of the university policy in the post-war years, whereby every prefecture was to have a university that would become the academic centre of the region (Seki, 1988). However, if we look at the percentage of high-school students going on to a university in the same prefecture (Japanese Ministry of Education, 1994*a*), there is very little difference between the regional universities and the other two sectors: in 1993, the percentage was 34.7 per cent and 35.7 per cent in national and private universities, respectively, compared with 43.8 per cent in the regional ones. Ishifu even maintains that the objectives of all the Japanese universities are becoming indistinguishable (RIHE, 1988).

In 1993 there were 46 regional universities (8.6 per cent of all universities), 9 of them offering courses to Master's level and 17 to doctorate level. Full-time staff numbered 7 591 (5.8 per cent of the university total) and part-time staff 5 273, for a total of 74 812 students (0.9 per cent of the 18-21 age group). The proportion of part-time teaching staff was greater than in the national universities. The number of institutions has risen very little over the past 30 years, with the exception of a relatively steep rise in 1993. This remains therefore a small sector in every sense of the term.

Regional universities receive 90 per cent of their funding from local government and, those with schools of medicine, dentistry or nursing receive large subsidies from central Government; the method of funding varies with the size of the institution and its educational speciality. Cross-subsidisation between central and local government was brought in as early as 1985 to sustain universities with limited financial means. Thereafter student fees became a substantial source of funding (Japanese Ministry of Education, 1988). Expenditure rose noticeably until the early 1980s, but tended to flatten out before rising again from 1990 onward, when it stood at ¥ 323 billion (Japanese Ministry of Education, 1992).

Private universities

Nagai divides private universities into three categories, according to their origins (Nagai, 1983):

- Liberal institutions, based on academic independence and specialising in science. Their stated aim was the study of western know-how and the acquisition of practical skills (universities of *Keio* and *Waseda*).
- Traditionalist institutions, based on traditional philosophy or the Shinto religion. Their aim was to consolidate traditional culture (University of *Toyo*).
- Specialist schools set up to provide the kind of training, particularly in law, that public universities could not give because they lacked the facilities. They thus complemented the public institutions (universities of *Meijo*, *Hosei* and *Chuo*).

To complement public universities, private universities have focused both on applied sciences, engineering and commercial science, and on the human sciences (*op. cit.*). They have also helped to absorb the surplus social demand for higher education; over time they have broadened their role, via the provision of training for specialists and those already in employment, to mass education, in particular for women students (RIHE, 1988).

Constantly on the rise, the number of private universities in 1993 stood at 390, of which 78 could award Master's degrees and 157 doctorates. There are twice as many private as national universities, with enrolment of 1 753 644 (21.7 per cent of the 18-21 age group), employing 68 403 full-time and 69 412 part-time teachers (Japanese Ministry of Education, 1994*a*). This makes private universities the largest sector in quantitative terms, but the staffing ratio in private universities is poor compared with national universities.

Private universities receive two-thirds of their funding from general income including university fees, registration fees, government subsidies and donations, with the remainder coming from ancillary activities – mainly hospital services – or government loans (RIHE, 1988). The rise in enrolment and university fees greatly helped increase income until 1975, when the Private University Support Law[15] was passed; subsequently government subsidies increased and in 1979 accounted for 22.5 per cent of general income. In 1991, private universities received a subsidy of ¥ 255 950 million (Japanese Ministry of Education, 1991). Expenditure stood at ¥ 2 530 billion, with ¥ 1 170 billion going to staff costs in 1989 (Japanese Ministry of Education, 1992). As Nagai has pointed out, the lack of sound financial support has been a problem for private universities from the outset. In some cases the shortfall has threatened their autonomy and the quality of their education provision (Nagai, 1983). The problem persists today, first because the number of 18 year-olds is entering a phase of steady decline (Kurobane in *Kôtôkyôiku kenkyûjo*, 1992) as will university income, on the assumption that the enrolment level remains roughly the same; second because subsidisation cannot last forever without the status of private universities being called into question (Kurobane, 1979).

UNIVERSITIES BY LEVEL OF EDUCATION

Having looked at universities offering 4-year degree courses, we will now focus on universities offering 2 year courses (hereafter called "colleges"), technical colleges and postgraduate university studies.

Colleges

These were introduced in 1950 to allow advanced education schools that had failed to convert to universities owing to a lack of funds to acquire and provide university education for the less wealthy and for women students (Amagi, 1986). Colleges are generally small institutions[16] (70 per cent of them with fewer than 1 000 students) and focus on domestic studies, literature, philosophy and teaching courses (over 63 per cent of the total) rather than engineering or social science (17 per cent); 92 per cent of their students are women (Japanese Ministry of Education, 1994*a*). However, Amagi predicts that the role of colleges will undergo some change: by opening their doors to a wider population and including a curriculum to meet regional needs, they could become centres of lifelong education and thereby contribute to regional development, thus complementing the regional universities.

In 1993, there were 595 colleges, with 21 111 full-time and 37 044 part-time teachers for 530 294 students (Japanese Ministry of Education, 1994*a*). The private sector predominates (84 per cent). In the colleges, the number of part-time teachers far outweighs full-time staff. Enrolment is growing faster than in universities offering 4-year courses.

Technical colleges

These offer specialised 5-year scientific and technical courses.[17] After three years, students may sit a university entrance examination, and after five years enter the second university cycle (Japanese Ministry of Education, 1988). The colleges are strongly oriented towards mechanical/electrical/chemical/civil engineering (which account for over half of all their courses). Electronics Computer Science have become increasingly popular with students in recent years. The staffing ratio is stable at around 13.

In 1993, there were 62 technical colleges (54 of them national) employing 4 184 full-time and 2 460 part-time teachers. There were very few female students – of 55 453 students, only 8 216 were women (Japanese Ministry of Education, 1994*a*).

Universities offering postgraduate studies

The 1885 Order on Imperial Universities provided for a dual structure in imperial universities; they were to be divided into several colleges that would pass on theoretical and practical knowledge, plus postgraduate studies that would act as a centre for innovative research (Shiogi, 1991). As mentioned above, Japan's first Graduate School was established in 1886 (Maruyama and Miura, 1992). At first the Government of the day appeared to want to imitate the US university model, which had just begun introducing its own research system, and distance itself from the German model. In Japan, however, the Graduate School lacked the recognition and resources it required to fulfil the mandate assigned by the Order. It soon became a "dumping-ground" for students preparing for competitive examinations to enter the civil or diplomatic services; very few students prepared a doctoral thesis. In those days and up until the second World War, postgraduate studies were not the "centre for academic research" they were purported to be.

Postgraduate studies as we know them today were introduced by the School Education Code (*gakko kyoikuho*) in 1947. They were intended to provide a "place of learning and research on the theory and application of sciences with the aim of enhancing civilisation" (Tachi, 1989). The Master's degree became part of the initial postgraduate cycle, and the universities – not the faculties as had previously been the case – were authorised to introduce postgraduate studies (Article 62).

To enforce these articles of the Code, a set of Postgraduate Standards (*Daigakuin kijun*) were published in 1949, at the suggestion of the University Standards Association. These reconfirmed that postgraduate studies were for education and research serving the knowledge culture, without defining explicit objectives. It was for each institution to state its aims, organise its teaching/ research activities and ensure that it had the infrastructure to meet those aims. Consequently, in spite of the wind of change, postgraduate studies continued after the war to train the next generation of academics until the emergence of mass university education in the 1970s (Amano, 1994).

It was with the 1975 Ministerial Order on Chartering Standards for Postgraduate Courses that the aims of the postgraduate cycle became clearer. Students on the 2-year Master's degree course were "to acquire research and occupational skills in a specific field"; those completing a 3-year doctorate were "to acquire high-level scientific knowledge and research skills with a view to conducting independent research". The Master's degree was therefore vocationally oriented (specialist training) while the doctorate was directed more at training researchers who would form the next generation of teachers.

Currently postgraduate studies can take several forms, depending on whether they offer:

- a Master's degree only;
- a doctorate in two stages (a 2-year Master's degree plus a 3-year doctorate);
- a 5-year doctorate (including a Master's degree);

– a separate Master's degree and doctorate;

– a 3-year doctorate only;

– postgraduate studies without enrolment in a faculty.

In Japan there are three types of postgraduate diploma, namely a Master's degree, a doctorate and a doctorate with thesis.[18] The latter is awarded to those who have successfully presented a thesis and passed a viva before a university-designated panel, without enrolling in postgraduate studies (Article 5 of the Ministerial Order on University Degrees).

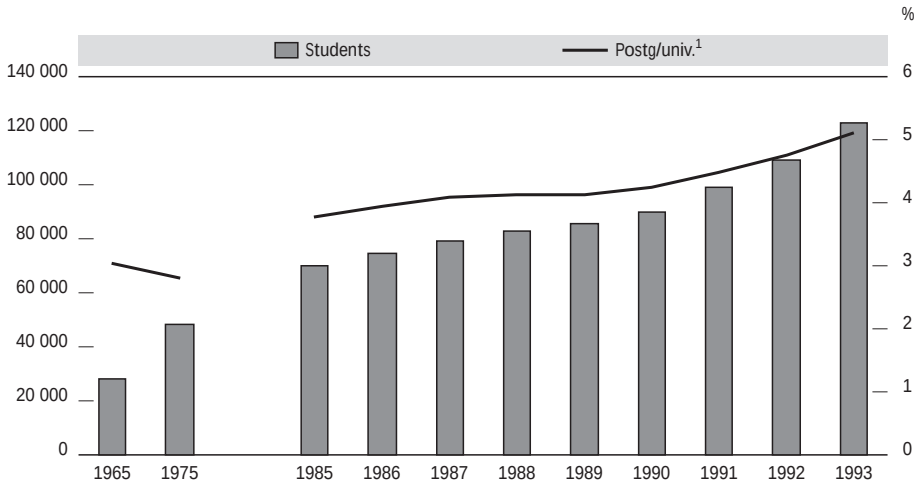
The national universities are directed more towards specialist subjects such as basic science, medicine oriented towards basic research, and teaching, while the private universities focus on the social sciences (law, economics, business science and sociology), engineering, pharmacology or domestic science (Japanese Ministry of Education, 1994*a*).

In 1993 Japan had 359 universities offering one of these postgraduate courses, 65.5 per cent of them in the private sector. 117 of the private universities offered a Master's degree only and 242 offered a doctorate with or without Master's degree. There were 860 specialisation units for Master's degrees and 614 for doctorates, with enrolment standing at 86 891 students on Master's degree courses (33.8 per cent in the private sector) and 35 469 students preparing doctorates (27.0 per cent in the private sector). 8.2 per cent of graduates entered postgraduate studies directly, taking a Master's degree course[19] (Japanese Ministry of Education, 1994*c*). At the Master's and doctorate levels, over 60 per cent of all students are enrolled in the national sector (Figure 2). Yamauchi (in Arimoto, 1994) notes that the old universities have a relatively stable share at around 50 per cent, in spite of a slight decline since the 1970s. Overall enrolment, like postgraduate as a share of overall enrolment, has been on the rise since the late 1980s. Nevertheless enrolment, in particular at doctorate level, is still below the entrance quota, mainly because of the poor job prospects for students with such qualifications (Maruyama, 1992).

In parallel to the trend in postgraduate enrolment, the number of postgraduate degrees awarded is on the rise. However, the rate of growth is still lower than that in the number of students enrolled. The explanation is that some students receive a diploma upon completing their postgraduate course without actually obtaining a doctorate.

With regard to the disciplines chosen, the human and social sciences predominated until the 1960s but the trend has since been reversed with a rise in the number of exact science and engineering degrees, and the gap is still widening, in particular at Master's degree level.

◆ Figure 2. ***Trend in postgraduate enrolment***



1. Postg/univ. = ratio of postgraduate enrolment to total university enrolment.
Source: Japanese Ministry of Education (1988, 1992, 1994c).

CONCLUSION

The main points in this historical overview of Japan's universities are as follows:

– Japanese universities have undergone three phases of development (elite education, white-collar education, mass education);

– until the second World War, chairs in the imperial universities had a virtual monopoly over research; after the war, their ability to find funds and staff helped to maintain their superiority over other types of university;

– the chair system has endured as a focus for research and education;

– by imposing precise chartering standards, the Ministry of Education exerts strict control over the opening of new universities, faculties, departments and chairs.

This overview of Japan's universities shows that the private and the national sectors have to some extent divided up responsibility for higher education depending on the level. The private sector is largely responsible for Bachelor's degree courses, while the national sector predominates in terms of postgraduate studies. It should be noted that postgraduate numbers remain small – few students continue their studies beyond the second university cycle, in spite of the fact that over 350 universities offer postgraduate courses.

What does the future hold for the Japanese university system? In the face of changes set to affect its environment such as the declining population of 18-year-olds, stronger ties with the economic world, or the diversified supply of non-university higher education, the Japanese system will have to decide whether it is for universities to adapt to a changing world, in particular to economic imperatives, or whether they should remain to some extent detached from demands emanating from individuals, society and the world of production, and refocus on their fundamental remit which is to train for research via research. In our view, finding an answer to this question will involve greater awareness and some serious discussion by academics about the underlying function of universities and the role that the state should play in the university system.

NOTES

1. Authors on Japanese universities include Kitamura (1991), Takeuchi (1991) and Seizelet (1992).

2. The ruling power during the *Edo* period (1603-1868).

3. Isolation from the Western world except the Netherlands and Portugal, with which Japan had maintained commercial ties.

4. The first was established in 1946 and the second in 1947.

5. Much of the university education structure in Japan today – general education, the credit system, entrance examinations – dates back to the proposals made by the University Standards Association.

6. Hereafter called Chartering Standards.

7. For private universities, it was more a question of setting target standards (Iijima, 1990).

8. This uncertainty persists today.

9. The University of Tokyo established a faculty of general knowledge (*kyoyo gakubu*).

10. What constituted good performance is not defined in the report.

11. As is the case with the Accreditation Associations in the United States (Kitamura in Iijima, 1990).

12. Excluding 2-year junior colleges, covered furhter on in the article.

13. Supervised by local (prefectoral or municipal) authorities.

14. All levels, including national universities. In terms of the number of institutions, universities predominate.

15. This authorises government support for up to half of a private university's operating expenditure (Kurobane, 1979).

16. Figures on colleges are based on statistics for 1993.

17. Technical colleges are open to all those who have completed compulsory schooling, *i.e.* young people aged 15.

18. The doctorate with thesis dates back to 1897 (Kôtôkyôiku kenkyûkai, 1991).

19. This includes medical students directly entering a doctorate course.

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MISSION STATEMENTS IN BUSINESS HIGHER EDUCATION: ISSUES AND EVIDENCE

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ABSTRACT

Environmental forces and accreditation guidelines have increased the importance of mission statements for business higher education. This study examines when, why, and how business schools construct and revise their mission statements and whether the letter and spirit of the American Assembly of Collegiate Schools of Business (AACSB) accreditation guidelines are being met. A content analysis also compares and contrasts business schools and private sector companies on the presence or absence of "desired components" of mission statements. Results indicate that most colleges and schools of business have recently revised their mission statements using a collegial process, but the AACSB guidelines have had little impact. Business schools and private sector companies were found to have many similarities and a few differences in what is included in mission statements. A recommendation is made for a modification and adaptation of the private sector "desired components" of mission statements.

INTRODUCTION

The purpose of a mission statement is to provide direction and guidance for the formulation and implementation of strategy. Mission statements are the first step in

the strategic planning process, the basis for all activities and decisions within the organisation, and the document that forces management to better understand what the organisation is all about.

Mission statements have been described as:

> "… the operational, ethical, and financial guiding lights of companies. They are not simply mottoes or slogans; they articulate the goals, dreams, behaviour, culture, and strategies of companies." (Jones and Kahaner, 1995, p. ix.)

> "… an enduring statement of purpose that reveals an organisation's product or service, markets, customers, and philosophy." (Pearce and David, 1987, p. 109.)

> "The company mission … distinguishes a business from other firms of its type and identifies the scope of its operations in product and market terms. Not only does the company mission embody the strategic decision makers' business philosophy, but it also reveals the image the company seeks to project, reflects the firm's self concept, and indicates the principal product or service areas and the primary customer needs the company will attempt to satisfy." (Pearce, 1982, p. 15.)

MISSION STATEMENTS AND HIGHER EDUCATION

Mission statements have become increasingly important in higher education. Primarily because of external pressures, colleges and universities have adopted a business sector, quasi-managerial approach to administration. This approach includes increased emphasis on strategic planning with the mission statement as a starting point in the process. Mission statements in higher education have the potential to clarify stakeholder interests, determine core activities, help set priorities, and make a statement about the values and philosophies that drive the organisation (Davies and Glaister, 1996, pp. 268-269).

Mission statements in higher education, although widely adopted, have at best received mixed reviews. They have been described as "little more than a veneer" (Peeke, 1994, p. 126), "… fairly imprecise instruments with which to present the purposes of an institution" and "their vacuous, even vapid language, suggests they are devised to a formula, rather than emerging as the result of careful deliberation of institutional priorities" (Mackay, Scott, and Smith, 1995, p. 203). Other findings include that there is little participation in their drafting, they are not well communicated beyond relevant stakeholders (usually funding bodies), and they are "relatively weak on defining the university's strategic position or distinctive competence and offering a visionary view of the future" (Davies and Glaister, 1996, p. 291).

Notwithstanding these criticisms, the need to closely monitor the operations of publicly and even privately funded institutions and the requirements of accrediting

bodies mean strategic planning and mission statements will remain important elements for justifying contribution and performance:

> "Mission statements are not going to go away. Recent restructuring of the sector and the growing emphasis on the market, as has been argued will lead both to greater institutional, even departmental, competition and to the search for secure niches. Is it possible to obtain from current mission statements any clearer indication of how responses to this new environment will contribute to an emerging differentiation?" (Mackay, Scott, and Smith, 1995, p. 198).

One of the more interesting findings of Davies and Glaister (1996) and Mackay, Scott, and Smith (1995) is the inability or unwillingness of institutions of higher education to be specific in their mission statements about areas of distinctive competence or differentiation. Given the generally harsh environment with respect to funding and scrutiny, that universities are disinclined to identify "critical success factors" (Piercy and Morgan, 1994) is a perplexing finding. Davies and Glaister (1996) speculate that "… many universities are reluctant to adopt a competitive position in case it proves less tenable than their traditional 'universal' higher education role. To claim a special position in regard to one part of the market may result in unacceptable losses from other parts" (p. 292). The reluctance of universities to specify those things at which they are good is seen by most critics as undermining a core function and purpose of mission statements.

MISSION STATEMENTS AND BUSINESS HIGHER EDUCATION

The role of the mission statement in collegiate level business education also has changed dramatically in the last decade. Primarily as a result of the Porter and McKibbin (1988) report on higher education in business, the American Assembly of Collegiate Schools of Business (AACSB) created new standards for accreditation. An integral part of the new standards is a guideline that each college or school of business must develop a mission statement as a first step in its strategic planning process. When evaluating candidates for accreditation or reaccreditation, the AACSB would have to first accept the mission statement and then find that the college or school of business is meeting the objectives laid out in the statement. Business educators should be interested in mission statements for two reasons. First, business education strategic planners should be aware of what constitutes a good strategic plan, the role the mission statement plays in the plan, and the attributes of a good statement. Second, what is different about the new AACSB standards is the role the mission statement plays in the accreditation decision. The new AACSB standards specify the content of the mission statement and the use of the mission as a criterion for evaluation for accreditation, thereby mandating inclusion of areas of emphasis and distinctive capabilities for which the institution will be held accountable. McKenna, Cotton, and Van Auken (1995) summarise the point:

> "Accreditation would be achieved when the AACSB accepted the conditions of the mission statement, and when the accrediting body found the school or college to be doing an excellent job of meeting its mission-driven objectives." (pp. 3-4.)
>
> "A very important and dramatically different provision of the new accreditation standards established that the mission of the programme under review must specify the weighting being placed on the three activities: teaching, research, and service to industry. Further, the school's mission must also specify the weighting to be placed on basic research, applied research, and instructional development." (p. 4.)

The reasons for the new mission-driven standards are, of course, complex. When viewed in historical context, the new standards are a logical outgrowth of educational evolution and a response to competitive forces. Business higher education went through similar dramatic changes after the Ford and Carnegie Foundation investigations of the mid-1950s called for more emphasis on stature within the academy and a more standardised curriculum (see Gordon and Howell, 1959 and Pierson, 1959). These changes resulted in increased prestige for colleges and schools of business, but came at the cost of, at least in the minds of some, relevancy in scholarly research and practical coursework content.

Moreover, colleges or schools of business with scarce resources and/or a primary focus on undergraduate education sometimes found it difficult to meet AACSB standards. A competing accreditation organisation was formed, the Association of Collegiate Business Schools and Programs (ACBSP), to provide an opportunity for a constituency that perceived itself not well served by the AACSB. The current mission emphasis of the AACSB allows it to broaden its appeal and be more flexible when evaluating colleges or schools that may have had difficulty meeting the traditional standards.

CRITERIA FOR EVALUATING MISSION STATEMENTS

Desired components of a mission statement: business education

The AACSB guidelines are specific about the requirements for a mission statement:

> "… clear and published…
>
> The school must specify … its relative emphasis on teaching, intellectual contributions, and service.
>
> The priorities and expectations of the faculty related to teaching in degree programs, intellectual contributions, and service.

> The priorities established for the faculty's intellectual contributions related to basic and applied scholarship and instructional development…" (AACSB 1993, pp. 9-10.)

The AACSB mission statement guidelines, therefore, call for clarity about the distinctive competencies and area(s) of emphasis of the college or school to be accredited. Given that the AACSB has created more paths to accreditation, the mission, at the very least, should be clear about the path of choice.

Desired components of mission statements: business practice

While emphasis on mission statements may be relatively new in business higher education, it is not new in the private sector or in the management literature (see Vancil and Lorange, 1975, Pearce, 1982, Staples and Black, 1984 and Ackoff, 1987). Several studies have examined the relationship between mission statements, mission statement content, and the performance of the firm. Pearce and David (1987) identified eight "desired components" of mission statements and hypothesised that *Fortune 500* high performing companies would be more likely to include these components in their statements. Six of the eight components were more common in high performers' mission statements with three differences being statistically significant at 0.05. Rarick and Vitton (1995), using the *Business Week 1000*, found that firms with mission statements outperformed those without by 16.1 per cent to 9.7 per cent on average return on stockholder equity. Rarick and Vitton then classified companies as "high content" and "low content" based on content analysis of the "desired components" in statements. The average return for high content firms was 26.2 per cent while low content firms returned 13.7 per cent.

Taken as a whole, these, and other studies (see, for example Cochran, David, and Gibson, 1985, Conway, Mackay, and Yorde, 1994), provide a basis for the normative content of mission statements. The question remains, however, whether these "desired components" are present in and suitable for colleges and schools of business.

Research questions

This background provides a basis for an investigation into the profile and content of colleges and schools of business mission statements. A profile can identify frequency, recency, who participates in writing, and what influences colleges or schools to undertake revisions of mission statements. A content analysis can determine if "desired components" are present in colleges' and schools' of business mission statements and how well existing statements conform to the letter and spirit of the new AACSB standards.

This research, therefore, attempts to answer the following questions:

- Have mission statements been universally adopted by colleges and schools of business? If so, how recently have they been written or revised?
- Who participates in and what factors influence the writing and/or revision of mission statements?
- What is the frequency of "desired components" in colleges' and schools' of business mission statements?
- What are the differences in frequency of "desired components" between colleges and schools of business and *Fortune 500* companies?
- Are the "desired components" appropriate for and adaptable to colleges' and schools' of business mission statements? If not, what modifications should be made to the "desired components"?
- Are colleges and schools of business explicit about AACSB criteria in their mission statements?

RESEARCH METHOD

The population and sample

The population was colleges and schools of business world-wide. The sampling frame was the 1995 AACSB world-wide roster of member schools. Each AACSB member received a cover letter, a short questionnaire and a request for a copy of their mission statement. The letters were addressed to the Dean of the College or School of Business. The AACSB roster has 661 colleges and schools of business members, including both accredited and non-accredited institutions. Non-accredited institutions were either in pre-candidacy, aspiring to accreditation, or members not seeking accreditation. Non-academic institutions were eliminated from the sampling frame.

Of the 661 AACSB members, 337 (51 per cent) returned usable questionnaires; 250 (38 per cent) of these returned mission statements with their questionnaires. The response rates were considered large enough to minimise the impact of non response bias; no significant differences were apparent from return wave analysis except that international AACSB members dominated late waves of returns. This anomaly was attributed to increased postal delivery time.

Measurement

The questionnaire asked for respondents to describe when, how, and why they wrote or revised their mission statements. The instrument also included college, school, and university demographic characteristic questions. All questions were multiple choice with several skip patterns possible. The questionnaire provided the measurements that served as the basis for the profile. Content analysis (described

below) was used to determine the frequency of "desired components", the comparison of colleges and schools of business with private sector firms, and the impact of AACSB standards on mission statement content.

Operationalising "desired components"

Based on Pearce (1982), Pearce and David (1987) and Rarick and Vitton (1995), this study used the following set of "desired components" for mission statements: target customers and markets, principal products or services, geographic domain, core technologies, concern for survival, growth and profitability, philosophy, self concept, and public image. The "desired components" were operationalised in the business higher education context using the following definitions/examples:

- **Target customers and markets.** Examples would include mention of types of students served (*e.g.* graduate, undergraduate, non-traditional), executive training programs, or other targets.
- **Principal products or services.** Examples would include mention of degrees offered, programs available, knowledge development/ scholarship, or service.
- **Geographic domain.** Mention of a regional, national, or international scope.
- **Core technologies.** Examples would include mention of pedagogical methods, technical capabilities, or some unique use of technology.
- **Concern for survival, growth, and profitability.** Examples would include mention of student population, college share of university, student retention, or maintenance of resource base (tuition, state subsidies, donations, endowments).
- **Philosophy.** Examples would include use of words like "personalised", "student centred", "premier", use of integrative or innovative learning, or a global viewpoint.
- **Self concept.** Examples would include mention of competitive strengths or distinctive competencies (*e.g.* knowledge development, undergraduate teaching).
- **Public image.** Examples would include mention of concern for diversity, contributions to the community/society, or citizenship.

These operational definitions are adapted for higher education from Rarick and Vitton (1995) and Pearce and David (1987). To maximise comparability between colleges and schools of business and private sector counterparts, "desired component" labels are exactly the same as the widely accepted Pearce and David study.

Content analysis: rationale and method

Content analysis is the study of message content variables independent of the communicator or audience. Variables included in content analysis should be

"… objective, systematic, and quantitative" (Kassarjian, 1977, p. 9). Content analysis involves selecting a written message to be studied, developing categories for measurement, and measuring frequency of appearance of the categories by using coding rules (see Kassarjian, 1977, pp. 8-10). To content analyse the mission statements of colleges and schools of business, the operational definitions described above were used to develop a content analysis instrument for the eight key components of mission statements. The definitions of these key components and the content analysis instrument were then explained to two graduate student judges from the institutions of affiliation of the authors. The graduate students also read the Pearce and David (1987) article and discussed with the authors any variables that were not clear. The graduate students then independently judged whether the mission statement "clearly exhibits" or "does not clearly exhibit" *each* key component. The two authors then analysed, discussed, and agreed upon any mission statements that resulted in disagreement between the two judges. Therefore a component was not deemed to be present in a mission statement unless the two content analysis judges agreed it was present or, in the case of disagreement between the judges, the two authors agreed it was present.

Statistical Analysis

As with the Pearce and David (1987) and Rarick and Vitton (1995) studies, simple percentages were used to describe the frequencies of key components in the mission statements. To determine if differences exist between *Fortune 500* companies and colleges or schools of business, z tests for differences in proportions were conducted.

RESULTS

Profile

Tables 1 and 2 summarise mission statement frequency, recency, participation, influences, and characteristics of respondents. Almost all of the colleges and schools of business in the sample reported having mission statements (91.6 per cent). Almost all of those that have mission statements have revised them in the last five years with almost three-quarters (74.1 per cent) revising in the last two years. The AACSB and changes in the environment dominate the reasons for revising mission statements. The Office of the Dean, a special committee, or some combination of the two are usually responsible for the revision of mission statements.

Almost two-thirds of the respondents are AACSB accredited or candidates for accreditation (65.4 per cent) with most offering bachelor's and/or master's degrees (74.5 per cent). Respondent schools tended to be state supported rather than private (61.6 per cent to 38.4 per cent) and non-religious affiliated (81 per cent). A majority (52.2 per cent) described themselves as both teaching and research oriented.

Table 1. **Mission statement frequency, recency, participation and influences**

	Frequency[1]	Percentage
Have a mission statement	306	91.6
Do not have a mission statement	28	8.4
Mission statement revised in:		
Past two years	226	74.1
Past five years	65	21.3
Past ten years	4	1.3
Past fifteen years	1	0.3
Has not been revised	9	3.0
Reason for revision		
AACSB requirement	48	15.9
Changes in task environment	68	22.6
AACSB requirement and changes in task environment	129	42.9
Other combination influences	56	18.6
Unit responsible for developing/revising		
Office of the Dean	19	6.3
Special committee	85	28.2
Office of the Dean and committee	151	50.2
Other	46	15.3

1. Total responses were 337. Some frequencies do not sum to 337 because of no response to some questions and skipping patterns.

Source: Authors.

Table 2. **Characteristics of responding colleges and schools of business**

	Frequency[1]	Percentage
AACSB membership status		
Accredited	156	47.7
Candidate for accreditation	58	17.7
Pre-candidacy	22	6.7
Member	91	27.8
Degree offerings		
Bachelor's only	42	12.5
Bachelor's and Master's	209	62.0
Bachelor's, Master's and PhD	68	20.2
Master's and PhD	11	3.3
Master's only	7	2.1
State supported	205	61.6
Private	125	38.4
Religious affiliation		
Yes	64	19.0
No	272	81.0
Self-described orientation		
Research oriented	39	11.6
Teaching oriented	85	25.2
Teaching and research oriented	176	52.2
Other	37	11.0

1. Total responses were 337. Some frequencies do not sum to 337 because of no response to some questions and skipping patterns.

Source: Authors.

Relatively few described themselves as primarily research oriented (11.6 per cent) or primarily teaching oriented (25.2 per cent).

Content analysis findings

Table 3 presents the frequency of key components in the mission statements as judged by the content analysts in this study and the Pearce and David study of Fortune 500 companies. Business schools' and Fortune 500 companies' mission statements were found to be similar on inclusion of *target customers and markets, principal products and services*, and *core technologies*. Some differences exist for inclusion of *geographic domain* and *philosophy*. Large differences exist on *self concept* and *desired public image*, and an extreme difference is present on *concern for survival, growth, and profitability*.

Business schools were slightly more likely to include target *customers and markets* (51 per cent to 48 per cent) and less likely to mention *principal products and services* (61 per cent to 67 per cent) and *core technologies* (13 per cent to 20 per cent). Business schools were statistically significantly more likely to identify their *geographic domain* (52 per cent to 41 per cent; $p < 0.06$) and be clear about their *philosophy* (90 per cent to 79 per cent; $p < 0.01$). In contrast, *Fortune 500* companies were statistically significantly more likely to identify their company *self concept* (77 per cent to 52 per cent; $p < 0.001$) and be explicit about their *desired public image* (87 per cent to 60 per cent; $p < 0.001$). Not surprisingly, the most dramatic difference is the *Fortune 500* companies overwhelming *concern for survival, growth, and profitability* (90 per cent) and the lack of concern exhibited by business schools (2 per cent) on this variable ($p < 0.001$).

Discussion

The emphasis on strategic planning has resulted in mission statements becoming the norm for colleges and schools of business. Business higher education strategic planners see the need to revise mission statements because of the AACSB *and* changes in the environment. While some respondents saw the AACSB as a factor

Table 3. **Proportion of mission statements that "clearly exhibit" desired components**

	Fortune 500	Colleges and schools of business	
Target customers and markets	0.48	0.51	
Principal products and services	0.67	0.61	
Geographic domain	0.41	0.52	($p < 0.06$)
Core technologies	0.20	0.13	
Concern for survival, growth, profits	0.90	0.02	($p < 0.001$)
Philosophy	0.79	0.90	($p < 0.01$)
Self concept	0.77	0.52	($p < 0.001$)
Public image	0.87	0.60	($p < 0.001$)

Source: Pearce and David, study of *Fortune 500* companies and authors.

in revising, more saw a combination of influences as the reason to revise. Surprisingly, when only one reason for revision was given, it was more likely to be change in the task environment than the AACSB requirement. Also, colleges and schools of business seem to be relatively current in their revisions. Most statements have been revised in the last two years with almost all being revised on no longer than a five year cycle.

The Office of the Dean was solely responsible for developing the mission statement only 6.3 per cent of the time. This finding indicates that business school administrators, unlike their university level counterparts (Davies and Glaister, 1996, p. 291), see the need to get others involved in developing and revising mission statements. Not surprisingly for the academy, committees tend to be the vehicle used most often. A special committee, the dean's office and a special committee, or some other combination account for 93.7 per cent of the writing or revisions of statements.

The results from the content analysis were as expected in some cases and held significant surprises in others. With the exception of *concern for survival, growth, and profitability*, business schools mirrored *Fortune 500* companies – both groups tended to be high, medium, or low on the presence of "desired components" in their mission statements. Both were surprisingly low on the inclusion of *target customers and markets*. Companies tended to not want to commit to customers and markets because they apparently do not want to limit their focus in a world of mergers, acquisitions, and world-wide corporate focus (Pearce and David, 1987). Similarly, business schools often do not like to publicise that they are primarily interested in undergraduate or graduate students, thus sending a message to at least one important constituency that they are less important. Other possible markets for business schools such as executive education or non-traditional students were rarely mentioned in mission statements. When targets and markets were mentioned by business schools, they often were defined in terms of geography. This was most common for US state supported regional schools.

Principal products or services were likely to be mentioned by both companies and business schools. Both groups were often unequivocal about specifying what they deliver to consumers. Business schools were most likely to mention degrees, knowledge, and service as major products. In general, *Fortune 500* companies could be more specific than business schools about their products. For example, Pearce and David report mentions of such principal products as "… molybdenum, coal iron ore, copper, lead, zinc…" (1987, p. 110). Business schools tended to be more general undergraduate or graduate, knowledge development rather than specific degree programs or areas of research specialisation.

Business schools were more likely to mention *geographic domain*. Clearly, almost all of the *Fortune 500* firms are international or global in scope making this key component less relevant for them. Business schools in universities with regional emphases, in contrast, were very specific in their mission statements about the area or State they served.

Core technology was not mentioned often by either companies or business schools in their mission statements. Most *Fortune 500* companies find it difficult to describe succinctly the various technologies upon which their multiple products depend. Moreover, service based companies may find it "inappropriate" to try to describe their core technologies (Pearce and David, 1987, p. 111). Business schools were even less likely to include core technologies. This was unequivocally the most difficult mission statement key component to apply to business education. Few schools will bother to mention in their mission statements obvious education technologies such as computer use, satellite communication, or multimedia. As communication technologies become more sophisticated and the way knowledge is disseminated changes more dramatically, this dimension of mission statements may become more important for business schools.

Without question the most dramatic difference between companies and business schools is the apparent lack of concern of the latter for *survival, growth, and profitability* as manifested by inclusion in mission statements. Considering that this research contrasts for-profit and not-for-profit organisations, these results could be expected. Indeed, these results are evidence for the face validity of the measurements. What is surprising, however, is that business schools seem almost totally oblivious to this key component in a time when environments are harsh and legislators, Boards of Trustees, and other funding groups are questioning the very essence of the higher education system. Anecdotal evidence suggests that many business schools are concerned with identifying and justifying the value they add to society. Apparently this raised level of consciousness has not found its way into mission statements. One could expect business schools to be more specific in the future. In stark contrast, almost all (90 per cent) *Fortune 500* companies believe that this component is important enough (especially to stockholders) to mention it explicitly in their mission statements. Indeed, for private sector companies this is the most common dimension of mission statements.

Clear articulations of *philosophy* were present in both company and business school mission statements. Basic beliefs, values, and aspirations were specified, especially by business schools (90 per cent). Business schools were not reluctant to identify themselves as "student-centred", their intent to be "premier", "diverse", "innovative", or "global". Companies also were clear about philosophies, but were more likely to mention human development, sharing, and caring.

In a finding that is particularly relevant for evaluating business school mission statements and for how well colleges and schools of business are conforming to AACSB guidelines, *Fortune 500* companies were much more likely to specify *self concept*. The dimension within this component that seemed to differentiate the two groups was competitive strengths. Companies tended to be very specific about competitive strengths. In contrast, many schools seemed reluctant to specify strengths, perhaps not wishing to risk sending the wrong message to groups or markets not identified as strengths. This phenomenon is similar to the reason target customers and markets are not identified by many business schools. Compounding this issue is the apparent concern of business schools that if, say, undergraduate business education is

identified as a competitive strength, this inclusion is tantamount to declaring oneself a second class citizen in a milieu and among peers that place great value on knowledge development. Conversely, specifying knowledge development as a primary competitive strength may send a message that students are less important or, worse, unimportant. Business schools apparently would rather hedge on competitive strengths than be wedded to words in a mission statement that could send the wrong message to important constituents.

The *self concept* component should be where the new AACSB requirement to identify relative emphases manifests itself most clearly. The findings of this research not only confirm findings at the university level (see Davies and Glaister, 1996), but also suggest that colleges and schools of business remain reluctant to identify in their mission statements just which path they seek to accreditation. Several explanations are possible. First, as discussed above, concern for other constituents might make it difficult to specify priorities for and the relative emphasis on teaching, research and service. Second, colleges or schools that are already accredited might not yet see the need for more specificity relative to priorities and areas of emphasis. And, third, a significant proportion of the sample might be in the process of revising, or about to revise, their strategic plans. Although 74 per cent of the respondents had revised their mission statements in the last two years, some may have done so before the real impact of the AACSB changes was felt.

Fortune 500 companies also were much more likely to be concerned with communicating their *desired public image*. Being a good citizen or concerned with the environment was more likely to appear in company mission statements. When business schools were specific about a *desired public image*, it usually was manifested in a statement about diversity or contributions to the business community. This finding is easily understood when one considers the role of experiencing diversity, however defined, in higher education and the ties business schools have with important business community constituents.

Clearly, *target customers and markets, principal products and services, geographic domain, philosophy, self concept*, and *public image* were adapted easily to the business higher education context. Colleges and schools of business were likely to include these components and the authors found little difficulty operationally defining these variables.

The results, however, also suggest that the entire set of "desired components" is not appropriate for colleges and schools of business mission statements. *Core technologies* was a difficult component to define in the higher education context. Moreover, few respondents included it in their mission statements. In the case where a core technology is a distinctive competence, that competitive advantage can be identified and included in the *self concept* component of the mission statement. This is consistent with the notion that organisations, be they for-profit or not-for-profit, should clearly identify those activities at what they are good or exceptional. *Core technologies*, therefore, should not be included as a "desired component" for evaluating higher education mission

statements and should be specified in a mission statement only if it is a distinctive competence.

We also propose that the *concern for survival, growth, and profitability* "desired component" be adapted and redefined for business higher education under the rubric *viability*. Given the difficult and sometimes harsh climate for higher education, mission statements should include some identification of the basis of *viability* for the organisational unit. *Viability* in this context means an acknowledgement that the college or school must add value in a way that attracts enough resources to insure survival. These resources may come from a variety of stakeholders in the form of tuition, government subsidies, endowments, grants, and other donations. The *viability* component is similar to the private sector *concern for survival, growth, and profitability*, with less concern for growth and usually no concern for profits.

CONCLUSION

Two major themes emerge from the above discussion. First, business schools are reluctant to articulate exactly those things at which they are good. With a difficult financial environment, increased scrutiny from stakeholders, and the guidelines of the AACSB looming, business schools need to be clear about what it is they do best. If that is knowledge generation, preparing students for professional exams, or undergraduate education, business schools must have the courage to specify in their mission statements their strengths and what differentiates them from competition.

The second major finding of this research is that business schools need to be more concerned with their futures. Although not directly responsible to stockholders, business schools increasingly are being scrutinised for their productivity and the value they add, both within the university and within society. This theme does not necessarily mean business schools should be preoccupied with efficiency. Rather, a healthy concern for meeting the needs of constituents and a more sensitive ear to critics will be crucial success ingredients for business schools of the future. The aforementioned harsher environment and the importance of comparative advantage mean that only those institutions that stick to their strengths will survive, thrive, and, if the AACSB is serious, be accredited.

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THE DEVELOPMENT OF THE SCHOOL OF MANAGEMENT AT BEN-GURION UNIVERSITY OF THE NEGEV

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ABSTRACT

The paper describes and analyses the process of establishing the School of Management in Ben-Gurion University in Israel. The unique environment of higher education in Israel. The unique environment of higher education in Israel is described, as well as the position of Ben-Gurion University as an institution striving to increase its student population, while maintaining very high academic standards.

The high demand for business education in Israel overcomes the disadvantageous location of the University. Moreover, a variety of unique graduate and undergraduate management programmes as well as the applied interdisciplinary nature of the courses add to the attraction of the school.

The internal processes of approval by the University Senate and acceptance by other university functionaries are described and analysed. In all, this case illustrates the approach of utilising external opportunities and maximising internal conflicts.

INTRODUCTION

The literature on higher education administration contains numerous studies on financial crises of colleges and universities, and on ever-increasing pressure from both central and local governments for accountability and efficiency [see, *e.g.* the study on trends in university-government relations in Canada by George and McAllister (1995), and in Scotland by Sizer and Mackie (1995)]. McGuinness (1995), in outlining major challenges for American universities for the 1990s, predicted that increasing demand for funding would out-pace available resources, which could

cause the United States to reconsider its commitment to universal access to higher education.

The almost universal crisis – or perceived atmosphere of crises – is manifested in attitudes toward higher education. In some countries, there appears to be a trend to question the utility of higher education. Wagner (1996), for example, notes that, in the United Kingdom, responses to a survey of employers suggest that perhaps two-thirds of higher education graduates enter jobs that do not call for university-level knowledge and skills. In the Netherlands, concern is centred on the extent to which the country needs university-educated graduates – a question that is also being raised in Germany. The prestige of institutions of higher education, as well as belief in their utility, has also deteriorated; in the 1990s, Alper (1995) found that American universities were seen as being filled with spoiled, indulgent teenagers with overpaid, underworked professors.

These negative facts and perceptions make it difficult to justify the creation of yet another institute of higher education – particularly by a small country with limited resources. The establishment of a new school of management in Israel has, however, taken place with the support of the national government. This paper is concerned with the rationale for such a step.

Even a cursory review of existing schools of management, or "business schools", reveals the plethora of such institutions – hundreds of schools in the United States alone, and probably more than a thousand world-wide. A number of questions, both general and specific to a particular university, need to be posed and answered before such a plan can come to fruition. Some of the broader questions with which the founders of the School of Management at Ben-Gurion University of the Negev had to deal included: Does it make sense to establish yet another school? Is there any chance of developing a competitive advantage that would distinguish a new school from hundreds of other such schools? Does a small country need another school? Can a university located in the periphery manage to develop a quality school, as opposed to universities located in major population areas? Questions that involved more local issues included: Will the relatively conservative leaders of the faculty senate approve such a new unit in the university? Should the school rely on new faculty, or on those who are already members of relevant university departments such as Economics, and Industrial Engineering and Management?

The purpose of this paper is to describe and analyse the founding of the School of Management at Ben-Gurion University of the Negev in Israel as a case study. The unique conditions of Israel's higher education industry will be explained, as well as the unique concept of the School and the organisational processes that affected its creation.

THE HIGHER EDUCATION REVOLUTION IN ISRAEL

Until the early 1990s, higher education in Israel was dominated by seven major universities: The Hebrew University of Jerusalem, Technion (Israel Institute of Technology), Tel-Aviv University, Bar-Ilan University, Ben-Gurion University of the Negev, Haifa University, and the Weizmann Institute. These universities are all state supported, and a considerable portion of their budget is supplied by the government. In order to regulate government spending and assure high academic standards, a Council for Higher Education has been formed. Headed by the Minister of Education, the Council has become a powerful tool in designing and implementing governmental policies in higher education.

During the late 1980s, there were mounting pressures exerted on the Council to change the policy that encouraged the dominance of the seven universities. Social norms and values strongly motivated Israelis to obtain academic degrees, and increasing numbers of young people and those who were already in the middle of careers demanded avenues for academic study. Consequently, small regional colleges, the equivalent of American community colleges, were opened, each affiliated with one of the universities. At the same time, entrepreneurs sensed the increasing demand for higher education and started very aggressive campaigns for permission to establish private colleges. Their first achievement was recognition of the academic unit of the College of Management (located in the Tel-Aviv area). This breakthrough was followed by innovative entrepreneurs who found a loophole in the higher education laws which allowed foreign universities to penetrate the Israeli market. The loophole permitted the establishment of economically independent colleges or programmes, with the understanding that the last semester of studies would take place abroad on the campus of the home institution.

All these new trends were fully developed by 1993, when the coalition government headed by the Labour Party implemented almost “open skies” policies, encouraging the development of regional campuses that could offer their own degree programmes. In addition, the Council approved the establishment of numerous private institutions, mainly in the fields of law and business administration. By the beginning of 1995, there were more than thirty colleges and academic learning centres in addition to the established seven universities.

This proliferation in the number of degree-granting institutions not only reflects the increasing demand for higher education, but also the government’s decision to try end a major crisis that had been affecting universities. The Israeli system of higher education had undergone a process of rapid expansion in the early 1960s, but in the early 1970s, a sharp contraction of financial resources and a general decrease in the growth rate of the academic sphere took place (Toren and Nvo-Ingber, 1984). The height of the crisis occurred in the Fall of 1984, when, in order to cut costs, the closure of one of the universities was strongly considered. In 1986, however, an “educational explosion” marked the beginning of an upturn. This upturn was in sharp contrast to the negative developments taking place in the Western World mentioned above.

THE COMPETITIVE ENVIRONMENT OF BEN-GURION UNIVERSITY

In the middle of the 1990s expansion of the academic system, Ben-Gurion University had to determine its future development strategy. The University is located in Beer-Sheva, a town of 180 000, which is spoken of as the "capital of the Negev". A peripheral region in terms of both population and per capita income, the Negev desert occupies the entire southern region of Israel. This location is considered quite unattractive by Israeli standards and lacks the dynamics and socio-cultural aspects of other cities in the highly populated central and northern regions of Israel. As a result, Beer-Sheva has an image problem, as well as that of being perceived as remote from the hub of the country.

Ben-Gurion University is therefore often listed as "second choice" for out-of-region students, who try first to be admitted to one of the universities situated in the other cities. The other competitive forces include the Hebrew University of Jerusalem (the oldest), Tel-Aviv University (located in the most desirable area), Haifa University (located in the North of Israel), Technion – The Israel Institute of Technology; Bar-Ilan University (comprehensive, religious university), and the Weizmann Institute (elitist, science graduate school).

The youngest of these institutions, Ben-Gurion University of the Negev was established in 1964. At the beginning of the upturn in 1986, there were only 6 000 students at Ben-Gurion University out of a total of 80 000 students nation-wide. This constituted 7-8 per cent, which is equivalent to the percentage of the residents of the Negev to the total Israeli population. Clearly, in order to compete with the more established universities, an objective determination of the strengths and weaknesses of the University's programmes and institutions had to be made.

The major premise of the policy-makers of the University was that it had to grow in terms of numbers of students in order to survive and prosper in Israel's competitive environment – which seemed the correct response for periods both of financial crisis (Toren and Nvo-Ingber, 1989) and growth when coupled with intense competition. Given this premise, the next question was how to increase competitive advantage. An innovate approach was clearly needed.

Meeting the competition

One of the options suggested was to turn Ben-Gurion University into a "centre of excellence". This meant attracting the best faculty available and the best possible students. Again, the question of size arose. Was it realistic to create a small university in the Negev, with the highest possible standards? Or could excellence be achieved only through increasing the size of the student body, which would provide the financial base to increase the number of faculty, which in turn would enable the development of a core of excellence? Given the fact that the resources of the University were limited, and governmental support was a function of the number of students, it was

clear that there were two necessary conditions for striving for excellence and avoiding future budget crises:

- Building an appropriate infrastructure – including a student centre and dormitories – that would provide a competitive advantage *vis-à-vis* other universities, as well as the construction of additional classrooms and laboratories.

- Increasing the variety of unique academic programmes in order to attract more students. While Ben-Gurion University is internationally recognised for its excellent programmes for desert and arid region studies, it has not managed to attract enough Israeli students to its campuses.

These two prerequisites were in accordance with recent developments taking place in the higher education environment in Israel: first, the "baby boomers" were reaching college age; second, the waves of immigration from the former Soviet Union were increasing demand; and third, there were dramatic changes in lifestyle and academic education expectations. These trends helped Ben-Gurion University to raise the number of students from 6 000 in 1988 (unchanged since 1986) to 9 000 by 1994, and by the end of the academic year 1995-1996, it was expected that 11 000 students would attend the University. The anticipated number for 1996-1997 had been set at 12 800.

However, it was clear that future development would have to cope with several obstacles. These included the ageing of tenured faculty members; limited sources of investment; the concentration of existing faculty members in Engineering and Natural Sciences, mainly in low-demand departments; and the fact that Ben-Gurion University had been a semi-comprehensive university, comprised of only four faculties: Humanities and Social Sciences, Engineering, Natural Sciences, and Health Sciences. Consequently, because of internal difficulties, the goal to increase the number of students would be only partially met.

These difficulties also entailed an almost automatic veto reaction to new professional degree programmes by members of low-demand departments. In Israeli universities, every major academic decision must be approved by the Faculty Senate. Those senate members who cannot see a direct benefit for their own departments have tended to block the introduction of new programmes. By the 1990s, this opposition had become most dangerous to the University, which was facing major competition from new regional and private colleges at the undergraduate level, as well as from its less-than-attractive peripheral location.

Consequently, it had already become clear to policy-makers that if Ben-Gurion University did not take advantage of the increasing demand for higher education and respond to it by making a major leap, it would lose its chance to raise its status among Israel's academic community. This opportunity did not escape the attention of the Council for Higher Education, which encouraged the introduction of quality niches that were missing, such as communications engineering, the upgrading of the computer sciences department, and political sciences.

The major fault with the Council's encouragement had to do with demand: all the suggested programmes (except possibly in the arts) were in low-demand, high-expense fields, and would not contribute dramatically to the desired change. It was therefore decided to invest in two very high-demand professional programmes: a School of Law, and a School of Management. Legal studies had been offered in the University on a very limited scale, mainly in the form of individual courses, such as labour or business law. Management, on the other hand, had been available on a much higher scale, being an integral part of at least three departments: Industrial Engineering and Management, Economics, and Education. Thus, it was relatively easy to start with the establishment of a school of management.

ESTABLISHING THE SCHOOL OF MANAGEMENT

The fact that management studies were well-established at the University within existing departments made the formation of the School of Management into a significant challenge. Sensing the possible power of the School, the strong departments of Economics and Behavioural Sciences demanded parity; that is, a "slice of the pie" in terms of resources, power, and student FTE (full-time equivalent). In order to deal with this pressure, the policy-makers "invited" a letter from the Council of Higher Education, calling for the University to house all management studies under one independent roof. The letter reflected the belief of the new Rector (provost; the head of the academic pyramid) that a new school should be unchained from old concepts and loyalties, and that the parity principle would be a sure recipe for failure. The understanding between the new Rector and the appointed Head was based on a mutual conviction that political pressures of participants in a "joint venture" or parity would diminish the chances of developing an independent, successful school. At the same time, both were convinced that the conception of the School had to be in harmony with the rest of the University, since the School, its plans, and organisational structure would have to be approved by both the Senate and the University Steering Committee (consisting of the Rector, four Deans, and four Senate members).

The concept of organisational harmony was further enhanced by the several decisions made by the Rector. First, the School of Management was to be headed by the current chairman of the Department of Industrial Engineering and Management. By simultaneously filling two administrative positions, the almost inevitable conflict between the School and the department most vulnerable to change was minimised. Second, the Rector agreed to the concept that there was no need for a parity arrangement with the Department of Economics, which had management-related undergraduate programmes, as well as a CPA (Certified Public Accountant) track. Instead, an academic steering committee was created that included a representative of the Economics Department. This way, their representative was one among at least a dozen other representatives of interested departments and units. The creation of the Steering Committee diffused much of the potential political tension and enabled preparation of the academic programmes without incurring political threats from other

departments. The Committee originally had twelve members, but some eventually left because they felt their own programmes were unfit for the evolving plan or because they lacked perseverance. Third, the Rector made a clear statement to the traditionally anti-change Faculties of Natural Sciences and Engineering that their budgets would not be cut as a result of the foundation of the School of Management. On the contrary, it was pointed out, the strengthening of the University would have a positive effect on them.

These decisions made by the Rector created a productive atmosphere of industrial peace which made it possible to formulate the major strategic foundations of the School.

As the process of establishing the new School continued, the Department of Industrial Engineering and Management (IE&M) became its major support body: first, by allocating space, including offices and laboratories, for the School; and then by helping in the process of accepting and socially absorbing new faculty for the School. It should be noted that the School did not take any of the major IE&M components, except from the graduate degree programme in Industrial Management. As mentioned earlier, the process of planning was done by a Steering Committee, which focused on designing academic programmes, but not on implementation.

From a management of information perspective, only the Head of the School and his Deputy were fully aware of all of the processes that were taking place.

In an effort to ensure the future excellence of the new School of Management, its mission was stated in a planning proposal presented by Mehrez and Reichel (1995) to the Rector and to the President of the University:

> "(…) The School of Management will have to consider social, economic, national, and international needs. The faculty will include scientists and professionals from various fields of interest that are relevant to the topics of management, both in the private and in the public sectors. Faculty members will have the knowledge, understanding, and ability to teach and study social, cultural, and economic processes that take place in Israel, in the Middle East, and in the world. The school must be based on an ever-growing core of qualified faculty members who have both theoretical and applied backgrounds in management. New faculty members will be recruited both in Israel and overseas.
>
> In order to achieve its mission, the school must attain a reputation as a place with high standards which also provides its students with warm and personal attention. The programmes are modular, enabling students to be exposed to a variety of areas and trends of thought" (Mehrez and Reichel, 1995, p. 8).

In the same document, the purpose of the school was embodied in a section entitled "Vision".

> "(…) The School of Management will be a centre for academic training of managers. The school's vision is to educate a new type of qualified manager who can successfully face the challenges of management in the twenty-first century.
>
> The School will be multidisciplinary, interdisciplinary, and multicultural, viewing management as an applied and integrative subject. It will educate managers to be able to cope with changing conditions by using unusual approaches in order to successfully meet the challenges of the future. In fact, the school will become the centre of education for future managers of the Israeli society – managers who will function in the public as well as in the commercial sectors. In addition, the school will be the centre for interdisciplinary research.
>
> The programmes are based on progress toward an era of peace in the Middle East and increasing competition in both local and world markets" (Mehrez and Reichel, 1995, p. 10).

The academic programmes and their accreditation

The Steering Committee approved the academic programmes of the School after sub-committees had worked for several months on various aspects of the programmes.

It should be noted that the Rector made an intelligent political decision to have the Faculty Senate endorse the entire academic programme as one entity with no references to the organisational structure, level of independence, or specific budget. Only after the Senate's approval did the Rector turn to the leadership of the Committee of Planning and Budgeting of the Council for Higher Education in order to get its initial approval. Three programmes were approved for the opening of the following academic year (1995-1996): an undergraduate programme in Management; graduate studies in Management of Public Administration, and the transfer of the graduate programme in Industrial Management to the School from the IE&M Department. In addition, the existing new undergraduate programmes in Hotel and Tourism Management and Health Care Management also became part of the School.

In June 1996, the existence of the School as an independent entity was recognised by the Council for Higher Education. This final recognition means that the Council has committed itself to support the school financially, in spite of its policy to discourage management and law, and encourage natural sciences and engineering. In November 1996, the Council approved the change from the MSc in Industrial Management degree previously granted to an MBA, which is a more attractive degree in the business world.

Student recruitment

The timetable of careful development steps notwithstanding, some marketing efforts were carried out prior to the final acceptance of the School; mainly via personal connection, word-of-mouth, and a limited-budget advertisement in daily newspapers. An important target market were graduates of regional and private colleges who, up to that point, were not able to gain admission to other Israeli university graduate programmes, partially because of the attempt by the established universities to block the development of these colleges, and the perception that the undergraduate degrees were "terminal". (This situation continues to force numerous college graduates to look for graduate education abroad, or to apply to foreign university branches operating programmes in Israel.) The School also started intensive negotiations with several organisations for opening special executive programmes. This way, unique graduate programmes were tailored according to the needs of the Israel Defence Forces, the Israeli Police, and three major chemicals producers located in the Beer-Sheva region.

Abolishing the "boycott" against college graduates and attracting unique niches have enabled the School to attract many more applicants than originally intended. Specifically, the target number of students for the end of the first year of operation (July, 1996) was 1 000, including students already enrolled in the University in existing programmes. By the end of the academic year, there were, in fact, 2 500 students. The University itself had an increase from 9 000 to 10 800 students, and most of this increase has been attributed to the School – this, in spite of the fact that the limited marketing efforts took place after all the other universities had advertised their own programmes.

The high level of attraction of the School in its first year of operation was also associated with: *a)* admittance requirements of a GPA of 80 (out of 100 points), as opposed to a GPA of 85 (the equivalent of a B average instead of an A average) – moreover, the School, unlike other Israeli universities, did not require the GMAT; *b)* great flexibility in terms of required or elective courses; and, *c)* the unique nature of the School's undergraduate programme, which emphasises service sector management.

In the second year of operation (1996-1997), close to 1 500 applicants competed for only 300 admissions. The School therefore upgraded its admission criteria. The ratio of 1:5 reflected increasing demand, on the one hand, and the pressure of the Council for Higher Education to curb the growth of the School. The imposed target was of no more than 3 500 students for the academic year 1996-1997. The limit on growth may have a negative effect on the formula of growth in the number of students, thus on growth in earnings, thus on quality improvement and recruitment of very high quality faculty members.

MANAGING THE SCHOOL OF MANAGEMENT

In terms of the management of the School, harmonious relations were developed, since all the management positions were held by members of the IE&M

Department, while the departments from the Faculty of Humanities and Social Sciences were happy with the opportunity for their students to take management courses, which was an additional attraction for their own programmes.

In terms of the top University administration, success of the School carried a high price because of the chronic shortage of office space and lecture halls. However, in order to keep relations with other departments harmonious, IE&M has initially accepted the entire burden of contributing space. Clearly, the double appointment of Head of School and Chairman of Department has enabled quick decisions and the absorption of the space problem under the premise that IE&M should help the new venture.

As soon as permission from the Council for Higher Education was granted (June, 1995), recruitment efforts accelerated, and by October 1995, a dozen new potential faculty were offered jobs. These included graduates of top institutions, such as the University of Chicago, the Wharton School, and the London School of Economics and Political Sciences. The highest priority was given to candidates who conformed to the unique spirit and academic orientation of the School: ethics and law, strategic management, deregulation and privatisation, leadership, bureaucracy, public anti-corruption management, and Middle-Eastern business patterns. By September 1996, there were 30 full-time faculty members in the School of Management, including four members who chose to move to the School from the IE&M Department.

Several processes have enabled the smooth operation of the School from its inception to the end of the first year:

- The high level of overlap between the management of the School and the IE&M Department.
- In order not to cause political upheaval in both the IE&M and the Faculty of Engineering, it was decided that the veteran students in the graduate programme of Industrial Management (almost identical to an MBA) would be considered only 50 per cent FTE (full-time equivalent) as students of the School.
- The IE&M Department would also be turned into a school, which would be an integral part of the Faculty of Engineering.
- Some of the IE&M faculty were more than pleased to teach in the School, as it seemed to better fit their management perspectives.

With this approach, the School managed to easily double its student number target. However, as noted, the space problem now became obvious. The President (the head) of the University was asked for help. Since the strategic plan to open the Law School had been postponed, the help for the School of Management infrastructure became one of the President's main targets.

Unlike the establishment of the School of Management, the Law School did not seem to ever reach the inception point. The main problem had to do with attracting a very high caliber leader, a noted law expert, to head the proposed School. Some experts who were approached did not want to take the risk associated with planning

and opening a new law school. The risk was augmented by the lack of appropriate available infrastructure. The School of Management, on the other hand, relied on some faculty who already had their offices – that is, their allotted space – plus new faculty and officers who would use office space assigned to them by the IE&M Department.

The School is therefore a reality, as opposed to at least fifteen other new proposed programmes that never entered the final stages of planning or development. Thus, the main issue was not infrastructure, but related to issues of personal initiative and leadership – faculty members willing to take upon themselves the enormous burden of creating new units. It should be pointed out that, in the academic environment in Israel, there is very little remuneration given to initiators of new programmes. In view of the relatively modest level of salaries, many faculty members would prefer to spend their extra time on much more rewarding endeavours than to use a large percentage of their energies for a 20 per cent raise, which is all that they are given for taking the responsibility of administrative positions. Consequently, the required initiators are those who derive considerable satisfaction from intrinsic, rather than extrinsic, rewards.

This report about the establishment of the School of Management cannot be complete without referring to some specific considerations that contributed to the smooth implementation of the School's strategy:

- The unique combination of the background of both the President of the of the University and the Rector. The President is an economist by training, while the Rector's roots are in Industrial Engineering and Management. Both understand the importance of an independent School of Management.
- The Rector gave complete authority and freedom to the Head of the School in terms of formulating the School's academic plans and structure, as well as in recruitment decisions.
- The Rector decided during the development of the School of Management to establish the Graduate School (for PhD studies). Up to that point, established departments had their own PhD programmes, with very limited direction and support from the University administration level. Establishing the Graduate School for Advanced Degrees has been viewed, especially by the beleaguered Faculty of Natural Sciences, as a commitment for quality (research-oriented degrees), as opposed to quantity (professional degrees).
  The Graduate School has been enriched with funds that will enable support for the research of PhD students, as well as for attracting top faculty from abroad for both long-term teaching positions or for short visits. From the perspective of internal politics, it counterbalanced the quantity/quality debate.
- The Steering Committee of the School utilised TQM methods in the planning and implementation process. Some of the methods included teamwork, an on-going process of problem-solving, and working harmoniously with the University administration.

– As noted earlier, all participants on the Steering Committee, as well as most of the top school faculty-administrators, were not paid for these special efforts. The innovative, exciting team spirit of working on a unique project – which has not been done at the University since its opening 26 years ago – made up for the lack of monetary reward.

CONCLUSIONS

In looking back at the experience of planning and implementing the School of Management, several conclusions can be drawn.

First, a relatively small, semi-comprehensive university can benefit from the establishment of professional, high-demand degrees. The Ben-Gurion University experience is an indication that when a high demand exists, policy-makers should do their utmost to capture it. Clearly, this is based on the premise that a high-demand unit will not be built at the expense of high-quality, low-demand programmes. Specifically, we argue that resources gained from the high enrolment of the School of Management can benefit the university as a whole. Moreover, if a university is state-supported, high-demand programmes can be significantly self-sustaining, thus alleviating some of the financial burden of the Council for Higher Education.

In addition, university administrators have to ensure the high quality of the high-demand degree. The idea of supporting the growth and development of the rest of the university by opening high-demand options, such as the School of Management, should be carefully planned and carried out in such a way that high-prestige scientific programmes will not be supported at the expense of overall quality (*i.e.* by low-quality professional schools). While it may be acceptable that a professional school is the "cash cow" of the university, it should strive for the highest possible quality.

Moreover, the experience of the School of Management in Ben-Gurion University of the Negev clearly illustrates the importance of careful co-operation between and among academic units. This experience transcends the unique conditions of a specific university, since the resistance to change is a universal phenomenon. In this study, however, it has been shown that the inclusion of relevant people in the planning process significantly reduces the extent of resistance to change. Being made a member of the Steering Committee, for example, created not only a sense of co-operation, but also a feeling of pride and *esprit-des-corps* in being a part of an exciting challenge. This atmosphere encouraged university personnel to enjoy the intrinsic aspect of their jobs and to act with a sense of camaraderie toward a shared goal.

Finally, it is encouraging to note that, in spite of the almost universal feeling of crisis in higher education, there is still room for growth and development in high-demand areas.

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BUDGETARY INDICATORS AND INTERNATIONAL COMPARISONS: A TOOL FOR HIGHER EDUCATION MANAGEMENT

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ABSTRACT

The aim of this paper is to underscore the theoretical context of the analysis of education systems and to emphasise the limits of creating and using budgetary indicators. On the basis of the methodology we developed, we estimate the cost per university student in the Netherlands and the French Community of Belgium by using budgetary data. The comparison of our results with previous studies (Kaiser, 1993; Monier, 1993; and OECD, 1993) highlights the necessity of relativising the estimated cost gap between the different countries. According to the given study, the cost gap per student between the Netherlands and the French Community of Belgium varies widely. Hence, the use of these results to implement economic policies requires a specific framework to analyse and explain these results.

INTRODUCTION

In the current economic situation characterised by huge problems of unemployment, social problems, public finance crisis, etc., public authorities are forced to make a trade-off between different tasks. In the field of education, the Government is one of the main actors which takes over the larger part of the funding and the provision of some education services. It is therefore legitimate to examine the level of investment in education and the performance of current education systems.

Various international studies analysed the performance of the Belgian education system in terms of cost in comparison with the major partners of Belgium. After having examined these studies, we raised questions about the methodological aspects inherent to the construction of education indicators. It is interesting to note that performance indicators of education systems are not based only on budgetary data.

Other indicators may be used such as the graduation rate and the unemployment rate of young people. Nevertheless, this paper only analyses budgetary indicators.

After having studied the results of various international comparisons of higher education systems (university and non-university sector), we try to develop a methodology to create and analyse budgetary indicators. In Section III, on the basis of this framework, we compute the cost per university student in the Netherlands and the French Community of Belgium (FCB) for the year 1993. Afterwards, we compare our results with those of other studies.

INTERNATIONAL COMPARISONS: SEVERAL FIGURES

In Tables 1, 2 and 3, we focus on the analysis of international comparisons for higher education (university and non-university sector). More precisely, three studies – Kaiser *et al.* (1992), Monier (1993) and OECD (1993) – compare the performances of several countries [for a comparison of Belgium with the Netherlands, see Bayenet and Thys-Clément (1995)] on the basis of the following indicators: the ratio between expenditure on education and GDP, the ratio between expenditure on higher education and the total of expenditure on education and the cost per student.

Figures are based on a sample of countries including Belgium (French and Flemish Communities), the Netherlands, France, the United Kingdom and Germany. This sample is composed of countries having a development stage similar to that of Belgium.

Table 1. **Expenditure on higher education as a percentage of GDP**[1]

	Kaiser – 1988		Monier[2] – 1990 without aid to students[3]		OECD – 1991
	With aid[4]	Without aid[3]	Non-university	University	Without aid[3]
B	*0.87*	*0.87*	*0.3 (0.3)*	*0.6 (0.4)*	*0.9*
NL	1.82	1.22	0.4	0.75	1.7
F	0.66	0.59	0.3	0.4	–
GB	0.79	0.63	0.5	–	1
G	0.86	0.75	–	1.1	0.9
Eur	**1**	**0.81**	**0.37 (0.37)**	**0.71 (0.66)**	**1.2 (OECD: 1.2)**

1. These different studies examine the whole higher education system (university and non-university sector) except for Monier's study that distinguishes university and non-university sector. In Monier's study, he reference year for the French Community of Belgium is 1990 and for the Netherlands 1989. For Belgium, the cost per student of Kaiser's study relates to the Flemish Community of Belgium.
2. Monier distinguishes the French and the Flemish Communities. Data for the Flemish Community of Belgium are in parentheses.
3. Under the heading "without aid", we reported the overall public financing of higher education is reported, public financial aid to students not included.
4. Under the heading "with aid", the overall public financing of higher education is reported, including public financial aid to students (grants, loans, etc.).

Source: Kaiser, Monier, OECD.

Table 2. **Expenditure on higher education as a percentage of overall expenditure on education**

	Kaiser – 1988		Monier – 1990 without aid to students		OECD – 1991
	With aid	Without aid	Non-university	University	Without aid
B	*20.35*	*20.19*	*6.5 (8.5)*	*11.5 (9.5)*	*19*
NL	54.40	17.20	9.5	18.5	29.8
F	12.23	10.96	6.5	9.5	17.7
GB	16.64	13.21	–	–	20.7
G	23.45	20.80	–	32	18.7
Eur	**25.41**	**16.50**	**7.5 (8.2)**	**17.9 (17.4)**	**21.2 (OECD: 27.8)**

Source: Kaiser, Monier, OECD.

Table 3. **Cost per student in higher education**

	Kaiser – 1988				Monier – 1990 in ECU without aid		OECD – 1991 in $ PPA
	ECU[1]		PPA[1]		Non-university	University	Without aid
	With aid	Without aid	With aid	Without aid			
B	*3 955*	*3 786*	*4 768*	*4 564*	*4 351.4 (3 883.4)*	*6 265.9 (6 507.2)*	*6 235*
NL	8 129	4 542	9 827	5 491	4 464.1	9 379.8	9 373
F	3 279	2 866	3 914	3 421	6 507.8	3 195.6	4 760
GB	5 003	4 016	7 500	5 647			9 621
G	4 107	3 325	4 296	3 478		8 386.6	6 322
Eur	**4 895**	**3 707**	**6 061**	**4 520**	**5 108 (4 952)**	**6 807 (6 867)**	**7 262 (OECD: 8 560)**

1. The cost per student relates only to the university sector. Moreover, in Kaiser's study the purchasing power parity used is that developed by Eurostat (SPA).

Source: Kaiser, Monier, OECD.

We do not take into account the ratio between expenditure on education and public expenditure because of the necessity of correcting for the public debt servicing which is a problem specific to Belgium. In Annex I, a table shows public expenditure after correction of the effect of interest charges (Debande, 1995).

Only the study of Monier (1993) makes a distinction between the French and the Flemish Communities. Out of this study, we considered then the percentage for the French Community and the percentage for the Flemish Community mentioned in brackets. The variable Eur corresponds to the average of observed countries. With the results of the study carried out by Monier, we calculated two averages: one for the French Community and another for the Flemish Community. In the case of the OECD study, we calculated an average for our sample. For the purpose of comparison, we also present the average for all OECD countries. When comparing the different indicators of the following tables, Belgium generally ranks below the average of the

countries observed as far as university and non-university sectors of higher education are concerned.

Large differences exist between the different studies. This observation is all the more striking since the studies of Kaiser *et al.* (1992) and Monier (1993) are based on the same methodology, that is to say the reconstruction of indicators from national data, with the exception of the gap of one to two years between the two studies. For instance, in the case of the indicator "cost per university student", for the Netherlands Monier obtains a cost 2.06 times higher than that observed in the study by Kaiser.

With the exception of the indicator 'expenditure on higher education in percentage of GDP', Monier's results are markedly higher than those observed by Kaiser. Except for the cost per student, the comparison of the studies carried out by Kaiser and OECD shows differences, which are sometimes large, even if they result from different methodological choices. The analysis of these indicators shows the importance to examine the methodological principles used to create indicators in the field of education. The consequences of information provided by a system of indicators imply that one be aware of the effects resulting from each methodological choice.

METHODOLOGY USED TO BUILD INDICATORS

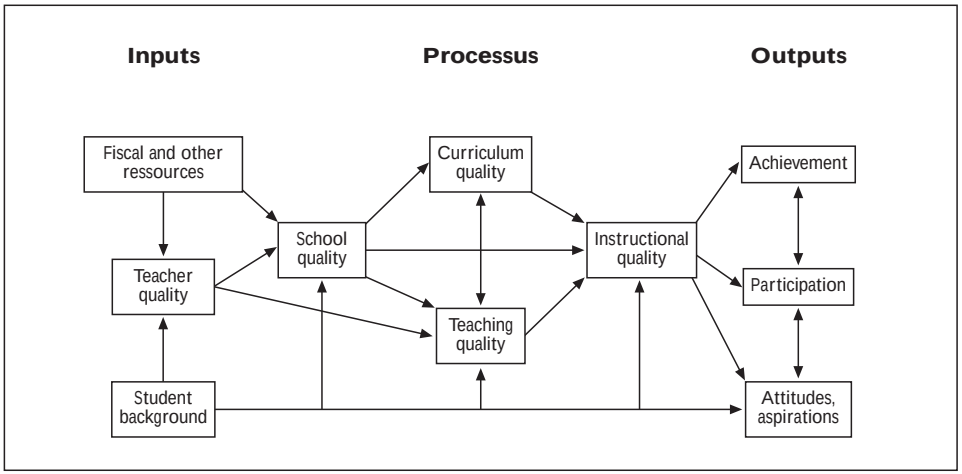
As mentioned earlier, the objective of the systems of indicators is to provide information on the state of the education system in order to facilitate the decision-making process of public authorities. Indicators of comparison have to be replaced in their context (*i.e.* in the education system they refer to) in order to be used correctly. Although there is no unanimous opinion on the model which can describe the educational process, the use of a system of indicators requires to take into account the organisational environment of the education system. Figure 1 which depicts the whole educational process, highlights the interrelations between the different elements of the education system.

Definition and types of indicators

The literature generally identifies four types of budgetary indicators as regards international comparisons of education systems:

1. Total public expenditure on education as a percentage of national resources (for example GNP or GDP). This indicator reflects the will of a country to finance its education system and to educate its population.
2. Total public expenditure on education as a percentage of overall public expenditure. This indicator shows the importance attached to the education system by a Government given other expenditures. In this case, public debt has to be taken into account to assess the efforts of a country to promote its education system (see Annex I).

◆ Figure 1. ***Description of the education system***



Source: Shavelson *et al.* (1987).

3. Total public expenditure on one level of education as a percentage of the national education budget. This ratio allows to determine the priority attached to this level of the education system by the Government.

4. Total public expenditure on education per student. This concept is very attractive because of its simplicity and the fact that it combines two important features of an education system, namely the costs of the system and the number of students.

Comparative analysis: education system and type of expenditure

Several concepts must be defined to ensure that indicators are comparable. Indeed, among education systems, there are several levels whose nature and structure vary dramatically between European countries. To compare the different types of education systems, it is therefore necessary to define models of education or levels of education.

We have then to determine the different expenditure inherent to the education system used in the definition of indicators. The main problem is to identify the components of education costs, namely the types of expenditure, their sources, and the actors in the education system.

First, the expenditures which are necessary to create an environment where education actors can work must be identified. These include expenditures related to the implementation of the national education policy (laws, administration, improvement of the quality of education) and expenditure related to financial aid to students (direct and indirect). Direct aid to students varies widely from one country to another with respect to the amounts and the requirements to qualify for it. Indirect aid encompasses subsidised services to students (accommodation, meals, medical care, transport, sports facilities, cultural activities and social security).

Two major types of education expenditure can be distinguished, namely capital expenditure and current expenditure. Capital expenditures concern durable goods whilst current expenditures include expenditures for education goods and services whose length of use is less than one year: personnel costs, administration costs, supplies and social expenditure, and different transfers (study grants and other aid to study within the country or abroad). In general, these two types of expenditure have to be taken in consideration. However, it is sometimes better to consider only current expenditures. Capital expenditures are excluded from the data because expenditure on buildings and costly equipment can fluctuate erratically from one year to another. Moreover, countries use different accounting procedures relating to capital (Jongbloed *et al.*, 1994).

The different funding sources must also be analysed. Public and private expenditure are to be distinguished. Public expenditures include expenditure on education by public organisations (national governments, federal governments, regional authorities or local authorities) to finance public and private (subsidised) institutions. Private expenditure encompasses expenditure on education by private organisations to support private and public institutions of education and students, and by individuals students and their families (fees and living expenses as far as these are not covered by grants from student support systems) (Kaiser *et al.*, 1992). The latter are rarely included in the statistics. Expenditure of private companies can also be identified as private expenditure but these statistics are rarely available.

Public expenditure is easier to identify but errors and inadequacies remain because of the transfers between different levels of power (double counting). Budgetary data may also lead to some problems as some differences between budgetary expenditure and effective expenditure may appear. Moreover, these data relate to calendar year while in most cases students numbers refer to academic year. Finally, in many countries, the Ministry of Education is not the sole instance responsible for the funding of education.

While the analysis of education costs is difficult to carry out, the identification of education system's actors is not any easier. The number of students can be defined as the number of people who are studying. But this definition is difficult to use to evaluate the cost per student, as there are full time and part time students who must be accounted differently. The number of students in full time equivalent should be used. Moreover, the number of students depends on the compulsory school

attendance, the problems of repeating a year, etc. Similarly, the number of teachers and other staff must be converted into full time equivalent.

Time element and international comparisons

These various indicators can be used to compare education systems over time. The use of indices to measure the relative or absolute effort has the advantage to compare data directly because they have no dimension. However, expenditure per student is given in current prices and in national currencies. In order to make cross-national comparisons, data have to be reduced to the same monetary denominator and they have to be transformed into constant prices by using an adequate deflator.

A usual way of reducing variables to a common monetary denominator is the use of actual exchange rates. However, the use of actual exchange rates will lead to imbalances regarding the price level (Kaiser *et al.*, 1992). To avoid this problem, we can use purchasing power parities (PPP) which are derived by adjusting a fixed exchange rate for changes in the price index of a group of countries. In other words, PPP allow to convert the purchasing powers of different currencies into one common measure. Eurostat has developed its own European purchasing power parity, the SPA or *Standard de pouvoir d'achat* (Eloy, 1993).

Eicher (1987) distinguishes two types of analysis to define a relevant sample of countries for international comparisons:

- A detailed analysis of a small sample of countries. They are examined by the same method as far as possible. This study requires specific information which is not directly available.
- A brief analysis of a large sample of countries. This study requires the analysis of averages in order to place each country in the given sample. The averages raise a problem of sample. This problem comes from the lack of information about each country for the same year and thus influences the selection of a representative sample. The choice of an average depends on the objectives. The simple arithmetic mean is used to compare the absolute effort of countries to promote their education system. In this case, each country has the same importance, regardless of its size. The weighted mean is used to measure the average expenditure per student in a sample of countries, each country being weighted by the number of students in its education system.

Some remarks to analyse these indicators

Several features of education systems may be relevant to explain cost differences between countries: the supply and the capacity of education programmes, the technology of instruction and education funding methods (Jongbleod *et al.*, 1994). A thorough investigation of the reasons for the different costs levels should take the contents of the programmes and the quality into account, but unfortunately these are

difficult to identify. The capacity and the supply of education, the duration of programmes explain an important part of educational costs. The difference between the official duration and the actual duration of studies is an important datum, all the more so when funding is based on the number of students.

Indeed differences in actual duration of studies seem to correlate with differences between countries' costs per student. In this respect it could be more interesting to evaluate a cost per graduate. Moreover, educational costs vary with the programmes' technology, the way in which teaching is provided. The educational technology is identified by four major aspects:

- the staff-student ratio;
- the average staff salary;
- economies of scale;
- graduation rates and drop-out rates.

The staff-student ratio is not easy to calculate. It is a relevant indicator if we take into account the number of hours taught by teachers and attended by students. However, by teacher do we mean full time teachers or the whole staff involved in teaching? To calculate the number of students, part-time students must be converted into full time equivalents. Once these corrections are made, we can compute two types of staff-student ratios. The actual staff-student ratio is the ratio between the number of students and the number of teachers who must teach (pedagogical staff-student ratio). The budgetary staff-student ratio is the ratio between the number of students and the number of teachers paid by different organisations which finance the education system (Eloy, 1993).

The staff-student ratio explains a substantial part of the differences in cost per student between countries. Indeed, personnel charges represent an important part of education costs. A distinction can be made between academic and non academic staff who work either part-time or full time. Teachers' salaries depend on the number of course hours per day, the number of course days, the number of courses per day and their duration. Moreover, the teachers' status can be a relevant component of educational costs.

Economies of scale are the cost savings that may be obtained when the size of an educational institution increases.[1] The outcome of teaching activities is reflected in graduation rates and drop-out rates. High graduation rates may be the result of deliberate institutional policies aimed at supervising and guiding students throughout their study programmes. This will have an effect on costs. The graduate rate can also be influenced by entrance criteria.

FROM THEORY TO CONCRETE CASE

To illustrate these methodological remarks on international comparisons of education systems, the analysis focuses on one particular indicator: cost per student.

Following the distinction established by Eicher (1987) on the size of the sample of chosen countries, the method used here is that of the detailed analysis of two countries, the Netherlands and the French Community of Belgium. This type of comparison requires specific information relating to the two specific education systems which are not readily available. The choice of this type of sample allows us to avoid the problem of estimating and explaining averages for the whole sample. These two countries are comparable from an economic and institutional point of view (important decentralisation, freedom of teaching, public funding for private and public institutions, etc.).

The structure of Belgian and Dutch education systems are relatively similar. In Belgium, higher education includes university education and seven other categories of higher education called *enseignement supérieur de type court ou de type long* depending on the duration of the studies. The Dutch higher education includes non-university higher education, university education, and distance higher education.

This analysis focuses on university education. Moreover, the choice of the French Community of Belgium and the Netherlands avoids conversion problems into one common currency. Indeed, as there exist some economic links between these two countries, the use of the simple actual exchange rate to convert Dutch financial data into Belgian francs does not lead to significant bias in the analysis.

The different funding sources of universities are public and private.[2] The analysis covers the public funding of university institutions and fees paid by students. The data references are indicated in Table 4.

Universities public funding includes current expenditure and capital expenditure. As capital expenditure is not taken into account the aim of this paper is to compare these two countries for the year 1993. Some problems can thus be avoided since the characteristics of capital expenditure can fluctuate from one year to another. Overall amount of tuition fees paid by students are added to the public funding for university.

This amount does not appear in the Belgian university budget. It is estimated by multiplying the number of students by an average fee of 25 000 Belgian francs.

Table 4. **Sources of statistical data use for the Netherlands and the French Community of Belgium**

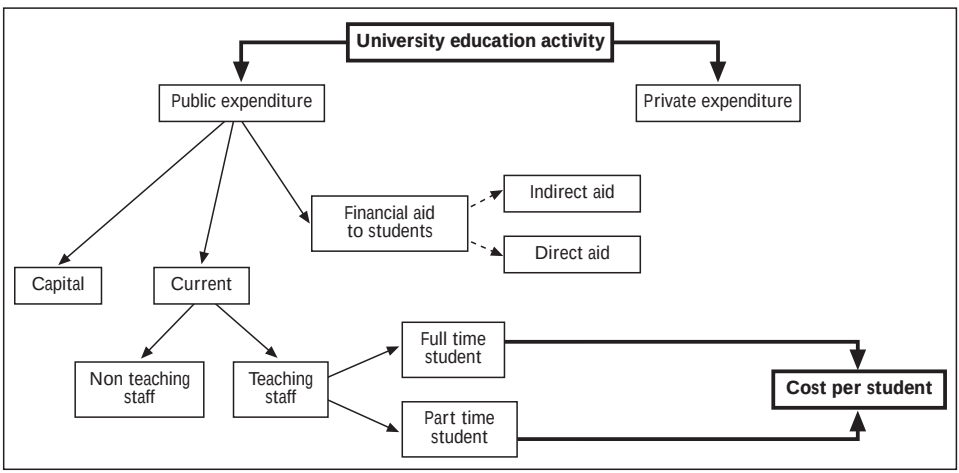
NL	1.	Statistiek van de overheidsuitgaven voor onderwijs 1993, Centraal Bureau voor statistiek (1996), Voorburg/Heerlen.
	2.	Zakboek onderwijsstatistieken 1994/1995, Centraal Bureau voor statistiek (1995), Voorburg/Heerlen.
CFB	1.	Budget administratif du ministère de l'Éducation, de la Recherche et de la Formation (1993).
	2.	Annuaire du Conseil des recteurs (1995).

External university funds, especially to promote research, are not included in this data because of the lack of information for Belgium. In order to finance their studies, students can receive a basic grant or a loan from public institutions. The comparison between the Belgian and the Dutch systems to aid students is not easy. Indeed, for the Belgian system, it would be relevant to estimate income tax deductions, family allowances and social advantages granted by universities (tuition fee reductions, etc.) and public authorities (season tickets for transports, etc.).[3] To evaluate students aid granted by universities in the French Community of Belgium, only statistics on higher education are available.

In order to estimate the cost per student, the number of students must be defined. For each country, this number is the number of registered students in full time equivalents and corrected for the calendar year. In Figure 2 are summarised the different steps of analysis that were followed to estimate the university cost per student. This approach can easily be applied to other levels of education systems and other types of expenditure.

From budget statistics, public funding and student funding of university education for the French Community of Belgium and the Netherlands were identified. Besides, public funding includes public funds to the University and financial aid to students. Table 5 shows that public allowance to universities and tuition fees have the same importance in the overall public funding in Belgian and Dutch bud-

◆ Figure 2. ***Summary of the methodology used***



Source : Authors.

Table 5. **Funding sources of university sector in billions of Belgian francs for the year 1993**

	Students		Public authorities		Total	
	NL	CFB	NL	CFB	NL	CFB
Institutions financing:					**101.7**	**20.4**
1. Public transfers			*94.4*	*18.8*	*94.4*	*18.8*
Subventions:						
Current			88.2	14.7	88.2	15.9
Capital			6.2	4.1	6.2	2.9
2. Tuition fee	*7.3*	*1.6*			*7.3*	*1.6*
Students financing:			**20.8**		**20.8**	**0.98**
1. Public transfers: Grants				*0.97*		*0.97*
2. Subsidised loans				*0.01*		*0.01*

Source: CBS (1995, 1996), Ministry of Education, Research and Training (1993), and Annuaire du Conseil des recteurs (1995).

gets. The structure of Belgian and Dutch university funding is essentially based on public transfers.

It should be noted that the Dutch tuition fees are higher than in the French Community of Belgium. However, substantially more important public aid to students compensates for higher fees. The number of registered university students amounts to 187 958 for the Netherlands and 65 644 for the French Community of Belgium. The cost per student is shown in Table 6. Table 6 shows that the Netherlands allocate a larger amount per student than the French Community of Belgium to the financing of their university education sector.[4] As mentioned above, it is preferable to consider current expenditure per student. Results are not modified if capital expenditure is not taken into account.

However, financial aid to students increases the differences between university funding per student. This result is not modified if tuition fees are deducted from studies aid to students. Table 7 presents an overview of the different studies used in the evaluation of the cost per student.

Table 6. **Cost per student for university sector in thousands of Belgian francs for the year 1993**

	Public financing		Current public financing			
	Without aid		Without aid		With aid	
	NL	CFB	NL	CFB	NL	CFB
Cost per university student	502.1	286.4	469.3	242.2	581.1	257.1

Source: Authors, based on CBS (1995, 1996), Ministry of Education, Research and Training, and Annuaire du Conseil des recteurs (1995).

Table 7. **Estimation of the average cost per student in the university sector according to different studies**
(thousands of Belgian francs)

	Bayanet-Debande – 1993		Kaiser – 1987		Monier – 1990
	With aid	Without aid	With aid	Without aid	Without aid
CFB	301.3	286.4	170.2	162.9	265.8
NL	612.9	502.1	349.8	195.4	406.9
Difference between NL and CFB in percentage	**103**	**75**	**105**	**20**	**53**

Source: Authors, based on CBS (1995, 1996), Ministry of Education, Research and Training, and Annuaire du Conseil des recteurs (1995).

Table 8. **Percentage of students by field of study in 1993**

	NL	CFB
Agriculture	3.1	3.3
Sciences	7.3	13.0
Applied sciences	14.4	9.1
Medicine[1]	9.4	18.3
Economic, political and social sciences	34.5	33.2
Law	15.1	11.4
Philosophy and liberal arts	16.2	11.7

1. To be consistent with Dutch data, the number of students in "physical education" are added to the number of medical students.
Source: See table 4.

Table 7 makes clear that, even if reference years are different, our estimate of the university student cost coincides with the Kaiser's study. But if we compare this indicator without taking into account financial aid to students, our results are different from those found by Kaiser. Various reasons can partly explain these differences: the estimate of the Belgian cost per student only refers to the Flemish Community of Belgium; and, besides, we use budgetary data to estimate the cost per student while Kaiser's study uses data from a specific statistical survey in European countries which adds to existing databases, mainly data on direct and indirect financial aid to students. Nevertheless, indirect financial aid to students does not appear in budgetary statistics.

If we compare our results with Monier's study, estimates of the cost per student in the French Community of Belgium are relatively similar but there is a wide difference in the case of the Netherlands. Note that our results are consistent with the estimation of the university student cost evaluated by CBS (Centraal Bureau voor Statistiek), 521 330 Belgian francs in 1991.

Therefore this analysis shows how difficult it is to compare different countries and different studies, and how important it is to relate results to the framework of their analysis in order to make valid interpretations.

CONCLUSION

The aim of this paper was twofold: first to emphasize the theoretical framework to analyse education systems; second, to underline the limits of creating and using budgetary indicators. After having developed a methodological framework of analysis in the field of international comparisons on education, we tried to compute our own estimate of the cost per student for the university sector in the Netherlands and the French Community of Belgium. To evaluate student cost estimates, it is first necessary to identify the different components to be considered and to select them according to statistical data available. Constraints linked to this preliminary stage partly explain the differences between indicators' estimates. The comparison between our results and previous studies also stresses the necessity of replacing any estimation in the context of analysis.

The development and the use of budgetary indicators as economic policy instruments would require that statistical data on education be improved and more readily be available. Moreover, budgetary indicators do not allow to evaluate performances of education systems. This type of analysis requires to take into account results of educational process (the second part of Figure 1) and inputs (quality of actors operating in the process, the number of teachers, the training personnel, students characteristics, etc.). Nevertheless, budgetary indicators show country effort to finance its education and thus to educate its citizens. This analysis can be carried out for the whole education system, by level and type of education, by funding sources and by type of expenditure. However, these indicators do not study the multidimensional aspect of the results of education system.

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NOTES

1. However, the number of institutions largely depends on political decisions.

2. Thys-Clément (1995) developed a theoretical table to compare the different sources of financing (direct and indirect) of the university sector.

3. Vossensteyn (1995) attempted an estimation of direct and indirect financial aid to students, *cf.* "Direct versus indirect student support: an international comparison", CHEPS.

4. Nevertheless, it is interesting to analyse the possible correlation between the cost per student in a country and a major part of students in costly disciplines (medicine, sciences, applied sciences). Table 7 shows that the percentage of these students is higher in the French Community of Belgium.

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Annex

Expenditure on education as a percentage of overall public expenditure corrected for public debt servicing

		1978	1981	1984	1988	1991	1992
Belgium	Non corrected	12.2	10.8	10.3	9.6	9.5	10.5
	Corrected	13.2	12.3	12.3	11.7	11.7	13.0
The Netherlands	Non corrected	14.1	12.8	10.9	–	9.8	9.5
	Corrected	14.7	13.6	11.9	–	10.7	10.4
France	Non corrected	11.5	11.4	11.1	10.6	10.6	10.6
	Corrected	11.7	11.7	11.5	11.1	11.2	11.2
The United Kingdom	Non corrected	12.7	11.7	10.9	–	12.5	11.9
	Corrected	13.5	12.6	11.8	–	13.2	12.5
Germany	Non corrected	9.7	9.6	8.6	–	8.0	8.5
	Corrected	9.9	9.9	9.0	–	8.4	9.0

Source: Debande (1995).

INDEX TO VOLUME 9

The following section contains a list of contribution published in Volume 9/1997. The list is organised in alphabetical order of authors. The tile of articles is listed only once in the case of multiple authors.

Appropriate articles are abstracted/indexed in Current Index to Journals in Education (ERIC).

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