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Facility Benchmarking
Trends in Tertiary Education:
An Australian Case Study

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FACILITY BENCHMARKING TRENDS IN TERTIARY EDUCATION – AN AUSTRALIAN CASE STUDY

Background

Over the past decade a near doubling of the post-secondary education student population in most OECD countries has been achieved with a minimal expansion of new buildings and campuses (with exceptions such as a number of campuses in new suburban developments on the outskirts of some Australian cities). Much of this student increase was absorbed by the new information and communications technology (ICT) through flexible delivery and distance learning methods on existing campuses.

Assessment of the impact of this growth in tertiary education participation on the use of facilities was the focus of a PEB conference in Greece in 1995 (see *PEB Exchange*, no. 27, March 1996). PEB, in light of the OECD education ministers' goal of lifelong learning for all, decided to broaden its focus beyond schools to include vocational training and university education.

The growth rate in tertiary education participation occurred when much of the building stock was reaching its first cycle of renewal, around 25 to 30 years after the building expansion of the 1960's. That construction programme was implemented to accommodate the then post-secondary school age post-war "baby boomers." Thus in the late 1990's, the attention of facility managers turned towards the efficiency and effectiveness of their assets, the need for these assets to incorporate new and emerging ICT systems, and the development of asset strategies needed for renewal.

Strategic asset management

University and college facility managers began to look at the "whole of life" aspects of their assets and had to try to predict the future for their facilities. This brought a strategic focus to their task. This trend became evident in the United States where the *Facilities Planning News* (1995, p. 9) surveyed university planners and administrators and found that strategic, management and project issues were the overwhelming concern, particularly in relation to ageing facilities and to how these would be renewed and adapted to the new technologies.

Sixty-one percent of respondents rated as most important the issue of "how new learning technologies will affect facilities plans and facilities usage". Fifty-seven percent were concerned with "getting more from what you have" (facilities utilisation plans); 67% with facilities upgrades and renovations; 50% with teaching laboratories refurbishment and 40% with operating budgets and ways to lower operating costs. Subsequently PEB organised a workshop entitled "Strategic Asset Management for Tertiary Institutions" in Sydney, Australia, in 1998, at which many of these issues were discussed in-depth in working groups. Some 45 participants from Australia, Europe, the United States, Asia and New Zealand attended the workshop. A key outcome of that meeting was a determination for increased efforts at benchmarking between institutions to develop comparative means to measure the performance of facilities (see <http://www.oecd.org/els/education/peb/pubs.htm>).

Benchmarking of educational physical assets

PEB had attempted to benchmark school facilities over the past decade across its Member countries to provide additional data for the popular OECD educational statistics database. This exercise proved difficult for a variety of reasons. The most obvious problem was the differentiation in countries regarding school facilities management and, in particular, whether data was collated at the ministerial level for the country in question (such as France), at a regional or state level (such as Australia), at a local government authority level (for example Norway) or even at an individual school level.

The other major factor inhibiting progress was the categories and format of the data collected in those countries. A survey of PEB Members revealed that, whilst there was a wide range of data collected in the Member countries, there was little correspondence between countries in terms of the format and range of data elements. The survey contained 25 questions which explored five key areas: the educational system of each country, administration and property management aspects, space indicators, expenditure and environmental factors.

Around the same time performance measures were becoming important at a national level in many countries, particularly in tertiary education. For example in the United Kingdom the Higher Education Funding Council (HEFCE, 1997) published guidelines for "Strategic Plans and Financial Forecasts" which requested data on such matters as maintenance, capital expenditure and various other facility elements, followed by another framework study on asset management statistics (HECFE, 1999). In Australia there was a call for better performance measurement in tertiary education institutions (McKinnon, 1999), in which facilities were also singled out for attention.

Benchmarking in Australian post-secondary institutions

In Australia for over a decade AAPPA, the Australasian Chapter of APPA (Association of Physical Plant Administrators, based in the United States), had been developing such performance indicators across more than 40 institutions (see <http://www.publications.qut.edu.au/extnl/aappa/aappahome.html>). This work has now evolved to the extent that their most recent publication, the 2000 *Benchmark Survey Report* (AAPPA, 2000), had 63 respondent institutions from Australia, New Zealand and Hong Kong. The 112 separate data elements collected on an annual basis include general statistical data (e.g. gross floor area), asset replacement value, staff and student numbers, and costs for maintenance, cleaning, energy, grounds maintenance, security, telephone, water and building operations. Much of the data has been informed by the guidelines set out by the National Committee on Rationalised Building (Bromilow, 1992).

These data are now providing an excellent comparative benchmark as, over the 10 to 12 year period of the development of the statistics, irregularities, inconsistencies and misunderstandings have been gradually ironed out. APPA is publishing a Strategic Assessment Model for which AAPPA is presenting its process of collecting and analysing benchmark data. AAPPA's work has been carried out predominantly in the university sector which, in Australia, New Zealand and Hong Kong, is essentially funded at the federal level, which allows for some consistency between the institutions.

However, the case in the vocational training sector (called technical and further education, TAFE, in Australia) is more complex. Whilst funding is provided predominantly at the federal level, the monies are distributed through the state treasuries to projects which meet regional needs. These projects are only reported to the federal level. The Australian National Training Authority (ANTA) was established in the early 1990's in an attempt to better co-ordinate, at a national level, the state-organised individual TAFE institutions and colleges. ANTA supported many studies in facilities management and benchmarking, although they were faced with differentials between data collection systems in each of the Australian states.

A study was commissioned in 1994, by the TAFE National Physical Resources Group (NPRG), to develop a resources module for TAFE facilities (ACVETS, 1994) in an attempt to provide a more consistent data collection framework. Another study was implemented by the NPRG which proposed the development of capital management plans.

Performance indicators for capital resources were considered but not implemented (TAFE, 1995). This study attempted to match student demand with facility supply. Other related studies included a report on operating costs of TAFE facilities (1995), a national study to establish benchmarks for the use of TAFE specialist facilities (1995) and a review of the national vocational education and training system facilities' maintenance funding requirements (1997).

A later study, the *Review of the Infrastructure Program*, was undertaken for MINCO, the Ministerial Council. A major recommendation of this report was that "performance indicators and benchmarks specifically relating to infrastructure should be developed and agreed as a matter of urgency to drive greater efficiency in infrastructure and infrastructure funding" (ANTA 1999, p. 60). This has led to a new accountability framework for vocational education and training (VET) infrastructure: "Directions and Resource Allocations for 2001" which was agreed by the Ministerial Council on 17 November 2000. One of the three main components in the new accountability framework is performance measures. This includes:

- a) public expenditure per publicly funded output incorporating:
 - the recurrent component of the unit cost of VET outputs;
 - the capital component of the unit cost of VET outputs;
- b) the ratio of operating and maintenance costs to capital value incorporating:
 - the ratio of operating and maintenance expenditure to capital value;
 - the value of the maintenance backlog;
- c) utilisation of infrastructure;
- d) performance benchmarks.

Another key recommendation, which was discussed at length at the PEB "Strategic Asset Management" workshop in Sydney in 1998, was that "states/territories should move to introduce capital charging to the VET sector as a matter of urgency as a measure of the actual cost of capital and thus to assist in better decision making in the use of capital funds and asset management" (ANTA 1999, p. 61). This has now become an Australian project called "The User Cost of Capital." At the time of this writing, the Working Group was scheduled to consider a draft report and measures during March-April 2001.

Conclusions

Extensive efforts world-wide have been made to develop performance measures for the physical infrastructure of educational institutions. However, this issue is not easy to

resolve given the differences in data collection and management within individual countries and between countries. The Australasian experience demonstrates that it is possible to collaborate in the development of performance measures if the will is there. Various models are possible. At one end is the institutional driven AAPP model which was developed independently of the central bureaucracy so that individual universities could use their assets more effectively. At the other end is the top-down approach of ANTA which is driving efficiencies, with the collaboration of the state-based National Physical Resource Group, so that taxpayer funds are spent in the most efficient and effective manner.

It remains to be seen how these regional initiatives can be benchmarked internationally in an increasingly globalised, borderless and competitive tertiary education and training environment. PEB (and the OECD Programme on Institutional Management in Higher Education) is in a position to broker such comparisons, but the will of the individual countries to develop such performance measures seems to be a pre-requisite before any significant developments are possible beyond the regional level such as demonstrated in Australia.

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