

CROSS-NATIONAL HIGHER EDUCATION PERFORMANCE (EFFICIENCY) INDICATORS



Grant number: 1065-0828-1

Progress Report:

1 June 2006 – 31 December 2007

28 December 2007



Dr Butler-Adam
Ford Foundation
28 December 2007

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The main deliverables for the project are:

1. An international seminar to improve conceptual and methodological understanding of efficiency in higher education in an African context.
2. A framework paper that identifies a set of indicators and a data collection methodology.
3. Country specific reports and discussions on efficiency in a range of countries.
4. The first book on efficiency in an African higher education context produced by scholars and experts within Africa.
5. Capacity (academics and bureaucrats) in a number of countries (five) who can, through the use of actual data, participate in and promote debates on efficiency.

The project has achieved the goals of the first phase. The International Seminar was held on 5-7 March at Spier Estate. International speakers were Prof Gareth Williams, London Institute of Education and international authority on higher education finance and performance indicators and 2 representatives from CHEPS, Jon File and Ben Jongbloed who are also part of the European Union task team on higher education performance indicators.

The following Country Teams participated:

- South Africa
- Botswana
- Mozambique
- Kenya
- Tanzania
- Uganda
- Egypt

Appendix 1 contains a brief workshop report and Appendix 2 a list of participants.

The Project Group (for membership see Appendix 2) mapped out the next steps and also agreed that a separate workshop be held to discuss performance indicators for university councils. The Seminar called 'Indicators for Governance' was held on 2 November (See Appendix 3) and attended by 60 people. The seminar was organised jointly with the Department of Education, Higher Education South Africa (HESA) and Integrated Technological Services (ITS). A report was produced for this seminar <http://www.chet.org.za/download/3652/Indicators.pdf>

The project is proceeding according to plan.

Dr N Cloete
Director, Chet

Appendix 1

CROSS NATIONAL HIGHER EDUCATION EFFICIENCY INDICATORS

WORKSHOP 5-7 MARCH 2007

AIDE MEMOIRE

Key Issues: How should we talk about efficiency?
Is it possible to develop comparative efficiency indicators?

Gareth Williams

The notion of higher education efficiency can best be examined with the use of indicators. These do not necessarily need to be quantitative, but for the purpose of cross national comparisons the nature and content of each indicator must be explicit. Further, it is of key importance to ensure that the interpretation of these indicators falls within a set of controlled parameters.

Important points for the project at hand:

- there should be a differentiation between inherently quantifiable indicators and those which are translations of qualitative issues
- issues around internal differences between institutions must not be ignored, as the idea of higher education may be represented by very different goals and purposes from one institution to another
- meaningful indicators are best measured and compared over time or space

Jon File

Any notion of comparability between higher education systems and institutions cannot be established without a sense of the context within which each operates.

- it is not possible to make the assumption that increased input into higher education institutions will lead to an increase in output. In suggesting this, activities, flows and patterns *within* an institution are not taken into account. While input units may be similar between institutions (students, staff, public/private funding etc), one cannot make the leap to institutional outputs (graduates, research publications) without considering internal processes, among which is efficiency.
- the measurement of efficiency may take a technical form, in which the ability of an institution to translate inputs into outputs is measured. Dynamic efficiency, on the other hand, refers to the ability of an institution to alter patterns of service delivery in response to changes in student demand and technology.
- the council for higher education in Germany has established a set of university rankings across Europe and Canada, with the focus on subject matter as opposed to league tables.
- the UK has established a set of sector benchmarks, including fields of study, entry qualifications, student age on entry and graduate employability.

- Australia utilises performance indicators, but comparisons within the higher education system are confounded by varied student mixes and corresponding inter-institutional differences.
- neither the EU nor the OECD has undertaken work on efficiency indicators. Both recognise the importance of context, as well as massive differences between higher education systems.

Potential problems with the EI project:

- not all qualitative inputs can be translated into measurable indicators
- controversy around on how to measure outputs
- difficulties in costing research vs teaching
- challenges in considering all levels of analysis (government – institution – faculties – teaching and research units)

Suggested way forward for the EI project:

- recognise inherent problems with international comparative analyses.
- find ways to take account of significant differences across institutions and systems
- recognise problems with data availability

Ian Bunting

Key considerations within the higher education system in South Africa have been equity, sustainability and productivity, with the National Working Group (date?) introducing the notion of a “well functioning” institution. Institutional performance is thus measured directly against national goals. There is, however, an ongoing debate around the need to use qualitative indicators as well as quantitative. The national Department of Education is beginning to focus on individual as opposed to blanket targets, with the recognition that the use of time series data is more important than single snapshot analyses.

Arlindo Chilundo (Mozambique)

- approximately 30,000 students are enrolled in both public and private higher education institutions.
- Mozambique has a national system for accreditation, evaluation and quality assurance in higher education. This provides a set of rules, mechanisms and procedures with the aim of attaining quality objectives.
- objectives of this QA system include measurement of the quality of institutions, programmes and courses, contribution to the identification of problem areas and the provision of information and data required for external evaluation processes. The latter aims to promote equal treatment of public and private higher education institutions.
- indicators used in this process include institutional missions, management, curricula, teaching processes, student equity, access, retention and success rates, and numbers of professional, technical and service staff. (note from Lisa: the set of indicators used in this presentation was on the whole very broad and cannot really be said to be a collection of ‘true’ indicators)

Richard Neill (Botswana)

- around 35,000 students are registered in public institutions in Botswana. The private sector is as yet unregulated. Approximately 20% of the national Botswana budget is allocated to higher education.
- it is important to note the context in which higher education functions in this country. On the whole, very little policy attention is paid to this sector, and no true attention has been paid to structural issues at a system level. A process of development has, however, been set into play: this appears to follow the South African higher education policy logic (White Paper – Tertiary Education Act – National Plan)
- current sets of data collection show no use of sound methodology, very little quality control and integration, and are not collected in 'real time'.
- a particular difficulty faced by Botswana higher education institutions relates to the high proportion of 'outward bound' students, although the government currently requires that that these return to the country on completion of a qualification.
- key issues for the EI project to take into account include definitions of concepts and data, sustainability and benefits, and potential audiences.

Kamal Emam (Egypt)

- approximately 2,200,000 students are enrolled in higher education institutions in Egypt. These can be broken down as follows: 1, 252,000 undergraduate enrolments, 162,700 postgraduates and 36% in SET and 64% Humanities.
- there are currently several projects dealing with the analysis and efficiency of higher education underway, with the overall priority being the establishment of a quality system at both institutional and faculty levels. Institutions are required to present annual self evaluation reports.
- statistics are available on areas such as graduate success rates and credit hours.

Mayungu Nkunya and Helen Samibili (East Africa)

- the Inter-University Council of East Africa exists to foster academic cooperation, the exchange of students and staff, and joint research projects and programmes.
- while there is a common East African quality assurance framework, not all universities have translated QA practices into formal measurement instruments.

Florence Mayega (Uganda)

- there is a set of performance indicators currently in use by Makerere University.
- benchmarks have been set with regard to the quality of entering and exiting students and institutional research. Further studies are undertaken to ascertain the earnings and employment rates of graduates.

Further Notes on the South African System (Cay vd Merwe, Antony Melck and Gert Steyn)

- CUT has established an institutional set of indicators according to DoE policy targets. A peer review group, and the establishment of 'dashboards' puts these into context.
- UP has a 'balanced scorecard' of institutional performance indicators, which are aligned to the institution's strategic plan. These are divided into the following categories: customers, operational, organisational and financial.
- US consider issues such as input (including the distribution of income), processes (including teaching input unit and space allocation per student), outcomes, and transformation.

General Discussion

- it must be recognised that any exercise involving comparative indicators needs to take into account potential negative use of results.
- does the project aim to be normative?
- a possible means of comparison may lie in the utilisation of peer groups, although this may raise issues around splits between HDIs and HAIs.
- the idea of efficiency should take into account the notion of "value added". It is, however, very difficult to measure this, particularly across institutions.
- it may be useful to consider the concept of "rate of return" – in other words, what is the nature of the difference between school leavers entering the job environment as opposed university graduates? This may indicate points at which more or less effort should be introduced within the functioning of the institution.
- the difference between distance and contact students in terms of time taken to complete must be taken into account. This is best covered by the use of FTE data.
- the future use and impact of the EI project should be considered, with the possibility of supplying information to the education market as a whole.

Final Comments (Gareth Williams and Jon File)

- although cross system comparisons are problematic, they should not be entirely ignored.
- it is critical that the potential political impact of the project be taken into consideration. It should be made clear that a wide interpretation of efficiency is being adopted.
- the project team should be wary of imposing South African definitions.

PROJECT GROUP MEETING

1. Context

- there is a need to establish both parameters around and a common understanding of notions such as FTE's, head count enrolments, fields of study, and part- and fulltime students.
- the book must go beyond simple data compilation
- tracking publication units is not possible, and the group should consider using M and PhD graduates as proxies for these.
- data already available should be used, to avoid the need to employ surveys.
- the proposed purpose of the data in question should determine the nature of that collected.

2. Country comparisons

- the Knowledge Economy Index (a 1995 World Bank Project) should be employed at this level.
- Richard Neill to do first draft of a comparison of the 7 countries involved in the EI project.

3. Proposed Efficiency Indicator categories

1. School leaving results to ascertain the percentage of institutional enrolments from top league secondary education schools.
2. The use of broad fields of study as opposed to the examination of actual faculties. These will indicate institutional response to the market
3. Costs per FTE graduate and enrolled student, with a weighted value per unit to facilitate cross country comparison.
4. Distribution of resources
5. Direct costs impacting on students in terms of teaching, library access, information technology and laboratory access.
6. Ratio of graduates to staff members, with particular focus on masters and doctoral enrolments as a proxy for staff efficiency.
7. Financial sustainability, taking into account differences in institutional financial management.

The project team agreed that Charles Sheppard, Lisa Belding and Gerald Ouma will visit institutions to assist with data collection and systemization.

Appendix 2

PERFORMANCE INDICATORS WORKSHOP, 5-7 MARCH 2007

LIST OF PARTICIPANTS

PROJECT GROUP

Name	Institution	Email
1. Arlindo Chilundo	Eduardo Mondlane University, <u>Mozambique</u>	arlindo@zebra.uem.mz
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9. Kamal Emam	Ain Shan University, <u>Egypt</u>	kemam@mail.eun.eg or kfw15@hotmail.com)
10. Lisa Belding	<u>Consultant</u>	lbelding@telkomsa.net
11. Florence Mayega	Planning and Development Department Makerere University <u>Uganda</u>	fnakayiwa@pdd.mak.ac.ug
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13. Richard Neill	Tertiary Education Council, <u>Botswana</u>	rneill@tec.org.bw
14. Pieter Vermeulen	University of Pretoria, <u>South Africa</u>	pieter.vermeulen@up.ac.za
15. Antony Melck	University of Pretoria, <u>South Africa</u>	amelck@up.ac.za

WORKSHOP INVITEES

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Appendix 3

INDICATORS TO IMPROVE GOVERNANCE

Aims of the Meeting

The 1997 White Paper on Higher Education Transformation and the 2001 National Plan for Higher Education indicated that the South African government would develop steering mechanisms, involving planning and funding, to assist with the transformation of the public higher education system. The steering mechanisms which have been developed since 2001 have been a new funding framework, processes for the approval of academic programme mixes, and processes for the approval of student enrolment plans. The student enrolment planning process has involved these steps:

- The Minister of Education sets indicative national student input and output planning targets for the public higher education system.
- The Department of Education considers plans and proposals submitted by each institution, in the context of the indicative national planning targets. After account has been taken of the views of each institution, institution-specific student enrolment and output targets are approved by the Minister.
- The input and output targets approved by the Minister determine, for each public higher education institution, what its levels of government funding will be for at least a five-year planning cycle.
- The Council of each higher education institution is asked to confirm that it accepts the Minister's targets.
- A final Ministerial Statement on Student Enrolment planning is then published.
- The performance of institutions, relative to the Minister's published input and output targets, is monitored on an annual basis by the Department of Education.

If this process of steering by planning and funding is to function effectively, it is crucial that University Councils understand what is implied by the Minister's targets, and understand further how performance will be measured by the Department of Education. Chet's experience has been that this will not be an easy task for many university councils. Currently very few institutions produce data sets which enable council members to engage meaningfully in discussions about the performance of the institution they are entrusted to govern.

Because Chet has been involved since 2000 with various aspects of performance indicators, it has decided, with the financial assistance of the Ford Foundation, to produce a further report setting out ways in which university Councils can begin to assess the performance of their institution relative to the Minister's targets, and to their own institutional missions. This report will have these two main sections:

- The one section will contain a standard profile of each of the 23 public higher education institutions in South Africa. The profiles will present data for 2000-2006 on student enrolments and outputs, staffing inputs and outputs, and key aspects of the income and expenditure of each institution. Where this is appropriate, the performance of each institution will be related to performance measures used by the Department of Education. This section will enable a university Council to compare the performance of its institution to that of any other public higher education institution.
- The second section will consider ways in which the 23 institutions can be clustered into peer groups, to enable a university Council to compare the performance of its institution to the

average performance of similar institutions.

In an independent, but related exercise, Professors Melck and Vermeulen have embarked on a project to improve information for the Council of the University of Pretoria, by developing a set of indicators that relate to the strategic plan of the institution. This is a more complex quantitative and qualitative exercise than that of Chet, but together these two projects could provide the beginning of the development of templates that could contribute to the improving of institutional governance.

Participants will be required to pay their own travel and accommodation costs, but the seminar costs will be sponsored by Chet and ITS. Each institution can send TWO participants.

2 November 2007

08h45	Opening comments: Ministry of Education
09h15	Proposed institutional profiles: examples and methodology <i>Nico Cloete and Ian Bunting</i> Chair: Molapo Qhobela
10h15	Tea
10h45	Measuring institutional performance within a peer grouping: examples and implications <i>Nico Cloete and Ian Bunting</i> Chair: Larry Popkas
12h30	Lunch
13h30	Measuring institutional performance relative to a strategic plan: a case study of the University of Pretoria <i>Antony Melck and Pieter Vermeulen</i> Chair: Duma Malaza
14h45	Discussion and summing up <i>Rolf Stumpf</i>
15h30	Closure

Appendix 4

PROCEEDINGS OF A MEETING HELD IN CAPE TOWN 29/11/2007

ATTENDANTS: Lisa Belding (CHET)
Nico Cloete (CHET)
Gerald Ouma (CHET)
Charles Sheppard (NMU)

Lisa Belding has as of December 2007 taken over the coordination of the efficiency indicator project. All questions and queries with regard to the project may be directed first to Lisa at one of the following contacts:

+ 27 21 531 6410 (home)
+ 27 83 375 0993 (cell)
lbelding@telkomsa.net (email 1)

At the meeting it was agreed that Charles Sheppard and Lisa should begin institutional visits in late January/early February in order to work directly with the information that each participating university has available. It will be critical that we have clear discussions with our institutional contacts beforehand in order to gain a sense of how long we will need to spend in each location. The time will be dependent on factors such as the degree to which the required information is computerised and the extent to which it is available in the format with which we are working in this project.

We would like to suggest that the first set of visits be to **Tanzania, Kenya and Uganda**. Gerald Ouma and Lisa will make initial contact with representatives at each particular institution to establish the nature and the length of the visits and the information which we will require. Gerald has made previous contact with planners at Dar es Salaam and Nairobi, and Lisa has been in communication with the project's contact person at Makerere. We hope to have formal arrangements for the visits in place by **18/01/2008** so that we can begin travelling soon thereafter.

Given that the universities we are studying outside South Africa follow a US/European academic year, we should aim to have visited and attained as much raw data as possible from each by the end of April 2008.

The raw data gathered from each institution will be reworked by Charles and Lisa into the previously agreed format of the tables required by the project, and a database of information built up from this point. It is hoped that this process will be interactive, and we will be open to input from the participating institutions throughout.