Performance indicators in higher education: recent developments in UK universities

Between 1981 and 1984, the average cut in the funding of UK universities by the University Grants Committee was around 15% in real terms. In retrospect, this severe reduction in funding, and the early 1990s has turned out to be a prelude to further radical changes in university funding. Government policy towards universities (and towards higher education more generally) is currently being redefined. This makes the process more competitive in the hope that this will increase the efficiency and effectiveness of higher education in Britain.

The Government's policy towards higher education has been evolving at a rapid pace since 1985 when the Green Paper on The Development of Higher Education into the 1990s argued that the higher education sector was not performing to the required standard. The Green Paper, however, did not specify what was required, only that improvements were necessary. In 1987, the Green Paper on The Development of Higher Education into the 1990s argued that the higher education sector was not performing to the required standard. The Green Paper, however, did not specify what was required, only that improvements were necessary. In 1987, the Higher Education Act of 1987 made a number of provisions aimed at improving the efficiency and effectiveness of universities. These included the introduction of performance indicators and the requirement for universities to prepare and publish a corporate plan.

2. Higher education depends far too heavily on external funding. This is not to say that the arts and humanities are not important. However, in order to achieve a more efficient and effective use of resources, more emphasis should be placed on the arts and humanities.

3. Greater selectivity is needed in the allocation of funding so that resources are concentrated in centres of excellence.

4. Another key issue is the role of the sector. The sector should be more cost-conscious and should manage its resources more efficiently and effectively. This will require the construction and regulation of public policies and performance indicators. These will be used to aid the resource allocation process both within and between universities.

The same broad themes were reiterated in the recent White Paper on Higher Education: Meeting the Challenge. In addition, however, two major changes to the operation of universities were announced. Firstly, the University Grants Committee is to be replaced by the Universities Funding Council. The members of the council will be appointed by the Secretary of State for Education and Science and will be drawn from the academic and non-academic worlds in equal proportion. Secondly, the system of allocating funds to universities is to be changed from the block grant system to one based upon contractual arrangements between the universities and the Universities Funding Council. This will provide a clearer link between the funding given to the universities and the services they provide.

The White Paper on Higher Education also contains a number of recommendations aimed at improving the performance of universities. These include:

1. The introduction of performance indicators and the requirement for universities to prepare and publish a corporate plan.
2. The establishment of a Corporate Plan Committee to oversee the preparation of the corporate plan.
3. The establishment of a Performance Monitoring Board to monitor the performance of universities.
4. The establishment of a Performance Indicators Working Group to develop performance indicators for higher education.
5. The introduction of a performance audit process to ensure that universities are using their resources efficiently and effectively.
6. The establishment of a Performance Indicators Advisory Committee to advise the Government on the development and use of performance indicators.

These recommendations are aimed at improving the efficiency and effectiveness of higher education in Britain. The Government's policy towards higher education has been evolving at a rapid pace since 1985 when the Green Paper on The Development of Higher Education into the 1990s argued that the higher education sector was not performing to the required standard. The Green Paper, however, did not specify what was required, only that improvements were necessary. In 1987, the Green Paper on The Development of Higher Education into the 1990s argued that the higher education sector was not performing to the required standard. The Green Paper, however, did not specify what was required, only that improvements were necessary. In 1987, the Higher Education Act of 1987 made a number of provisions aimed at improving the efficiency and effectiveness of universities. These included the introduction of performance indicators and the requirement for universities to prepare and publish a corporate plan.

2. Higher education depends far too heavily on external funding. This is not to say that the arts and humanities are not important. However, in order to achieve a more efficient and effective use of resources, more emphasis should be placed on the arts and humanities.

3. Greater selectivity is needed in the allocation of funding so that resources are concentrated in centres of excellence.

4. Another key issue is the role of the sector. The sector should be more cost-conscious and should manage its resources more efficiently and effectively. This will require the construction and regulation of public policies and performance indicators. These will be used to aid the resource allocation process both within and between universities.

The same broad themes were reiterated in the recent White Paper on Higher Education: Meeting the Challenge. In addition, however, two major changes to the operation of universities were announced. Firstly, the University Grants Committee is to be replaced by the Universities Funding Council. The members of the council will be appointed by the Secretary of State for Education and Science and will be drawn from the academic and non-academic worlds in equal proportion. Secondly, the system of allocating funds to universities is to be changed from the block grant system to one based upon contractual arrangements between the universities and the Universities Funding Council. This will provide a clearer link between the funding given to the universities and the services they provide.
“Ideally, we need to devise a measure of the value added to the knowledge and skills of each university’s graduates.”

Comparisons of degree results by universities are therefore useful and of much help in measuring the teaching performance of universities since the raw measures of degree results vary considerably between institutions. Ideally, a measure of the value added to the knowledge and skills of each university’s graduates. An obvious approach to constructing a measure of value added is to estimate the extent to which inferences in degree results between universities are affected by the ability of each university’s students (as reflected for example by A-level scores). Recent research indicates a very strong statistical relationship between the mean A-level score of each institution’s intake of students and the proportion of these students who obtain a first or upper second. Having estimated the statistical relationship between A-level score and degree result, it is possible to construct a performance indicator which takes differences in intake into account when comparing degree results. This can be done by first calculating a “corrected” degree result for each institution which would have been expected given the mean A-level score of the students and then comparing the actual degree results with the expected degree results.

It would be highly dangerous, however, to place much faith in such an indicator since it would be difficult to distinguish the ability of students may be expected to have an effect on degree results. The institutions whose students would have to be taken into account in any estimate of the value added by universities to the knowledge and skill of their students. Johnes and Taylor for example have found that the ex-Students of Advanced Technology and the new greenfield universities established in the 1960s awarded a significantly higher proportion of upper seconds (on average) than the older civic universities. Whether these differences are due to corresponding differences in the quality of teaching between the institutions or whether they are due to differences in the methods of assessing students is impossible to say at this stage. It would therefore be folly to use degree results as a performance indicator. The larger differences in the quality of student input until more research has been done on ideal and political during differences in degree results universities.

A final example of the difficulties involved in devising operationally useful performance indicators is provided by Bebbington, who constructs several indicators relating to the activity of UK geography departments. Bebbington’s indicators are based on three variables: publications, citations and research grants. He shows that the ranking of these indicators depends on the variable selected to measure research performance. Only a low correlation was found for example, between number of publications per capita and research grants per capita. A high correlation between publications per capita and research grants per capita raises an interesting question since it may indicate that this variable is not important input into the UGC’s evaluation of geography departments in its recent (1986) assessment of the research strengths of each university. Furthermore, Bebbington shows that the UGC’s ratings of UK geography departments are most closely related to total rather than to research income. Income may be indicating a bias against smaller departments and departments geared less to expensive types of research activity. The low correlation between alternative performance indicators and the lack of correspondence between the UGC’s evaluation of research capacities and individual institutions (publications particularly publications per capita) is a cause for concern not only about the validity of the research performance indicator but also about the validity of research performance indicators more generally. The need for caution in using performance indicators

The examples of performance indicators given in the previous section have already indicated that it will be difficult to construct meaningful and useful performance indicators for the higher education sector. It should also be realised that the use (and misuse) of such indicators may have several damaging effects on the higher education sector. Firstly, there will be a strong temptation to construct indicators from the most readily available data (such as the first destinations of graduates and the class distribution of degrees) even though such indicators may provide little useful information about the performance of universities. The first destination of graduates, for example, may provide very little information about the social or economic value of different degree subjects but this is unlikely to deter the use of such information for strategic planning purposes unless there is adequate data available. More fundamental problems arise in assessing the value of outputs such as publications and citations and the acquiring of analytical and critical skills. The fact that these types of output cannot be readily measured could result in a serious under-valuation of the benefits flowing from them.

“Concentration on the short term is an inevitable consequence of the financial pressures likely to be imposed on the university sector.”

A second problem with performance indicators will be a tendency for higher education institutions to sacrifice short-term benefits for more immediate short-term benefits in order to improve their short-term performance. Concentration on the short term is an inevitable consequence of the financial pressures likely to be imposed on the university sector. The concentration on the short term will obviously influence short-term performance. Concentration on the short term is an inevitable consequence of the financial pressures likely to be imposed on the university sector. The concentration on the short term will obviously influence short-term performance.

A direct implication of the change in the method of funding universities from a grant system to a contractual system is the introduction of a more detailed method of appraising the performance of institutions. This will require the construction of indicators which can be used for measuring the performance of each institution in relation to other institutions in the higher education sector. These institutions which perform the best will be rewarded and it is easier to attract future funding from the Universities Funding Council than those institutions which perform less well. The Government has already indicated in general terms what types of indicators are required. Indeed, the universities have begun the process of producing and ratifying a set of indicators. Of course little thought has yet been given, however, to the question of how the performance of universities (and their constituent parts) ought to be measured. The priority has been to produce a set of indicators as quickly as possible rather than to develop an acceptable methodology for evaluating the performance of universities. More thought now needs to be applied to the latter question. The main conclusion of this article is that great care will be needed in interpreting the various indicators which are currently being constructed. If these indicators are not used cautiously, major mistakes could easily be made in allocating resources both within and between universities. This is not to argue that attempts to measure the performance of universities should not be made. Indeed, universities (like all publically-funded institutions) should welcome the opportunity to demonstrate their efficiency and effectiveness more openly to the taxpayers.

It would be prudent at this stage to label all so-called performance indicators with the following warning: “These indicators may damage the health of higher education. Use with extreme caution. Do not take them at face value.”

References

1. An extended version of this paper was presented at the University of Melbourne and at the Australian National University in Canberra. It is part of a larger research project on evaluating performance in universities supported by the ESRC. The views expressed in this paper belong entirely to the author.

10. Ibid.
12. The Times Higher Education Supplement, ‘Department of Employment’ provides valuable information on the number of UK students in higher education, 1980.
14. Department of Education and Science, ‘Higher Education: Meeting the Challenge, op. cit. page 36. This will have damaging effects on the UK university sector which will stretch far into the future.

Conclusion

Since the severe cuts in university expenditure in the early 1980s, the Government has made it clear that the university sector will be expected to pay more attention to its efficiency and effectiveness. Universities can therefore expect far greater public scrutiny of their activities than has traditionally been the case.

In addition to this greater scrutiny of their activities, the Government has made it clear that the universities will be expected to pay more attention to its efficiency and effectiveness. Universities can therefore expect far greater public scrutiny of their activities than has traditionally been the case.