
9 August 2010

Hon. Steven Joyce
Minister of Tertiary Education
Private Bag
Parliament Buildings
Wellington 6160

cc Tertiary Education Commission
Attention: Dr Roy Sharp, CEO
P O Box 27048
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Dear Minister

PUBLICATION OF EDUCATIONAL PERFORMANCE INFORMATION

As you will be aware the Tertiary Education Commission (TEC) has announced that it is to publish educational performance indicators (EPI) for tertiary education organisations (TEOs) in late August 2010. The EPI will relate primarily to the 2009 year. TEC states that the EPIs are calculated largely on the basis of data supplied by TEOs via the Single Data Return (SDR).

TEC has explained the rationale for publishing indicator values in various ways including that "These indicators offer broadly comparable information about SAC-funded student outcomes"¹ and that the indicators are to be "meaningful to the public".²

It is my view that you as Minister would be ill-advised to approve the publication of the indicator values specified and prepared by TEC. I believe that publication of the indicator values is likely to mislead the public, that publication will undermine attempts to improve performance in the tertiary sector and, if nothing else, that publication will expose the Commission and Government to the risk of disgruntled TEOs seeking legal redress.

This letter provides a relatively brief explanation for my views. I am, though currently compiling a far more comprehensive analysis of the problems I have identified. I would be happy to share this information with you, should you wish, and I will be making the analysis publicly available in due course.

¹ TEC web site at 8 July 2010: <http://www.tec.govt.nz/About-us/News/Updates/july-update-on-publishing/>

² Educational performance indicators. Measuring student achievement for SAC funded tertiary education organisations. Definitions and rules. TEC Version 1 - March 2010, page 5.

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The Purpose of Performance Indicators

I believe that all of us involved in the tertiary sector: yourself, students, TEC, peak bodies, individual TEOs, employers, etc. understand that there is a useful purpose in compiling performance indicators. The purpose can be described at length but what it boils down to is that meaningful, accurate and fair indicators will:

- a. Provide students with guidance when selecting a programme at a TEO.
- b. Ensure that tax payers' money is spent wisely buying the best results.
- c. Allow TEOs to see how they are doing and, if necessary, improved their performance.

I believe the performance indicators are a good thing, and should be published: providing that they are meaningful, accurate and fair.

TEC's Educational Performance Indicators

The indicator values prepared by TEC have little meaning, cannot be demonstrated to be accurate, and are demonstrably unfair. The following notes explain briefly why, using a limited set of examples. As noted above, I intend to make public more detailed explanations, providing a wider range of examples and references to TEC publications and communications.

Lack of Meaning

TEC is publishing a set of four indicator values for each TEO. A single absolute value is to be reported for each indicator for each TEO, as well as a ranking. A first cut of the published information released to TEOs earlier in the year looks like the table below. The example is taken from the Private Training Establishment (PTE) Sector that comprises 192 organisations which receive Student Achievement Component (SAC) funding. Currently only SAC funding is subject to TEC's EPI reporting regime.

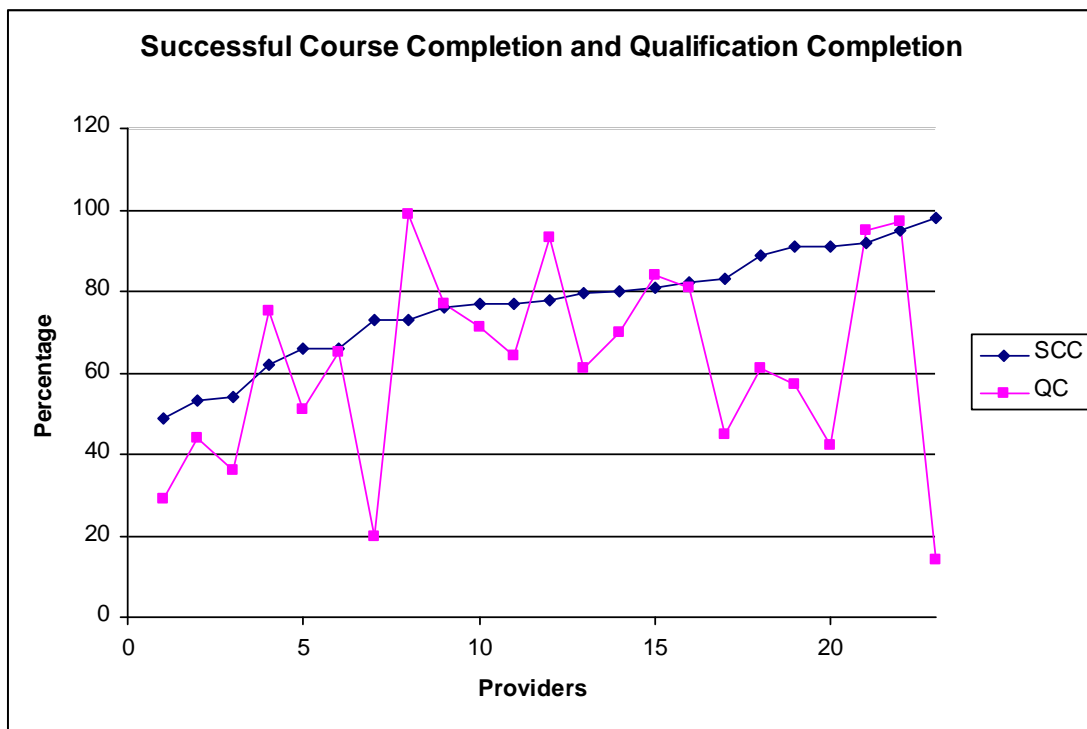
Educational Performance Indicator	Educational Performance Indicator result *	Comparative sub-sector position**
Successful completion of courses	73%	100
Completion of qualifications	99%	16
Student progression to higher level study	13%	103
Students retained in study	49%	143

Two of the indicator values – successful completion of courses (SCC) and completion of qualifications (QC) – have traditionally been understood to be inter-related. The reason for assuming an inter-relationship is simple. Qualifications are made of courses. For example the Happy Days Institute Certificate in Business could be made up of many courses including "Word Processing", "Databases" and "Spreadsheets". In order to complete a qualification a student has to complete courses.

Clearly the structure of qualifications can affect the inter-relationship. If a qualification is made up of a defined set of courses with no electives then one would expect that a 100% course completion rate would result in a 100% qualification completion rate. If the qualification provides for electives and students may repeat individual courses, then a 100% qualification completion rate could sit alongside a lower course completion rate.

However the correlation between the two indicators should be obvious. High course completions and high qualification completions go together.

TEC's EPI results fail to identify the correlation. The diagram below shows the SCC rate for 24 PTEs mapped against the QC. The chart has been organised so that the providers are ranked by the SCC rate. It shows that one cannot predict an organisation's QC rate from their SCC rate. The correlation between the two sets of rates is 0.24.



The chart casts doubt on the meaning of one or both of the EPI being used by TEC.

Inaccuracy

An example of the inaccuracy of TEC's figures was provided by the first cut figures published earlier in the year. The table below shows the case of a PTE ranked first for Qualification Completion with a score of 75%.

Educational Performance Indicator	Educational Performance Indicator result *	Comparative sub-sector position**
Successful completion of courses	62%	153
Completion of qualifications	75%	1
Student progression to higher level study	12%	107
Students retained in study	58%	118

However looking at the table used in the section on "Lack of Meaning", above, we see that the QC rate is 99% and the PTE is ranked 16th. One or other table must be wrong.

Arguably this anomaly is the result of a transposition error which, hopefully, will have been remedied by now. Unfortunately, though there are two other reasons to suppose that the figures published by TEC will be inaccurate to the point of quite likely not being able to sustain a careful audit.

- TEC has used the SDR as the primary source of data for calculating EPI. The SDR was originally established to manage resourcing and to gather demographic data. Subsequently the collection of pseudo-completion data was grafted on to the SDR. In practice, though, the SDR was never designed to capture real performance measurement data (nor indeed consistent enrolment data) – a fact now recognised by the Ministry and TEC which, as you know, have in the last budget been allocated funding to review and replace the SDR.

Interestingly TEC itself admits that there are problems defining measures and collating data to report the EPI: "The TEC has set the basic formulae (definitions), but the detailed business rules underlying the calculations of the indicators have been revised in this document, and are subject to further change."³

- TEC has a history of providing erroneous data. The performance measures initially published in 2009 for 2008 were found to be inaccurate due to a "processing error". TEC also has a history of publishing faulty methodologies. There are two gross errors in the publication described in footnote 3. Both errors have subsequently been recognised by TEC but only one was remedied in a later release, and neither have been publicly acknowledged by TEC.

It has to be said that overall the issue of accuracy is exceedingly difficult to analyse. The combination of definitions and rules containing errors with the extremely complex and confusing Excel datasets provided by TEC to TEOs to support the EPI values means that almost all PTEs, and possibly a number of TEIs (Tertiary Education Institutions), have little faith in the figures that TEC is to publish. It is

³ Educational performance indicators. Measuring student achievement for SAC funded tertiary education organisations. Definitions and rules. TEC Version 1 - March 2010, page 1.

telling that many TEOs using their own databases are unable to replicate TEC's figures.

Fairness

TEC is compiling EPI for the 2009 against definitions and rules not published until March 2010. This is akin to a TEO assessing a student against a prescription unknown to the student at the time of their study and assessment. Surely this is a procedure that is neither good nor fair practice. That said, though, the retrospective nature of TEC's process is at least the same for all TEOs.

The same cannot be said of the EPI definitions themselves. Particular categories of TEOs are by their very nature discriminated against. For example, if a TEO offers a three year degree programme its Student Retention rate will be significantly better than a TEO offering a six month programme, assuming that both have the same proportion of students successfully completing their qualifications.

Consider another example: if a TEO, following TEC's advice, has not yet disaggregated down to Unit Standard level its Successful Course Completion rate will be between 4 and 11% worse than for a comparable TEO which has completed a full disaggregation.

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I appreciate that the Government and you are keen to see the publication of good EPI data. You must be conscious that the agency set up in 2002 to, amongst other things, "support tertiary education organisations to be accountable, self-improving and self-managing" must be considered to be performing below par when, seven years later the best it can come up with is a set of four figures for each TEO.

The goals of publishing EPI are simply not being met:

- Provide students with guidance when selecting a programme at a TEO – how can this be when a single qualification completion value is published for an organisation as large as a university?
- Ensure that tax payers' money is spent wisely buying the best results – how can this be when the information to be published skews results purely on the basis of programme structures?
- Allow TEOs to see how they are doing and, if necessary, improved their performance – how can this be when the TEOs themselves are disputing TEC's figures with increasing stridency?

Thus I repeat my statement that it is my view that you as Minister would be ill-advised to approve the publication of the indicator values specified and prepared by TEC. Instead I urge you to instigate a sound external audit of the methods and data used by TEC.

Yours sincerely

Richard Hamilton-Williams