How should we measure higher education? A fundamental review of the Performance Indicators

Part Two: The evidence report

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November 2013

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Acknowledgements

The authors would like to thank the individuals who contributed to this review for taking the time to support the research and for their frank and insightful feedback. Thanks too go to Mark Gittoes and Alison Brunt at HEFCE for their patient and supportive project management, and to the members of the review Steering Group for their helpful comments and suggestions in setting up the review, guiding the fieldwork and producing the review reports. The review steering group were: Celia Hunt, Chair (HEFCW), Ben Arnold (HE Wales), David Barrett (OFFA), Alison Brunt (HEFCE), Mark Gittoes (HEFCE), Jovan Luzajic (UUK), Michael McNeill (DELNI), Debbie McVitty (NUS), Richard Puttock (HEFCE), Martin Smith (SFC) and Jonathan Waller (HESA).

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Glossary

ARWU	Academic Ranking of World Universities
CEQ	Course Experience Questionnaire
CROS	Careers in Research Online Survey
CUC	Committee of University Chairs
CVCP	Committee of Vice-Chancellors and Principals
DELNI	Department for Education and Learning Northern Ireland
DLHE	Destinations of Leavers from Higher Education
DSA	Disabled Students' Allowance
EUA	European Universities Association
EUMIDA	European University Data Collection
FE	Further Education
FEC	Further Education College
HE	Higher Education
HEA	Higher Education Academy
HE-BCI	Higher Education Business and Community Interaction survey
HEFCE	Higher Education Funding Council for England
HEFCW	Higher Education Funding Council for Wales
HEI	Higher Education Institution
HEIDI	Higher Education Information Database for Institutions
HEIFES	Higher Education in Further Education Students Survey
HESA	Higher Education Statistics Agency
ISB	International Student Barometer
JACS	Joint Academic Coding System
KIS	Key Information Set
KPI	Key Performance Indicator
LERU	League of European Research Universities
LGBT	Lesbian, Gay, Bisexual and Transgender

LPN	Low Participation Neighbourhoods
NPD	National Pupil Database
NSA	National Statistical Authority
NS-SEC	National Statistics Socio-Economic Classification
NSS	National Student Survey
NUS	National Union of Students
OFFA	Office for Fair Access
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
PGR	Postgraduate Research
PGT	Postgraduate Taught
PI	Performance Indicator
PIRLS	Principal Investigators and Research Leaders Survey
PISG	Performance Indicators Steering Group
POLAR	Participation of Local Areas
PRES	Postgraduate Research Experience Survey
PTES	Postgraduate Taught Experience Survey
QAA	Quality Assurance Agency for Higher Education
QAFRG	Quality Assurance Framework Review Group
RAE	Research Assessment Exercise
REF	Research Excellence Framework
SCONUL	Society of College, National and University Libraries
SFC	Scottish Funding Council
SLC	Student Loans Company
SIMD	Scottish Index of Multiple Deprivation
TQI	Teaching Quality Information
TRAC	Transparent Approach to Costing
UCAS	Formerly the Universities and Colleges Admissions Service
UGC	University Grants Committee
UUK	Universities UK

Contents

1 Introduction

This report presents the evidence gathered from the work carried out to undertake a fundamental review of the Performance Indicators (PIs) for higher education institutions (HEIs) in the UK. This represents the first part of a review process commissioned by the four funding councils of the UK, which will ask fundamental questions about how meaningful the indicators are to different users; consider changes, or potential changes, to the context and the data underlying the PIs; and seek to develop the indicators in alignment with the characteristics of Official Statistics.

This evidence report presents the findings for each methodological strand separately:

- Chapter 2 sets out the findings from a review of the literature into the development and use of PIs
- Chapter 3 presents findings from in-depth interviews with sector and institutional stakeholders
- Chapter 4 provides findings from the online consultation with a broader group of stakeholders
- Chapter 5 sets out the themes of the discussions from the two deliberative events with stakeholders.

A separate report synthesises, summarises and interprets key findings from across the methodological strands: *How should we measure higher education? A fundamental review of the performance indicators, Part One: The synthesis report.*

1.1 Background to the review

1.1.1 Developing the performance indicators

The need for a set of indicators to measure the performance of the higher education (HE) sector was much debated in the 1980s, and a relatively large number of potential indicators (at one point 88) based around data that were available from the Universities Statistical Record were suggested covering inputs, processes and outputs. Indicators of actual performance were produced at individual institution level and work then followed to try to account for institutional differences to produce expected values for performance.

However it was not until the late 1990s, after recommendations from the Dearing Report[1], that the UK PIs as we know them were developed.

The Dearing Report acknowledged the need to develop suitable indicators of performance for the HE sector in various areas and for associated contextualised benchmarks *'for families of institutions with similar characteristics and aspirations'* (National Committee of Inquiry into Higher Education, 1997, p.243). The principles underlying the development of the PIs were that they: use a consistent and standard format (thus are robust, reliable and comparable across institutions and years), are objective (thus providing evidence to inform policy and a measure of accountability of the sector), and are simple, clear and fit-for-purpose (thus having transparent methodology with outputs clearly presented, are not overly burdensome, and are useful for internal institutional evaluation and wider benchmarking). Indeed, an important aim for the indicators was to provide metrics that would enable individual institutions to make more meaningful comparisons of their performance against other similar institutions (with similar characteristics and aspirations, or in similar locations[2]).

To guide the development of these important metrics, the Performance Indicators Steering Group (PISG) was set up in 1998, and the annual PIs were established and first published in 1999 on behalf of the funding councils across the UK. The first PI report covered five broad measures of performance: participation of under-represented groups, student progression, learning outcomes (including non-completion), efficiency of learning and teaching, and research output. A measure of employment was added later and the indicator covering the efficiency of learning and teaching was dropped, as this was considered to be insufficiently robust (Yorke and Longden, 2005).

HEFCE published the indicators until 2004 when the responsibility transferred to the Higher Education Statistics Agency (HESA) as much of the data used in the PIs still come primarily from the HESA Student Record and the Destinations of Leavers from Higher Education (DLHE) survey (formerly the First Destination Survey). This move also involved a tightening of definitions and categories used in the PIs, and enabled faster turn-around of data and access/publication.

The PISG continues to monitor the PIs, and has made some changes over time, however a major review was undertaken in 2006-07 by HEFCE via consultation with sector stakeholders. This was to ensure the indicators remain fit for purpose in the changing HE context, not least: the changing legal frameworks within which data can be collected and shared, improvements in data collection and standardisation, increasing demands for information, and changes in IT improving dissemination capabilities. The stakeholders consulted tended to be positive about the PIs and the associated benchmarks, with the majority finding the benchmarks helpful, and the factors and categories used in developing the benchmarks satisfactory. The review also restated that the focus of the PIs was teaching and learning, and that the coverage was UK-wide, and considered the importance of presenting the results. The guiding principles remained the same with a few

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1 Dearing, R (1997), Higher education in the learning society, Report of the National Committee of Enquiry into Higher Education, HMSO, London. Recommendation 58

2 Adjusted sector averages are calculated for each institution that take into account some of the factors which contribute to differences between them. The factors are: subject of study; qualifications on entry; and age on entry ('young' or 'mature'). For some indicators Government Office Region of students' prior domicile (English institutions only), ethnicity and gender are also taken into account. See '**PIs: Adjusted sector benchmarks - technical notes and detailed information'**, HESA website http://www.hesa.ac.uk/index.php?option=com_content&task=view&id=2059&Itemid=141

additions: taking account of wider stakeholders needs (ie beyond the needs of policy bodies and HE institutions), a general understanding of whether a high value represents a positive or negative outcome, and the indicators should not lead to perverse behaviour. The review led to the development of new indicators (on disability, ethnicity and gender), and minor amendments or extensions to existing indicators (extending the population of students covered eg to include other undergraduates and/or part-time students where data quality allows) rather than overhauling or dropping indicators. Some of these changes were introduced in 2008 but others have taken time to refine.

Since the 2006-07 review, the PIs have continued to evolve. At present there are essentially two levels of PI: institutional indicators (and associated benchmark values), and sector indicators – and four categories or areas of PI: access/widening participation; non-continuation/retention (including module completion); employment/outcomes; and research (see Appendix C for the full list). The population covered can vary by mode of study (full time, part time), level of study (first degree, other undergraduate), age of student (young, mature), and type of institution (HEI, FEC).

2 Findings from literature review

2.1 Introduction

To provide background detail for the review and to capitalise on existing critiques of measuring performance, an explorative literature review was undertaken. This initially scanned for recent and current UK literature (research and policy evidence) but was then expanded to review material from the late 1990s when the national PIs were developed and launched and to review material from other countries. A number of key search terms were used and a wide range of avenues were searched including the publications of government departments, HE sector bodies, research institutes and university departments; the websites of HEIs; databases of research on HE (and where appropriate business management and economics); and HE journals and the press. Interviewees also provided useful suggestions for materials to review. The literature review focused on three areas: a) understanding performance measurement in HE, including alternative measures of quality and success in HE; b) development of the PIs and perceptions and criticisms of the PIs and related sector/institutional metrics; and c) uses of the PIs in policy making and research.

2.2 Setting the scene – why should we measure HE?

Most of the funding for HE in the UK comes from the government. This creates a unique contractual relationship between HE institutions and the government and leads to a classic principal-agent problem, where both parties may pursue differing aims (Johnes, 1992). While contracts allow the seemingly efficient allocation of tax money, it is important for the contracting agency to control whether contract requirements have been fulfilled. It is also essential to establish whether the contractor is indeed effective in its delivery (Martin, 1997). Thus mechanisms of performance measurement are a means of legitimising delivery organisations just as they are of legitimising government policies (Clarke and Newman, 1997). However, this relationship brought with it its own problems such as high transaction cost, regulation, performance evaluation and incentive mechanisms which might stifle innovation, creaming and parking of certain groups of customers (students in the case of HE) or cause a decline in service quality (Van Berkel and Borghi, 2008).

Investigations of the US HE sector found that state governments used performance measurement in one of three ways – performance funding, performance budgeting, or performance reporting (OCUFA, 2006). Performance funding directly links government financial support with institutional performance; it '*ties specified state funding directly and tightly to the performance of public campuses on individual indicators... and focuses on*

the distribution phase of the budget process' (Burke and Minassians, 2001). Performance budgeting is a more loose and flexible linkage of funding to institution performance, where performance measurement is only one factor out of many used to determine funding allocations. Performance reporting has no direct financial implications, but has the implicit expectation that institutions will realise where their weaknesses are and strive to improve.

The notions of performance measurement and performance management are often used interchangeably. Lebas (1995) for example, offered a separate definition for each with performance measurement consisting of key indicators that provide contextual and case specific information, and performance management including activities that influence these contextual factors such as training, management style, attitudes and incentives. He also indicated that the two could not be separated because performance management created the context for performance measurement but was influenced by the outcomes of the measurement process. Thus, in a curious relationship, one necessitates the other. Ozga (2008) calls this process 'governing knowledge' where the use of performance information (generally numbers) acts as a source for comparison, which seeks to improve quality and efficiency, and thus makes HEIs visible and legible. This stands in stark contrast to the previously established system of governing by implicit assumptions and tacit knowledge. Performance evaluation, thus, fulfilled a number of functions; it provides transparency about costs, highlights areas for improvement, and provides a basis for appraisal and evidence for incentives or sanctions which enables comparison or benchmarking between organisations and individuals (De Bruijn, 2002).

In their influential work on public sector reform, Osborne and Gaebler (1992) emphasised the necessity for performance measurement, suggesting '*What gets measured gets done*' (p. 146). The central idea was the careful measurement of inputs against outputs and the comparison against targets and benchmarks to determine success and failure and to maximise profit (Heinrich and Marschke, 2010).

One of the key difficulties with performance measurement is defining what exactly gets measured. New Labour's understanding of performance measurement, for instance, required targets to be SMART that is specific, measurable, achievable, realistic and time-tabled in order to give a clear measure of inputs, outputs and outcomes (Audit Commission, 1999). There was a rhetorical shift towards outcome based measures and a move towards more public accountability and a regulatory function of government (Newman, 2001) and the extensive use of comparisons and benchmarking of organisations. Interestingly, there remained a strong focus on measuring the Three Es: economy, efficiency and effectiveness which had been a focus of performance measurement under the Conservatives, with a newly added emphasis on delivering value for money (Audit Commission 1999). Underlying these programmatic shifts was a belief that performance measurement could deliver strong improvements in service quality and efficiency which was seen as the key to delivering value for money (Cutler and Waine, 2000). Ozga (2008) is extremely critical of this 'politics of mutual accountability' because the production of the tools for comparisons, the benchmarks and indicators, relies on the involvement of experts and their discourse around the issue. And while HEIs on the surface have the choice to opt-into this process of comparison which appears open and for the benefit of the institutions (eg for quality improvements), the benchmarking and comparison process cannot easily be avoided due to the operation of 'soft pressures'.

Indeed, Ball (2010) argues, referring strongly to Foucauldian ideas, that the techniques that provide greater autonomy and decentralisation of decision making power to institutions within the education system provide the government with new ways to shape institutions' and individuals' behaviour. Performativity, the acting (out) of and for measures of how well we are doing, provides institutions with an incentive to be more effective and improve or feel inadequate if they do not. Audits, inspections, appraisals, self-reviews,

quality assurance, and research assessments, he argues, evaluate and shape the performance of the auditee in the direction of economy, efficiency and effectiveness, thus moving away from the multifaceted outcome measures back to plain output measures.

In a similar vein, Johnes (1992: 23) points to the cynicism of PIs where according to Goodhart's law, once a variable is chosen as a PI, that variable becomes subject to manipulation by the monitored institution and thus loses its reliability. The impact of PIs in his view is crucially linked to resource implications (eg research funding, student quotas, etc.) and due to this, institutions will focus on output measures (eg number of students graduating, drop out rates, etc.). Thus it is questionable whether indicators are indeed comparable across institutions, especially considering the variety of HEI types in the UK, the values they represent and the missions they follow. This variety then also leads to a different conundrum: is it possible to fairly compare a small university with a big university, a rural one with an inner city one, an ancient one with a new one? The issue here is the different attitudes individuals hold about certain types of universities. Johnes makes an argument that value-added would be a much fairer measure in terms of how well a university performs. PIs such as attrition rates, graduation rates or grade distribution are only proxies and generally measure the wrong thing, because they do not take into account the widely differing characteristics of student bodies. Their value lies in internal comparability year on year. In contrast, comparing in which universities students gain the most knowledge in relation to their starting place, a distance travelled assessment, would take account of these differences and highlight where the most human capital was added, although he does recognise that this is not a perfect system either.

2.3 Development of the PIs in the UK

As the UK HE sector moved from a regulated system to a more market-based system with a focus on 'value for money', the importance of information about the quality of 'products' and 'suppliers' to participants in the marketplace increased – '*Markets cannot discipline price without meaningful information about quality*' (Massy, 2004, p.31). The 1985 Green Paper *The Development of Higher Education into the 1990s* set out the rationale for indicators of institutional performance:

> *'The pursuit of value for money in higher education can only be successful if it is based on an analysis of benefits and their related costs in different activities. There are significant difficulties in measuring performance in higher education... But the effort has to be made if the government is to pursue its objectives of controlling public expenditure and of making the most effective use of the tax payer's money; and if institutions and others concerned with higher education planning are to be fully informed in taking their decisions on the allocation of the resources available.' (Department for Education and Science, 1985, p.49)*

In the mid 1980s, prior to the 1985 Green Paper, a committee was set up by the Committee of Vice-Chancellors and Principals (CVCP, the predecessor to Universities UK) to review efficiency in the HE sector (Ball and Wilkinson, 1994; Brown, 2012). The report of this Committee (the so-called Jarratt report, after the Chair of the Committee, Sir Alex Jarratt, Chairman of Reed International plc and Chancellor of the University of Birmingham) noted that there was a lack of systematic use of PIs by universities, and found this was a 'major omission' in their management arrangements. One of the report's recommendations for improving institutional management in HE was that institutions should develop and use reliable and consistent PIs:

'A range of PIs should be developed, covering both inputs and outputs and designated for use both within institutions and for making comparisons between institutions.' (Jarratt, 1985, para 5.4)

A number of definitions of PIs have been put forward in the literature, ranging from the cynical to the practical:

'Whatever is easily measurable becomes a PI.' (Elton, 1987)

'...numerical values which provide a measurement for assessing the quantitative performance of a system. When the indicator shows a difference in one direction, this means that the situation is better whereas if it shows a difference in the opposite direction then this means that the situation is less favourable.' (Cuenin, 1987)

'A first requirement is that they should be clearly related to the defined functions of the institution. A second requirement is that they are only what their name states, indicators of the extent to which institutional goals are achieved. A third requirement is that they should be a valid operationalisation of what they intend to indicate and that they can be measured and interpreted in a reliable and correct way.' (Dochy and Segers, 1990)

'A performance indicator is a number which can be calculated by a good statistician without any exercise or judgement, and which is seen as a surrogate for a measurement of what one is actually interested in. Unfortunately, outsiders are apt to believe that they provide an adequate means of assessing a system without the labour of understanding it.' (Swinnerton-Dyer, 1991)

The Jarratt report suggested three main groups of indicators should be developed – internal indicators, external indicators and operational indicators – and gave examples within each of these groups (see Figure 2.1).

The committee had been set up at the invitation of the Government, but was also prompted by the University Grants Committee (UGC) (Brown, 2012). Johnes and Taylor (1990) argued that criticisms of the way the UGC had implemented cuts to institutions' funding from 1981, with some universities (eg Salford) suffering severe cuts to funding while others (eg York and Cardiff) enjoyed increases without clear explanations about how these decisions were made, were a major reason for the push towards PIs, as if UGC was to provide more detail about its decisions it would need to be more systematic in its assessment of performance.

Figure 2.1: Proposed PIs in the Jarratt report

Internal Indicators:

- Market shares of applications (by subject)
- Graduation rates and degree classes
- Attraction of masters and doctoral students
- Success rate of higher degrees (and time taken)
- Attraction of research funds
- Teaching quality

External Indicators

- Acceptability of graduates (postgraduates) in employment
- First destination of graduates (postgraduates)
- Reputation judged by external reviews
- Publications by staff and citations
- Patents, inventions, consultancies
- Membership, prizes, medals of learned societies
- Papers at conferences

Operational Indicators

- Unit costs
- Staff/student ratios
- Class sizes
- Course options available
- Staff workloads
- Library stock availability
- Computing availability

Source: Brown, 2012

A Green Paper was published after the Jarratt report and strongly advocated the proposal for the development of PIs to be used in resource allocation (Ball and Wilkinson, 1994), and as a result the CVCP and UGC together set up a joint working group to take performance indicators forward. The first statement of this working group was published in 1986, which recommended 16 indicators to cover inputs, processes and outputs. Due to

the tight reporting timetable, it was argued that the work was strongly driven by what data were available through the Universities Statistical Record (Ball and Wilkinson, 1994). The working group themselves raised concerns about the danger of over-reliance on data-driven indicators:

> *'The use of PIs is an aid to good judgement and not a substitute for it. The numbers will not and never can 'speak for themselves'. Mere inspection is not enough; interpretation is always necessary. It cannot be assumed that even a wide variation from a central value for a single indicator is either desirable or undesirable.' (CVCP/UGC 1986)*

The 1987 White Paper '*Higher Education Meeting the Challenge'* welcomed the progress made but also expressed a view that the indicators should measure academic standards and the quality of teaching, for example through the numbers and class distribution of degrees awarded or non-completion rates.

A second statement from CVCP/UGC was published a year later, and expanded the number of indicators to 39, but failed to include indicators covering teaching or research. Elton (1987) was among many who criticised this publication:

> *'The second statement gets around the problem of devising PIs for teaching and research by omitting them and concentrating on what is easily quantifiable. No less than 33 of the 39 are concerned purely with the expenditure of money.'*

A later edition of the CVCP/UGC did include a number of indicators that were more relevant to teaching and research, namely the following.

- Non-completion rates
- Degree results
- First destinations of new graduates
- Research quality rating

Researchers argued that simple comparisons of the headline indicators were misleading, because of differences in the nature of institutions and in their institutional objectives. In an attempt to account for these differences, Johnes and Taylor (1990) undertook regression analyses using a range of explanatory factors they felt might influence each of the indicators, to model the expected indicator for each institution, which was then compared with the institution's actual performance. For example, in looking at non-completion rates (the proportion of students from a particular entry year cohort who had not completed their degree course within six years), the authors hypothesised that a range of institutional and student related factors might influence these rates. These included entry qualifications of students (as measured by A-level scores), the subject mix of the institutions (non-completion rates are generally lower in business studies and languages than in science subjects), the proportion of students living in halls of residence, the ratio of students to academic staff, and whether the institution is in Scotland or not (due to differences in course length and age of starting courses).

Regression equations were obtained using data from all institutions, and these equations were used to calculate the expected non-completion rate for each institution, against which the actual non-completion rate was compared. The authors argued that the comparison between the expected and actual values is likely to be of more use as a performance indicator than the actual value itself. For example, data for 1980 showed that Aston and Keele universities had similar non-completion rates, around 16-17 per cent, but that the rate for Aston was below its expected rate while the rate for Keele was

substantially above its expected rate. Regression models were also developed for degree results, first destinations, and research output.

By the mid 1990s the Higher Education Funding Council for England (HEFCE) was established by the merger of the separate funding councils for universities and former polytechnics (funding councils were also established in Wales and Scotland). The Joint Performance Indicators Working Group was set up by the three funding councils, and after a consultation on 88 proposed indicators, a final list of 69 indicators, under the headings of macro statistics for teaching, macro financial statistics, institutional statistics for teaching, and institutional financial profiles, was published from 1995-96.

Despite the ongoing reviews of PIs, an enduring criticism was that they did not take account of institutional differences in mission and student profile, and so were comparing apples with oranges. To overcome this problem, the Dearing Committee recommended that '*Funding Bodies and representative bodies develop appropriate PIs and benchmarks for families of institutions with similar characteristics and aspirations*' (National Committee of Inquiry into Higher Education, 1997, p.243) so that comparisons between institutions could be make that took into account their institutional diversity (Brown, 2012).

Following the Dearing Report in 1997, HEFCE and HEFCW were asked by the Secretary of State for Education to develop indicators and benchmarks for the sector, and to this end they established the Performance Indicators Steering Group (PISG). The PISG reported in February 1999 on its remit to identify indicators that it regarded as key. It rejected the proposal that families of institutions should be identified, arguing that institutions may be similar in some ways and different in others, and that the 'family' to which an institution belonged may depend on what is being considered. However it recognised that the interpretation of a PI figure needed to be contextualised against the institution's circumstances, and developed a set of benchmarks to help make comparisons meaningful by taking into account subject mix and student entry qualifications (Brown, 2012).

This first PISG report focused on the following five broad measures of performance.

- Participation of under-represented groups
- Student progression
- Learning outcomes (including non-completion)
- Efficiency of learning and teaching
- Research output

There was the later addition of an 'employment' element, and the sophistication of the indicators increased over time with the inclusion of a flag to show significant differences in performance from an institutional benchmark figure. Benchmark figure calculations were extended to take into account age, gender, ethnicity and region in addition to subject of study and entry qualifications. The 'Efficiency of learning and teaching' element was dropped from 2004, as the informed peer judgements on which the element was based were felt to be insufficiently robust for inclusion in a set of formal PIs published by HEFCE and HESA (Yorke and Longden, 2005).

As noted above (in Chapter 1), a major review of the PIs was carried out in 2006-07 by HEFCE via consultation with sector stakeholders. This led to the development of new indicators (on disability, ethnicity and gender), and minor amendments or extensions to existing indicators (extending the population of students covered – such as including other

undergraduates and/or part-time students – where data quality allows) rather than overhauling or dropping indicators.

At present there are essentially two levels of PI: institutional indicators (which provide benchmarks), and sector indicators. There are also four categories or areas of PI: access/widening participation; non-continuation/retention (including module completion); employment/outcomes; and research. The population covered can vary by mode of study (full-time, part-time), level or study (first degree, sub-degree), age of student (young, mature), and type of institution (HEI or further education college). The current position is set out in Appendix C.

2.4 Understanding the use of PIs

The HEFCE Guide to Performance Indicators in Higher Education (HEFCE, 2003b) states that:

> *'PIs are of interest to a wide range of bodies, including Government, universities and colleges, and the UK higher education funding bodies. The indicators are also relevant to schools, prospective students and employers.'*

However, there appears to be little recent research into the extent and nature of their use by these various stakeholder groups, beyond media reports of institutions' responses to the latest indicators (for example, *Russell Group continues to fall short on access benchmarks*, THES, 2013a).

The 2006-07 review of PIs (HEFCE, 2007) asked HEIs to give feedback on whether and how they used the PIs as part of the consultation process. (Other stakeholders were included in the consultation but responses on use of PIs was not reported for these organisations.) Nearly all of the institutions that responded said that they made some use of the PIs, most commonly to compare themselves with similar institutions, but also for internal management purposes and to compare themselves with other institutions in their region. Specific uses of PIs mentioned included monitoring for institutions' Access Agreements (in England), data quality improvement, marketing and/or recruitment, using PIs in strategic planning (including producing annual reports based on the PIs), or for widening participation or retention strategies.

Social mobility and fair access

One of the uses to which PI data have been put is to inform the debate on social mobility in the UK.

Two recent reports into social mobility (Milburn, 2012; Social Mobility and Child Poverty Commission, 2013) investigated the proportion of students entering top universities who were state educated, or were from lower socio-economic backgrounds. The latter report noted that there were 126 fewer students from the most socially disadvantaged backgrounds[3] at Russell Group universities in 2011-12 compared with 2002-03, and that there are an estimated 3,700 state-education students who are 'missing' from Russell Group universities, in that they have the grades to get into Russell Group universities but

[3] Defined as National Statistics Socio-Economic Classification (NS-SEC) groups 4 to 7 – so the main earner in the household was classified as: working for small employer or on own account, in lower supervisory or technical occupation, in semi-routine occupation, or in routine occupation.

do not get the places. This second statistic is derived directly from the HESA PIs, based on the distance of each university from meeting their HESA benchmarks (Higher Education – The Fair Access Challenge).

The Russell Group accepted the figures but argued that numbers fluctuate from year to year and a comparison over a different period would show an increase in the proportion of students from state schools, and that universities alone cannot solve the many and varied factors which lead to the under-representation of students from disadvantaged backgrounds, including their lower likelihood of applying to leading universities (Baker, Times Higher Education, 17th June 2013).

2.4.1 Potential uses of PIs by HEIs

A number of sector bodies produce good practice or guidance reports on some uses to which the PIs can be put, although these only rarely contain case study examples or the results of research into how HEIs put this guidance into practice. We go on to describe four suggested uses of PIs for HEIs, before summarising some research by HEFCE into institutions' favoured indicators and methods of disseminating.

Access agreements (in England)

PIs on widening participation are a key part of an institution's access agreement.

For each year in which publically funded HEIs wish to charge tuition fees higher than the basic rate (£6,000 for full-time students and £4,500 for part-time students), they must submit an access agreement to, and have it approved by, the Director for Fair Access.

> *'[These] agreements set out how institutions will sustain or improve access and student success, which includes retention, attainment and employability.' (OFFA, 2013 p.6)*

In its recent guidance to HEIs on formulating an appropriate access agreement, OFFA recommends that institutions refer to, '*data such as Higher Education Statistics Agency (HESA) performance indicators and data you've collected through monitoring and evaluation of your current access plans. This will identify gaps in performance and highlight key areas for improvement.*' (OFFA, 2013 p.10)

This assessment should in turn inform institutions' '*access and student success strategy, [which should be] revised annually to reflect the lessons learned from previous years.*' (OFFA, 2013 p.10)

Institutional audit (in England and Northern Ireland[4])

The Quality Assurance Agency for Higher Education (QAA) paper 'Outcomes from Institutional Audit – Progression and completion statistics' (QAA, 2008) focuses on HEIs' collection and use of progression and completion data (which include HESA PIs and benchmarks).

The document notes that institutional awareness of the benefits of collecting and acting upon such data has increased. However it also states that only a minority of HEIs have

[4] Institutional audits apply to English and NI institutions. Scotland has a separate review methodology and therefore findings from Scottish reviews are not included in the cited paper.

created fully effective data gathering systems, and make effective use of statistical data relating to recruitment, retention, progression and completion.

Good practice guidelines are thus provided, including the provision of:

- a single central source of data in which all staff have confidence
- appropriate tools to enable the data to be interrogated in a manner that meets the needs of different groups within the institution
- appropriate staff development to support effective use of the data and the analysis tools.

Benchmarking

The HESA paper 'Benchmarking to Improve Efficiency – Status Report' assimilates a range of information on current activity within the UK HE sector in relation to benchmarking.

Benchmarking is defined here as the process of evaluating current institutional performance, and of finding best practices and learning from other institutions, perhaps through direct collaboration (HESA, 2010 p.7). In this way, the process of benchmarking is distinct from sector-wide benchmarks which are purely measurements used for comparison.

The report states that:

> *'[T]he basis of benchmarking is access to data that provides for systematic comparison and evaluation by which performance can be measured and assessed.' (HESA, 2010 p.10)*

The standalone PIs provided by HESA are one resource among several which are utilised for this purpose.

A detailed example of how HESA PIs are used in institutional benchmarking, and as part of the strategic planning process within HEIs, is provided in a case study of the University of Surrey (HESA, 2010 p.21):

- Annual analysis of the HESA PIs are made and graphical PIs are produced, derived from HESA and UCAS data, showing the relative position of the university against other HEIs, categorised by: Russell Group, 94 Group, Other Chartered and Non Chartered. The 94 Group forms an immediate set of comparator and competitor institutions, for example for analysis of National Student Survey (NSS) and Research Assessment Exercise (RAE) performance.
- Key Performance Indicators (see below) and the graphical PIs form a key part of the strategic planning process, and have informed dedicated programmes to improve efficiency, although the PIs may themselves be only the starting point for further enquiry about performance or suggesting areas where further efficiencies may be explored; they do however point to areas to be prioritised for attention.

Institutional Key Performance Indicators

Many HEIs also use Key Performance Indicators (KPIs) as another means of monitoring institutional performance. These are tailored to the specific aims and strategic vision of the institution in question.

The indicators themselves are quite diverse and broad in scope. They cover areas of performance documented extensively elsewhere, such as the academic profile of the institution, as well as more commercial criteria like the financial health of the institution, their current portfolio of assets and their environmental impact.

Many KPIs (such as those in use at Essex and Lancaster universities) include HESA PIs, such as the results of the DLHE survey and student retention rates. Indeed, these measures are identical to those which have been used elsewhere (ie as part of the former Teaching Quality Information measure, see below).

In 2006 the Committee of University Chairs (CUC), under the direction of HEFCE, issued guidance for governors seeking to establish a set of KPIs for their own institution. The guidance provided a tentative framework, which detailed ten broad areas of institutional performance that governors may wish to consider monitoring through a series of more detailed measures (CUC, 2006 p.5).

The framework included two top-level summary indicators (institutional sustainability, and the academic profile and market position of the institution). The CUC observe that these two indicators are supported by the other eight, which – while they are more specific – are still high-level or aggregate indicators made up of a number of factors. All ten top-level indicators are presented below (Figure 2.2).

Figure 2.2: Framework for KPIs

Top-level summary indicators ('Super KPIs')

1. Institutional sustainability
2. Academic profile and market position

Top-level indicators of institutional health

3. The student experience and teaching and learning
4. Research
5. Knowledge transfer and relationships
6. Financial health
7. Estates and infrastructure
8. Staff and human resource development
9. Governance, leadership and management
10. Institutional projects

Source: CUC, 2006

A subsequent CUC report (CUC, 2008) examined how a sample of universities were implementing KPIs, the extent to which the guidance had helped them, and whether any other action or support was required. Around nine out of ten universities replying to the survey said that they had reviewed, or were in the process of reviewing, their performance data as a result of the CUC guidance, and some of the others were intending to do so. However, the report reiterated that KPIs are not an end in themselves, but a tool to

identify what work is needed for the long-term success of institutions – HEIs need to show that KPIs actually impact on performance; 'what gets measured gets done'.

Other issues identified in the report focused around the relationship of KPIs, work and strategic planning activities, in that KPIs need to fit in with existing planning and not be a stand-alone separate activity; and around the scope of KPIs, in that either approach of having KPIs cover all aspects of performance, or having selective KPIs which cover issues of most concern, would fit well within the spirit of the guidance.

In terms of producing KPIs, the report noted that the further development of analytical tools, including HEIDI (discussed below), could potentially offer support to those producing KPIs, and that attention should be paid to arrangements for benchmarking institutional data, as well as to the availability and harmonisation of published sources of HE data. Universities surveyed felt there were significant resource implications in producing KPIs, but that most should already be incurring much of this cost as part of strategic management.

Favoured indicators and format of sector information

The HEFCE research into League Tables (HEFCE, 2008) asked HEIs to rank by perceived importance a range of indicators used in national and international league tables. The five most important indicators across all respondents were the following.

- Job prospects
- National Student Survey data
- Completion rate
- Retention rate
- Value-added (measure of distance between entry and final qualifications)

There were some differences by mission group/representative body, with Russell Group and 1994 Group institutions ranking RAE outcomes top (compared with 8th among all HEIs), and Russell Group institutions also including research income and PhD degrees awarded in their top five. Million+ and GuildHE institutions ranked value-added as their top indicator, and million+ institutions included recruitment of students from under-represented groups and proportion of income spent on students in their top five, at the expense of retention rate and completion rate.

HEIs were also asked what level of comparative information sector bodies (ie HEFCE, HESA, QAA and UCAS) should make available about institutions. Institutions were asked to indicate the 'highest' level of involvement they would consider desirable from the following information.

- 'Minimal descriptive statistics' (1)
- 'PIs (not ranked)' (2)
- 'PIs giving users the facility to rank on a wide range of indicators' (3)
- 'An official published ranking' (4)

Nearly half of respondents (45 per cent) favoured PIs with the ability to rank on a range of indicators, and over one-third (36 per cent) favoured unranked PIs, while only five per cent favoured an official published ranking, and 13 per cent favoured minimal descriptive

statistics only. No Russell Group respondents favoured an official published ranking, while nearly one in four GuildHE institutions (23 per cent) were keen on that level of comparative information. Over half of 1994 Group respondents favoured rankable PIs, while nearly two thirds of million+ respondents (64 per cent) favoured unranked PIs.

Accessing institutional data – HEIDI

The Higher Education Information Database for Institutions (HEIDI) is an online database containing statistics on all UK HEIs. It can be used to assist benchmarking as well as strategic planning and decision making within institutions.

HEIDI provides a single point of access to data from a range of sources, including the HESA PIs, as well as: HESA data on staff, students and finances, the Destinations of Leavers from Higher Education survey (DLHE), and the National Student Survey (NSS). The database enables comparison of data for all UK institutions, or subgroups of institutions.

2.4.2 Use of PIs by other stakeholders

Oakleigh Consulting and Staffordshire University undertook research into understanding the information needs of users of public information about HE (Oakleigh et al., 2010)

As part of this study, a survey was administered to current and prospective students. A total sample of 1,926 participants was obtained from across 38 educational establishments. These included 11-18 state schools, 11-18 independent schools, sixth form colleges, FECs and HEIs (Oakleigh et al., 2010 p.3).

Survey participants were presented with a list of sources of information about HEIs, and were asked which sources they currently use or used when making their decisions about going on to HE:

> *'The two main sources were institutions' websites and prospectuses (88 per cent) and UCAS (81 per cent). This was followed by family and friends (70 per cent), formal institution visits and interviews (68 per cent) and teachers (schools and colleges) at 65 per cent.' (Oakleigh et al., 2010 p.6)*

One limitation of the research is that it only surveyed prospective students themselves, and not their family/parents/guardians.

> *'It should be noted that the research did not look at the information requirements of the family (parents/guardians) of prospective students, which was not possible within the timescale of the study. Therefore recommendations [...] [within the] report are based on prospective students as the primary users of information.' (Oakleigh et al., 2010 p.7)*

The report recommends that awareness should be raised among prospective students of comparable data sources (such as Unistats). This could be achieved by providing links to these resources from institutions' websites and from UCAS: information sources which are frequently used by the survey sample.

2.4.3 Development and use of PIs in other countries

In the UK, PIs and benchmarks are not directly used to decide funding levels or used as targets with sanctions attached, and so the system can be described as one of *performance reporting*, where there is the expectation that institutions will take note of their performance and strengthen areas of weakness. Other countries have adopted systems where financial support is linked to institutional performance, either directly through *performance funding*, or indirectly through *performance budgeting*.

United States

There has been widespread use of PIs in the US as part of the accountability movement, with many state governments linking budgetary support to institutional performance since Tennessee first implemented performance funding in 1979 (OCUFA, 2006). By 2000, 37 of the 48 contiguous US states used PIs in some way (Fisher et al., 2000). However, there was a decline in the use of performance funding and performance budgeting from 2001 as practical difficulties of sustaining these systems became apparent.

Use of PIs varies by state, in terms of the number of indicators used, and the use of main/supplementary indicators. More widely used indicators include the following.

- Unit costs
- Faculty teaching workload rates
- Student-staff ratios
- Analysis of cohort progression and attrition
- Rates of passage on professional licensure exams
- Analysis of the ethnic, gender and social backgrounds of students
- The outcomes of degree programmes in terms of the number of degrees awarded (OCUFA, 2005)

The OCUFA report gives specific examples of how (in the mid 2000s) PIs were used in a number of states:

Tennessee

Since the beginning of the performance funding program in 1978, the Tennessee Higher Education Commission has coordinated the performance funding initiative...Tennessee remains the most prescriptive state, having developed an accountability system that incorporates common standardized assessments across programs and institutions, and that bases funding levels on specific test scores and student and alumni satisfaction ratings. Approximately 60 per cent of the indicators used in Tennessee's performance funding program are devoted to student performance and satisfaction. The remaining 40 per cent focus on academic program and institutional indicators.

California

California uses performance budgeting to link institutional performance with the quality indicators, and performance reporting to monitor the progress of its colleges and universities for the purpose of encouraging institutional improvement... These indicators have been divided into five main categories: Population Context, Fiscal Context, Student Preparation, Student Access, and Student Outcomes. The result of each institution's performance is reported and published in an annual report prepared by California Postsecondary Education Commission.

Louisiana

Performance reporting is a staple model of institutional accountability used by the Louisiana Board of Regents, however it also employs funding formulae which allow for performance funding and performance budgeting. In regards to performance funding, the board has established a 'Performance Incentive Initiative' component designed to reward institutions for high performance and to provide incentives for institutional improvement. Performance budgeting is realized in the other two components of the funding formulae. In the 'Core Funding' component, the board uses enrolment management strategies that disconnect changes in enrolment from being immediately or completely recognized in the funding target calculation. The third component is the 'Quality/Campus Improvement and State Priorities' which is designed to make strategic investments in programs, including workforce and economic development programs.

Canada

Canada has had a high profile media-compiled league table of universities since 1991 (*Maclean's* national news magazine), although its methodology has been heavily criticised (OCUFA, 2005; see also section 2.4.2 about UK league tables). Specific criticisms have focused on a number of issues.

- The integrity of the data collected by the compilers – critics say they are based on narrow criteria that disregard universities' individual missions
- What it actually means for one university to be ranked above another – to claim that a given university is number 1, another is number 2, etc.
- The exercise of creating a competitive atmosphere that encourages universities to rise up the rankings without necessarily addressing the issues of improving the quality of the education

As is the case in the US, use of PIs varies between the provinces, with some not using PIs at all and others, Alberta in particular, having very stringent links between performance and funding (OCUFA, 2005).

- Alberta's PIs have a focus on outcomes rather than inputs and, in addition to using data on graduate employment, also use data on employers' satisfaction with the

education and skill level of recent graduates who are now employees. There are also input measures, and failure to meet them can result in a university 'contributing' a proportion of its budget to the provincial government – with the example of the University of Alberta contributing 0.5 per cent when it failed to meet the enrolment target.

- Ontario introduced three key PIs in 1998-99 – graduate employment rates, graduation rates by programme, and student loan default rates. Universities can access a PI fund if they meet the benchmarks.
- British Columbia has implemented system-wide PIs, but does not link them to performance funding, and the government asserts the interpretation of performance will require careful analysis and judgement of the different roles, mandates, strengths and challenges of each institution.

Australia

The use of PIs to measure HE quality grew rapidly in Australia from the 1990s, although this has been contentious (OCUFA, 2006). In a recent development, the Learning and Teaching Performance Fund was established by the Federal Government as part of the 2003 HE reforms. The fund was developed to reward HE providers that best demonstrate excellence in learning and teaching. A range of indicators was proposed, and after a series of reviews and consultations a final set of indicators was agreed for the initial allocation of funds in 2006 (Coates, 2007). A total of seven indicators were agreed, covering process indicators relating to teachers and students as well as student outcome indicators, each with a different weighting (Figure 2.3).

Figure 2.3: Indicators for the initial allocation of funds

Process indicators – teachers
■ Course Experience Questionnaire – Good Teaching Scale (18.52 per cent)
■ Course Experience Questionnaire – Generic Skills Scale (17.91 per cent)
■ Course Experience Questionnaire – Overall Satisfaction Item (18.90 per cent)

Process indicators – students
■ First-year attrition (10.16 per cent)
■ First-year progression (12.26 per cent)

Outcome indicators – students
■ Graduates in full-time work (11.48 per cent)
■ Graduates in further full-time study (10.29 per cent)

Source: Coates (2007)

The data behind the indicators includes the Course Experience Questionnaire and Graduate Destination Survey. These are administered as part of a census of Australian university graduates a few months after graduation. The data on attrition and progression are generated from annual data collected from institutions.

More recent reforms and the development of a ten-year plan for HE were announced in the 2009-10 Budget, with an emphasis on extending the reach and enhancing the quality and performance of its HE system, incentivised through performance funding:

> *'The Government will also introduce higher education performance funding for teaching and learning, which will serve the dual objectives of extending reach and enhancing quality. Under these arrangements, universities will be required to negotiate targets against indicators of performance that have a direct line of sight to the Government's broader objectives. In the simplest terms, if universities achieve their targets, they will receive performance funding.' (DEEWR, 2009)*

A new framework of indicators was proposed to align with the government's agenda '*to increase the number of Australians with bachelor level qualifications; to increase the higher education participation of people from underrepresented groups; to enhance engagement and thus improve student outcomes; and to improve the quality of learning and teaching*' (DEEWR, 2009). The following indicators were proposed.

- **Student participation and inclusion** – increasing participation of people from low socio-economic backgrounds in undergraduate higher education, and one other under-represented group to reflect universities' diverse missions, measured by student record data.
- **Student experience** – improving the overall teaching, learning and support provided to students, measured by retention of first-year students and results of the Course Experience Questionnaire (post-graduation survey), with consideration of the development of a University Experience Survey collecting responses during students' first year when they are most at risk of attrition.
- **Student attainment** – increasing the number of students who graduate with a bachelor degree, particularly low socio-economic group students, measured by completion, retention and progression rates from student record data.
- **Quality of learning outcomes** – improving students' cognitive learning outcomes, measured by students' satisfaction with generic skills acquired (from CEQ) and graduates' employment and further study outcomes (from Graduate Destinations Survey), and improving universities' teaching and learning performance, measured by proportion of teaching staff with a Graduate Certificate in Higher Education or equivalent qualification.

Universities would negotiate individual targets with the government through the development of compacts, with the targets reflecting each university's individual mission while working towards achieving the government's reform agenda (DEEWR, 2009).

A set of principles was developed to guide the choice of indicators for performance funding arrangements (Figure 2.4).

Figure 2.4: Guiding principles for indicators in Australia

Performance indicators should:

- be relevant and have 'face validity' – ie appear appropriate, and measure what they purport to measure
- be statistically sound and methodologically rigorous, including in terms of construct and predictive validity
- be derived from high quality, objective data sources, and where possible collected at 'arms length' by an independent body, as well as not easily manipulated
- be as simple, transparent and explicable as possible, using crude data unless there is a compelling case for statistical adjustment
- have an explicit and consistently used definition (both in terms of what is being monitored and how it is being measured) and be able to be measured reliably over time
- make the best possible use of existing data sources
- be collected and analysed cost-effectively and with regard to the administrative burden on universities and the burden on respondents
- not be excessively lagged, providing information in a timely manner
- have the potential to be disaggregated (where possible and desirable) along relevant dimensions to show differences between important population subgroups and other groupings
- inform and encourage policy and practice at both the national and institution level, without having a perverse influence on behaviour
- accommodate, and to the extent possible facilitate, institutional diversity.

Source: DEEWR, 2009

2.5 Alternative measures of quality and success in the UK

In this section we highlight the discussions around how best to measure quality and some alternative measures of HE quality.

2.5.1 Dimensions of quality

A 2010 report by the Higher Education Academy (HEA) investigated issues around the measurement of educational quality in HE (Gibbs, 2010). The investigation examined quality in the three-way model of presage (inputs), process, and product (outputs/outcomes) used by many other examinations of the HE sector. The report argued that presage and product variables are of limited value in explaining variation in educational gains between institutions, as presage variables are influenced by

reputational factors, and quality of students is a good predictor of products. Process variables are better measures of educational performance, but there is a lack of good quality data on many of these variables such as the level of student effort and engagement, who undertakes teaching, and the quantity and quality of feedback to students on their work.

To overcome these limitations, the report argued that the most valid way to compare institutional performance is to measure educational gain – the difference between performance on a particular measure before and after the student's experience of HE. However, there is little evidence available in the UK about educational gain, although some influential US studies measure educational gain in a variety of ways. There may be potential for using the work that students submit for assessment (such as final-year projects or dissertations) as more direct indicators of educational quality than proxies such as NSS scores.

The report concluded that it is *'unlikely that the comparative indicators of quality currently available in the UK could provide prospective students with a valid basis to distinguish between individual courses with regard to their educational quality'* and that *'the collation of currently available data into league tables is invalid and misleading. Even in the US where a range of more valid indicators are more widely available, those responsible for collecting and interpreting the data counsel strongly against their collation into a single league table.'*

A subsequent HEA report (Gibbs, 2012) looked at the practical implications of the use of PIs in a market environment. The report found that it was not yet clear whether improved performance on NSS scores was leading to changes in student recruitment and a trend to move away from the traditional reputation-driven market, and it was still uncertain whether the use of different, more valid measures of educational quality would start to change perceptions of what reputation is about, and turn it into a more useful guide to student choice. The report felt that valid indicators of educational quality were being provided to potential students through the Key Information Set (KIS) for example, but that there was scope to improve the value of this information, in particular to allow students to see what educational provision their fees will purchase. Many institutions were addressing 'satisfaction' issues as overall student satisfaction data become prominent in league tables and the KIS, but this tended to be concerned with general high standards of service delivery rather than a specific focus on improving satisfaction with the quality of teaching.

2.5.2 Teaching Quality Information, Unistats and KIS

The Teaching Quality Information (TQI) was initiated in response to the revised QAA quality assurance framework for HE in the UK (HEFCE, 2003a). Accurate and up-to-date information about the quality and standards of provision among HEIs was recognised as important to enable potential students and their advisers to make informed decisions during the application process, to inform the judgements of other stakeholders, and to secure accountability for the use of public funds.

The new QAA framework was therefore built on the following three principles (HEFCE, 2003a p.5).

- Recognising the primary responsibility of each HEI to operate robust internal mechanisms for setting, maintaining and reviewing quality and standards; for generating information about its quality and standards; and for publishing the key parts of that information.

- Meeting public information needs, so that stakeholders – and above all students – can obtain information which is up-to-date, consistent and reliable about the quality and standards of teaching and learning at different HEIs.
- Lightness of touch, so that the burden on HEIs is reduced to the minimum consistent with proper accountability and meeting information needs, and so that the greatest value is secured from the resources used.

In order to help define the information relating to quality and standards that all HEIs should seek to collect and make publically available under this framework, a Task Group chaired by Professor Ron Cooke was set up to review and make recommendations on (HEFCE, 2003a p.5) the following points.

- The information which all HEIs should be expected, as a matter of standard good practice, to collect and have available within the institution.
- Information that should be published by all HEIs.
- The definitions that should apply to secure consistency of data across the sector.
- The format and frequency of publication.

The Task Group analysed findings of studies about the information needs of students and other stakeholders.

This analysis confirmed the importance of teaching quality as one of several key factors considered by prospective students when selecting what and where to study. For many students, this was found to be especially important at the stage during the applications process when they develop a short-list of choices, although often they used published entry requirements as a proxy indicator of quality.

The analysis also confirmed the general demand by prospective students for the information to relate to individual programmes.

On the basis of these findings the TQI was established. It comprised a range of quantitative and qualitative indicators (a full list is provided in Annex E of the 'Review of the Quality Assurance Framework: Phase two outcomes' report). This included data drawn from the PIs, such as retention and completion rates, and the results of the DLHE survey (this now has an added longitudinal component – ie a three and a half year follow up).

The TQI was subsequently revised and in 2007 was re-launched as the UCAS Unistats service following a review by the Quality Assurance Framework Review Group (QAFRG).

In their report, the review group observed that the TQI in its previous form did not meet the objectives set out by the Cooke Task Group of helping to inform the decisions of potential students, their advisors and other interested parties, as well as ensuring accountability for the use of public funds (QAFRG, 2006 p.2).

More specifically, they observed that the intended audience for the TQI website appeared to be unclear; this, they believed, was partly due to it having been designed to meet the needs of several audiences, with the result that it did not satisfactorily address any (QAFRG, 2006 p.4).

The review group went on to state that a particular problem with the TQI website in its previous form was that it was not readily useable by potential students, being poorly set out, and difficult for a lay audience to understand due to its use of complex language and

technical terms. They commented that TQI was widely perceived as having been developed 'by the sector for the sector.'

The TQI was also perceived as not providing good value for the resources that were being put into it. The overall burden and costs of the new quality assurance method – including TQI – were substantially less than they were under subject review. However, the workload and costs that institutions incurred in producing TQI were disproportionately high in relation to the value of the information to prospective students. Some HEIs were devoting substantially more time and effort to TQI than others.

On the basis of these findings, QAFRG's overall conclusions were the following (2006 p.5).

- The intended purpose of TQI and its primary target audience needed to be clarified. They commented that the primary audience should be potential students (and their advisors) and the purpose of the site should be to help potential students make their choice of where to study.
- TQI had the potential to fulfil this purpose and make a substantial contribution to applicants' choices. However, in its previous form it made a limited contribution to this, and needed to be revised to focus on the primary audience. A key priority was to make the TQI site more accessible and user-friendly. This meant revising the content of the site to focus on what is useful to applicants and to flag more clearly how the data can be used. Following revisions, the website was re-launched as Unistats and marketed more widely among prospective students

The latest development has been the launch of the Key Information Set (KIS), in September 2012. The KIS is published on the Unistats website and now provides standard and thus comparable data about full- or part-time undergraduate courses (those lasting more than one year). The areas covered include: student satisfaction (from the NSS), student destinations on finishing their course, how the course is taught and study patterns, how the course is assessed, course accreditation, and study costs (including tuition fees and costs of accommodation).

A number of activities were undertaken to inform and guide the development of KIS and an expert panel was established. Activities included researching the information needs of prospective students (by Oakleigh Consulting and Staffordshire University, 2010, see 2.4.2 above), reviewing the NSS (Institute of Education, 2010), extensive consultation with the HE sector, and methodological pilots in a small number of HEIs and usability testing. See http://www.hefce.ac.uk/whatwedo/lt/publicinfo/kis/

2.5.3 Research quality – Project Snowball

Project Snowball[5] is a public service project that aims to help universities benchmark their performance across a broad range of research activities. The objectives of the project are to determine a standard set of common metrics and to share the methodology behind those metrics publically. With a set of common metrics defined by and adopted across UK institutions, it will be possible for them to make meaningful comparisons with each other.

Project Snowball grew out of a joint JISC-funded study undertaken by Imperial College and Elsevier publishers, which reviewed the HE sector's efforts and experiences of

[5] See The Snowball Project: Agreeing metrics for research information management, http://www.snowballmetrics.com/wp-content/uploads/The-Snowball-Project3.pdf

implementing research management systems, and evaluated the tools that HEIs used to manage data related to research. The study found that both HEIs and funding organisations recognised that data were essential in strategic management and decision making, but that there was a lack of consensus on the metrics that should be used for measurement and evaluation, and that without clear metrics HEIs found it difficult to benchmark themselves meaningfully, which in turn hampered strategic planning. The research recommended that a national framework for data and metric standards should be developed with stakeholders and used across the sector, and that institutions should collaborate more amongst themselves to harmonise their approach to research management processes, and collaborate more with funders to identify commonalities in systems and processes to improve cost-effectiveness.

A second phase of work by the same lead organisations set about building on the recommendations, with a tightly defined overall goal of facilitating '*external benchmarking by ensuring that institutions can confidently compare research data in a like-with-like manner.*' (*Agreeing metrics for research information management: The Snowball Project, p.3)*

Working with eight HEIs, the team developed a list of metrics that were agreed to be important for research management, covering research inputs, research process, and research outputs/outcomes. The metrics were tested for ease of collection and a prototype benchmarking tool was created which allowed basic benchmarking against a series of metrics.

The Snowball Metrics Recipe Book[6], which details the agreed and tested methodologies for the first set of Snowball Metrics, has been released to be used by institutions and other organisations to build best practice in evidence-based institutional strategic planning. The metrics are not intended to replace the use of existing means of informing institutional strategy, but rather to complement them by providing a perspective that may lead to valuable new insights. Metrics are widely recognised indicators of productivity, but they are nevertheless proxies for the intensity and impact of research. Examples from the first set of metrics are illustrated below (Figure 2.5).

Figure 2.5: Example Snowball Metrics

Input Metrics

- Applications volume – number and price of research grant applications that are submitted to external funding bodies
- Awards volume – number and value of awards from external funding bodies

Process Metrics

- Income volume – value of awarded budget derived from research awards from external funding bodies that has been spent
- Market share – percentage of total research income across the sector related to a given institution

[6] See http://www.snowballmetrics.com/

Output Metrics

- Scholarly output – number of institutional outputs of any type
- Citation count – citations received to date by institutional outputs
- *h*-index – calculation of the *h*-index, as defined by Professor Jorge Hirsch[7], for institutional disciplines
- Field-weighted citation impact – ratio of the total citations actually received by the denominator's output, and the total citations that would be expected based on the average of the subject field
- Outputs in top percentiles – absolute counts, or percentage of total counts, of outputs that lie within the top 1%, 5%, 10% and 25% outputs in the data universe
- Collaboration – the percentage of outputs that have national or international co-authorship

Source: Snowballmetrics.com

2.5.4 League tables

> *'Many newspapers and magazines now publish league tables of universities. They do this because it sells extra copies of their publications.' (Oswald, 2001)*

Unlike the school system, institutions in HE are independent bodies and the government role in defining the nature and purpose of comparative statistics for ranking institutions is much less marked, so it has become a task generally taken on by the media, with potential problematic consequences (Goldstein and Foley, 2012).

The compilation of UK university league tables goes back nearly as far as the debate about PIs, with *The Times* producing their first set of league tables in 1992. *The Sunday Times* followed suit in 1998 and *The Guardian* began producing their own tables in 1999. Guides have also been produced in the past by *The Daily Telegraph* and the *Financial Times*.

The relationship between PIs and league tables is in some ways symbiotic – league tables grew out of a perceived lack of officially published information about institutions, and they currently present a wider set of information than that included in PIs, but the development of league tables, based on less technically sound methods and less reliable statistics, is put forward as an argument in favour of sector-produced PIs:

> *'Even those most resistant to PIs began to realise that there was no answer to such misinformation if no official statistics were published.' (Brown, 2012)*

HEFCE (2008) commissioned a thorough investigation of league tables and their impact on HEIs in England. Table 2.1 sets out the report's summaries of the main arguments for and against league tables and HEI rankings, but in brief, the arguments for league tables

[7] To quote from this paper that defines the *h*-index in terms of researchers: "A scientist has index *h* if *h* of his or her *N* papers have at least h citations each and the other (*N* – *h*) papers have ≤*h* citations each".

are that they fill a gap in information on institutional performance, which is particularly important in the age of university fees, and they are mostly based on published information or the views of experts, while the arguments against focus on the lack of a clear rationale for the indicators used and the way they are combined into an overall ranking:

> *'League tables fail to provide a theoretical or empirical justification for the measures selected and the weights utilized to calculate their rankings.' (Dill and Soo, 2005)*

Criticisms of the indicators themselves have included the fact that they tend to be based on what information is available, rather than a clear or coherent concept of academic quality. Indicators based on expenditure view high expenditure as positive regardless of what the expenditure achieves, and so do not consider value-for-money (Oswald, 2001). Also some indicators are under the control of HEIs themselves so there is potential for 'gaming' to occur – one example from the US concerns a university that increased the proportion of its classes with fewer than 20 students by allowing large classes to grow even larger (THES, 2010a). The rankings seem to be overly based on variance in one aspect of academic quality, namely research, with Yorke (1998) finding that 93 per cent of the variance in institutional scores in *The Times* 1997 league tables could be explained by the research variable alone. There are big discrepancies in the ranking of institutions between the different league tables, which suggests a lack of internal construct validity, and also high correlations between indicators, which could be a sign of redundancy (they all measure the same type of academic quality) rather than of validity (they are all measures of academic quality). Finally, the rankings are based mostly on input measures, rather than process or output measures.

In terms of scaling and weighting, the compilers do not put forward convincing rationales for the weightings used; for example Dill and Soo (2005) found very little significant difference between HEIs in terms of graduate employment rates, so it would seem that this is not a particularly useful indicator with which to compare HEIs, and suggested that of more usefulness would be employment in a 'graduate job'. Also there are examples of the different compilers attaching different weights to the same measures – entry standards make up approximately 11 per cent of the total score in *The Times* rankings but 23 per cent in *The Sunday Times*, while the student-to-staff ratio makes up nine per cent of the total score in *The Sunday Times* but 17 per cent in *The Guardian* (HEFCE, 2008).

A further criticism is that the ranking implies a degree of precision in the data that exceeds the reliability of the data sources, and '*small differences in score (often in the decimals) are taken literally as indicating noteworthy differences in quality*'. (Cheng, 2011)

Table 2.1: A critique of league tables

Arguments for:	Arguments against:
Newspaper league tables compensate for a perceived deficit of information about universities and their performance	League tables are an inadequate form of guidance for prospective students in choosing a course
With the introduction of variable fees for full-time undergraduate courses, applicants are becoming more discerning in choosing a university, and competition between HEIs is increasing	League tables present an inaccurate picture of HE
Most of the data used by league table compilers are published by official agencies and other respected sources	The methods used to compile league tables are not justifiable
Where opinion surveys are used, league table compilers seek the views of experts	The methodologies used to compile league tables produce perverse results
The collection of statistics about performance is part of sound institutional management practice	League tables promote perverse behaviour among students and institutions
Compilers positively seek to engage with institutions to ensure the data they use are as accurate as possible	
In particular subjects, such as business and management, league tables can help to delineate and clarify the field	

Source: HEFCE, 2008

There is some, albeit minor, overlap between the league table indicators and the HEFCE PIs. The tables from *The Guardian* and *The Times* include data on graduate prospects, weighting them at 17 per cent and 11 per cent of the total scores respectively. The tables from *The Times* and *The Sunday Times* include research assessment and completion/dropout data; the weighting for research assessment data is 17-18 per cent, while The Times weighs completion/dropout data at 11 per cent and *The Sunday Times* uses these data to calculate a variable bonus or penalty mark (HEFCE, 2008).

In terms of who uses league tables, HEFCE (2008) summarised available evidence on their use by three groups of users – prospective students, employers and HEIs themselves.

The HEFCE report quoted evidence from surveys of students conducted on behalf of the UNITE trade union for their *Student Experience* series between 2001 and 2007. These show that the proportion of students who reported that league tables were important to them in their selection of a university generally increased over the period, from 19 per cent in 2001 to 29 per cent in 2007, although the pattern was somewhat erratic and the series stopped after 2007 so we do not know if the upward trend continued. This survey and others found variation in the use of league tables by student characteristics, with use of league tables greater among those from higher social classes; those from independent/private schools; men; Asian students; students choosing more distant universities; second generation university students; and international students.

Around a quarter of graduate recruiters surveyed in an earlier HEFCE research study (HEFCE, 2006) reported that they used league tables to help decide which HEIs to target for graduate recruitment, in the belief that the most selective HEIs produced the best quality graduates. Employers tended to prefer simple metrics of quality to detailed and specialised information, even if they were not fully aware of how those metrics were derived.

There is some evidence that league tables are having an impact on institutional decision making. An international study of HEIs (Hazelkorn, 2007) found that around half of HEIs had formal internal processes for reviewing their rankings, and the majority of these had taken strategic or academic actions as a result. HEFCE research (HEFCE, 2008) found that most HEIs had responded to league tables in some way, but that league tables were not driving their agendas, actions were not developed as a 'knee-jerk' reaction to league tables, and many changes would have occurred anyway but were given impetus by league tables. Common responses were to undertake analyses of their own institution's position, to set up working parties to consider league tables and institutional performance, and to consider how data returns are made, eg to HESA.

International indicators and league tables

In addition to the UK university league tables, a number of compilers produce international league table rankings. Two of the most prominent are the Academic Ranking of World Universities (ARWU), published in China by Shanghai Jiao Tong University Institute of Higher Education (SJTU), and the Times Higher Education World University Rankings. Criticism of international league tables is stronger than that of the UK tables.

> *'Many are complete nonsense – measuring the unmeasurable, using ridiculous methodologies to come up with rankings of academic institutions, schools and faculties (especially business schools), and in general trying to feed a seemingly insatiable appetite for answering the questions: How are we doing? Where should I go to school? Or perhaps, How can our institution best compete for prestige or market share?' (Philip Altbach, director, Center for International Higher Education, Boston College, quoted in THES, 2010a)*

In terms of indicators used, the ARWU bases scores on Nobel laureates among staff and alumni, highly cited researchers, articles published, articles cited, and size of institution, and so has no overlap with any of the indicators used in the HEFCE PIs. The *THE* World University Rankings recently changed the methodology used, as its original methodology was criticised for being highly subjective (with half of the total score based on the results of opinion surveys, 40 per cent from academics, 10 per cent from graduate employers, HEFCE, 2008). The new rankings comprise 13 indicators brought together into five categories as follows.

- Teaching – the learning environment (worth 30 per cent of the final ranking score)
- Research – volume, income and reputation (worth 30 per cent)
- Citations – research influence (worth 32.5 per cent)
- Industry income – innovation (worth 2.5 per cent)
- International mix – staff and students (worth 5 per cent) (THES, 2010b)

However, as with the ARWU, none of the individual indicators map onto the HEFCE PIs.

In terms of objective international data on HE, the OECD publishes annual education statistics for all OECD countries which includes some information on HE entry and graduation, as well as international HE study, which may have some potential for international benchmarking and comparisons. Further developments are currently in train with the developments of the U-Multirank and the EUMIDA, which are described below.

U-Multirank

> *'These are challenging times for higher education in Europe, and the purpose behind U-Multirank could not be clearer. Our objective is improving the performance of Europe's higher education systems – not just selling newspapers.'*
> Jordi Curell, Director of Higher Education and International Affairs in the European Commission's Directorate General for Education and Culture, University World News, Issue 259, 16th February 2013

The European Commission recently launched U-Multirank, a new university ranking for HEIs of all types across Europe and beyond. It was designed in close consultation with stakeholders and there was a feasibility study involving 150 institutions. The first stage is going ahead with more than 500 institutions and covering four disciplinary fields (mechanical engineering, electrical engineering, business and physics), with results to be published in 2014. In subsequent years the project will be extended in terms of both number of institutions and the range of disciplinary fields, with plans to include sociology, psychology, social work, computer science and music in the second ranking in 2015 (van Vught and Ziegele, 2011).

The developers argue that it has two key features that set it apart from other international ranking systems.

- Multi-dimensional – it compares performance across five dimensions, namely research, teaching, knowledge transfer, international orientation and regional engagement. This is in contrast to the main international ranking systems – Times Higher Education and ARWU– which are mostly research-focused.
- User-driven – it can be used flexibly by a wide range of interested parties including institutions, academic staff, students, policy makers, businesses and other users; it enables users to specify the type of institutions they wish to compare (in terms of the activities they are engaged in) which ensures like-with-like comparisons; and users can decide which areas of performance to include in comparisons of selected institutions.

Data are portrayed on each of the dimensions separately; no attempt is made to aggregate across indicators to arrive at a single score in a league table, and no pre-defined weights are assigned to the dimensions. This avoids two of the major criticisms of media-produced league tables.

Tables 2.2 and 2.3 show the dimensions and indicators used in U-Multirank.

Table 2.2: U-Multirank: dimensions and indicators – part 1

Teaching and learning	Research
Expenditure on teaching	Percentage expenditure on research
Time to degree bachelor	Research publication output (self reported)
Time to degree master	Research income from competitive sources
Time to degree bachelor	Web of Science publications
Time to degree master	Post doc positions
Relative rate of graduate unemployment	Share of within-country joint research publications
Interdisciplinarity	Field-normalized citation rate
	Highly cited research publications
	Number of art related outputs

Source: Jongbloed and Kaiser (2011)

Table 2.3: U-Multirank: dimensions and indicators – part 2

Knowledge exchange	International orientation	Regional engagement
Spin-off companies created	Students in joint degree programs	Graduates working in the region
University-industry joint publications	International doctorate graduation rate	Regional joint research publications
Number of CPD courses offered	International joint research publications	Number of research contracts with regional partners
Incentives for knowledge exchange	International academic staff	Income from regional sources
Third party funding		Student internships in local enterprises
Number of patents awarded		
Size (staff volume) of technology transfer office		

Source: Jongbloed and Kaiser (2011)

There have been some criticisms of U-Multirank since its launch. The League of European Research Universities (LERU), which includes Oxford and Cambridge, has withdrawn its support for the project, describing it as ill-conceived and poorly designed, and stating *'We consider U-Multirank at best an unjustifiable use of taxpayers' money and at worst a serious threat to a healthy higher education system'*. The organisation has cited concerns about the lack of reliable and valid data for the indicators, about the comparability between countries, about the burden on institutions to collect data, and the lack of 'reality-checks' in the process (THES, 2013b).

The House of Lords European Union Committee considered U-Multirank in its report Modernisation of Higher Education in Europe (House of Lords, 2012). In reporting on the

evidence heard from a number of interested parties about the project, it held the view that *'most of our witnesses were not convinced by the merits of yet another league table'* (THES, 2013c).

Some organisations were critical of existing ranking systems (European Universities Association, EUA) or acknowledged that there were limitations to traditional league tables (HEFCE), and welcomed the attempt to look at broader indicators and make the ranking more objective. However, EUA felt the objectives would be hard to achieve in practice because of data availability in some HEIs/member states, and because of difficulties and time/cost burden in collecting it, while HEFCE advised caution in having a ranking tool that might be considered to be 'official'. Other witnesses raised concerns such as:

> *'...the proposal's lack of clarity as to whether it would be a ranking or transparency tool'*
>
> *'...that the league tables market was already too crowded, with each ranking deploying its own methodologies'*
>
> *'...that it would confuse applicants and be incapable of responding to rapidly changing circumstances in institutional profiles'*
>
> *'...that it could become a "blunt instrument" which would "not allow different strengths across diverse institutions to be recognised and utilised" and end up being used as the basis for future funding decisions'*
>
> *'...on the grounds of quality, accuracy and lack of data'*
>
> *'...that EU funds could be better spent on other EU priorities'*

Notwithstanding these concerns, many witnesses felt that the project could add value, if the stated aims of increasing transparency and providing more flexibility could be realised. The committee concluded:

> *'It is important that the Commission is clear about the purpose of U-Multirank, what information will be provided and what methodology will be used. If the perceived deficiencies in most other ranking systems are overcome in relation to this proposal then we could be convinced of the benefits of its introduction. However, until these deficiencies can be overcome, we consider that the Commission should prioritise other activities. In the meantime, rankings such as the Times Higher Education World University Rankings may have a valuable contribution to make.'*

EUMIDA

The EUMIDA project lead by the Research and Innovation Directorate-General of the European Commission is attempting to build a complete census of European universities, and from 2012 this has been taken over by Eurostat.

The project tested the feasibility of regular data collection of microdata on individual HE institutions by national statistical institutes in the 27 EU countries plus Norway and Switzerland, and reviewed issues around data availability, confidentiality and resources needed for a full-scale exercise. It has demonstrated that in all countries there exists a core set of data that shares the following features.

- It follows the definitions laid down in the UNESCO-OECD-EUROSTAT (UOE) Manual
- It is routinely collected by the national statistical authorities (NSAs)
- It does not raise significant confidentiality issues
- It can be disaggregated at the level of individual units in a smooth way

Two sets of data were examined, a core data set, and one based on an extended set of indicators but only for 'research active' institutions. The core data set is similar to the indicators used in U-Multirank, and will contain data for each university such as the number of students, graduates, PhDs, international students, staff and the fields of education offered. The extended set allows a more in-depth analysis of inputs and outputs of HEIs, covering personnel, finances, physical infrastructure and students as input indicators, and educational production, research production and wealth creation (third-mission) among output indicators (HESA 2011b).

2.5.5 National Student Survey (NSS)

The NSS is a survey of final-year students on undergraduate programmes. It is compulsory for publicly funded HE providers in England, Wales and Northern Ireland. From 2013 onwards Scottish universities are required to take part to comply with KIS (see above) – some institutions have been given time for the transition while Scottish colleges are not required to take part. The NSS asks participants to rate their level of agreement with 23 positive statements on a five-point scale. The statements are grouped into six areas, or 'scales': quality of teaching and learning; assessment and feedback; academic support; organisation and management; learning resources; and personal development. In addition there are an overall satisfaction statement and a statement about the Students' Union. Ipsos MORI administer the survey on behalf of HEFCE and contact all suitable students using a variety of methods (including email and telephone). The survey was introduced in 2005. In 2012, 154 HEIs and 106 FECs took part, and 287,000 students responded – an overall response rate of 67 per cent. The survey drew on the Australian Course Experience Questionnaire (CEQ; see section 2.3.3 above for uses of CEQ in Australian PIs), which has been in use in Australia since 1993. There has been a significant amount of research on the CEQ, and a more limited amount on the NSS, and this research indicates that the two surveys are both reliable, in that they yield consistent and repeatable data, and valid, in that they measure what they purport to measure (Buckley, 2012).

The NSS is designed to assist prospective students in making choices; provide a source of data for public accountability; and assist institutions in quality enhancement activities (Sharpe, 2007). This latter usage may include benchmarking, although institutions are recommended to use NSS data in conjunction with a much wider range of information to gain a more rounded and useful understanding of students' experiences and to investigate the reasons for the scores and ways to respond (Buckley, 2012).

Results from the NSS feature in the league tables produced by *The Guardian*, *The Times*, and *The Sunday Times*, accounting for around 15-17 per cent of the total weighted in each of the tables (HEFCE, 2008).

3 Findings from stakeholder interviews

3.1 Introduction

A key element of the research was to engage and consult with HE stakeholders –current and potential users of PIs – across the four nations of the UK. A series of in-depth telephone interviews was undertaken with a wide range of stakeholders. One group consisted of funding councils, government departments, organisations representing and supporting students, organisations representing and supporting providers, and those involved in producing and regulating statistical data. A second group of stakeholders consisted of representatives from HE providers. A range of providers were involved: institutions in the different nations of the UK; HEIs as well as FECs that provide HE; institutions of various sizes; specialist providers; and a private institution. The interviewees representing providers tended to be members of the senior management team (often those responsible for planning, developing strategy, finance, overseeing data returns and improving the student experience) and also included specialists such as those with a responsibility for research or for widening participation within the institution. A shortlist of stakeholders and providers was developed by the research team and the review steering group[8], and relevant key individuals were contacted by the research team to invite them to participate in the research. Interviews lasted between 30 minutes and one hour, were one to one or group discussions, and used a topic guide developed in consultation with the HEFCE project managers. In most cases a number of individuals from each organisation were interviewed to provide a broader perspective. The aim of these interviews was to achieve a robust overview of the fundamental issues and questions for the review and to explore thoughts on:

- whether, and if so how, the performance of the HE sector and of individual institutions should be measured and assessed
- whether we should still have PIs
- who is/are the audience(s) for PIs
- what are the critical changes in the sector that could affect or have had an impact on the need for and nature of PIs

[8] The review steering group were: Celia Hunt, Chair (HEFCW), Ben Arnold (HE Wales), David Barrett (OFFA), Alison Brunt (HEFCE), Mark Gittoes (HEFCE), Jovan Luzajic (UUK), Michael McNeill (DELNI), Debbie McVitty (NUS), Richard Puttock (HEFCE), Martin Smith (SFC) and Jonathan Waller (HESA).

- the current use(s) and users of PIs, and whether uses differ
- the extent to which PIs meet users' needs
- whether there are new audiences who could use PIs but do not at present
- the influence the current PIs have over behaviour
- other measures used of sector or institutional performance and profile
- the key challenges (if any) facing the current set of PIs, and whether the current PIs are still fit for purpose.

A full list of participating organisations is provided in an appendix to the report (see Appendix B). Between 50 and 60 individuals, representing 27 organisations, participated in group discussions or individual interviews in this element of the research.

This chapter presents findings from these in-depth interviews.

3.2 Measuring the performance of HE

In this section we examine the role and purpose of PIs, exploring whether we should measure HE at all, what is or should be the purpose of metrics such as PIs, and what issues do they seek to address. We also look at what and who should be measured, and the current and future challenges facing the sector that could impact on the need for and nature of PIs.

3.2.1 Should we have measures?

> *'...if you are claiming to be spending quite a lot of money on something then you really want to know where it is going, and what effect it is having.' [Sector stakeholder]*

There was strong support for publicly measuring the performance of the sector and at individual institution level across the sector, and more precisely an appetite for PIs. This is part of the open and transparent approach to public policy-making. Interviewees felt there was a continued need for an official, robust, credible, embedded, objective/non-biased, standard set of indicators that is UK-wide; and that this was perhaps even more pressing in the changed context for HE.

> *'...there is a continuing need for a set of indicators which gives the main groups of stakeholders in higher education a perspective which is independent, produced on an official basis, and produced to official standards. It allows them to assess some of the key aspects of performance in relation to the main policies which are of interest at the time... As a concept we do feel that the set of quality assured, agreed set of indicators does have a continuing purpose.' [Sector stakeholder]*

> *'I think things have moved from the time when people used to argue about how robust the PIs were to more of an understanding of the PIs – a kind of acceptance of those PIs – but then want to supplement that with maybe further data or disaggregation or targets.' [Sector stakeholder]*

> *'[the need for PIs is] fundamentally to temper the only things that take their place, essentially which are the league tables and all the flawed methodology that goes with that. So I think we need a counter balance, a robust counter balance to league tables.' [Provider]*

Sector level drivers for measures

The purpose or drivers of HE measures may have changed over time and become more nuanced. At a sector level there appear to be three key reasons for continuing to measure the performance of UK HE in aggregate, and thus driving the need for PIs.

Firstly, HE is recognised as an important asset for the UK. Arguably HE itself has become more central to public policy-making, and so measuring and justifying the performance and profile of the sector as a whole is important – helping to justify the case for UK HE. This provides an absolute measure of performance, provides the public profile/reputation and value of UK HE *'showing where we fit and how we deliver'* [Sector stakeholder] in the global context, and *'helps to make the case why you invest in HE and why HE is worth pursuing'* [Sector stakeholder], and allows the sector and country to demonstrate and celebrate success.

> *'HE is vital to the long-run economic growth. But explaining that to politicians all competing for valuable funding in an age of fiscal restraint is quite difficult without having these authoritative and objective indicators that we can point to.' [Sector stakeholder]*

> *'I think measured is a very evocative word. I do think there needs to be a collection of information and data that's analysed, collated and presented back to the sector and to a public audience about how well we believe the sector is performing on a sector-wide basis. I think that would be helpful for us in substantiating the claims that we make about the reputation of UK higher education.' [Sector stakeholder]*

> *'...the sector is possibly regarded as well funded and we would like to sustain the level of funding but this will be challenging. We need to measure the benefits of having a well-funded sector and to prove that this is a priority... providing an impact on the economy of having well-qualified people, the wider benefits of attracting people to the UK... This is the benefit of investing in higher education.' [Provider]*

Secondly, measuring HE is about ensuring public confidence in the sector and about being accountable (having regulatory safeguards) for the significant level of public money that supports the sector – money that comes directly via funding and research councils or indirectly via the Student Loan book. Indicators therefore have a quality/public-value assurance role, and follow the practice of other sectors such as schools, health and local authorities. There is a need for measures in areas where there is a strong public interest, where it is important to hold the sector, and some stakeholders argued to hold individual institutions (see below), to account. Interviewees talked about the shift towards individual investment in HE in some UK nations; and how students, prospective students and their advisors, along with government and taxpayers, also needed evidence of how 'their money' was being spent so they could hold HEIs to account '*placing more pressure on institutions to deliver on promises'* [Sector stakeholder]. Indeed there was some feeling that students will become more demanding with the change in student funding in some nations.

> *'Although the government investment in HE is declining somewhat, they are still putting in very large sums of money either direct through funding institutions or through separate policy initiatives or more importantly these days via the support we give to students to attend HE... We want to be assured that we're funding them to be able to take up high quality learning opportunities, and that they are getting the very best value for money, wherever they choose to study... Now, how to determine what's the best quality? You have to measure it.' [Sector stakeholder]*

'I don't think any investor, be that Government or private or even student, would expect to put money behind something and not see any tangible outcome.' [Sector stakeholder]

'...if it's public money that is being spent then we have to account for it.' [Provider]

'There is also the angle of what universities are delivering, in terms of the demographics that they serve, the kind of students that they educate... Government needs to be able to get a handle on what we're doing... without the PIs to measure the impact of students coming in and where they are going and employability and so on, it is very difficult for us to demonstrate that we are achieving what we need to achieve.' [Provider]

A third purpose for measuring sector-level performance is to evidence (where possible) the impacts of public policies and of service improvement, to show where successes have been made, to keep a policy high on the agenda and to ensure a diverse and healthy sector that exhibits good practice. This is about measuring the direction of travel and underlines the importance of having stable measures over time. However it also highlights the importance of linking measures to policy direction, and/or shaping them more explicitly towards demonstrating impact.

'...it is really important if you want to make good policy, then you have to have that information. If you are making policy off the back of faulty or incomplete information or unreliable information, that would not be in the public interest and certainly not in students' interests.' [Sector stakeholder]

'I think there is a need to know what success looks like and to have a means to measure it.' [Sector stakeholder]

Institution level drivers for measures (and benchmarks)

'Ultimately the ability to benchmark is the most useful thing... The level of looking at how we come out to others... because there isn't a huge degree of data sharing between universities, the PIs are the one opportunity to look at comparative figures.' [Provider]

'It is very helpful to institutions, even if we quibble occasionally about the methodology and the exact benchmarking approaches. To have a reasonably level data playing field on which to compare your own progress is pretty fundamental.' [Provider]

At institutional level the main purpose for measuring profile and performance appears to be about benchmarking – understanding the relative performance of an institution against others. It was felt that indicators and benchmarking are becoming increasingly central to institutions and to their performance management and internal monitoring – to judge their performance, make better decisions, and guide their improvement and enhancement activities particularly around the student experience*: 'so you know how you are performing, is it to the standard that is expected, and you know where you can improve [Provider],* and *'it is about knowing how you are doing and knowing what works' [Sector stakeholder].* This improvement activity is recognised, welcomed and arguably expected by the individual governments within the UK. The benchmarks are used internally to identify areas for improvement, celebrate areas of success, show whether the work they are doing is making a difference, and to assess the direction of travel against their mission statements. However there were concerns raised around the use of benchmarks as targets imposed on individual institutions from the outside and that these could be used

(improperly) to direct funding or to impose punitive sanctions. There were strong indications that linking PIs in this way would not be welcomed.

Some sector stakeholders felt that institutional level PIs and benchmarks were external and public checks of how well an institution was performing, acting as a way to check *'is this institution up to scratch in an area that the public has a legitimate interest in' [Sector stakeholder].* It is important therefore that PIs measure areas of public interest, areas that institutions should be responding to and seeking to improve, and not just areas where institutions might want to compare themselves.

Key strengths of the approach to PIs (and benchmarks)

One stakeholder described the PIs as 'a force for good' [Sector stakeholder]. The key strengths of the PIs as a way of measuring performance and profile are: their credibility and legitimacy as they were developed by the sector for the sector rather than by individual institutions; their independence; their statistical robustness with a transparent (although complex) methodology; their longevity/continuity and thus the time series that has developed; that they take account of context, comparing institutions in a fair way to each other (using objective groupings of institutions, and comparing like with like); that they collect data in a consistent and fair way across the sector; that they are UK-wide providing an aggregate picture of UK HE (UK-wide perspective/UK standard) and allow institutions to benchmark themselves against institutions across all four nations; and that they provide measures not targets (measures that are not directly linked to funding behaviour and do not lead to rankings). However there are several criticisms levelled at PIs and interviewees felt they were ripe for review (see below for 3.3.4 Challenges).

> *'They allow for comparisons across a UK-wide perspective, and they present the sector as a whole, but allow you to understand differences between institutions. It's the authoritative source... They are quality assured from people that are widely trusted.' [Sector stakeholder]*

> *'I think the important thing for us, is that we can point to some of these measures – the ones that are produced – and say that these are independently produced from the data you return.' [Sector stakeholder]*

3.2.2 What should we measure and who should we measure?

What is distinctive about a PI

There were discussions about what makes a good PI and stakeholders felt that a good PI measures what is important to the widest audience, makes use of available data (rather than burdening institutions with additional data collection), has a stable and credible methodology, and presents processed and contextualised information that allows for interpretation and understanding, and provides information that is not available elsewhere. PIs should provide an authoritative reference point for UK HE, presenting our performance to global markets, add value by providing individualised benchmarks and should remain consistent over time. They should sit within a wider basket of quantitative and qualitative measures available to sector stakeholders (to allow for triangulation), not attempt to quantify and standardise all aspects of HE (just the aspects that are strategically important), and ideally not replicate robust data available elsewhere.

> *'...PIs give good, robust comparison against institutions like them.' [Sector stakeholder]*

'It is hazardous to constrain things to quantified performance measures as they can't capture the whole picture. This can be improved with qualitative data. However, qualitative data are not much used by funders but is useful to other people for example parents and students.' [Sector stakeholder]

Several stakeholders held very strong views that the value and costs of producing the PIs should be balanced.

'There are advantages in having a common set of standards but you always need to temper that against the work that actually goes into collecting and creating and presenting this information... I think institutions accept that they need to be providing a certain volume of information but they want to be confident that the information is being used and is valued and has a purpose. And that the value and usage of that information outweighs the cost of producing it.' [Sector stakeholder]

Measuring what matters

A common thread running throughout the interviews was the importance of measuring the aspects that matter and the danger of seeing what is measured as important. Indeed the PIs add legitimacy and raise the profile of an aspect of HE which may or may not be important. They have a signalling role, which highlights the importance of getting the PIs right and keeping them current.

'We are very aware that the selection of indicators we put out as being our PIs for the sector then really sets the tone and expectations for what universities are about. So there is a signalling purpose there when you come around to actually selecting what should be in the indicators... You take a set of PIs and they highlight what we think are important, and the fact that there aren't equivalent indicators for some of the important areas of activity means that, in some instances, perhaps the position and appreciation of what is happening isn't there to the same degree... PIs do have a life of their own in that respect which we have to be careful about.' [Sector stakeholder]

However what matters may differ for different audiences and at different times, indeed there was some discussion about how closely aligned are the needs of government and its agencies and the needs of institutions (who themselves are a large and heterogeneous group) – and indeed whether they should be.

'PIs are not necessarily about measuring the areas that institutions want to compare themselves against. If they happen to play this role as well, that is serendipitous... We should be thinking about what aspects of institutional performance should be and are important to the public and to high level policy makers.' [Sector stakeholder]

'...there could be some good ideas in terms of how we should be getting these old and new metrics. But if it doesn't fit with government policy there won't be the drive to actually recover the data at a national level. I think that in many respects the PIs have been driven by government policy more than the needs of the sector itself.' [Provider]

This then begs the question of can there be just one set of PIs or should there be a core set with additional PIs for different audiences and regular reviews to ensure both the core and additional PIs still 'matter'?

In general the areas or themes covered by the current PIs still matter, and still matter to all: widening participation, retention/non-continuation and employment; and perhaps to a

lesser extent, research. Social mobility/social justice, fair access, and employability continue to be a policy focus across the UK nations as evidenced by White Papers, strategy documents and instructions from government and sector agencies; and these are areas in which the public has an interest particularly with the change in funding approach in many of the UK nations (shifting the majority of fee costs onto the individual student). These are also areas that are 'key' to most institutions wherever their location (ie 'the core pre-occupations of most institutions') as evidenced by institutions' own strategy and planning documents (including for example, Access Agreements in England, Fee Plans in Wales and Outcome Agreements in Scotland), and their own sets of Key Performance Indicators (KPIs).

> *'PIs should really relate to the outcomes that you are trying to achieve... so what are the outcomes you are trying to achieve from higher education? Suitably qualified individuals, research, translation of the research into economic output... so your indicators should relate to those.' [Sector stakeholder]*

> *'I am in favour of indicators that relate to equalities issues because, even if it's a bit of a blunt instrument, if you don't bring out statistics about equalities issues they just get buried. I think in terms of widening access to higher education I think those PIs are a good thing because they'll provoke public debate about how fair access is to higher education.' [Sector stakeholder, speaking as an individual]*

There was a common (but not universal) perception that the research PIs have less interest and are under-used, and instead the Research Assessment Exercise (RAE) and the new Research Evaluation Framework (REF) are more used by the sector. There is perhaps scope to re-evaluate this PI to ensure it is measuring what matters ('*addressing the right aspects*' [Sector stakeholder]) in terms of research and measuring what is not available elsewhere.

> *'...it is surprising that you have research output that's not any kind of innovation or exploitation output in there. That would be an obvious gap from my point of view because I know that kind of information is collected.' [Sector stakeholder]*

Overall, stakeholders wanted to keep the existing PI areas but felt these could be refined and refocused (see section 3.3.4 on Challenges below).

Potential new areas for PIs

Stakeholders did not appear to be averse to the creation and introduction of new PIs particularly given the amount of data currently available (which has increased and improved since the introduction of the PIs). Indeed, one sector stakeholder felt strongly that the current set of PIs are limited and only show certain aspects of what the sector does. Some felt that more data arguably lead to more intelligent decision making although there is a danger that you can get data overload and not be able 'to see the wood for the trees'. One stakeholder also felt that with having too many PIs, institutions might pick and choose those in which they perform well.

A range of other areas were suggested that could be the focus of new PIs, areas that aligned with more recent policy interests and institutional activities. Many of these were recognised to be emerging concepts that were difficult to define and particularly to measure, but there was a feeling that the sector should not just be attracted to measuring that which is easy to measure.

> *'...there's always a temptation to measure the things that are easy to measure and it's more difficult to measure the things you really want to measure.' [Sector stakeholder]*

'...it is the superficial metrics that can be quite misleading but they're the easiest things to measure and produce data tables.' [Sector stakeholder]

Some areas are already captured in the data available to institutions and to other stakeholders but don't currently feature as PIs. These include the areas of:

- finance and institutional financial sustainability and broader measures of institutional health
- estates stocks and utilisation, and infrastructure (including staffing)
- environmental sustainability and carbon footprint
- quality of teaching/academic quality and aspects of the student experience (such as class size, staff/student ratios, contact hours and/or interaction with academic staff, per capita spend on learning resources; and more coherently expressing the student lifecycle)
- individual student attainment
- Welsh language provision (Wales only).

These often feature in institutions' own measures and their own benchmarking activity, in other measures such as the KIS or in league tables, but there appears to be no strong feeling that these should become publicly available PIs. Instead the discussions tended to focus on why these were not already PIs and whether they would be used and/or useful if they were elevated to PI status. There were also concerns raised about the reliability of some of the data underlying these potential metrics (such as the TRAC data and the largely subjective NSS feedback), the lack of a robust definition and contextualisation in presenting some metrics (such as student/staff ratio and contact hours), and the controversial nature of some measures for wider public consumption such as financial sustainability.

Other areas suggested were felt to be more challenging but useful concepts, areas that follow more recent policy development and focus, including the following.

- Efficiency: *'the sector does seem to lack the tools to provide an independent, accessible demonstration of efficiency, which is something the government is trying to obtain' [Sector stakeholder]*
- The broader HE cycle, including education attainment and particularly graduate outcomes: including the graduate bonus/premium, and percentage in a 'graduate job', and whether those from disadvantaged groups are gaining graduate level employment
- Innovation and economic impact: such as knowledge transfer, innovation and exploitation, open-access to research, and research influence on policy
- Employer engagement/working with businesses and employers (and linkages to the skills agenda): *'I think there is a gap in how we are informing our national policies on employer engagement and employer/business relationships. And I think that is going to be increasingly important for both students and for the policies around the economy' [Sector stakeholder]*
- International outlook/links: including trans-national education, experiences and outcomes of overseas students
- Engagement with communities, civic engagement and social good

Value for money appears to be a common thread but this is not expressed very clearly. It appears to include both an individual dimension of value-added/distance travelled (which is different from participation, and instead takes account of where a person has come from and where they go to) and a wider societal dimension of social good/contribution. There is a feeling that this has become more important with the shift in funding in many of the UK nations towards the individual.

> *'The growing recognition that access in itself is not really a sufficient way of measuring the value of higher education provision... so increasingly we are seeing people begin to talk about outcomes, and even things like educational gain are seen as a more accurate way of assessing the added-value to the individual.' [Sector stakeholder]*

Here the discussions centred on the difficulties in capturing relevant data, boiling the concepts down into individual metrics, and/or how one would be able to contextualise these to make them useful and understandable. Stakeholders appeared keen for these to be explored as potential PIs, and so are worthy of additional examination through further feasibility research. There is a sense that sector stakeholders look to HESA to provide the authoritative voice on what and how things should be measured, for example what is meant by a graduate job, so HESA should play a key role in any feasibility research.

However there were concerns expressed about the implications of making other types of information publicly available through the PIs. There appears to be a tension between having public and transparent information to enable positioning/benchmarking which will help institutions with their performance management and developing long-term strategies; and providing information that could be perceived as commercially sensitive/strategically useful in an increasingly competitive 'market'.

> *'As you create more of a market in terms of undergraduate provision of HE, you have to be more careful about the kind of information that institutions share with each other, particularly when you're talking about real-time data around performance, in that it could be considered to be strategically useful and therefore potentially impact on competition issues.' [Sector stakeholder]*

This links with the issue of wanting granularity to allow for more detailed analysis and comparison, and the desire to access raw data (see the Deepening the analysis subsection below). Data access and presentation will be a challenge for PIs moving forward and care will need to be taken about the information that institutions share and that other organisations can access.

Broadening the coverage

Stakeholders also discussed who should be measured; specifically what types of providers and what types of students should be included in the PIs. Currently the PIs are heavily, if not exclusively, focused on full-time undergraduate home students; and on publicly funded HEIs. The PIs therefore measure only a part of the sector and it was felt that the scope should be broadened. Coverage could be increased to include: postgraduate students, EU and international students, students studying in UK HEI campuses overseas; other types of providers such as FECs and alternative or private providers; and different ways of studying including online learning, distance learning and work-based learning. It was recognised that these data will be challenging to collect and also present in useful ways due to the smaller numbers of students in these additional groups and/or the degree of heterogeneity within these groups. It will also be challenging to encourage different types of providers to collect and return data, and again to decide how best to present the data. Feedback suggests that at present FECs collect a wide

range of data for their own PIs and collect additional data for the HESA returns; however private providers are only required to submit returns on their students on designated courses (a small part of their provision).

> *'One of the main critical factors is the broadening of the sector itself, the increasing diversity of the sector with potentially a greater number of private providers, independent providers of HE. Partly because getting access to that data and information about those institutions is quite difficult. They're not compelled or required to make their returns to HESA in the same way that publicly funded institutions are at the moment. But they are still delivering UK HE. So I think we've got a partial picture... We are missing a chunk of information about HE provision in the UK at the moment, and unless that is brought into the whole UK picture we will be getting a skewed view of what is actually happening. That will mean policy is developed, interventions are developed that are potentially only applicable to the traditional sector and not applicable to the full range of provision we have.' [Sector stakeholder]*

> *'If students are electing to study at them [alternative/private providers] and they're taking their student support money with them to go to those providers, why should we not want to know about the outcomes of their provision?' [Sector stakeholder]*

Deepening the analysis

Stakeholders were not only keen to extend the coverage of the PIs but they also wanted to be able to look within the PIs to look at specific groups already covered in the measures, essentially a desire for finer differentiation of the data. Several stakeholders criticised the existing PIs for being limited to only considering issues of socio-economic background and disability rather than other key equality groups or taking account of the 'protected characteristics' as defined by the equalities act. Here stakeholders talked about the benefits of being able to identify/separate out groups of students felt to face particular challenges. Key groups included: disabled students (moving beyond receipt of DSA as a way to identify this group, see also challenges section below), those with caring responsibilities, LGBT (lesbian, gay, bi-sexual and transgender) students, ethnic minority students, and mature students (which to a certain extent are already separately identified in the PIs).

> *'You should be able to look at the spread of data and you'd be able to instantly find which group are falling behind at different points. The types of student groups we have in mind would be physically and economically disadvantaged students... basically where there's a group of students who might conceivably not be as successful in HE or where these student groups struggle more and face different kinds of barriers, their numbers and progression should be monitored.' [Sector stakeholder]*

Stakeholders did however acknowledge that the ability to drill down into the data and identify different student groups as well as broaden the coverage of the PIs was dependent not only upon data availability but also data reliability and the ability to maintain confidentiality (this becomes impossible with very small numbers of students). This led to discussions around the coverage of UCAS data and Student Loans Company data, as well as the variables collected. The potential to broaden the scope and drill down/deepen the analysis and present data on specific groups of students should also be the subject of further feasibility research.

3.2.3 Current and future challenges?

Stakeholders felt that the context within which HE operates and data are collected and disseminated has changed and this creates new needs and challenges for measurement and also new audiences for measures and indicators. The sector has changed considerably since the PIs were developed and introduced in the late 1990s.

Shift in funding

There has been a shift in the funding of HE in England, Northern Ireland and to some degree in Wales away from the funding councils towards private funding. This has significantly increased the level of fees paid by students which has arguably moved the sector towards free-market principles and heightened the need for providing information to students and their sponsors. The sector must respond to the new ways in which funding is being routed through the system, which may lead to more of a focus on the value-added or value for money provided by HE.

> *'...with students now paying an awful lot more for their higher education, the focus is switching more to what it is universities are providing those learners and how well they are serving the needs of those learners... I think the focus and the weight of evidence in terms of performance targets and indicators is likely to spin more in that direction as well.' [Sector stakeholder]*

> *'...even if the government loses the funding strings it tends to regard it as still very much its business to know what is going on... the political reality is that government will remain answerable for the regime as a whole, and the more the customer is paying, the sharper those questions are likely to be.' [Provider]*

There is a perception that the core interests for institutions will not change, but with changes in funding and regulation, the interests and information needs of governments and funding bodies might shift, expand and diverge. The sector will need to produce accessible information for students and their sponsors to help them to make the right decisions for their investment in a competitive and diverse market. These pressures will create challenges for the PIs which are currently UK-wide and are arguably not accessed by prospective students (see section 3.3.1 on Audiences below).

Increasing diversity

The sector is also becoming more diverse. At a macro level, the four nations of the UK (with their different political administrations) are developing different policies to respond to the needs of their public and priorities. At the same time, at a micro level, new and different institutions are entering the sector as providers in their own right or in partnership or franchise arrangements with existing HE providers. With changes to the rules for university title and degree awarding powers, the diversity will increase and more FE providers and alternative or private providers (both for profit and not-for-profit) will enter the market. These changes create challenges in how you define and measure the 'sector' (as noted above), and the increase in competition brings with it issues and concerns around commercial sensitivity and willingness to share data. There have also been advances in learning technologies and changes in learner preferences which have led to an increase in online learning and distance delivery, delivery arrangements that do not involve students attending a physical location. This too presents challenges in drawing comparisons and interpreting the data.

There was a sense that, at present, a UK-wide set of PIs is still needed, but that this core set should not necessarily be dictated by the English policy agenda. Institutions want to compare themselves to other institutions in the different nations, institutions collaborate across nation boundaries and students too cross national boundaries to study. However, as one stakeholder noted, at some point there may come a tipping point when it is felt that the policy goals of the four nations are too different to maintain a common set of measures. Stakeholders also talked about the need to compare the UK sector and individual institutional performance on a more global stage, comparing with other countries to be able to articulate what a university experience in any of our four nations or our universities is like. It was felt that the areas covered by the PIs are at present relevant to all nations of the UK, however some additional nation specific PIs might be appropriate. Stakeholders reported how Wales has had measures and targets in their HE corporate strategies since 2010 and a new set for 2013 onwards has just been published (both these sets included at least one of the PIs), and there is work underway in Scotland to create their own measures. There were suggestions that the current interest in nation specific PIs centres around different measures of widening participation/access students (using different measures of deprivation or low participation areas). It was also felt that presenting PI data at nation level might be appropriate – although it will be important not to create country league tables.

'There's obviously a question about how far PIs should attempt to reflect individual nation needs. How far it should be aligned with specific regulatory requirements or indeed funding requirements... whether we should be attempting to maintain a broad measure to meet all stakeholder requirements or whether they should be focusing on more than one or another. But I suspect that we really want the indicators that are not just UK in application but UK-wide in relevance, and that probably means not aligning them too closely to any one particular funding regime.' [Sector stakeholder].

'The UK brand internationally is still very strong and is still very important. So it's not helpful necessarily for external audiences and international audiences to go to data sets that are for England only, for Wales only, for Scotland only, in the first instance. If they want to drill down to those particular countries then I think the data can be customized in that way to enable them to do that.' [Sector stakeholder]

'UK-wide measures might be relevant, but we always have to ask ourselves the question: are those the right measures for us? There is a tension of course, if we depart and we end with separate measures what then is the value that they have outside the UK... we try to maintain a level of comparison between our sector and others... There is a sense of urgency and priority attached to the fact that we are part of a larger UK wide system, and having a degree of interchange and commonality in terms of the performance measurement indicators that we use to chart our own performance is important.' [Sector stakeholder]

'The challenge of devolution, the challenge of indicators not being seen to be relevant in all parts of the UK, or being seen to favour different parts of the UK. WP indicators suffer from this slightly... But these different focuses in different countries could end up preventing us from having comparisons where they are useful and valid... Scottish and Welsh institutions may wish to be fairly compared with England, perhaps not on all measures, eg around destinations and retention. Risk that devolution and divergence of HE policy may damage areas where people do want comparisons. Don't want to throw useful babies out with the bathwater.' [Sector stakeholder]

Stakeholders felt there was a need for all institutions to provide information and be included in the PIs thus creating a level playing field *('parity in performance measurement')*, which would include alternative or private providers (as noted above). One stakeholder noted that if some institutions are not included, the public institutions that do provide data may feel that the PIs present a potential risk. A level playing field, helped by the statistical adjustments, is considered to be a strong positive aspect to PIs, and it was felt that being part of the PIs adds legitimacy and credibility to an institution, bringing in aspects of provision that may feel overlooked or ignored. There is also a perception that the core interests for institutions are the same regardless of their status. However it is and will increasingly be important to recognise and be sensitive to institutional difference. As institutions are becoming increasingly differentiated, this may require additional contextualisation of data or a difference in the way data are presented.

> *'...it would be nice if we could have PIs that reflected the diversity of the sector so that we could promote that diversity. I think it is something we have been banging on about for years but it is really difficult to achieve. So that we could definitely praise the good bits of all parts of the sector and not pretend we're all research-led intensive.' [Provider]*

> *'What do you define as the sector? As more and more what we would term private providers come into the sector. I think we feel that they should be equally responsible for providing PIs, not just so they provide value for money for the use of public funds but also to assist the rest of the sector in effectiveness and efficiencies in performance management... the production of PIs in their required external format and the presentation of it is not an insignificant task.' [Provider]*

Evolving role of universities

The role of universities has also continued to evolve, they are increasingly part of the local community, business community and the global marketplace. They also operate in an economic environment and are subject to the same pressures faced by other public and private organisations in the current difficult economic climate. This leads to an even greater need to demonstrate the importance and 'value-added' of HE to the wider public.

> *'Universities more consciously embrace a variety of different agendas. Business interaction and innovation are more clearly present for some universities than has been in the past.' [Sector stakeholder]*

> *'I think it is very much a case of we need to look at that global scene, and on that dimension the institutions these days look quite closely at things like the international student barometer. And obviously the recent EU attempt to put in place a U-Multirank system is again pointing to the need for the sector and institutions to look beyond the UK perspective and have a global outlook.' [Sector stakeholder]*

These challenges create two pressures on PIs. Firstly a pressure to increase the areas covered by the PIs (as noted above) and secondly to use PIs as targets and *'levers of control of institutional performance'* [Sector stakeholder]. The former would be welcomed by the sector if additional measures would not increase the information burden and would result in useful metrics and benchmarks. The latter would be strongly opposed, particularly if externally imposed on institutions.

> *'The PIs can imply that there is a threshold or there is a target to be matched, a benchmark to be matched. And with a diverse sector that is quite difficult for everybody potentially to reach them in all of those fields. So as long as there are*

appropriate benchmarks that are customized to the diversity of the sector and to the different ways in which higher education is delivered, I think they're fine, as long as they are not used as a single threshold or single target that applies to everybody.' [Sector stakeholder]

Increased data collection

The amount of data collected from individuals and institutions has increased since the PIs were introduced and this creates opportunities to present more information publicly and produce more PIs. Also the opportunities for data linkage have increased over time, from different data sources (such as the National Pupil Database in England, UCAS and Student Loans Company) in order to track true progression. Similarly other sectors (FE, international HE providers) have produced their own PIs which present opportunities for alignment.

'I think there are more opportunities. I mean there's more data around than there was when the PIs were developed. I suppose there's more of an opportunity to link data, you get a better idea from the national pupil database and the data on people at universities... Maybe there is a strong case for exploring different datasets and the different ways that data's been linked. There may be better indicators that we can now generate.' [Sector stakeholder]

However the resources required by institutions to collect, process and return this information are significant; and with the current focus on efficiency and driving down costs, there is a strong desire not to collect any further information and/or make additional data returns. It will be important to learn lessons from Big Data[9], to make use of the data already (and routinely) collected and also that which arises incidentally. Stakeholders also acknowledged the time and energy required to interpret the PI data and put them into a useable format.

'I am in favour of ways in which you could collect data in a slightly ambient way, so that this almost becomes routinised... you've got to use the data that arise incidentally. I am not in favour of creating more data returns.' [Provider]

Stakeholders (both providers and wider sector stakeholders) tended to feel that the PIs are primarily produced for government – to meet their needs (although with no real thought as to whether this was actually what government wants). However (as noted below), the key audience is perceived to be institutions; so the data of interest to institutions need to be calculated/derived from the PIs and generated internally. Improved functionality of the PIs, access to the raw data, and, at top-level, changes to the way these data are presented to make them more accessible would therefore be welcomed. It was also suggested that examples of good practice in using PIs would be beneficial to demonstrate the value and return for institutions in collecting data.

'...at a time of resources being squeezed all the time we have to make decisions about where to invest, and we need to understand whether by doing so it will put us at a competitive advantage, or if we are so far behind everybody else, what is the point of doing it? So there is a dichotomy of we don't want to necessarily produce data for HESA and for other people but if we don't do it to some common

[9] Big data is the term used for a collection of data sets so large and complex that it becomes difficult to process them using commonly used software tools.

data set we can never benchmark with other people. So we can't have something for nothing.' [Provider]

Desire for stability

There is a tension between the need for stability in measures in order to assess trends and direction of travel and the need to keep up with the dynamism in the sector. There was a desire expressed for stability in the PIs, as one of their key strengths is their continuity, which enables performance to be measured over time. Changes to the PIs would create a break in the time series and impede stakeholders' ability to examine and monitor trends. However there are changes planned for the data underlying the PIs which could have a knock-on impact. For example, the Joint Academic Coding System (JACS) is currently under review as is the UCAS tariff.

If the set of PIs are changed, stakeholders felt it would be important to allow sufficient lead-time in order for them to prepare as, for example, institutions may link their strategic planning process to the PIs; and to ensure that the policies being tracked via the indicators were likely to remain priorities for the sector.

'The best indicators have history. If you measure something that's never been measured before you see a dramatic increase in first few years, as there is a focus on them.' [Sector stakeholder]

'A bit of stability will be useful. Rather than tweaking the PI year on year, which then makes annual comparisons difficult, a period of stability to say "well yes, we're going to use these nine or ten PIs for the next five years" whatever they are, and just leave it at that at the top level. If you are permanently tweaking and changing it is a bit demotivating.' [Provider]

'I would emphasise the desirability that really good lead time is given and where possible that we don't interrupt the flow of measuring things in the same way. Because as I say an awful lot of institutions will have based their OFFA agreements and their plans of work around targets set using the current methodologies. And fiddling with that could leave everybody just floundering around and worse, those who aren't performing well have got an ideal excuse to say "well how would you know how we're performing, the data are all up in the air".'[Provider]

3.3 Role of the current PIs

In this section we look at who uses the PIs, who are the existing audience and who might be the new audience, what are the information needs of these groups and do these needs converge or diverge. We also examine the role of the current set of PIs, exploring how they are used and how (and where) they can influence behaviour. We then look at the weaknesses or challenges of the current set of PIs and what other measures are used by the sector and how the PIs sit alongside these.

3.3.1 Who are the audience for PIs?

'As far as I can see, government is still interested, society and the media are still interested, customers are more interested than they used to be. And HEIs continue to be very interested.' [Provider]

Audiences across the sector and beyond

Stakeholders reported a broad range of bodies, organisations and institutions that make at least some current use of the current PIs. The audience includes: political parties (including Ministers); government departments (including those with policy responsibility, press and communications, and analysts); policy bodies and the agents of government including funding councils, research councils, and the Quality Assurance Agency; the bodies representing institutions such as Universities UK, Universities Scotland and Higher Education Wales; private sector organisations who might invest in institutions that show promise including graduate recruiters, bodies representing employers and professional or trade bodies; academics, researchers and consultants; students undertaking research; international providers, overseas governments and international organisations concerned with education (such as the OECD); private information providers such as Which, and Best Course for Me; and the press, as the strong press interest gives the PIs a major public profile and provides allows them to reach a wider audience beyond the sector.

Audiences across and within providers

A key, if not the key, audience for PIs are HE providers:

> *'My view is that I think the primary audience ought to be institutions themselves to enable them to have good, reliable data and information, benchmarks that would enable them to use that in their planning, in their continuous improvement, in their development.' [Sector stakeholder]*

However there are indications that FECs and alternative providers are less likely to engage with PIs and that some providers feel that the current PIs don't always adequately represent their situation.

Among institutional users, PIs had a range of internal audiences. These included Boards of Governors, senior management (including registry, planners, and finance directors), specialist teams (such as those responsible for widening participation or for research), academic researchers (both staff and students), those responsible for the Access Agreements or Outcome Agreements, and press and communications teams. Other audiences linked with providers could also include banks (with whom the institution has an investment relationship), local communities, and their student body. Institutions may well feel that they have to present their PI performance differently to their different internal and external audiences, and use a range of media to communicate the data such as their website, specific tailored reports or via their prospectuses.

PIs are not appropriate for all potential audiences

It was acknowledged that PIs are a specialist tool and may not be useful or appropriate for all without mediation or interpretation; and that some potential audiences will struggle with the underlying concepts and rules. There was some disagreement about whether prospective students and their sponsors, existing students, and schools were part of the current or future audience for PIs. They are all becoming increasingly interested in the employability of graduates and the credibility of institutions and becoming increasingly astute evaluators and consumers. They are considered important stakeholders given the policy interest in putting students at the heart of HE, the push to improve the quality and standardise the information given to potential students to inform student choice, and the interest in progression pathways from school to HE.

However, on balance these groups were not felt to be a direct audience of PIs as they may not pick up on the nuances inherent in the data. Instead the information contained in PIs would need to be filtered, so could be disseminated to students indirectly though mediating bodies. This already happens to a certain extent, though in an uncontrolled manner, via the league tables produced by the press; and league tables were felt to have quite a strong influence on prospective students.

'One of the things you could say about the PIs is that they're not really very accessible to students.' [Sector stakeholder]

'...in terms of prospective students looking at making choices about courses, HESA isn't their first port of call... If we look at things like the choice of prospective students, we don't think the PIs would be directly influencing prospective student choice, but possibly they do indirectly.' [Sector stakeholder]

'...they obviously talk about it being relevant for schools or prospective students or employers, and I have to say that's not in my experience at all. I think people struggle with the concept of benchmarking unless you are a specialist because it is quite technical. And to get value from it, you have to really understand the underlying rules. So I think the idea that that would be useful to a broader lay audience is pretty unlikely... but in terms of it being a specialist tool for the HE community, it seems to me that that's quite a valuable thing to have.' [Sector stakeholder]

'...they [prospective students] are more likely to use league tables or something that has been generated from the PIs. I would be surprised if there were many potential students looking at the raw data and the PIs, but they will look at the league tables.' [Provider]

3.3.2 Encouraging greater (and better) use

'It is not that everybody in the organisation is waiting for them or makes a huge amount of use of them, unless we push them in their direction.' [Provider]

There was a perception that PIs are not as widely used as they could be both in the wider sector and within institutions. Many of the sector stakeholders interviewed felt they had a role to play in encouraging take-up. One stakeholder also felt that if the areas covered by the PIs were extended this could bring in new communities of users. Similarly the senior management in institutions felt they could do more to extend the interest in and responsibility for PIs (and their own KPIs) particularly among heads of academic units, course leaders, and student's unions, to lower levels of the organisation and eventually to all staff: *'to make people aware of their own contribution to the PIs' [Provider].*

Improving understanding

PIs are felt to be too complex and technical, leading to a lack of understanding, and also to be too rigid. The very approach to PIs that give them credibility and legitimacy – their standardised nature, their robust methodology and the adjustments made to allow for context – can also be off-putting to some potential audiences.

'...it takes a full-time analyst to understand how they work properly, and the benchmarks, what they actually mean.' [Sector stakeholder]

'I don't think they currently are very transparent to non-experts. You don't have to be wildly expert to grasp what the Performance Indicator is telling, but you do need

a bit of an understanding of the context and it's certainly not presented in a massively accessible way.' [Sector stakeholder]

'I think sometimes the actual presentation method of the PIs does put a lot of people off. I think you've got to be fairly comfortable with numbers and the concepts of benchmarking to really extract the full meaning from the data. Unfortunately I think that limits the audience that would use them, so perhaps there's work for HESA in terms of the presentational style of the PIs or making it more user-friendly that would probably widen the audience or use of the PIs.' [Sector stakeholder]

'They are fairly inaccessible unless you are a bit of an anorak like me who likes that sort of stuff. They are not user friendly are they? Interesting but not headline grabbing. Exceptionally detailed, sophisticated, fantastic from my point of view... it is difficult to engage with them because they are so complex, it takes some dedication to get to what you want to look at.' [Provider]

Awareness and use of PIs could, therefore, be encouraged with better user functionality, by increasing the understanding of the methodology behind the PIs and thus their credibility, and by helping users to interpret the data in their own context. It could be encouraged with better visual and/or tailored presentation of the data, for example dashboards, as long as these are produced (analysed and interpreted) by those with an appropriate understanding and technical skill. A further method to increase use would be to provide tailored examples of how different audiences can make effective use of them.

Importance of context

The importance of context is critical and stakeholders do feel that PIs, benchmarks and their associated data need to be used wisely, 'intelligently' and not taken out of context. As one stakeholder noted: *'it is about making the right data available to the right people'.* They also felt that users need to understand that a wider number of external causal factors/forces can have an influence on PIs which need to be born in mind when interpreting the measures or benchmarks.

'...the problem with all this public information stuff is that this information is de-contextualised and the point at which it gets extracted and dropped into, for the sake of argument, a key information set, it stops being meaningful. I think there is something there about mediating organisations so particularly providers of public information being made responsible... this is all useful information but it's not information that should ever be fed to a random, prospective student. It is for the brokers of this information to present that in an independent but informed, contextualised way.' [Sector stakeholder]

'It is incredibly difficult to match up the information and the data that we have with interventions and things that we have, non-completion rates for example, and outcome of efficiency for learning and teaching in universities and colleges, pinning those back to particular and sector-wide policy or individual institutional activity or projects is quite difficult. Because there could be lots of reasons why the non-completion rates for students on particular programmes at particular institutions go up or down.' [Sector stakeholder]

'...if the population is changing how does this affect PIs? Are the reasons why the PIs might move, they aren't related to how well universities are doing in terms of getting people from disadvantaged backgrounds.' [Sector stakeholder]

'By and large they [PIs] are useful but how you interpret them is critical. They can be misleading if you take them at face value, you need to look at them contextually. What is more important is what has caused the change.' [Provider]

'Lots of the right questions are being answered but our concern is around the interpretation and the simplification of the output of that information.' [Provider]

A related point is the concern that providers have that they are being compared fairly.

'The key thing for us would be the disparity between institutions means that sometimes it is difficult to be fair to everybody or to do a proper cross-comparison with everybody because the way we operate might be different from the way someone else operates.' [Provider]

'The danger is that when you compare PIs across the sector or across institutions, despite best endeavours we don't always end up comparing apples with apples... we all have the name 'university' but we all provide a completely different role within the economy and society.' [Provider]

Care over presentation

Sector bodies and individual institutions appear to be working on these aspects to provide user-friendly accessible resources to their own customers. Mediating organisations were also felt to have an important role in presenting and contextualising data for a wider audience. Presentation of PIs both internally within institutions but also externally is therefore important, and stakeholders felt that increasing the use and awareness of indicators (the PIs and institutions' own KPIs) will drive up performance.

'...there is also the need for there to be an emphasis on flexibility for stakeholders... the ability for people to tailor the information so that they can develop their own benchmarks more easily. Things like HEIDI are starting to help us to get access more generally to the information that would allow that, but there is probably further on that route to go.' [Sector stakeholder]

3.3.3 Use and influence over behaviour

The use of the PIs is linked to their perceived purposes (which were outlined above in 3.2.1), and are linked to their audience (see below). Each type of stakeholder will have a different use, however much of the stakeholder discussions focused on how institutions use the PIs, and indeed these were perceived to be the primary audience for PIs.

'There is a balance to be struck between creating merely robust, contextualised data and choosing data that people can reasonably understand and work with. It's the balance between public confidence and supporting practitioners... The underpinning assumption of a lot of government policy currently is that just making information available is the best way to service a competitive market... I think there is a risk that PIs get hijacked by the public information drive and that the outcome of that is that the balance swings more towards an idea of public reassurance and away from producing contextualised, robust data that actually says something about the actual performance of universities.' [Sector stakeholder]

Use by institutions

> *'They have shaped the approach for setting out the strategic plan... they have clarified and codified our thinking about where we want to be going and measuring whether we have got there. They have helped us to put our priorities onto paper... They give us a structure on which to hang our strategy.' [Provider]*

> *'What I'm interested in is what is the data telling me about direction and trend and trajectory, so that I can think clearly about the investments and retrenchments and adjustments that the institution needs to make in order to position itself sensibly.' [Provider]*

Those providing HE use the PIs (alongside their own KPIs, see below) and benchmarks directly or indirectly for their own strategic planning, resource allocation and efficiency drives, for formulation of policy and procedures especially around student engagement, and in internal performance management processes to guide improvements in student learning and the student experience. They can be used in absolute or relative terms to set internal goals or targets, and to set targets at academic and support unit level within institutions (and thus used to monitor performance as part of the annual review process). Different institutions will have a different focus and thus perspective on which PIs are most useful. For internal performance management, enhancement and improvement, providers will tend to make most use of or place greatest attention on the PIs covering the areas in which they feel they could or should improve; and they may use different indicators for different parts of their organisations *('not everyone has to do everything' [Provider]*). They are also used in institutions' marketing and communications activities, but here the focus will be on the PIs where they perform well or have shown improvement. They can therefore be used proactively to promote success or reactively to respond to media enquiries.

Institutions use PIs to measure their institutional performance on matters that are considered to be important (and they will be accountable to their boards), so they are used in absolute terms. Institutions also tend to have their own internal set of KPIs which relate to their goals/mission; these are used in strategic/corporate planning and can include one or several of the PIs. Several institutions consulted had a sophisticated suite of KPIs and produced comprehensive and regular data to support these. These KPIs provide institutions with a wider focus than the strategic priorities of the nation(s). Other areas covered by KPIs could include: financial indicators (such as income levels, costs, cash flow/level of liquid assets, turnover, bottom line surplus); teaching and learning indicators (such as staff/student ratios, applications and admissions, number of scholarships and outreach activities); student experience indicators (such as NSS survey results); outcome indicators (starting salaries of graduates, graduate premium, benefits beyond academic qualifications/volunteering activities); staff indicators (costs as a percentage of income, turnover, training, tribunals etc.); estate indicators (estate condition, energy consumption); research and enterprise indicators (research grant application success rates by value, research council application success rates, total grant income, number of active spin-off companies); civic engagement/community participation indicators; and internationalisation indicators (recruitment of international students, students taking a semester abroad, non UK/EU research grants).

> *'Our core mission is about teaching, research, knowledge transfer, the student experience and internationalisation. We focus our attention in these areas and develop our own indicators and targets in these areas.' [Provider]*

'...what I would like to do is ensure that when we're being measured externally it aligns to our overall strategy as a university and that we're not having to create new data measuring processes just to keep other people happy.' [Provider]

The term 'performance indicator' can therefore cause some confusion as there are many sets of indicators. English institutions also seem to draw heavily on the PIs when drawing up their Access Agreements with OFFA, and there are indications that Scottish institutions are using PIs (along with other measures) in the new Outcome Agreements agreed with the Scottish Funding Council. Institutions' own KPIs and wider measures often draw on the HEIDI data produced by HESA which contains a much broader set of data than the PIs. There was an understanding that these KPIs, which tended to cover a very broad range of issues, were necessary for institutions to manage performance internally and to judge how they (both at institution and individual department/course level) were performing. However, there was a very clear distinction drawn between these KPIs and the PIs, with the latter more about public accountability/measuring the worth of the HE sector.

'I think pretty much every institution has KPIs included in their strategic documentation at one place or another so they are widely used as part of their strategic and corporate planning.' [Sector stakeholder]

Institutions also undertake benchmarking. They use the PIs to establish their competitors and to compare their relative performance with different institutions (their competitors, their peer group, and their geographical neighbours) to see whether their performance is typical or diverging. Institutions also use the benchmarks and those they create themselves to compare their own performance over time to assess their direction of travel.

'Benchmarking is a verb, it is something you do. Benchmark is something that is established as a base level against which you can benchmark yourself... Benchmarking as an activity is something that is more keenly part of institutions' performance management... If you look at the dashboards that most institutions come up with, they will somewhere have at least one or if not two (but not all necessarily) of the PIs available and what they want is something that they can trust, that is, in a sense, comparative or comparable.' [Sector stakeholder]

'I think the theory of benchmarks remains valid and particularly the sense in which a benchmark in these areas is intended to contain some adjustments, some statistical adjustments for relevant underlying factors. I think the sector gets that... If we didn't have them, that is if you went back to raw data PIs, we would get a lot of debates... people would try and explain away their results by local circumstances.' [Provider]

The PIs allow institutions to undertake both direction and positioning analysis at an aggregate (whole institution) level but there is an increasing desire to be able to do this at a school, department or course level. Institutions want to be able to do more complex, fine-grained or nuanced analysis and comparison against peer and competitor groups. A couple of providers talked about this as a hierarchy of information needs, with PIs at the top providing data on overall trends.

'We are now pulling together what we call the pyramid effect where at the top end we have probably a dozen key indicators that we use for the board of governors. That then escalates down to a slightly broader base that we use for internal management. Then below that, there is an even wider base that is down to each individual academic or service area of the University and they are very much PIs in financial and non financial areas and are linked wherever possible to externally published PIs that we use for benchmark purposes.' [Provider]

'One thing that is, of course, tricky is the PIs tend to be at a fairly aggregate level without much in the way of subject breakdown. So if we want to say to a particular school of study here this is how the university is doing on its widening participation indicators nationally and the breakdown for you is X, then we have to recreate as best we can the national methodology, which isn't always as easy as you might think. It isn't published in a way that makes it terribly easy for us to replicate so we sometimes have to go to approximations.' [Provider]

This type of analysis is challenging at present but the HEIDI web-based management information tool produced by HESA is a key resource for institutions. This is available free of charge to all member institutions (as part of their full subscription) and at a relatively modest subscription rate for relevant publicly funded HE stakeholder bodies (such as funding councils and research councils). Since its launch in 2007 it has provided a wealth of management information in a one stop shop – bringing together data from across the HESA collected data streams (eg student record, staff record, finance return, destinations survey, HE-Business and Community Interaction survey, and Estates Management Statistics) as well as data from other sources such as UCAS application data, Research Assessment Exercise (RAE) data and National Student Survey (NSS) data. PI data at institutional level is available within HEIDI but the underlying dataset – that enables further subject based analysis – is currently available as an ad-hoc dataset at a cost. The HEIDI tool allows institutions to carry out additional analysis and generate tailored reports, and to create their own sets of indicators. They can also produce reports setting the national PIs values alongside other metrics for their own institution and other institutions.

Institutions therefore use the PI data and that available via HEIDI (including the additional underlying data, at a fee) to attempt to create additional benchmarks, mapping/aligning these against their institutional structures, and this ability to drill down into the data is valued. Indeed, some institutions have invested significantly in time, resource and capability to support this activity and are undertaking sophisticated analysis, reworking the PIs to make them useful. There is a recognition that institutional structures change over time and differ from one institution to another which makes this a challenging task, and that there may be insufficient numbers when the data are disaggregated too far to maintain statistical robustness. In addition, the PI data are currently not available at this level of detail – at best some data are available at cost centre and/or principal subject (JACS) level.

As noted above, HESA are working to increase functionality in the PI data to allow for more customised benchmarking which will help institutions with their operational decisions. The new version of HEIDI launched this year has greater functionality and further developments planned for later this year will allow institutions to make use of the methodology used in the production of the PI benchmarks in a localised bespoke context in order to create their own benchmarks – for different measures, for units of analysis within institutions (such as principal subject level), and for bespoke comparator groups. This will allow institutions to take actual values and set them alongside weighted averages taking account of their own selection of (explanatory) factors and their own selection of comparator institutions. HESA are also planning to collect a new cluster of records which will attempt to map onto department structures.

'...it is possible to envisage a slightly more dynamic interaction with PIs... This does feed into whether in future it may be beneficial to have a slightly more segmented approach to how the PIs are presented to different user communities. It may be that a single computation is not the best way of addressing a very wide range of interests and requirements.' [Sector stakeholder]

'I think one of the interesting things which the data can tell you is less about absolute terms and more about differences within institutions. So for example, if you have got a university with ten faculties, nine faculties which appear to be quite similar results and one which is way off the scale, it does tell you perhaps something interesting of what's going on in that one faculty.' [Sector stakeholder]

Use by wider sector stakeholders

PIs are used by other stakeholders to:

- evidence the value of the sector to the economy and justify the continued public investment, including producing Ministerial Briefings and responding to press coverage
- assess performance of the sector nationally, to see if and where progress is being made
- evidence the value of particular activities of the sector such as research in order to benefit from further research funding and attract academic researchers
- help make appropriate decisions about and changes to the student support system
- help shape government policy
- measure (officially) the performance of the sector as part of regulating the sector, and reduce the burden of data collection on individual institutions
- provide context for quality assurance discussions with individual institutions
- provoke discussion about a key issue for the sector or for particular institutions
- inform university governors
- provide an overview of the performance of the sector and of individual institutions on key issues as well as providing evidence and a basis for lobbying for or having discussions about improvements;
- respond to press coverage and enquiries
- look at particular subjects within HE and how these feed into the labour market.

'...it helps to see how some of the money we're channelling for specific policies is doing, as well, in particular areas like access and retention. A lot of money has been poured in to trying to improve these areas, and the PIs give us an indication of how things are going, and they give us the ability to communicate with the institutions to say, this is the picture, what are you going to do to improve it, if that is required.' [Sector stakeholder]

'I think all the PIs that are there are probably quite useful but what they're useful for is that they're a way in to discussing, considering, analysing a particular issue. They shouldn't be used as an end in themselves... the main point is you need a narrative. The stats on their own don't tell you very much... it is about the questions you ask and how you interrogate the stats, but they are useful as a starting point.' [Sector stakeholder]

However, the government departments in the four nations appear to develop and use different indicators to measure the performance of their HE sector rather than the PIs which were developed and agreed upon by the sector itself. This caused some confusion

and also concern about whether there was a sense of mutual ownership of the PIs, in and across the four nations.

Use by the press

PIs are also reported on indirectly in league tables (creating rankings which many institutions oppose) along with other data and they are reported directly and widely in the public media and newspapers. There were concerns raised around the use or misuse of PIs by the press, and there was a concern that the media can interpret benchmarks as targets. Stakeholders felt that the way the data are presented differs according to political leaning of the newspaper, and institutions have to respond to this; they also noted how the press like the PIs because they are produced regularly, published at a fixed time each year, and allow comparisons to be made between institutions. It was felt that the press tend to focus on the widening participation and non-continuation PIs and use these to critique the sector in a detrimental way. Stakeholders spoke of how they had to respond to press attention in the PIs (as noted above).

> *'I think if a news story picks up something from the PIs and makes it into a bad news story, then it certainly gets a lot of attention, and they [the PIs] are looked at in more detail.' [Sector stakeholder]*

A related issue mentioned by one provider was the increase in Freedom of Information requests from the media which was causing them a lot of work. Many of the data requested are already in the public domain, which the provider felt demonstrated the lack of understanding of HE data amongst the media.

How they are not used

How PIs and benchmarks are not used is also interesting and important. It was felt that PIs are not currently used to directly inform or influence prospective student choice (see 3.3.1 Who are the audience for PIs? above), and they are not used directly to create institutional rankings. Providers and those representing providers also reported how it was important that institutional level benchmarks are not used in isolation by wider sector stakeholders for external accountability – with benchmarks used as targets externally imposed on individual institutions and linked to funding decisions[10] (although there was some confusion about whether research funding decisions were based on the research PI or on the RAE and now REF findings). Providers are accountable for the funding they receive in many ways but, in the main, there was no support for explicitly linking funding to PIs; and instead it was felt that benchmarks should be used for internal decision-making and performance management. One institution commented that if institution benchmarks are used for accountability purposes this will lead to game-playing and Campbell's law will begin to take effect.

> *'If you want to use the data that institutions hold internally for benchmarking purposes that's fine and we'll all make that available as we go. If you are starting to say we're going to use these data for accountability and punitive sanction, we'll start to say that we need to be thoughtful in the way that we present those data.' [Provider]*

[10] There would appear to be some exceptions in reality to this perception, for example the Open University in Scotland is funded on student completion.

The one dissenting voice amongst those interviewed provided a counter viewpoint and felt that PI benchmarks should be used as targets and that they should be linked to funding, with success rewarded and failure punished.

Influence on behaviour

Stakeholders spoke about how the PIs do or can influence behaviour both positively and negatively. Putting the data in the public domain can affect an institution's reputation which can lead to institutions taking some kind of action, although this action may have unintended negative consequences.

> *'The immediate impact of them [PIs] depends a lot on the media coverage... to be fair we can use that as a lever to encourage people to address these issues. The biggest challenge for us is to use the PIs to guard against complacency.' [Provider]*

> *'...where we don't perform well, we are keen to find out why and how we might influence that. If we do identify pockets of underperformance then we do look at that quite keenly, so yes it does influence behaviour and I guess it would influence more if we were falling short of them all of the time.' [Provider]*

> *'Headlines about drop-out rates can be very damaging for recruiting universities... certainly in my experience trying to avoid bad press about student drop-outs has led to a great deal of work on student retention in the institutions that I know... Universities have changed their regulations sometimes so they'll look better and their drop-out looks less but the effect on the student is it takes away flexibility for those students who because of their family circumstances do need to come in and out of education.' [Sector stakeholder]*

> *'PIs are not neutral in a system. They have an impact on behaviours and some of the impacts can be benign, some of them can be non-benign and of course once you create PIs then you're beginning to shape the way in which you want people to react.' [Provider]*

> *'There is a hazard that universities may look to meet the indicators rather than looking at the value of the indicator... it is difficult to measure what you want to measure so a proxy is used and so for example an indicator can produce a risk of pushing universities to produce papers, rather than doing the best possible research.' [Sector stakeholder]*

However other measures which have a greater public profile were felt, rightly or wrongly, to have a greater impact.

> *'I know that English institutions pay close attention to their performance in relation to the benchmark in terms of access and retention, because they are required to. And there's also the name and shame of the worst performer... NSS is so visible, it is such a clear driver of institutional behaviour and that's because of the league tables, so I wouldn't put it [PIs] at that kind of level.' [Sector stakeholder]*

There were concerns expressed (and they are echoed throughout this chapter) that if PIs and benchmarks were used for external accountability and explicitly linked to funding then this could lead to potentially damaging behaviour.

> *'...if funding is related to particular PIs, institutions will skew their behaviour to maximise the funding and that isn't positive for the student experience.' [Sector stakeholder]*

More positively perhaps the PIs can influence institutions' behaviour when they are linked in with their internal performance management processes. This allows institutions to own the change process and work proactively rather than reactively to external pressures. For example the widening participation PIs were frequently cited by English institutions, and were often built into Access Agreements with OFFA.

> *'At least 80 per cent of institutions use at least one PI as a basis to set their targets, which suggests that PIs are influencing behaviour quite strongly.' [Sector stakeholder]*

There were some concerns that PI benchmarks (which are averages not targets) could adversely affect the behaviour of institutions, in some cases leading to complacency and limiting progress.

> *'We want people to seek to improve their performance, irrespective of where they are on the benchmark. [PIs] do influence behaviour, but can potentially lead to complacency where institutions are at or slightly above their benchmark. Institutions should drive to improve actual performance.' [Sector stakeholder]*

3.3.4 Weaknesses/challenges

Stakeholders had a number of issues with the current set of PIs and they felt this review was useful as it gave them a chance to revisit the coverage and topic areas, and to feed back perceived weaknesses of the PIs to try and ensure more accurate and relevant measures.

General criticisms

Stakeholders felt the PIs had a narrow coverage and were biased towards undergraduate full-time first degree students, young school leavers and the traditional notion of university participation.

> *'It is too easy to focus on full-time students, and young full-time students in particular. These are the easy ones to measure. We have a large part-time student population, and a large mature student population. Indicators have to be useful across the whole range.' [Sector stakeholder]*

> *'We need to be acknowledging the fact that the student experience is going to be different and they may not do a conventional degree... There is an emphasis at the moment on the conventional, not just in the number of years you take to do a degree, but the conventional way in which you do a degree, and this articulation in terms of coming into courses... the whole process is built around school leavers at a certain age, normally going onto a three year Honours programme at an English university.' [Provider]*

As noted above, stakeholders felt that postgraduates, part-time students and overseas students should be included in the population covered by the PIs: *'It is slightly bizarre that if you are looking at student experience but you are only seeing UK youth' [Sector stakeholder].* Also, stakeholders felt that aspects such as ethnicity should be drawn out more explicitly in the PIs. Similarly, stakeholders felt that the full range of provision was not covered by the PIs, and that alternative or private providers should also be included.

> *'...the sector is opening up to all kinds of providers... At the moment PIs are only to do with our traditional universities. There is a question of whether, when, if at all, there will ever be data or should be data that include or have a separate set of PIs*

that are some high level observations about independent providers... we are struggling at the moment because a lack of legislation means the only way of gathering information is around designated course, and designated course is only a partial view with very small numbers.' [Sector stakeholder]

They felt the methodology underpinning the benchmarks was sophisticated but complex which leads to a lack of understanding and potential misuse of the data. There may be work here to improve understanding of the methodology (not change it) to increase and improve the use of the PIs. As noted above, there may also be benefits to making the benchmarks more accessible through visual/graphical representation.

There were some criticisms raised about the timing of the PIs. Institutional stakeholders commented on how data are historic (historic snapshots) so institutions are always making comparisons on past performance, but in order to make decisions about the future they would need to look forward. Another stakeholder noted that current data could be commercially sensitive and institutions would not be willing to share them.

'The only problem with them is that it's quite a time lag, in terms of how they represent performance, particularly in terms of retention and progression and also graduate destinations... Immediately you have an argument that it represents a snapshot of where we were 18 months to two years ago. We have our own internally produced data that can give us slightly better up to date information of where we are.' [Provider]

Specific criticisms

Criticisms were also levelled at specific PIs.

The **employment indicator** was criticised for looking at employment at six months which was felt to be too short a time-frame for a graduate to make an effective transition into the labour market, and was criticised for taking no account of the quality of employment (ie whether they were in a graduate job). One provider felt that this indicator could be improved through linkages to the Student Loans Company data (on loan repayments).

'...it only looks at employment six months after graduation and doesn't take account of the fact that many students may actually have had jobs before they went in... it doesn't provide a realistic picture of employment outcomes... it is one of those indicators which is useful but it's actually not that useful. What would really be useful would be to know where people were a year after they graduated, or two years... six months doesn't tell you very much and it's not that useful for prospective students.' [Sector stakeholder]

'Something like employment destinations are important but I think you've got the time element there. How long does it take a graduate to move into something that is an appropriate graduate career?... Six months after doesn't give you a very good picture. If you leave it for 18 months or 2 years you can't tell how much influence the qualification had and how much is just time and luck.' [Sector stakeholder]

'On the employment side, there's a whole lot more that could be done looking at the labour market, looking at career prospects of graduates, looking at some of the elements of higher education choices that lead on to successful, at least initial, destinations, employability, so there's probably more that could be done on the employment side.' [Sector stakeholder]

'...the definition of what a graduate job is one that where my perception is, is that in the absence of any kind of HESA or HEFCE defining it, others have walked into

that space and tried to do it... so there are two or three different versions of defining what a graduate job is... that might be an area where there would be value to everybody in there being a kind of authoritative national ruling.' [Provider]

The **research** PI was criticised for not focusing on innovation or knowledge exploitation or on the quality of research outputs, and as noted above was felt to be under-used.

The **projected outcomes** PI was criticised for being difficult to explain and defend as it is based on projections, and for being too complex leading to confusion. One stakeholder wondered if there was an opportunity to use data linkages to create a more accessible completion rate Performance Indicator.

'The government is looking at these things a little more closely – obviously wanting to know what it is getting for its money. And one of the big outcomes is how many people are actually going through the university sector and coming out with, are completing and achieving a successful outcome. And I think if we could have a more clearer, well-established PI that does that for us, that would be a real help.' [Sector stakeholder]

The **non-continuation** PI was criticised for being too narrowly focused, as it does not look at success or outcomes. In addition, one stakeholder raised concerns about the potential for manipulation of data around retention and completion, and another felt that Scottish institutions were disadvantaged due to the time it takes to get an Honours degree.

The set of PIs related to the **widening participation** of under-represented groups perhaps received the most criticism, although the majority of those consulted felt the area was important and appreciated that there are a number (or basket) of measures: *'if you take away one bit you start to feel shaky' [Sector stakeholder].* Some institutions criticised the underlying methodology used to develop the widening participation PIs, as they feel unable to accurately reflect progress made (this relates to the desire for a more 'value-added' approach to PIs). The set has therefore received a great deal of attention to try to address institutions' concerns about contextualisation.

'The PIs have been criticised for not measuring like with like, due to entry qualification issue/subject bias etc. – but a lot of work has been done to finesse the indicators, so that they do address some of these concerns. There are always going to be these limitations – some institutions will always say that they are different, that they have a different set of circumstances that are not reflected in the PIs. You cannot completely reflect the nature of every institution. But you can get to a situation where you can say that "this is a good enough" indication of where we want to be.' [Sector stakeholder]

The set was also criticised for not using measures of under-representation that are appropriate in Wales or Scotland. Scotland has far fewer low-participation areas and so they have had to discard this PI. Instead, Scotland would prefer an indicator that makes use of the Scottish Index of Multiple Deprivation (SIMD, either SIMD20 or SIMD40). They have created their own measures but if these were a PI it would provide benchmarks which would be useful. In Wales, the appropriate measure is areas defined as Communities First areas, and these link in with the HEFCW corporate strategy. The point was also made that the language and terminology used differed among the nations, reflecting the different government priorities and rationale – widening participation versus widening access. Others also felt that the use of the Low Participation Neighbourhood measure although valid for young participants, was less appropriate for mature participants.

Other concerns about the widening participation PIs included:

- The focus on socio-economic background rather than household income. There was an argument made for income-based measures (to add to rather than replace any existing widening participation PIs), although this measure might not be as appropriate for mature and/or part-time students. Income measurements might tie with Student Loan Company indicators – eg proportion of people entering institutions who are eligible for state support.
- The state school indicator was seen as a blunt measure, and suggestions included developing an indicator around the ratings of a school (eg perhaps Ofsted ratings in England).
- The volume of missing data in the NS-SEC indicator, concerns around accuracy in coding occupations which are used in the NS-SEC categorisation, and concerns around capturing the duration of occupation (especially around the long-term unemployed code). Some stakeholders (providers and wider sector stakeholders) felt this measure was unreliable and not well correlated with other measures of disadvantage.
- The disabled students' measure which is reliant upon Disabled Students Allowance (DSA) data and does not reflect (under-counts) the actual number of students with disabilities.

A number of bodies are undertaking work here to develop strategies for access and retention, not least the OFFA/HEFCE work to develop the National Access and Student Success Strategy (for England), and so any developments of the PIs would need to link in with strategic developments in the four nations.

3.3.5 Wider measures of performance and profile

A common point made by the stakeholders was the vast amount of information that is collected and made available to the sector and to HEIs specifically. Some of these data institutions collect for themselves but many are collected and returned to HESA for inclusion in the PIs, wider measures (some of which feed into league tables) and other products (eg HEIDI). Stakeholders also use a range of wider data to help them understand the profile and performance of the sector and of institutions, and the PIs appear to be used within a wider basket of measures – qualitative and quantitative, public and private (ie internally produced via management information) – to build a more complete picture. Although some of these measures are somewhat crude, have incomplete coverage, and/or are based on subjective assessment, and many of the sources overlap, they allow for some degree of triangulation which increases the confidence of data users.

> *'...the coverage of the PIs is fairly limited, and the interests of the stakeholders do vary quite widely, so typically PIs will form a part of their interest and satisfy parts of their needs and requirements, but very often they'll be looking at a range of other metrics as well.' [Sector stakeholder]*

> *'...it is useful to have a range of different things because you can never get a perfect indicator or benchmark, there is always some sort of fault – either in how you collect it or what the data actually cover. So if you have a range of different things and they all seem to be heading in the right direction you have some comfort that things are happening in a particular way. I suppose that triangulation is always useful.' [Sector stakeholder]*

'In a policy analysis/communication role then we are looking to the publicly available data, in particular things that are authoritative, independent and require no further explanation. When it comes to the more nitty-gritty of the policy work then I probably would go back to the numbers and crunch them, and I'm relying on the HESA or the original data sources.' [Sector stakeholder]

Range of wider measures

Some of the measures used were very student focused such as the NSS, the new KIS and Unistats; student intake data from UCAS (including tariff points); and student finance data from the Student Loan Company and the Student Awards Agency for Scotland. Others were much wider measures of HE captured by HESA in their returns: financial indicators, staff indicators, graduate outcomes, estates indicators, and HE-BCI measures (all available via from HEIDI). Data and measures were also gathered from the research councils (including RAE/REF outputs), and professional bodies such as the Teaching Agency, from other sectors within the UK including the FE sector (their PIs and apprenticeship rates) and the school sector, and relating to postgraduates (including surveys such as PTES, PRES, CROS, PIRLS; see Glossary). Indeed, stakeholders expressed an interest in the potential for more data linkage across some of these other parts of the student life-cycle to be able to track individuals as they progress into and through HE. Another set included those derived from institutions' own management data (such as data on international students) and their own KPIs, and from their own surveys of students and graduates. Some of these aspects were considered quite challenging to measure such as performance against culture, values and ethos. Data were also gathered from overseas with interest in: EUMIDA, the U-multirank initiative, and country level measures from the OECD. More qualitative measures could include QAA peer reviews and OFFA Access Agreements (in England).

League tables

Stakeholders also used wider published measures, most commonly league tables. There is a strong interest in (but also dislike of) league tables which are felt to be a *'feature of life whether we like them or not'* [provider]. Some stakeholders felt that these may play a greater role than PIs in the strategic planning process of institutions due to their prominence in the public eye. Indeed these are perceived to have a legitimacy in the wider community and can therefore influence institutions' reputation. Some of the PIs are included in league tables but league tables can also provide alternative measures for areas covered by the PIs which can cause confusion. Stakeholders also look to international league tables and are interested in the overlap between the measures used in these league tables and the PIs.

'I guess what is preoccupying us more as an institution at the moment are league tables and the way that reflects universities in the public domain because those hit the headlines more than the PIs do. And we have a working group that looks at league tables, we don't have a working group that looks at the PIs, so that is fairly telling isn't it?' [Provider]

'They are a feature of life whether we like them or not and so their methodology is very non trivial. We have to watch them very closely, so we have a working group that pretty much does nothing but monitor how our performance, how our own data are looking in relation to the methodologies of those different league table indicators. And that also guides, to some extent, our strategic priorities. But then so do the PIs.' [Provider]

4 Findings from online consultation

4.1 Introduction

To broaden the reach of the research and to engage and consult with a wider range of HE stakeholders across the four nations of the UK, an online consultation was launched in May 2013. The consultation had an open invitation; the funding councils supported the distribution of email invitations and HESA provided a link to the consultation from their website. All those emailed were encouraged to forward the invitation email to other decision-makers responsible for policy or practice within their organisation to widen the range of contributors.

A key set of consultation materials was developed and hosted on NatCen's secure website. The materials collected the characteristics of participants in order to monitor the range of contributors and to understand whether the respondent was contributing as an individual or on behalf of an organisation. The online consultation also elicited respondents' interest in attending deliberative events in June 2013 (see Chapter 5). However the consultation itself focused on six key open questions requiring text input (a maximum of 500 words per question). The questions covered: the use of PIs; strengths and weaknesses of the PIs; purpose of the PIs; specific areas requiring measurement; and awareness and use of other measures of profile and/or performance. It was anticipated that a submission would take no more than 20 minutes.

The online consultation was in the field for four weeks, during which time 67 fully complete responses were submitted (62 online and five by email). The majority of these contributions were made by the representatives of individual HEIs and specialist HE providers – including members of the Russell Group, the University Alliance and the 1994 group. Most frequently, written responses were submitted by members of senior management teams, (strategic) planning departments and finance departments – those with organisational responsibilities for data delivery and management. Submissions were also made by FECs and higher education colleges, HE representative bodies and special interest groups. Often the submissions were by members of the organisation in a policy-related role. This chapter presents findings from these contributions.

4.2 Use of PIs

Contributors were asked which measures their organisations were aware of, or used, in terms of assessing the performance of the HE sector. They were also asked how their organisation currently uses these measures and the UK HE PIs specifically.

4.2.1 Use of PIs

Most contributors mentioned using the PIs in relation to widening participation, student retention, student employability and (to a lesser extent) research.

The widening participation PIs were most widely cited. These were used by contributors for reporting against OFFA Access Agreements (in England), monitoring performance internally, developing strategy, setting targets for future performance and informing decisions about appropriate levels of spending on access measures. Indicators were also used for benchmarking performance against that of other institutions.

The widening participation PIs were seen as less useful by Scottish institutions. These institutions did not use POLAR, but did monitor and set targets for improvement on other measures based on the Scottish Index of Multiple Deprivation (SIMD) and entrants from low progression schools. These measures were monitored as part of outcome agreements with the Scottish Funding Council.

The destinations PIs were used widely for benchmarking and marketing purposes, to review progress over time and to inform actions/interventions to support students to improve their employability prospects.

PIs relating to retention/continuation were viewed as important by contributors, but institutions generally found this information more useful at a programme level (rather than at an institution level), in terms of helping to identify areas of concern, putting in place retention strategies and making international comparisons.

Welsh institutions cited the HEFCW's corporate strategy as important. This uses a range of performance measures, with some crossover with the UK-wide PIs.

4.2.2 Use of wide range of other measures

It is important to note that the PIs were just one of a wide range of measures used by contributors to measure performance in the HE sector.

Most institutions monitored performance internally against a suite of KPIs. Several contributors mentioned the Committee of University Chairs (CUC) indicators.

The range of measures used to monitor performance was wide ranging and included the following.

Student measures

- Data on applications and enrolment – eg demand for particular courses, ratio of applications to places, breakdowns by undergraduate/postgraduate, home/EU/non-EU
- UCAS tariff points on entry
- Data on retention and continuation, at programme level as well as module completion rates
- Data on educational outcomes/awards (including projected outcomes) – eg good degrees obtained
- Employment outcomes – eg destinations, initial salaries

- Equalities information – eg details of applicants/offers made, educational outcomes, employment outcomes etc. by equalities groups
- Wider student-targeted indicators, consolidating satisfaction and outcome measures, such as the KIS
- Student satisfaction information including:
  - NSS data, benchmarked using subject comparisons based on national JACS level reports
  - International Student Barometer (ISB)
  - Postgraduate Taught Experience Survey (PTES) and Postgraduate Research Experience Survey (PRES)
  - institutions' own satisfaction surveys and internal surveys of teaching quality
  - student voice via course boards.

Financial measures

- Indicators relating to turnover, trading surplus, source and balance of income and internal investment/level of capital investment, borrowing levels/debt, return on investment, operating cash flow, spending against budget, spending against investment plans, departmental financial contribution and market share
- Money received in donations
- Spend per student on learning resources/libraries
- Monitoring of scholarships and bursaries
- International student fee income

Research measures

- REF (previously RAE) – and other research rankings (UK and international)
- Data on publications: volume/number of publications; citations; journal impact; publications with overseas co-authors; percentage of publications in the top 10 per cent of cited papers within their field and bibliometrics – as measurements of research power and specialism
- Data on research funding: research grants applied for; research grant income awarded; distribution of grant sources – total and various subsets eg international research income, income from business, income per academic, RCUK funding
- PhDs – eg postgraduate research (PGR) numbers and PGR/PhD completion rates (produced by HEFCE and internally); PhD students supervised per academic year

Staff measures

- Staff records – equality and diversity monitoring of staff, staff turn-over, numbers by staff type, number of applications per staff vacancy
- Data on staff performance/satisfaction

- Information on staff-student ratios

‘Reaching out’ measures (eg internationalisation, engagement with business and the community

- Data from HE-BCI
- Measures of engagement with local, national and international communities (eg activities of alumni associations, representation in the media)
- Business engagement – wide range of measures around license income, spin-outs, IP grants

Other measures

- Service benchmarking eg from Society of College, National and University Libraries (SCONUL), used for benchmarking against internal management PIs
- Green sustainability benchmarking – eg Green League, environmental sustainability, carbon footprint; HESA estates management records, including measures of resource and sustainability performance, space occupied, waste and environmental management
- Data from external quality reviews (by QAA)
- Data on social responsibility
- Data on economic impact
- Health and safety statistics

These extensive KPIs were used by a wide range of individuals within institutions, including governing bodies/councils, senior management teams, area/department/school heads, heads of planning/planning teams and academic boards and committees.

Indicators were used for several purposes, including developing and monitoring progress against corporate plans/strategies; demonstrating to internal committees whether progress has been made; drawing comparisons/benchmarking with similar institutions; monitoring performance over time; comparing performance between courses/departments; identifying and targeting areas of low performance/facilitating action planning; informing resource distribution; and for marketing purposes where areas of strength were identified (eg in relation to student employability).

> *‘These indicators are therefore very important in driving institutional performance and policy and indeed may drive changes in internal allocation of student numbers/funding posts.’*

Data were accessed from many difference sources, including the following.

- Internal management information
- The full range of HEIDI data, which cover a range of indicators, including PIs, financial information, student and staff profiles, HE-BCI data etc
- UCAS
- Student satisfaction surveys, eg NSS, PTES, PRES, ISB

- National media/league tables – eg *The Times* data on A Level entry points, staff/student ratios and average spend per capita on library material; Complete University Guide; *The Guardian* University Guide; *The Sunday Times* Good University Guide, Tribal benchmarking tool
- International ranking agencies

While online submissions were primarily made by representatives of HEIs, other organisations (which ranged from HE consultants to large representative bodies) cited many of the same indicators in their contributions. In this case, data sources were more frequently used for policy monitoring and development, communicating with the media and producing research reports.

> *'Data from various sources are often combined to the formal PIs to provide context and value to analysis. This is then used to inform analysis of policy options, development of new policy and our communications work with the media, MPs and wider public.'*

4.3 Strengths and weaknesses of existing PIs

Contributors were asked to list up to three strengths and three weaknesses with the existing PIs.

4.3.1 Strengths

Contributions regarding the current PIs' strengths varied considerably, however there were a number of common themes. The most frequently cited (the first two themes discussed below) are closely connected, robustness often being considered a prerequisite of comparability. They have been presented separately here to reflect the presentation in the written contributions.

- **Robustness**: Contributors felt that existing PIs demonstrated a robust and transparent methodology and (as they were compulsory) attracted a good sample base, and as such provided a consistent basis for comparison of UK HE. They also relied on consistent definitions across the sector, for example, giving data contributors and users a clear sense of what concepts such as widening participation and non-continuation mean, and how they are measured (resulting in consistent calculation).

  > *'Reliable data provided by a credible source which have consistent definitions across the sector.'*

  > *'We have assurance that the data have been submitted to testing and validation both prior to submission and by HESA post-submission... The data underlying these indicators are thus quality assured and reflect the whole sector as it stands at present.'*

- **Comparability and the opportunity to benchmark**: The fact of having one methodology applied across the sector, with consistent definitions and measures, was felt to provide a high level of reliability to the comparisons between HEIs/groups of HEIs (eg the Russell group). This ability to compare and benchmark across the sector was seen by contributors as a positive advantage of the existing indicators. Comments in this area also included reference to specific elements, such as the 'location-adjusted benchmark' and the flagging of statistically significant differences.

'Data are collected and presented in a uniform manner which aids institutions to benchmark against comparators.'

'[Data] allow meaningful comparison with similar institutions through national benchmarks and location adjusted national benchmarks.'

It should also be noted that in some cases, positive comments were qualified with caveats about data quality and different (local) interpretations of definitions and rules.

- **Comprehensiveness/breadth**: The existing indicators were seen to have a good breadth of coverage – both in terms of the range of indicators/key areas of performance and in terms of coverage of the sector (ie all HEIs provided data). This was discussed both in terms of the range of measures used, and in its UK-wide nature (ie geographical scope).

  '[PIs provide] good coverage of metrics that cover different aspects of the learner journey, and also research outputs.'

  'All encompassing.'

- **Longevity**: Another factor featuring heavily in the written contributions was appreciation of the longitudinal nature of the existing performance measures. The stability/consistency of the different measures over time was felt to be a significant advantage to data users, particularly as it provided valid measures of progress and improvement.

  'Definitions [remain] relatively unchanged over time which aids trend analysis and comparisons over time.'

  '...consistency of fields used over a long period of time, thereby promoting longitudinal analysis.'

- **Availability**: A number of contributors commented on the advantages of having a dataset which they were able to access, and in a consistent and accessible format. This included the provision of data that could be used by HEIs for their own analysis and use.

  'HEIs are able to access additional data to enable them to review their PIs at a lower level of granularity for their own institution.'

  And being provided with data in advance of publication.

  'We are provided with our scores and raw data in advance of publication, so we can be aware of any issues and better understand them based on the raw data in advance of publication.'

- **Trustworthiness**: Also connected to the robust, reliable nature of the existing PIs was the trust HEIs placed in the organisations charged with compiling the data. HESA were seen to have a high level of expertise, and proven track-record of understanding and working effectively with the providers. This was highly valued and felt to lend further authority to the measures.

One contributor felt that further to the trusted status, the compiling organisations used their skills and experience to ensure responsible use of the data and development of the indicators.

'The compilers (HESA and HEFCE) have 'Highly Trusted' status and are able to add value to the service they offer in providing advice and guidance on interpretation of the

data to avoid misuse and to enable institutions to make the most of the data they are provided with. The data specification is provided by HEFCE, who are able to bring years of experience with the sector and with Government policy and the changing HE landscape to bear in overseeing the development of the indicators.'

Outside these overarching themes, contributors highlighted a number of other positive elements to existing PIs. These comments included: the evidence-based nature of existing measures; the high levels of awareness and press coverage they receive (keeping HE in the public eye); and '*ease of understanding to both sector and other users*'. In addition there were positive comments about specific indicators, for example, the high quality of the completion/non-continuation, destination and widening participation indicators.

'Completion and destination stats provide a useful level of accountability that it would be hard to do without.'

Contributors also highlighted the fact data were well-used, both in the national context and on an individual HEI basis, providing a useful foundation from which to develop targets and provision.

'*The data are also well embedded in the league tables, Access Agreements, Fee Plans (Wales) and Outcome Agreements (Scotland). There is an established way of providing context to explain unusual movements in the data via the HESA Data Dissemination System (DDS)*.'

'PIs provide the context in which to develop and target access and participation strategy and funding relating to outreach/pre-entry work, transition into the University and measures to support student retention and success.'

In summary:

'Although the current indicators are less relevant to current Government policy, it would be a significant loss to future policy if existing measures were scrapped... These strengths are great, and should not be underestimated or eroded without very good reason. For all the possible improvements and enhancements, these strengths cannot easily or quickly be rebuilt if lost.'

4.3.2 Weaknesses

A wide range of weaknesses with current PIs were identified in participants' online submissions. Contributions in this area tended to be more extensive than in the previous section which considered the strengths of existing PIs. As in the previous section, it was possible to identify a number of common themes cutting across written responses.

- **Missing measures**: Contributors' concerns focused on the lack of measures/problems with existing measures of students' outcomes. One of the most frequently mentioned 'missing' indicators was the 'value-added' by HE, which appeared to be closely connected to the concept of the 'graduate premium'. This kind of indicator was perceived as providing a useful outcome measure which was able to account for baseline differences ('ie to compare entry and exit').

  'It would be exceedingly useful to be able to map the relationship between qualifications and grades on entry to those on exit. I find it very difficult to know whether we are properly stretching our students without access to a metric of this type.'

A ‘value-added’ measure was also seen as being better able to capture the broader societal/public benefit of HE, rather than simply the individual one. Contributions in this area also tended to include concerns about a general emphasis on input measures – and even output measures – over and above the more important ‘outcomes’.

Other issues raised in discussion of gaps in the current PIs included the lack of measures capturing the following information: teaching quality; links with employers; financial sustainability and ‘softer’ learning gains, such as critical thinking skills.

- **Easily misinterpreted/misused**: Another much cited ‘weakness’ of existing PIs was the ease at which they could be misunderstood and misrepresented, particularly by a lay audience and the media. These criticisms were frequently discussed in reference to league tables (see also analysis of the stakeholder interviews, Chapter 3):

  ‘They are easily abused by the media and non-specialists eg league tables and even to a certain extent Unistats which have lumped different courses together because they fall into the same subject area... They are not given appropriate interpretation which then leaves room for misinterpretation.’

  ‘Many PIs are mixed up by newspapers to provide spurious league tables that can mislead prospective students and others.’

  Such misrepresentation and lack of understanding was connected in online submissions to the way data are presented, and difficulties users have in interpreting (complex) indicators.

  ‘Despite alleged transparency, they are still very difficult to interpret – certainly by the 'layman'. Much of the presentation is in degrees of 'good'. [It is] seldom placed in context so difficult to know what is good for an 'access' vis-a-vis 'research' institution.’

  ‘*The presentation of the PIs lacks context or explanation. Information on what the data are measuring (rather than the source of the information) would be helpful*.’

- **Promote game playing and create perverse incentives**: Another area of concern evident in the written responses was around game playing within the HE sector; specifically a *‘risk that PIs [were driving] the behaviour of institutions in ways that may not always benefit the learner’*. One contributor raised concerns that some institutions limited numbers of *‘known entries... to gain institutional advantage in league tables’*.

  ‘Standard definitions can lead to game-playing, eg in the way data are returned, and unintended consequences, eg focus of widening participation activity on specific postcodes – can over-simplify complex issues.’

- **Partial/coverage limited to just part of the student population**: Connected to discussion of missing measures and gaps in coverage were concerns that there was a bias towards undergraduate full-time first degree students within existing measures. Contributors believed there was an inherent assumption within current indicators (especially measures of widening participation and employment) that all students enter full-time HE aged 18. The exclusion of the post-graduate population was a particular problem for contributors.

  ‘The information is often based on small, narrow subsets of the student population eg young, full-time, first degree entrants.’

Similarly contributors highlighted the difficulties of using existing measures to look at the performance of FECs, as well as the perceived Anglo-centric nature of current PIs – which do not always correspond with policy-targets in devolved administrations.

'PIs are not always available or contextualised for college based HE.'

'*[The current PIs] fail to recognise differences in mission across institution types and differences in policy priorities across the four UK countries.'*

- **Not future-proof**: A further 'weakness' highlighted in online contributions was that existing PIs were insufficiently future-facing, and focused too heavily on issues that were becoming less relevant within the rapidly changing context of UK HE. It was felt that current indicators might usefully be adapted to *'measure national success in terms of resilience, adaptability, critical thinking in a future where some existing priorities may become bankrupt/irrelevant'*. Current indicators were also criticised for a lack of responsiveness to changes affecting the sector, in particular the changed funding environment.

  'The key weakness is the difficulty in measuring 'success' in a future which will look very different. More attention to the future and possible trends is required – and in the very long term.'

- **Lack utility/transparency**: Similar to submissions around the difficulties of understanding and interpretation by a lay audience, contributors highlighted problems with the 'usability' of data. In contrast to submissions made under the section on strengths, it was felt information was supplied in too 'rigid' a format, which meant that it could not easily be used for further analysis, linked to other data or further explored in order to better understand differences between institutions. Timeliness of data delivery also featured prominently in the contributions, with participants voicing concern about the impact of the significant time-lag between data submission and the availability of processed data on their utility.

  'The HESA PIs have a sizeable time lag, which restricts the ability to inform institutional performance and assess whether a strategy is delivering results and to change direction. For example, at the time of writing (May 2013) the latest research indicator is from 2010-11.' [Provider]

  Furthermore existing PIs were felt to be fairly inflexible, with all HEIs measured against the same metrics, regardless of their interests or 'mission' – thereby limiting diversification.

  '*Institutional missions are diverse, and performance measures tend to hide, rather than reveal, this diversity*.'

Other concerns about the construction and utility of existing PIs

Alongside the more general points about the weaknesses of existing indicators were more specific comments from individual contributors about the ways in which PIs were calculated, including the following.

- **Problems with the definition of 'academic staff':** The definition was felt to be unclear, and created problems for PIs as it was used as a denominator in many. The contributor recommended that a common standard be applied, for example, that research staff included only those who had been submitted for the REF.

- **Difficulties comparing institutions:** The belief that when comparing performance account should be taken of the relative size of each discipline within each institution. Similarly that measures account for the subject mix of institutions in recognition that levels and sources of research funding differed by discipline (ie are more abundant for science subjects and less for humanities).
- **Differences between registering institutions and delivering institutions:** PIs are attached to the former. It was felt this had an impact on the accuracy of statistics.
- **Small base numbers in some measures (eg DSA):** Leading to concerns about usability.
- **Location adjuster:** This was highlighted as both a strength and weakness, and was criticised for being too blunt.
- **Drill down:** The inability to drill down to facility, department or subject level.
- **Other concerns:** Contributors also raised specific concerns regarding particular PIs within written submissions. Of particular note were issues around the timing of DLHE data, which was thought to be collected too soon after graduation.

  'The survey date for the employment indicator would benefit from being changed from six months to one year after graduation. Six months is too soon to get a real measure of graduate destinations. Conversely one year after graduation would give much more useful management data and meaningful information on career trajectories.'

  Similarly contributors felt that certain measures (particularly within the widening participation set) were problematic and that others did not closely map onto higher education policy priorities. These same measures were criticised for not attracting consequences for poor performance, which was seen as limiting their meaningfulness.

  Furthermore online submissions included a number of comments under the 'weaknesses' heading, which contrasted directly to those listed as strengths by other contributors. This was particularly true in relation to the robustness of existing PIs. It seems that this issue was one of the most contentious, attracting polarised views from data providers and users.

- **Robustness of data/validity of benchmarking:** In contrast to positive comments about the robustness of data voiced in the previous section, a number of contributors discussed concerns about 'unreliable data' and invalid comparisons between organisations. This included specific issues with the design of measures, broadening to a general concern about trying to capture and benchmark performance across such a disparate sector. One contributor felt that the robustness of the data, hence the comparison of HEIs, was undermined by the different attitudes contributors took towards collecting it – some treating it more seriously than others.

  'It is impossible to reflect in the benchmarks all of the potential factors that could be responsible for the differences or similarities in performance across institutions. Publishing any form of benchmark projects a false sense that there is a valid methodology to produce them. Institutions should be left to determine their own group of institutions against which they wish to compare performance.'

  'The benchmarks are statistical concepts which may be statistically justifiable but cannot take account of non-statistical factors that impact on the validity of comparisons. On balance, the benchmark should be lost and replaced with a

facility which allows users to determine the other organisations against which to compare performance.'

- **Longevity:** As well as scepticism about the reliability of existing measures, contributors highlighted problems making historical comparisons due to changes in practice and time lag/delay in the reference year, and raised concerns about the comprehensiveness of data. Interestingly these contributions included those with concerns that existing PIs were too limited, both in terms of the number of indicators and in their focus (failing to reflect the breadth of HE activity), as well as others who felt the existing measures too broad and expansive.

  'There are too many of them and too much time is taken up in gathering and reporting data.'

4.4 Purpose of PIs

Another key question in the online consultation asked contributors what they thought the purpose of HE PIs should be. Once again responses were extremely varied, but it was possible to identify a number of underlying themes. There was a high level of consistency between the issues raised at this question and those identified by contributors within previous sub-sections.

In general respondents felt the indicators' primary role should be in monitoring and measuring HE performance 'to provide an overview of UK HE'. However, contributors differed in their views on who the primary audience for PIs should be (HEIs, funding bodies/policy-makers, the public or students), and therefore also on the primary purpose of the measures. Some referred directly (and indirectly) to the importance of informing multiple audiences:

'Done well, a KPI enables all stakeholders to make comparisons of certain relevant information in making decisions, be that: a student looking at where to study; a potential employee considering a move; a funder or regulator in assessing risk and achievement of goals etc.'

Others described an internal monitoring role for performance measures. In these written contributions, PIs were seen as providing a tool for HEIs to track and monitor their own performance over time. They could also use measures as a way of assessing improvement or deterioration in performance (against an HEI's own strategic plans), and of identifying strengths and weaknesses, with a view to improving on historical performance.

'UK PIs should provide a standard set of top-level metrics in common areas of priority that institutions deem to be of strategic importance. They should provide an introduction to the range of data available that institutions may use to measure progress against their individual strategic objectives.'

'[They should] enable the institution to take a reflective view of its mission, its strategic goals and how it is moving (or not) towards fulfilling them.'

Another common theme evident in online submissions was the importance of indicators for benchmarking performance against other institutions – comparison being seen as a good method of charting individual success within the sector. Contributors felt that a good set of PIs would allow for benchmarking while recognising, and (if possible) accounting for, diversity.

'The PIs need to provide stakeholders with information about the relative performance/contribution of each individual university, whilst recognising the diversity that exists in the sector.'

'When used with other sources, a reasonable set of KPIs can provide a picture of the quality of the institution against peers and changes over time. It is important to compare like with like.'

Others referred to the importance of PIs for external monitoring and to ensure transparency, as well as aiding policy development and monitoring progress against policy priorities.

'In principle a set of HESA PIs should increase our understanding of the higher education environment and provide a sector-wide mechanism of measuring policy change, impact, progress and success over time within a diverse HE system.'

While there was some variation within responses as to whether a level of accountability should be attached to external monitoring – or if it should be seen as primarily informational – a number of contributors referred to the ability of HEIs to use PIs to provide assurances to the government and the public. For example, one contributor saw indicators as offering HEIs the opportunity to demonstrate their ability to respond to changes in policy, while another talked about proving to '*the wider public that their investment in universities represents value for money*'.

'For the sector it enables funding bodies and Government to take an overview of performance and to compare both internally and on the international stage.'

'[PIs] do not provide the only measure but they can point to where questions could/should be asked especially where public funds are being employed.'

'The purpose of the indicators should be to provide a reliable set of key indicators that measure performance consistently across the sector and which are relevant to the sector. The result of which is that key insights can be made into key areas and issues can be addressed be it at sector level or institutional level... to ensure that all students are provided with an excellent higher education experience.'

In terms of the final audience discussed within contributions, respondents saw an important role for PIs in providing the public and (potential) students access to information about the sector. This was seen as serving a public information service and an opportunity for applicants (referred to in one case as prospective '*purchasers*' of the services) to make an informed choice about their education. Contributors referred directly to the ability of current and potential students to compare HEIs on the basis of the value for money (or potential value-added) they offer.

'...to assess the performance of HE institutions both internally, over a period of time, and across the sector so as to provide non-experts a reasonable measure of comparable information and assurance.'

'[The purpose of the indicators should be] to provide an indication of whether HEIs are effective in providing high educational gains for students.'

Often inherent within responses was the idea of robustness and quality of measures – ensuring they're relevant, meaningful and standardised; additionally, that the measures are sufficiently long-standing as to facilitate robust historical comparison. It seems that data quality cannot be divorced from its purpose.

'Information that has been collected and derived on a standardised basis to facilitate comparison across institutions on selected characteristics with cross-institutional relevance.'

'...to be of most use there must be an element of robustness to the data as well as comparability, where possible on a reasonable timescale.'

Beyond these broad themes were references to the importance of being able to use PIs to make international comparisons and promote '*the excellence of UK higher education*' globally, of assessing public and economic good and ensuring that institutions supported by public money are financially sustainable. Additional measures were suggested which were linked in some contributions to the (changing) purpose of HE:

'Enabling opportunities, particularly around social mobility, enterprise and sustainability should remain key to what higher education is trying to achieve and these should remain key to what we are trying to monitor.'

In contrast to most contributions were those who highlighted uses they felt should be outside the remit of PIs. For example, PIs should not be used to set targets; directly linked to funding or be used to produce league tables. There was also some concern from contributors that current indicators had been included because they could be easily measured rather than because they were meaningful, and that they should not be presented as measures of 'performance'.

4.5 Areas where PIs are needed

As part of the online consultation, contributors were asked to list up to six topic areas where they felt performance measures were needed. This could (and did) include areas covered by the existing UK HE PIs or other sources, as well as areas not currently measured. These are listed below in broad order (the most frequently cited listed first).

- **Value-added:** Contributors argued for a measure of 'value-added' by HE as a replacement for more traditional outcome measures.

  'Student characteristics on entry vs. academic success – particularly important in the new funding regime to monitor impact.'

  'Some attempt at measuring value-added would make them much more valuable, rather than simply a measure of inputs and outputs.'

- **Employability and destinations (employment rates/starting salary):** this links to value-added and stakeholders felt it should take account of baseline characteristics, as well as taking account of the time it takes to gain work

  'Employment should really be about employment, and should measure 12 months after graduation – six months for many is not enough a time to get a job, especially in this climate... Progression into higher education should be properly measured and tracked down to a pupil level.'

- **Quality of research (research outputs/funding):** Contributors offered differing options on how best to capture a measure of research quality and whether/how this should be integrated with the REF exercise.

  'Further development of robust research PIs for the sector would also be welcomed. This is a largely underdeveloped area and a contentious issue within 'the academy'. However, there is an opportunity now to focus on developing robust

PIs for research as this is now the growth area (proportionately) for the use of public funding and there is a gap before the next REF (if any) for less pressurised discussion.'

- **Finance (financial performance/sustainability/efficiency)**
- **Widening participation/access:** Participation of, and outcomes for, under-represented groups, including disabled students; minority ethnic populations; state school students and other under-represented groups.
- **Fair access:** '*ie the same entry qualifications achieve equitable access to institutions/courses'*
- **Non-continuation/continuation:** Non-completion/completion, retention and progression (including to postgraduate study).
- **Entry qualifications**
- **Admissions**
- **Demand**
- **Student satisfaction/experience**
- **Achievement/attainment (average awards):** This also links to value-added, and when discussing achievement, contributors were keen that PIs took account of the baseline characteristics of the cohort – although they recognised the difficulties this presented.
- **Learning and development in key areas:** Softer outcome measures, for example independence, critical thinking.
- **Return on student loan investment/value for money:** The benefit to students, employers and society: *'Some attempt at measuring value-added would make them much more valuable, rather than simply a measure of inputs and outputs.'*
- **Course/teaching quality**
- **Class size**
- **Contact and study hours**
- **Postgraduate activity**
- **Estates, facilities and student services**
- **Entrepreneurship support**
- **Employment creation**
- **Industry engagement**
- **Commercial activities**
- **Contribution to economic growth and development regionally and nationally**
- **Public engagement and social/community impact:** '*in terms of the University's wider engagement with its community and the broad benefits that brings*'
- **Knowledge transfer**

- **Sustainability (environmental impact)**
- **Administrative efficiency**
- **Staffing:** Including staff expertise and efficiency and staff-student ratios

  'Currently there is detailed information about academic staff but almost nothing about the professional services in terms of staff or the services provided.'

4.6 Other issues highlighted by the consultation

As part of the consultation, contributors were asked to highlight any other issues raised by the study that had not been discussed as part of an earlier question.

Although diverse, most responses fell into one of the following themes.

- **Scope/coverage**

  'They need to be focused around the different stages of the student lifecycle (access, enrolment, in-course progression, success, destinations) and have an overall focus on the student experience.'

  'Thirty per cent of students are part time and we do not currently feel that we know enough about them across the sector, and development of PIs to measure their outcomes would be welcome.'

  'There is a lot more which could be identified in any review of PIs, such as students from state schools as opposed to under-represented groups. I believe this would help institutions with high levels of entrants outside these categories to consider how best they can increase recruitment from these categories.'

  'UK HE PIs provide useful management and governance information to Universities. It would be helpful for the indicators to capture performance in relation to larger student sub-sets in order to be more meaningful and to avoid overly narrow subsets (eg part-time, mature, 'other' undergraduates). Small subsets are less meaningful and open to wide annual variations. Do we have enough information on postgraduate students (PGT and PGR) especially in the current economic climate where we need to incentivise institutions to assist the progression of those students with potential to maximise their learning not only for their own personal fulfilment but also to contribute to economic growth and social justice for the benefit of wider society?'

  'If PIs are [still] needed and their scope is reconsidered, then it needs to be fit for purpose on a UK-wide basis and not just for England.'

  'HEFCE should limit itself to a very small number of PIs which demonstrate an institution's performance in terms of recruitment of students, quality of students, research grant income, research quality, drop-out rates, destination of students and key financial indicators.'

- **Availability and accessibility**

  'Focus on accessibility for prospective and current students.'

  'They need to be easier to interpret than the current datasets supplied.'

'Challenge we face is about scaling down the level of data provided so they can be more readily understood and accessed and on a timelier basis. The sheer volume of it is daunting to all, within and without HE. However, with so many learned views, getting an agreed simple assessment is I fear impossible as we can always find a reason why there should be more.'

'PIs should aim to present data in a way that helps universities to assess their performance against quantifiable measures. Any quantitative measure of this kind will have limitations due to the data being used: issues may include data quality, comparability, granularity, and availability. These limitations should be recognised, and it may be helpful to supply narrative alongside the numerical PIs to put them in context.'

- **League tables and rankings**

'Newspaper league tables combine [PIs] in their compilation, usually in a very arbitrary and inexpert fashion but we know that applicants to universities are influenced by such tables. It would be better for the sector's own [PIs] to be as robust as possible and better used.'

- **Inclusion of FE providers**

'I understand that there are data difficulties, but I would like to see full participation in the system for all FECs that have non-trivial HE numbers. Our HE numbers are larger than the smallest university and yet coverage in the PIs is poor.'

'They need to be appropriate for College Based Higher Education, not just Universities.'

- **Rationale/meaningfulness**

'Don't measure anything unless you know why and what you are going to do with the information.'

'There is an almost total ignorance of the concept of performance management. It is seen as indistinguishable from performance measurement and there is a laughable belief in the wisdom of league tables as methods for promoting best performance.'

'While the collection and dissemination of information by an external agency in the form of PIs can be a helpful resource in monitoring institutional activities, the heterogeneous nature of the HE sector means that many indicators will be unable to adequately reflect the full spectrum of institutional missions without controlling for disparate variables (such as subject base). Care must be taken not to derive indicators to the point where comparison becomes artificial, meaningless and therefore useless to the sector.'

'*What are they for? Who is the audience? Work that out before working out what needs to be included.*'

'The name 'PIs' is misleading because often these are not the main indicators upon which an HEI's performance in a particular area is measured. 'Statistical Indicators' might be a better name.'

'Benchmarks are based on sector averages and exceeding benchmarks may not mean that an institution is performing 'better' in some way. At the moment, PIs are used mainly to highlight negative or under performance rather than success, and this

may be due to circumstances outside the HEI's control or main mission or main interests.'

'Data and PIs should be tailored and grouped as context to inform particular questions and responses to government agendas. Transparency is essential; institutions should know what they are being measured on, why, and how measures will be used. Measures should not exist just for the sake of measurement; they should exist only where there is a clear intended use for obvious benefit... HEIs should be involved in the development of further indicators to ensure that they are appropriate and fit for purpose.'

- **The changing context of HE**

'A review is timely given the changed funding regime, it should be recognised that a number of the existing indicators do still continue to have credibility and value in the current environment eg non-continuation, it could be argued, is more crucial given the fact that the full-time undergraduate fee has increased significantly to £9,000, the loss per student who does not continue their studies is much greater than under the old funding regime.'

'Notwithstanding the various needs of stakeholders involved, we feel that there is still a need for formal indicators which provide an assessment of performance in the higher education sector against strategic priorities for all stakeholders involved, including government, institutions, funding councils and students. The joint development of indicators is also an important part of the current indicators which should continue in the future.'

- **Potential for misuse**

'It is of the nature of PIs that they produce unintended consequences, because people in HEIs react to the knowledge of what will be reported and act in ways to optimise outcomes from their own points of view. Generally, like financial statements of companies, PIs are of very little use for making decisions outside the organisation. Their main function is to render organisations accountable, that is to say, they make people in the organisation aware that performance will be reported and this awareness discourages idleness and opportunistic behaviour. Accordingly PIs need to be designed that are robust to manipulation and gaming by HEIs.'

- **Resource levels**

'We should try to keep the level of bureaucracy involved in generating PIs to a minimum.'

5 Findings from deliberative events

5.1 Introduction

As a final stage in the research process, two deliberative events were held – one in London on 14th June 2013 and one in Manchester on 19th June 2013. Recruitment to the events was organised via the online consultation and through initial stakeholder interviews (see previous chapters). Interviewees and contributors to the consultation were able to register their interest in attending one of the events. The research team then selected delegates to attend the events from among the interested stakeholders, with the aim of providing good geographical coverage and coverage of different types of organisations (eg a range of provider types and other stakeholders). Both events were well attended by HE stakeholders. Delegates included representatives from a range of HE providers, funders, organisations representing providers, student representative bodies and other key stakeholders. In total 41 individuals took part in the events, representing 36 organisations (24 HE providers and 12 wider sector organisations).

The main aim of the deliberative events was to give delegates an opportunity to reflect on the initial research findings and to collect more in-depth data from wider groups of interest. The events aimed to create a stimulating environment within which stakeholders could discuss and debate the issues raised by the research. The events began with a presentation of the early findings of the research, covering issues such as: the perceived rationale of PIs; the importance of PIs to institutions for benchmarking; the main users of PIs both now and in the future; the perceived strengths and weaknesses of PIs; and some key principles for PIs going forward.

The rest of the half-day events involved smaller group discussions with stakeholders. One session on ‘What should PIs measure?’ asked delegates to reflect on some of the ideas coming out of the online consultation and interviews, as well as asking them to feed in further ideas about areas that PIs could potentially measure. Another session looked at ‘Capturing the diversity of the HE sector’. During this group session, delegates were asked to reflect on the various changes to the HE sector that had taken place over the last few years and on the potential impact of these changes on PIs both now and in the future. They were also asked to reflect on the effectiveness of the widening participation PIs (again, reflecting on the feedback about these received in the early research).

In this chapter, we present the findings from the deliberative events, including the feedback from both group sessions.

5.2 What should PIs measure?

The first group discussion focused on the areas that delegates felt PIs should cover, and whether it was felt that any new PIs were needed. Delegates were asked firstly to reflect on various suggestions for new PIs that emerged from the early research, and secondly to suggest additional areas they felt were important.

Moderators of these group discussions were instructed to steer delegates away from discussing what is currently 'possible' in terms of PIs. The aim of these sessions was to look at what sorts of areas delegates thought it would be desirable for PIs should cover, not to review the feasibility of potential PIs. This point was made clearly to delegates in the initial presentation. While it was not always possible to avoid discussions about the feasibility of potential indicators, there was an attempt to guide the sessions along this principle.

5.2.1 Measuring the value-added by HE

A prominent view emerging from the online consultation was that PIs should measure the 'value-added' by HE and, related to this, should focus on the 'return made on the student loan investment'. Delegates to the deliberative events were asked to reflect on this idea in more detail and to consider whether they agreed or disagreed with the idea that PIs should have a focus on 'value-added'.

Delegates acknowledged that the idea of 'value-added' was very broad, encompassing both the 'value' of HE at a *sector level* (ie the value of the sector to the UK economy), as well as the 'value' of HE at an *individual student level* (ie the value to individuals of obtaining a degree).

It was felt that 'value-added' is usually a financial term, referring in this instance to the financial value of HE – both the value at a *sector level* (eg the value to the Treasury in terms of the increased tax revenue from graduates) as well as the financial value at a *student level* (eg the value of a degree to individual students, in terms of increased earnings and improved employment opportunities over the life course).

(It should be noted that delegates acknowledged that value-added could also encompass social and cultural value, as well as financial/economic value – this is discussed in more detail under section 5.2.4 below.)

There was strong support for a sectoral measure of value-added (although whether such a measure should be a PI was debated). It was generally felt that HE makes an important financial contribution to the UK economy, and an indicator in this area could help to articulate this point both to the government and the general public. It was felt that the current PIs do not cover the issue of value-added. A further discussion about measuring the economic impact of HE at a sector level can be found in section 5.2.3.

There was less support for a measure of value-added at an individual student or institutional level, for example, a measure that considers the financial value of having a degree from particular institutions. However, there was some variation in opinion on this point. On the one hand, providers and their representatives tended to be less supportive of an institutional level PI, while other stakeholders, such as funders and student bodies, tended to be more supportive. This latter group felt that an institutional level PI would help to assess which providers are really offering 'value-added' and what lessons could be learned from these. (There was also the perception that you'd need to collect data at an institutional level anyway, in order to build up the picture at sector level.)

Among providers, there were various criticisms of the idea of measuring value-added at an institutional level. One practical issue that emerged related to the fact that data on value-added would be out-of-date by the time indicators were produced, and therefore would be potentially less meaningful (eg to prospective and current students). For example, data on students' earnings after graduation and on their loan repayments may not become available until quite a few years after students' graduation, and may therefore be less relevant for younger cohorts. Providers were worried about being judged against potentially outdated indicators.

> *'It would be wildly out of date by the time you'd got anything meaningful out of it.' [Provider]*

> *'The students we had ten or fifteen years ago are not the students we have today and those students will have different life opportunities.' [Provider]*

Other arguments focused around the 'individual' nature of institutions and the fact that it would be difficult to establish a measure of 'value-added' that was broadly relevant to institutions across the sector.

> *'I'm not sure of the value of a PI in this area; I think it's so individual to the institution, it is up to that institution to describe what they're offering, and present themselves to the student so that the student is convinced of the worth and value of the programme offered.' [Provider]*

Related to this, there were concerns from providers that it may be difficult for some institutions to prove their value-added, for example, where they were relatively small in size or where they had a particular subject mix that made it more difficult to generate value-added (eg subjects such as creative arts, where graduates may be less likely to be high earners).

> *'If you're a university that's primarily teaching professional subjects like nursing or teaching, you can probably predict what your average graduate is going to earn. If you're somewhere that's got a big law and medicine faculty, the earnings are going to go through the roof. It's going to be very contextually driven by what type of institution you actually are.' [Provider]*

It was recognised that if institutional level PIs are established around value-added, they would need to have benchmarks, as with the current PIs, so that institutions were compared with like institutions, and that results were contextualised.

5.2.2 Measuring distance travelled

Another view coming out of the online consultation was that PIs should measure the distance travelled by HE students. There was significant crossover between this area and discussions about value-added (see above). However, the session on distance travelled focused specifically on the idea of comparing students' characteristics on entry versus their academic success at the end of their degrees. Again, stakeholders at the deliberative events were asked to reflect on this idea.

Similar to the discussion around value-added, providers and their representatives tended to be less supportive of a PI around distance-travelled than other stakeholders (such as funders and student bodies). Providers tended to have concerns about a PI in this area, not least because it may affect their position in university league tables. In particular, those institutions that take the brightest students, with the best grades, were concerned that they may end up with potentially lower distance-travelled scores, despite having successful graduates. Related to this, some delegates argued that a distance-travelled

indicator may not actually provide useful information: *'I'm not sure what it's telling you, other than that different institutions take in different calibre of people' [Provider].*

Indicators around distance travelled are currently used widely in existing university league tables. For example, the Guardian University Guide scores institutions according to the probability of their students achieving a 1st or 2:1 degree based on the qualifications they entered with. Delegates at the deliberative events tended to be sceptical of the methodologies used to compile such tables, and argued that these should not be replicated in any PI.

Such concerns about the methodology used for compiling indicators, and about their use in league tables, tended to colour delegates' perceptions of a potential PI in this area – even when they felt it was a good idea in theory.

> *'It's a nice thing to have, and people always say that they want it, but when you start thinking about what it actually means, it doesn't work.' [Provider]*

Specifically, issues were raised about the quality/accuracy of entrance qualification data. There were concerns that not all institutions operate through UCAS, which provides data on entry qualifications, and that even when providers do use UCAS, not all qualifications data are recorded on the system. (Note: UCAS is currently reviewing these issues with the aim of extending the system to cover more diverse and complex entry routes: See UCAS (2012b) Qualifications Information Review: Findings and Recommendations; UCAS (2012a) Admissions Process Review: Findings and Recommendations.) Similarly, concerns were raised about the comparability of entrance qualification data. For example, it was acknowledged that some providers accept students without formal qualifications, such as students entering into HE from industry.

> *'I don't think there's any institution that could say hand on heart their entry qualifications data are perfect.' [Provider]*

> *We have students come to us without formal qualifications; we have students from industry – so how do you measure an entry profile?' [Provider]*

Providers also argued that entry qualifications are not the only basis on which institutions recruit students, and are not the only demonstration of potential to improve. For example, prospective arts students may be judged on their portfolios, while prospective music students may be required to audition. These subtleties would be relatively hard to capture in standard entry tariff metrics. Some delegates made the point that an American system, with standard Scholastic Aptitude Tests, would be the only way of getting round these issues – but that such a system would be expensive and impractical to implement.

As well as scepticism about the entry qualifications data, there is also a long standing debate about the comparability of degree classifications, a debate which was picked up at the deliberative events. Specifically, it was acknowledged that a particular grade (such as a 2:1) at one institution cannot be seen as equivalent to a similar grade at another institution. This issue makes the measurement of distance travelled particularly problematic.

> *'We haven't got a reliable exit measure – and certainly degree classifications aren't [reliable measures].' [Provider]*

> *'You have to accept that the reality is that there is not a single way of classifying degrees or a single set of criteria used across the sector.' [Provider]*

There were also worries that a PI in this area might lead to perverse consequences, in that it might provide an incentive for institutions to hand out more 2:1 and 1st qualifications simply to boost their 'distance travelled' scores:

> *'The thing I have the biggest problem with is about degree classification where there is no control over how many 1sts and 2:1s you award.' [Provider]*

More generally, some delegates expressed concern that PIs around distance-travelled could potentially increase the current bias of PIs towards 'typical' full-time undergraduate students, coming to HE straight from school (rather than older and part-time students). It would be potentially more straightforward to collect entry qualifications data on these types of students, for example.

> *'We often collect data and present information from the perspective of a very straightforward full-time undergraduate that starts in September and completes within three years. But the pattern is changing and continues to change.' [Provider]*

Rather than using data about degree classification, it was suggested that it may be possible to use information about students' employment status after graduation to measure distance-travelled. Ideally, data would be taken around three years after graduation (as with the longitudinal DLHE), rather than the current six month measure, which was seen as inadequate. The fact that the Labour Force Survey has a new question about where respondents have studied may offer another potential solution to these issues in the future. (However, the issues raised in the discussion on value-added about using outdated data to measure current performance are also relevant here.)

Similarly, there was some suggestion that a longitudinal approach could be applied to 'entry' data also. There may be potential, for instance, to use data from the National Pupil Database (NPD) in England to track students' progress through education.

> *'If we're going to do this, let's look at primary and secondary education and have a longitudinal look at career prospects.' [Sector stakeholder]*

Delegates to the deliberative events urged that any exit measure around employment would require rigorous benchmarking. For instance, as there is evidence that ethnic minority candidates may face more difficulties in finding employment, institutions with high number of ethnic minority students may be unfairly disadvantaged without such benchmarking. Moreover, the preconceptions of employers may also come into play. There were fears that graduates from some universities may find it easier to enter employment than those from lesser known institutions, simply because of their institutions' reputations:

> *'If you've got a degree from [Russell Group university], it's much easier to get a job than it is if you're coming from somewhere that hasn't got the reputation, the contacts, the links.' [Provider]*

As with the discussion on value-added, it was acknowledged that the fact that institutions have very different subject mixes would also need to be taken into account in the calculations of benchmarks.

> *'If you've got lots of medical students, you're going to have a better outcome than if you've got lots of people who aspire to be artists and don't automatically go into traditional forms of employment.' [Provider]*

5.2.3 Measuring the economic impact of HE

Delegates to the deliberative events were also asked about whether they thought that PIs should present information on the economic impact of the HE sector. Much of the discussion on this issue overlapped with the debate about value-added (see Section 5.2.1).

As with the debate about value-added, delegates were generally in favour of a sectoral measure of economic impact, and were less favourable towards the idea of institutional level measures. Again, there was some difference in opinion between providers and other stakeholders, with the former group being generally opposed to institution level measures. However, this was not universal – some provider representatives spoke up in favour of the idea of economic impact measures at an institutional level.

> *'I'd love it to be done, because as an institution we just sit back and absorb it, then we'd use it for our own benefits, and it becomes part of the rationale for our existence at a local level.' [Provider]*

> *'I do think there is a need for PIs which provide evidence of how institutions contribute. What is the contribution of an institution to its local region or its wider region and the national economy?' [Provider]*

However, despite these opposing views, the presiding opinion from among providers was that institutional level measures of economic impact would not be desirable. There was support for sector level measures, but whether this should be covered by a PI at individual institution level was contested.

Much of the discussion around economic impact focused on types of impact that it would be desirable to capture at sector level. These ranged from 'big impact measures' such as the value of universities as employers and service contractors, the value that graduates bring to the economy in terms of tax revenue and the economic value that student populations bring to local areas, to potentially 'smaller impact measures' such as the economic value of universities' research, spin-out companies and university-business interactions.

Some of this information is currently available, for example, from sources such as the HE-BCI survey data. Data from this survey provides information about revenue generated from research and enterprise creation. While some of these data are available at institutional level, as described above, providers generally warned against the creation of institutional level indicators. There were various reasons given for this.

Firstly, there was a feeling that an institutional level measure of economic impact would be unhelpful. There were concerns that an indicator in this area would simply show how large or small a particular institution is – as size is likely to be the main indicator of economic impact.

Secondly, there were worries about the potential creation of perverse incentives. For example, a PI relating to the generation of spin-out companies, which may well be measurable, might lead universities to push graduates towards starting up unviable businesses.

Thirdly, it was felt that one of the principles of PIs should be to facilitate enhancement; arguably, PIs should provide institutions with a 'directional' benchmark that they can aim to improve their performance against. Delegates were of the opinion that the issue of economic impact was, to some extent, beyond the control of individual institutions. In

practice, this meant that it would be difficult for PIs to establish real comparability between institutions and comparability over time:

> *'Something like that is so macro that it's not in your control. We aren't in control of everything that affects the economy. There would be other factors influencing economic performance.' [Provider]*

> *This is for economists to look at – it isn't actually grounded in something that's enabling us to perform better.' [Provider]*

5.2.4 Measuring the social impact of HE

The final area that delegates to the first group sessions were asked to reflect on was whether they felt that PIs should measure the extent to which the HE sector is 'engaging with communities' and 'providing a social good'.

Again, there was some overlap here with the discussion on value-added (see section 5.2.1). Stakeholders from HE providers, in particular, argued that the definition of 'value' could (and should) also refer to social and cultural value. It was argued that higher education offers a range of potentially positive impacts, of which economic impact was just a part:

> *'I don't think [financial impact] is the only good that comes out of higher education, and we shouldn't lose sight of that.' [Provider]*

> *'Our students may not be high earners; the term value-added doesn't come across in terms of the contribution to society of the arts.' [Provider]*

Providers and their representatives discussed the types of social and community engagement activities carried out by institutions, some of which are measured and monitored by institutions' planning teams. Such activities included: engagement with schools (eg one provider described an initiative to encourage more university staff to get involved with school governance); engagement with community groups and volunteering activities (eg some universities measure the extent to which their students are volunteering in the community); and fostering links with local employment agencies to ensure that university employees come from the local community.

It was acknowledged that the scope of activities varied widely between institutions. Currently, some institutions place a great deal of emphasis on community outreach activities, while other institutions do much less work in this area.

> *'There is a huge variance in the extent to which institutions see themselves as locally focused. Institutions like mine don't.' [Provider]*

The same is true of cultural engagement activities. The HE-BCI survey collects information on the number of public lectures, performance art (eg music, dance and drama events) and exhibitions run by institutions. As with social/community outreach work, the range and number of these types of cultural activities varies widely by provider.

This diversity of activities led most delegates to argue that there should not be a PI around social/cultural impact:

> *'I don't think they'd ever boil down to a set of things you could measure in a consistent and reliable fashion.' [Provider]*

Importantly, the diversity of activities was seen as highly positive. There was seen to be a risk that a PI in this area could serve to narrow the remit of institutions' community

engagement work. There was a worry, for example, that establishing benchmarks could incentivise institutions to focus more on measurable activities to the detriment of other activities which are less measurable, but potentially worthwhile.

> *'But do you want to narrow what everyone's doing, or are we happy that sometimes it's good that one institution is dealing with local communities and others are dealing with international communities, by the nature and type of provision they have.' [Provider]*

Related to these issues, there were also concerns that it would be difficult to measure the impact of community engagement work at any meaningful level. While it would be possible to look at inputs and activities, it would be unfeasible to measure outcomes and impact in this area.

> *'We're measuring what we can measure, and it's quite narrow, and it's not presenting how transformative a lot of the things we do are, with individuals and communities.' [Provider]*

Another related argument against a PI in this area was the promotion of 'game playing'. One example was given in relation to volunteering – it was argued that if there was a PI in this area, you might end up with a situation where activities are branded as volunteering, even if they would not usually be regarded as such.

> *'I worry about defining so that doesn't lead to game playing.' [Provider]*

Providers also made the point that, while important, social outreach activities do not tend to be central to their core mission. Of course, providers do have a mission to encourage disadvantaged students to apply to their courses, but these activities are already covered under the existing Widening Participation PIs (and, in England for example, in OFFA agreements). Beyond this remit, community engagement was not seen as part of the central purpose higher education providers. This was seen as particularly true for newer entrants to the HE sector, for example, private providers which are not generally involved in community engagement work.

> *'I just don't think it's suitable for PIs, I've got more important things to be thinking about.' [Provider]*

5.2.5 Other issues

As well as asking them to reflect on early research findings, delegates were asked to put forward other ideas for areas that they felt that PIs should cover. Discussions arising from this part of the first group session are presented in this section.

Employability PI

There was real desire for an indicator relating to longer term graduate employment outcomes. Delegates argued that the current employability PI, which measures graduate employment six months after graduation, is not sufficient and that a longer term measure is needed. It was felt that student journeys to employment are becoming more protracted, with graduates more likely to progress onto postgraduate education, take 'time out' or undertake work experience or internships before entering employment. The current PI was felt to be more a measure of how organised students are in terms of finding work at the end of their degrees, as opposed to a real measure of their employment destinations. Delegates questioned whether there was scope to extend the longitudinal DLHE (which is

currently a sample survey not a census), although they did understand the challenges and the cost implications of doing so.

> *'Before someone is now well-situated on their career route, they could easily be five/six year post graduation.' [Provider]*

Research PI

Research is part of the central mission for many institutions and it was generally felt that it was appropriate to have a PI in this area. It should be noted, however, that this view was not universally held. Clearly, a focus on research is more suited to some institutions' missions than others, and there was an opposing view that a concentration on research output risks distorting the overarching picture created by PIs.

Where delegates supported a PI around research, it was widely agreed that the current Research PI as it stands was not used, and was not useful, and should therefore be abolished or changed. The preferred alternative was the use of the REF framework.

Sustainability and environmental PIs

Several of the groups had a discussion about establishing a PI in the area of environmental sustainability. A great deal of data are already collected in this area, for example, as part of the four funding councils' Estate Management Statistics, which looks at issues such as institutions' environmental performance.

The presiding view was that a PI in this area would not be appropriate because environmental sustainability does not generally form part of the core mission of institutions, which was seen to be about teaching students and conducting research.

> *'I'm split because I come from an institution that does well in the Green League, so it'd be nice to have a new performance indicator that we're going to do well in. But we're about teaching students; sustainability – while I fully understand that it's really important, it's not our raison d'être and I question putting something into a performance indicator for an institution that isn't focused down on their raison d'être.' [Provider]*

It should be noted that this view was not universally held. There were parallels drawn between environmental sustainability and the widening participation agenda. WP was not necessarily part of universities' core missions in the past, but having a PI in this area has positively directed performance and enhanced behaviour in this area.

Financial sustainability PI and efficiency

There were also discussions about the appropriateness of establishing a PI relating to financial sustainability. It was felt that the public – and, more specifically, prospective students – have a right to know whether a particular institution is financially sustainable. This is particularly the case given the level of investment that students are now required to make to their education at HE level.

It was also felt that there are probably enough existing data sources to create a structure for a financial performance indicator, so that a PI in this area could be developed further and embedded relatively quickly.

While there were some concerns that there may be issues around providers not wanting to share financial details eg in relation to surpluses or financial viability, it was agreed that these could potentially be overcome by some sort of credit rating system.

There may also be issues around private providers. Arguably, such providers face the biggest issues in relation to financial sustainability, but may be least willing to share their financial information.

It would also be necessary to ensure that financial indicators were comparable across the four UK nations, as institutions are funded in slightly different ways in each country. It was acknowledged that this issue was not necessarily problematic, but necessary to factor into calculations about financial sustainability.

The main issue with regards to creating a PI around financial sustainability related to the implications for less viable institutions. There were concerns that PIs might become 'self-fulfilling prophesies'; publishing data on financial viability might compound an institutions' financial troubles by serving to dissuade potential students from applying to their courses. The tension between the right of the public, on one hand, to know whether they are making a safe investment and the obligation of the sector, on the other, towards struggling institutions needs to be weighed up.

Linked to the issue of financial sustainability, several delegates felt that a PI relating to efficiency would be useful. It was suggested that indicators could consider issues such as size of back office, staff-student ratios etc., which impact on overall financial sustainability. Such indicators may be less controversial than publishing credit ratings, but may also lead to perverse incentives – eg around reducing staff-student ratios, which may not be in the best interests of students.

Teaching quality and student engagement

A view frequently expressed was that a PI in relation to teaching quality would be desirable, as teaching was seen to be central to the mission of the majority of providers. However, while this issue was seen as important, there was little consensus around what aspect of teaching quality should be captured, and how this might be carried out.

Some delegates also wanted a measurement around student engagement, which was seen as more useful that the current NSS satisfaction indicators. This could encompass both students' engagement with education, as well as their wider engagement with the student experience (such as involvement with club, societies or the union).

There was a debate about whether PIs should focus around issues such as teaching quality and student engagement, as these types of indicators are most interesting for prospective and current students – who are not seen as the main audience of PIs:

> *'Any information for students would need to be presented via KIS, not to provide a competing way of providing information to students.' [Sector stakeholder]*

5.3 Capturing the diversity of the HE sector

The second breakout discussion 'capturing the diversity of the HE sector' asked participants to consider how the context of HE had changed since the current PIs came into operation in the late 1990s, and how such contextual changes had affected the operation of existing measures. Delegates were then asked to reflect specifically on the current widening participation measures, unpicking some of the core issues raised as part of the online consultation.

5.3.1 The changing context of HE

Group discussions were structured to include an initial 'brainstorm' session where lists of changes to HE context were compiled, followed by more in-depth discussion of the listed items and their interaction with PIs.

Although the order and emphasis of different factors varied, there was a high level of consistency between the lists compiled by different groups.

Increased competition/marketisation of HE

Changes to the funding environment, and the introduction/increase in tuition fees, featured prominently in discussions. Delegates felt there had been a change in the sector's funding structure – *'funding has changed in terms of where it comes from'* – and that this included a reduction in capital funding. Related to this, were concerns that institutions had become increasingly vulnerable economically, ie that there were new issues with the financial sustainability of HEIs.

A prominent view emerging from discussions was that the introduction of and increase in tuition fees had changed the way HE was perceived. Delegates felt that there had been increasing emphasis on HEI accountability, and this had a resultant effect on the bureaucratic burden placed on institutions, creating '*more complex governance*' and resulting in '*increasing legislation*'.

These changes were felt to have contributed to the rise of the 'student as consumer' and *'dare we mention the c word, the customer?'* Such marketisation was seen to have significant implications for HE – changing the language used and placing a new emphasis on informing consumers ahead of their next 'purchase'. Delegates also connected consumerism to a growing interest in and importance placed on student experience (above other measures of quality, such as assessment of teaching quality and independent learning skills).

Related to these issues were concerns about what was seen as increasing competitiveness within the sector – a marketisation in attitude – with HEIs competing for students. The exclusion of AAB students from number controls on university places was seen to have fed into this process. It was acknowledged that this policy favoured those universities at the top of the league tables, which attract the highest numbers of these types of students with top grades, while there were concerns that those institutions at the middle and bottom of the league tables may struggle to hold onto the most high-performing students in the future.

This increased element of competition/marketisation within the HE sector has implications for the future of PIs. Indeed, these factors clearly coloured the debate at the deliberative events and influenced the perceptions of providers about the future direction of PIs. As evidenced in the first group sessions (see sections 5.2.1-5.2.5), providers were very reluctant to support the introduction of PIs in new areas, which although might be useful and interesting to policy makers and the public, might serve to weaken their positions in league tables.

Indeed, during the second group sessions, it was recognised that competition was complicated by the open availability of data. While transparency was highly valued on the one hand, on the other it was seen to undermine competition within the sector.

> *'I can find out exactly what's going on in [HEI name] and what's happening to your student cohorts and what subjects you're recruiting in and doing well, and what*

subjects you're doing not so well in. And I think that makes it very hard for universities to put that competitive advantage because there's so much data out there.' [Provider]

Delegates also highlighted the potential for conflict between competition and institutional co-operation, although it was not necessarily realised in practice.

'We're having a massive struggle trying to get the best reputation but at the same time we actually do talk a lot to our opposite numbers without there seeming to be any difficulty whatsoever, and institution co-operation takes place.' [Provider]

There is a clear tension here for PIs going forward; while the remit of PIs is to ensure the accountability of the HE sector to the public, they will not gain the support of the sector if they are seen to undermine competition, or to threaten the competitive advantages of particular institutions or groups of institutions.

Increased diversity of HE provision

Connected to arguments about the rise in marketisation and competitiveness (in some respects resulting from it) was the sense that the HE sector had expanded and diversified. There were a number of different components to the perceived growth and diversification of provision, within the sector as a whole and also within mission groups. These included the following.

- Growth in student and staff numbers
- Growth in private sector provision
- Growth of HE provision in the FE sector
- Growth in distinctive HE missions; expansion in purpose of HE – beyond teaching and learning
- Growth in mechanisms and modes of delivery, for example, new learning technologies such as online delivery and a growth in flexible learning; increase in part-time provision
- Increasing diversity in the provision offered ie the range of courses available
- Increasing diversity in the qualifications of HE entrants, in particular the growth in vocational qualifications (although the National Curriculum means that students come in with common skills sets, and the expectation of testing)
- Internationalisation of provision and an increased international focus, including: recruitment overseas, increase in transnational delivery (ie students spending time studying abroad) and internationalisation of sector (but at the same time tightening of visa controls)
- Expansion in postgraduate provision and increasing perceived importance of postgraduate provision

The presiding view among delegates was that PIs should be able to capture this diversity of provision more effectively. This included ensuring that indicators cover both private sector provision and HE provision in the FE sector. There was also support for PI measurements at postgraduate level, and for ensuring that 'less typical' groups of students (such as part-time and mature students) were better captured under existing PIs (and any new PIs going forward).

However, such diversification was perceived to present a number of problems for PIs. Firstly, it was acknowledged that different types of providers – particularly private sector providers – may not have the capacity or the desire to deliver the required data. Secondly, although there was support for a greater connectedness between HEI missions and PIs, delegates anticipated a number of practical issues associated with creating such a link. Thirdly, delegates acknowledged that the growth in flexibility meant that there was no longer a standard student journey, and identified a mismatch between traditional definitions of learning and success (as used in the existing indicators), and students' own perceptions. It was felt that in the future, measures would need to be able to reflect new flexibilities in delivery of learning (moving away from the concept that one size fits all).

> *'You're assuming that there's a standard HE and a standard student journey by having a standard performance indicator. Now I'm not convinced, I mean some of our challenges around PIs are that if our full-time students move onto part-time routes, they are not considered to have the same success as students who go on to complete in a timely manner. Yet for that individual student and their choice, that was an entirely correct decision which enables them to fulfil their degree.'*

In terms of the expansion of international recruitment and provision, delegates felt that international comparisons could be valuable, but that measures need only be at the sector-level in order to do this. However, they also felt there was an appetite for a measure of trans-nationalism in the educational experience.

> *'Both in terms of the students, but also in terms of we have international partnerships, overseas delivery... [Higher education] is becoming much more cross-boundary and international.' [Provider]*

Related to issues of diversification were delegates' concerns about the impacts of devolution and the increasingly disparate nature of HE policy within the UK. Similarly it was recognised that some of the most significant contextual changes under discussion, such as the increase in tuition fees, were not UK-wide, and this in turn had implications for the future of national indicators. Delegates expressed concern that PIs had increasingly come to reflect the English policy context, with other UK nations supplementing the UK PIs with measures designed to address their own policy priorities. There was strong support for ensuring that UK PIs offered equal value for all UK nations.

5.3.2 Issues with the widening participation PI

Towards the end of the group sessions, delegates were asked to comment on the widening participation PIs, reflecting on some of the issues that had been raised in the earlier research. Generally, the criticisms of this set of PIs that emerged in the deliberative events reiterated and corroborated the findings of the earlier research.

For example, there were various concerns about the NS-SEC measurement. Specifically, the fact that this measure is self-reported by prospective students to UCAS led to concerns around inaccuracy. The categories were seen as vague and potentially confusing for applicants. Indeed, institutions report a high level of missing/unknown data for this measure, although it was acknowledged that the categories used are in line with the standard ONS classification, and so there may be limited scope to change these. There were also worries that applicants might be tempted to misreport their parents' occupations, potentially selecting a 'lower' socio-economic category in the belief that this might lead to a 'softer' offer from the institution in terms of entry grades. Another concern was that this measure is less relevant for mature students, as it may be less appropriate to assess these groups according to parental occupation.

'Students don't necessarily know what the categories mean and how their parents might fit into them.'

'There's a debate to be had as to how do we define the widening participation characteristics of mature students, can you base them on where they lived or what their parents did? It's a genuine question that we need to think about.'

The state school measure was also criticised, in that it is seen to be a poor proxy for socio-economic status and income. It was acknowledged that there are a wide range of state schools, including highly selective grammar schools. As such, the grouping of all state school pupils together in one category was potentially misleading.

'Many kids from state schools are actually quite well off.'

The indicator relating to Low Participation Neighbourhoods (LPN) was also discussed and received criticism. The fact that the measure is not comparable in Scotland (due to the higher proportion of people attending HE in Scotland), which was well-documented in the earlier research, was reiterated in the deliberative events. This issue was also seen to apply to London, where there are relatively higher participation rates. Some providers argued that it is easier to perform well on the LPN indicator when recruiting from English regions other than London.

Given the various issues raised about the current measures, there were calls from delegates to find more appropriate proxies of socio-economic status for the widening participation PIs. Most commonly, stakeholders thought that a measure around income would be desirable, while an indicator around students that had received Free School Meals was also thought to be useful. It was felt that it might be possible to access income data from the Student Loans Company in the future.

'The social class data are interesting, but don't always compare to student income – there is a relationship, but by no means a perfect one.'

'Income is hard to measure, but it's the big one.'

Delegates to the deliberative events also discussed whether the widening participation PIs should be extended to include other potentially low-participation groups (ie beyond the current socio-economic and disability measures). The issue of widening participation and ethnicity was discussed in detail. While there was some support for a PI in this area, it was acknowledged that the issue was complex. PIs are directional measures, yet it is not as simple as saying that institutions should try to attract more students from ethnic minorities – as some ethnic minority groups are well-represented at HE level, while there is often concern about the educational attainment of white males. Often the issue is more about the representation of ethnic minority students in particular subjects and at particular types of institution. As such, if a PI was established in this area, careful consideration would need to be given to exactly what the aim of the PI was in terms of directing institutional behaviour. Other potential breakdowns that that delegates thought might be useful to have included: religion, LGBT, care leavers, student parents and gender.

There was some agreement that the current focus of the widening participation PIs on recruitment was too narrow, and that it could be usefully extended to look at continuation, degree results and employment outcomes.

'That's the real issue with widening participation – it's not just recruiting numbers, but recruiting people appropriately, which is best measured through retention and progression.'

As well as the lack of information about mature students (see above), another criticism was that the current widening participation PI set does not cover postgraduate provision. Education at the postgraduate level has been characterised as the 'new frontier' for widening participation, and this view also came out of the deliberative events.

> *'There's also an issue about postgraduate taught and postgraduate research which we're beginning to look at – how do you define widening participation in terms of PGT and PGR students?'*

Appendix A: Bibliography

Audit Commission (1999) *Performance measurement as a tool for modernising government*, London: Cabinet Office.

Baker S (2013) 'Milburn: Russell Group not doing enough on access', *Times Higher Education*: 17th June 2013.

Ball R and Wilkinson R (1994) 'The use and abuse of performance indicators in UK higher education', *Higher Education*, 27 (4) 417-427.

Ball S J (2010) 'New Voices, New Knowledges and the New Politics of Education Research: the gathering of a perfect storm?' *European Educational Research Journal* 9(2):124-137.

Brown, R (2012) *The development of system-wide institutional performance indicators*, University of West London Occasional Paper, 2012.

Buckley A (2012) *Making it count: Reflecting on the National Student Survey in the process of enhancement*. York: Higher Education Academy.

Burke J C and Minassians H (2001). *Linking State Resources to Campus Results: From Fad to Trend, 5th Annual Survey*, Higher Education Program, The Nelson A. Rockefeller Institute of Government, Albany NY.

Cheng S K (2011) 'Mirror, mirror on the wall: a closer look at the top ten in university rankings', *European Journal of Higher Education*, 1 (1): 77-83.

Clarke J and Newman J (1997) *The Managerial State*. London: Sage.

Coates, H (2007) 'Excellent measures precede measures of excellence' *Journal of Higher Education Policy and Management*, Vol. 29, No. 1, March 2007, pp. 87–94.

Committee of University Chairmen (2006*) Report on the Monitoring of Institutional Performance and the Use of Key Performance Indicators*, November 2006.

Committee of University Chairmen (2008) *Report on the implementation of Key Performance Indicators: case study experience*, June 2008.

Conlon G and Patrignani P (2011) *The Returns to Higher Education Qualifications*, BIS Research Paper Number 45.

Cuenin S (1987). 'The Case of Performance Indicators in Universities: An International Survey', *International Journal of Institutional Management*, Vol. 11(2), pp. 117-139.

Cutler T and Waine B (2000) 'Managerialism Reformed? New Labour and Public Sector Management', *Social Policy and Administration* 34(3):318-332.

CVCP/UGC (1986) *Performance Indicators in Universities. A First Statement by a Joint CVCP/UGC Working Group* London: Committee of Vice-Chancellors and Principals.

Dearing, R (1997), *Higher education in the learning society*, Report of the National Committee of Enquiry into Higher Education. London: HMSO.

De Bruijn H (2002) 'Performance measurement in the public sector: strategies to cope with the risks of performance measurement', *International Journal of Public Sector Management* 15(7):578-594.

DEEWR (2009) *An Indicator Framework for Higher Education Performance Funding*, Australia Department of Education, Employment and Work Relations Discussion Paper, December 2009.

Department for Education and Science (1987) *Higher Education: Meeting the Challenge*, London: HMSO.

Department for Education and Science (1985) *The Development of Higher Education into the 1990s,* Cmnd 9524. London: HMSO.

Dill D and Soo, M (2005) 'Academic Quality, League Tables and Public Policy: A crossnational analysis of university ranking systems', *Higher Education*, 49(4).

Dochy F and Segers M (1990). 'Selecting Indicators on the Basis of Essential Criteria and Appropriate Assessment Methods for a Quality Assurance System', Paper prepared for the *CHEPS Conference, 'Quality Assessment in Higher Education'* at Utrecht, March 16th, 1990.

Elton L B (1987). 'Warning Signs', *Times Higher Education Supplement* 11.9.87 page 12.

ESMU (2008) *Benchmarking in European Higher Education – Findings of a two-year EU funded project*, European Centre for the Strategic Management of Universities, August 2008.

EUMIDA (2010) *Feasibility Study for Creating a European University Data Collection: Final Study Report*, 2010, EUMIDA Consortium.

Fisher D, Rubenson K, Rockwell K, Grosjean G, Atkinson-Grosjean A (2000) *Performance Indicators: A Summary*, Centre for Policy Studies in Higher Education and Training, University of British Columbia.

Gibbs G (2010) *Dimensions of Quality*, Higher Education Academy, York, September 2010.

Gibbs G (2012) *Implications of 'Dimensions of quality' in a market environment*, Higher Education Academy, York, 2012.

Goldstein H and Foley B (2012) *Measuring Success: League tables in the public sector*, British Academy, March 2012.

Hazelkorn E (2007) 'The Impact of League Tables and Ranking Systems on Higher Education Decision-Making', *Higher Education Management and Policy*, 19(2), pp 81-105.

HEFCE (2003a) *Information on Quality and Standards in Higher Education – Final Guidance*, Higher Education Funding Council for England, October 2003.

HEFCE (2003b) *Guide to performance indicators in higher education*, Higher Education Funding Council for England, December 2003.

HEFCE (2006) *Needs of employers and related organisations for information about quality and standards of higher education*, Higher Education Funding Council for England, October 2006.

HEFCE (2007) *Review of performance indicators: Outcomes and decisions*, Higher Education Funding Council for England, June 2007.

HEFCE (2008) *Counting what is measured or measuring what counts? League tables and their impact on higher education institutions in England*, Higher Education Funding Council for England, April 2008.

Heinrich, C J and Marschke, G (2010) 'Incentives and their dynamics in public sector performance management systems', *Journal of Policy Analysis and Management* 29(1):183-208.

HESA (2010) *Benchmarking to Improve Efficiency – Status Report*, Higher Education Statistics Agency, November 2010.

HESA (2011a) HEIDI User Survey 2011.

HESA (2011b) *International Benchmarking in UK Higher Education*, HESA, October 2011.

HESA (2012) *Performance Indicators,* Cheltenham: Higher Education Statistics Agency.

House of Lords (2012) *The Modernisation of Higher Education in Europe*, House of Lords European Union Commission, London, March 2012.

Institute of Education (2010) *Enhancing and Developing the National Student Survey*, Higher Education Funding Council for England, August 2010

Jarratt Report (1985) *Report of Steering Committee for Efficiency Studies in Universities*, CVCP, London.

Johnes G (1992) 'Performance Indicators in Higher Education: A survey of recent work', *Oxford Review of Economic Policy* 8(2):19-34.

Johnes J and Taylor J (1990) *Performance Indicators in Higher Education: UK Universities,* Buckingham: SRHE and Open University Press.

Jongbloed B and Kaiser F (2011) *U-Map and U-Multirank: some first results and reflections on two new profiling and ranking tools for higher education institutions*, Abstract submitted for the ENID 2011 conference, Rome, Sept 2011.

Lebas, M J (1995) 'Performance measurement and performance management', *International Journal of Production Economics* 41(1):23-36.

Martin J (1997) *Changing Accountability Relations: Politics, Consumers and the Market*. Paris: OECD.

Massy W F (2004) 'Markets in higher education: Do they promote internal efficiency?', In Teixeira P, Jongbloed B, Dill D and Amaral A (eds) *Markets in Higher Education: Rhetoric or Reality?* (pp. 13-35). Dordrecht: Kluwer.

Milburn A (2012) *University Challenge: How Higher Education Can Advance Social Mobility*, progress report by the Independent Reviewer on Social Mobility and Child Poverty, London, October 2012.

National Audit Office (2007) *Staying the course: the retention of students in higher education*, July 2007.

National Committee of Inquiry into Higher Education (Dearing Committee) (1997) *Higher Education in the Learning Society: Report of the Main Committee,* London: HMSO.

Newman J (2001) *Modernising Governance: New Labour, Policy and Society*, London: Sage.

Oakleigh Consulting and Staffordshire University (2010) *Understanding the information needs of users of public information about higher education*, August 2010.

OCUFA (2006) *Performance indicator use in Canada, the U.S. and abroad*, Ontario Confederation of University Faculty Associations Research Paper, May 2006.

OFFA (2013) *How to Produce an Access Agreement for 2014-15*, Office for Fair Access, January 2013.

Oswald, A (2001) 'An economist's view of university league tables', *Public Money & Management*, Vol.21 (No.3). pp. 5-6.

Osborne D and Gaebler T (1992) *Reinventing government: how the entrepreneurial spirit is transforming the public sector,* Reading: Addison-Wesley.

Ozga J (2008) 'Governing Knowledge: research steering and research quality', *European Educational Research Journal* 7(3):261-272.

QAA (2008) *Outcomes from Institutional Audit – Progression and completion statistics*, Quality Assurance Agency for Higher Education, 2008.

QAFRG (2006) *Review of the Quality Assurance Framework: Phase two outcomes*, Quality Assurance Framework Review Group, October 2006.

Sharpe A (2007) *Comparative review of British, American and Australian national surveys of undergraduate students*, York: Higher Education Academy.

Social Mobility and Child Poverty Commission (2013) *Higher Education: the Fair Access Challenge*, Social Mobility and Child Poverty Commission, London, June 2013.

Swinnerton-Dyer P (1991) Policy on Higher Education: The Rede Lecture, 1991, *Higher Education Quarterly,* 45(3): 204-218.

THES (2010a) 'Measured, and found wanting more', *Times Higher Education Supplement*, 8.7.10.

THES (2010b) 'World University Rankings subject tables: Robust, transparent and sophisticated', *Times Higher Education Supplement*, 16.9.10.

THES (2013a) 'Russell Group continues to fall short on access benchmarks', *Times Higher Education Supplement*, 21.3.13.

THES (2013b) 'Leru pulls out of EU's U-Multirank scheme', *Times Higher Education Supplement* 7th February 2013.

THES (2013c) 'U-Multirank may be a waste of taxpayers' money', *Times Higher Education Supplement* 22nd March 2013.

UCAS (2012a) *Admissions Process Review: Findings and Recommendations.*

UCAS (2012b) *Qualifications Information Review: Findings and Recommendations.*

Van Berkel, R and Borghi, V (2008) 'Review Article: The Governance of Activation', *Social Policy and Society* 7(3):393-402.

Van Vught F and Ziegele F (2011) U-*Multirank: Design and Testing the Feasibility of a Multidimensional Global University Ranking*, Consortium for Higher Education and Research Performance Assessment, June 2011.

Yorke M (1998) 'The Times league table of universities, 1997: A statistical appraisal', *Quality Assurance in Education*, 6(1).

Yorke, M and Longden, B (2005) *Significant figures: performance indicators and 'league tables'*, Standing Committee of Principals.

Appendix B: Participating organisations

Sector stakeholders

Committee of University Chairs (UCU)

Department for Business, Innovation and Skills (BIS)

Department for Education and Skills, Wales (DfES)

Department for Employment and Learning, Northern Ireland (DELNI)

Equality Challenge Unit (ECU)

GuildHE

Higher Education Funding Council for England (HEFCE)

Higher Education Funding Council for Wales (HEFCW)

Higher Education Statistics Agency (HESA)

Higher Education Wales (HE Wales)

National Union of Students (NUS)

Office for Fair Access (OFFA)

Push

Quality Assurance Agency (QAA)

Scottish Funding Council (SFC)

UCAS

UK Statistics Authority

Universities Scotland

Universities UK (UUK)

Higher education institutions

Bangor University
Edge Hill University
Glasgow School of Art
Goldsmiths, University of London
Grimsby Institute of Further and Higher Education
IFS School of Finance
Institute of Education
Kingston University
Lancaster University
Manchester Metropolitan University
Newcastle College
Open University
Queen’s University, Belfast
Regent's University
Salford University
Staffordshire University
St George's, University of London
Trinity Laban Conservatoire of Music and Dance
University of Central Lancashire
University of Cumbria
University of Exeter
University of Glasgow
University of Greenwich
University of Hull
University of Leeds
University of Leicester
University of London
University of Manchester
University of Northampton
University of Nottingham
University of Sunderland
University of Sussex
University of the West of Scotland
University of Westminster
University of Worcester

Appendix C: Current PIs

- **Widening participation** of under-represented groups:
  - Percentage of undergraduate students from state schools or colleges for young full-time undergraduate entrants
  - Percentage of undergraduate students from specified socio-economic classes for young full-time undergraduate entrants to higher education
  - Percentage of undergraduate students from low-participation neighbourhoods (using POLAR2) provided separately for young and mature undergraduate entrants, both full-time and part-time
  - Percentage of all undergraduate students who are in receipt of Disabled Students' Allowance provided separately for full-time and part-time undergraduates
- **Non-continuation** rates and module completion:
  - Non-continuation rates of undergraduate students, provided separately for young and mature full-time first degree entrants to higher education
  - The proportion of part-time first degree entrants who do not continue in higher education beyond their second year, proportions provided separately for entrants aged 30 and under and those aged over 30
  - Return after a year out – full-time entrants who started at university or college in 2008-09, but were not in higher education in 2009-10, provided separately for first degree and other undergraduate entrants
  - Projected outcomes – outcomes that would be expected from full-time first degree starters at the institution in 2009-10 if these progression patterns were to remain unchanged over the next few years
  - Module completion rates – percentage of modules taken by part-time undergraduate students at Welsh institutions that are successfully completed
- **Employment** of leavers:
  - The percentage of full-time first degree leavers in employment and/or further study (the employment indicator), provided separately for full-time first degree, part-time first degree, full-time other undergraduate and part-time other undergraduate leavers
- **Research** output
  - Proportion of PhDs awarded per proportion of academic staff costs
  - Proportion of PhDs awarded per proportion of funding council QR funding allocation
  - Proportion of research grants and contracts awarded per proportion of academic staff costs
  - Proportion of research grants and contracts awarded per proportion of funding