August 2006/34

Policy development

Consultation

Responses should be sent to HEFCE by Friday 10 November 2006

This document seeks views and suggestions from institutions and other stakeholders on the usefulness and future development of the performance indicators for UK higher education. These will feed into a wide-ranging review of the indicators, to be undertaken by the Performance Indicators Steering Group.

Review of performance indicators

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Executive summary

Purpose

1. This document seeks views and suggestions from institutions and other stakeholders on the usefulness and future development of the performance indicators (PIs) for UK higher education. These will feed into a wide-ranging review of the indicators, to be undertaken by the Performance Indicators Steering Group (PISG). Responses should be returned by **10 November 2006**.

Key points

2. The PISG's first report (HEFCE 99/11) was published seven years ago, recommending a number of performance indicators for the higher education sector. Since then there have been a number of developments in higher education that have affected the PIs, which have prompted this review.

3. The review will consider how far the proposals made in that first report have been implemented; how useful the current indicators are to different audiences; and the requirements for any future indicators. The results will be published, and the objective is to produce a revised set of indicators that will satisfy the needs of key stakeholders in the current higher education environment.

4.   Current indicators cover four main areas: widening participation, progression and retention, research output, and employment outcomes. These indicators are published alongside benchmarks, designed to allow an institution to be compared with the sector. The benchmarks take account of some of the diversity in the HE sector, in particular the subject mix at an institution and the entry qualifications of its students.

5.   The PISG remains committed to publishing the PIs, and does not envisage making wholesale changes. However, it is also eager to obtain the views of, and suggestions from, stakeholders, and to bring these together into a set of recommendations which will be acted upon.

Action required

6.   Responses to the consultation should be made by **10 November 2006**, using the form at Annex G (available as a separate download on the web) or directly by e-mail or post. Responses should be returned to j.akinbolu@hefce.ac.uk, or Judy Akinbolu, Analytical Services Group, HEFCE, Northavon House, Coldharbour Lane, Bristol, BS16 1QD.

Development and purpose of the indicators

7.   Following the publication of the report of the National Committee of Inquiry into Higher Education (the Dearing report) in 1997, the Government set up the Performance Indicators Steering Group (PISG) to develop a set of performance indicators for higher education institutions in the UK. This group produced a report at the beginning of 1999 (HEFCE 99/11), and the first set of performance indicators (PIs) were published towards the end of that year. They have been published annually since then.

8.   The steering group still exists to oversee the production of the indicators, the development of new indicators, and to agree amendments required to existing indicators, for example where there are changes to data availability. Membership of the group is at Annex F.

9.   The indicators were designed to provide reliable information on the nature and performance of some aspects of the higher education sector in the UK, using consistent definitions. They were intended to contribute to a greater public accountability by the sector, as well as to help inform policy decisions.

10.   Most of the indicators had benchmarks attached. The benchmarks were not targets, but average values, adjusted for various factors, which would change from one year to the next if the overall value of the characteristic changed. They were provided to give information about the sort of values that might be expected for an institution's indicator, allowing for certain factors. Where differences existed, this could have been due to the institution's performance, or due to some other factor which was not included in the benchmark.

11.   The PIs cover four broad areas: widening participation; non-continuation and progression; employment of graduates; and research output. Most of them relate to full-time undergraduate students, mainly because this is the group for which robust data were readily available.

12.   The 2003 White Paper on higher education, 'The future of higher education', suggested that other indicators of widening participation could be useful. The paper stated:

> 'The current ways of measuring access relate to social class, postcode and state/private school. The Government favours moving towards more sensitive indicators, looking at a student's family income, their parents' levels of education, and the average results of the school or college they attended.'

These proposed indicators are discussed in Annex C.

13.   In the related regulatory impact assessment of the White Paper, it was further stated that the objective was to give a clearer and more realistic picture of participation in higher education by non-traditional students, by developing new performance indicators to measure it. These new indicators would then be used to inform work on improving access by both Government and institutions.

14.   In 2004, the Higher Education Statistics Agency (HESA) took over the production and publication of the PIs. It was able to publish them several months earlier, because it collected all

the data used in the indicators, and was able to build checks into the collection process by which institutions could confirm their data were correct, knowing what most of their indicators would be..

Need for review of PIs

15.   A recent HEFCE internal audit of the PIs suggested that there was a need to look again at the reasons for producing the indicators, and to consider whether they fully met the current requirements for performance indicators.

16.   The PISG had already considered setting up a review, because of a number of changes over the previous two or three years. These included changes to the definition of social class for the 2001 Census, and to the way entry qualifications were quantified following the introduction of Curriculum 2000. There was also a change to the way some data were collected for the HESA student record: the Universities and Colleges Admissions Service (UCAS) provided institutions with information about the school type and social background of their students for inclusion in that record, whereas formerly this information had been obtained directly from UCAS by HEFCE. At the same time that these changes were introduced, HESA took over the production of the PIs from HEFCE, and it was felt that an evaluation of this process could be useful.

17.   The review will look at how far the objectives set out in the group's first report have been met; whether the rationale for the indicators and the principles of working in that report need to be revised in light of changes to higher education (HE) and the wider context; and whether the set of indicators currently published should be extended, remain the same, or be amended in some way. The effect of both the changes outlined above and changes in the wider HE environment will also be assessed. The review will cover both current indicators and those already proposed, and will take on board suggestions for further indicators. The complete terms of reference are attached at Annex A.

Consultation

18.   The PISG remains committed to publishing the PIs, and does not envisage making wholesale changes. However, the group would welcome views and suggestions from stakeholders on a wide range of issues, and intends bringing these together into a set of recommendations to be acted upon.

19.   As part of the review, we are consulting all stakeholders with an interest in the performance indicators. This document sets out the issues, and provides detailed information about the existing indicators (Annex B), the proposed indicators (Annex C), and the benchmark methodology and how it has changed (Annex D). Annex E lists stakeholders who may be interested in responding to this consultation; and Annex F lists the members of the PISG.

20.   Many of the consultation questions are written with higher education institutions (HEIs) in mind, as they are key stakeholders, but the information given is of general relevance. Organisations listed at Annex E will be contacted directly, but other organisations and individuals are welcome to respond to some or all of the issues raised.

Issues for consultation

21.	The following pages provide an overview of the issues, with more detailed explanations where appropriate in the annexes. We have provided a structured set of questions here, but we are happy to receive more general responses, either as additional comments on the questionnaire or directly by e-mail or post.

Published indicators

22.	The PISG's first report recommended that the initial set of indicators should be those of most interest to government, the funding councils, and the governance of institutions. One of the aims of the review is to see whether the report's recommendations have been implemented, and so we are interested in how much institutions use the PIs, for what purposes, and how useful they are. We are specifically interested in whether they use PIs for comparing the institution with others, whether there are any specific groups of institutions used in the comparison, and whether this is part of regular internal management processes.

Consultation question 1
Do you make use of any of the PIs? If so, in what way do you use them?

23.	As well as a general statement, we welcome views on each PI. Below we give a brief outline of each indicator to put the questions into context; full details of the definitions of, and rationale for, the published indicators are in Annex B.

24.	We would like to know:
- whether respondents think the indicator is useful, on a scale from 1 (very useful) to 5 (not at all useful)
- how they use it
- whether they think it should be retained in its current form, or amended or extended
- and if it should be amended or extended, then in what way, and why this could be beneficial.

25.	The current indicators fall within the four broad categories of widening participation, non-continuation, research output, and employment of graduates. Within each section, except the last, there are a number of different indicators designed to complement each other. Most, apart from the research indicators, refer to full-time undergraduate provision; although two of the widening participation indicators look at part-time entrants, and there is one indicator for Welsh institutions covering progression for part-time entrants.

Widening participation indicators

26.	The widening participation indicators are published in Tables T1, T2 and T7. Table T1 covers young entrants to full-time undergraduate courses, and looks at what proportion of these are from state schools, what proportion are from the National Statistics Socio-Economic Classification (NS-SEC) categories 4 to 7, and what proportion are from low participation neighbourhoods defined by their home postcode. Table T2 covers mature entrants to full-time undergraduate courses and all entrants (young and mature) to part-time undergraduate courses. The indicator is the proportion who do not have a previous HE qualification and come from a low

participation neighbourhood. The neighbourhood type is based on the student's postcode on entry.

27.   Table T7 provides an indicator of disability, the proportion of students (not entrants) who receive the Disabled Students' Allowance (DSA). It was first published in 2002. Because of the relatively small numbers of students that receive a DSA, it looks at all full-time undergraduates and those part-time undergraduates who study at least 50 per cent of the time, rather than just entrants. It provides the information separately for full-time and part-time students.

Consultation question 2

For each of the <u>widening participation</u> indicators, we would like to know:

- how useful is it?
- in what way do you use it, if at all?
- would you like to see it retained as it is, or retained in an amended or extended form? If the latter, please describe the changes you would like, and why you would find them beneficial.

Non-continuation indicators

28.   The non-continuation indicators are provided in Tables T3, T4, T5 and T6. Table T3 looks at what happens to students the year after they enter a full-time undergraduate course. The indicator is the percentage who do not continue in any HEI in that second year. Table T4 provides some context for T3 by showing what percentage of those who were not in an HEI in that second year return after a year out.

29.   Table T5 provides what we have called projected outcomes, a summary of all patterns of movement between the last two years for which data are available. It shows what proportion of students could be expected to obtain a degree, to leave with no qualification, or to transfer to another institution if these patterns were repeated over the next few years.

30.   Table T6 is currently only available for Welsh institutions, who return data to HESA using the student/module record structure. It provides the module pass rate for students on part-time undergraduate courses.

Consultation question 3

For each of the <u>non-continuation</u> indicators, we would like to know:

- how useful is it?
- in what way do you use it, if at all?
- would you like to see it retained as it is, or retained in an amended or extended form? If the latter, please describe the changes you would like, and why you would find them beneficial.

Research indicators

31.   The research indicators are provided in Table R1. They measure the quantity of research outputs rather than quality, giving relative output per specified input for each HEI, weighted by cost centre. The inputs used are academic staff costs and funding council funding for research; the outputs are PhDs awarded and research grants and contracts obtained.

Consultation question 4

For each of the <u>research</u> indicators, we would like to know:

- how useful is it?
- in what way do you use it, if at all?
- would you like to see it retained as it is, or retained in an amended or extended form? If the latter, please describe the changes you would like, and why you would find them beneficial.

Employment indicator

32.   The employment indicator, in Table E1, is based on the Destination of Leavers from Higher Education (DLHE) survey carried out six months after graduation. It provides the percentage of graduates who are working or studying among those who are available for work or study.

Consultation question 5

For the <u>employment</u> indicator, we would like to know:

- how useful is it?
- in what way do you use it, if at all?
- would you like to see it retained as it is, or retained in an amended or extended form? If the latter, please describe the changes you would like, and why you would find them beneficial.

Proposed indicators

33.   This section refers to indicators which have not been produced, although work is going on to see how feasible and robust they would be. Before any new indicator was introduced, institutions would be able to view their own values, both for the indicator and the benchmark, and make comments, request changes or seek clarification well before publication.

White Paper proposals

34.   The Government published a White Paper on higher education in January 2003 ('The future of higher education' Cm 5735), in which it proposed a number of new access indicators. We would like views on the probable definitions as outlined here. There are also proposals for revising existing indicators or introducing new ones based on newly obtained data, and we are seeking views on these. Annex C provides more detailed information.

35.   The White Paper explained that the current ways of measuring access relate to social class, postcode and state/private school, and that the Government wished to develop some more sensitive indicators looking at a student's family income, their parents' levels of education, and the average exam results of the school or college they attended. These new indicators would be additional to, rather than replacing, existing indicators. A broader range of indicators would provide a more sensitive and accurate picture of students' backgrounds and progress in widening participation.

36.   Any indicator based on parental income could be in the form 'percentage of entrants whose parental income is below a specified level' or 'percentage of entrants that receive the (means-tested) maintenance grant'. In either case, it is proposed that the information is collected not through institutions, but from the Student Loans Company (SLC). PISG is investigating the robustness and completeness of these data for the purpose of an indicator.

37.   Data from the SLC is sensitive, and could only be used on the basis that any disclosures would be in aggregate format. It would not be possible for institutions to see the raw data on which their indicator was based, although they would be able to preview their indicators in the usual way.

Consultation question 6

Do you think an indicator based on parental income would be useful? If so, what form should it take?

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38.   Parents' level of education is not currently collected by HESA, although Scottish institutions have been asked to provide this information to the Scottish Funding Council. The new HESA record will include this information, obtained by institutions for new entrants to specified types of course. The indicator would be the percentage of entrants neither of whose parents had obtained any HE qualification.

39.   A major advantage of such an indicator would be its applicability to both young and mature entrants to full-time and part-time courses. The existing low participation indicator for mature entrants, although helpful, is about the student's current situation and not about their parental background, so is not strictly comparable to the low participation indicator for young entrants. The indicator would be about the education of parents for both young and mature students, and would therefore allow comparisons to be made.

Consultation question 7

Do you think an indicator based on parental education would be useful? If so, what form should it take?

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40.   The third indicator proposed in the White Paper is designed to consider the type of school attended by students immediately before entry to HE, but not in terms of a split between state and independent schools. Schools could be classified according to their examination results, with the percentage of students coming from schools with relatively poor results forming the indicator. The data for this could be obtained by using the field in the current HESA record which gives previous institution attended, with the data on average exam results collected by the DfES, Scottish Executive, Welsh Assembly and the Department of Employment and Learning in Northern Ireland.

Consultation question 8

Do you think an indicator based on average school performance, as described in paragraph 40, would be useful? If so, what form should it take?

Revised 'postcode' indicator

41.   The low participation neighbourhood indicator is currently based on a classification that uses the 1991 Census results as its base. This needs to be replaced, and there have been two suggestions:

a.   The first is to use a method similar to that for producing the POLAR maps of participation rates in HE by young people (see www.hefce.ac.uk/widen/polar/). This would classify census wards according to their HE participation rate, and take as the indicator the percentage of students from wards with less than a certain level of participation.

b.   The second is to use an index of deprivation, probably the existing Index of Multiple Deprivation or one of its components, to classify the wards, or similar sized areas, and again take as the indicator the percentage of students from the areas classified as deprived. Both of these indicators would be based, like the current low participation indicator, on the student's postcode on entry to the institution, and could therefore be applied to all undergraduate entrants.

42.   Unlike the current indicator, which is based on a commercial classification of the 1991 census enumeration districts, both proposed replacements would relate to areas which are geographically identifiable. In addition, the mappings from postcode to ward and to output areas are readily available, and both indicators would therefore be more obviously transparent than the current one.

43.   The proposed indicators do not measure the same thing, and in fact would be largely complementary, so one possibility would be to produce both of them. The method of defining areas as 'low participation' is now known among those in HE who deal with widening participation, and an indicator based on this methodology would fit into that work. The Index of Multiple Deprivation, on the other hand, is used extensively in other social policy areas, and an indicator based on it would help to link HE to these other areas.

Consultation question 9
Which approach would you prefer to revising the low participation indicator: an indicator based on participation rates, one based on the deprivation index, or to produce both?

Employment indicator based on job quality

44.   The introduction of the new DLHE survey in 2002 provided an opportunity to collect more detailed information about the job type of new graduates than was previously available. This gives the option of introducing a new employment indicator based on the quality of job obtained.

Consultation question 10
Do you think an indicator based on the job quality of a graduate six months after graduation would be useful?

Others

45.   Many other indicators could be produced. We are interested in suggestions for additional indicators, and why they might be useful.

Benchmarks

46.   In developing the performance indicators, the PISG was asked to consider appropriate ways of comparing very different institutions. The National Committee of Inquiry into Higher Education recommended a fixed division of institutions into groups, but it was agreed by PISG that this would not be helpful, as institutions could be similar in one aspect and dissimilar in others. However, the idea was accepted that an institution's circumstances should be taken into account in interpreting the indicators. The concept of 'adjusted sector benchmarks' (now usually abbreviated to 'benchmarks') was therefore developed, calculating a weighted average based on various factors likely to affect the indicators. Annex D provides more details about this development, and the mathematical details of the calculations.

47.   The factors used in calculating the benchmarks for all the indicators include entry qualifications of students, suitably grouped, and their subjects of study. Where the indicators are not provided separately for young and mature students, age is also used as a factor. For the widening participation indicators, a second benchmark takes account of the students' region of origin in addition to the other factors; and for the employment indicator, ethnic origin and gender are also taken into account.

48.   In 2002, a new system of quantifying entry qualifications was introduced by UCAS, following the introduction of Curriculum 2000. This tariff system replaced the old points scores for A-levels and Scottish Highers, and was used to obtain appropriate groupings of entry qualifications for benchmarking. This produced some changes in the benchmarks, principally for the state school indicator for institutions admitting students with at least three A grades at A-level. A note explaining how the tariff has been used to group entry qualifications, and the effect this has had on the benchmarks, is available on the web at www.hefce.ac.uk/pi/ entitled 'Use of entry qualifications in PI benchmarks'.

49.   We would like views on how helpful the benchmarks are in general, and on whether the factors used in their calculation are appropriate.

Entry qualifications and tariff score

50.   Some concerns have been expressed about using the tariff for the benchmarks, and whether it provides an appropriate measure. One possibility is to group entry qualifications solely on the basis of qualification type, and ignore the tariff score completely, but this would create one very large group of entrants who had obtained A-levels, Scottish Highers or Vocational A-levels.

51.   HESA has agreed to collect more detailed information about entry qualifications when its revised record structure is introduced in 2007-08, and a second alternative is to use this more detailed information to produce appropriate groups. The information to be collected on the HESA record will include details of individual examination results rather than the aggregate values held at present, so it would be possible to use groups such as those with at least three A-grades at A-level, <u>as well as</u> those whose total tariff score equivalent was within a given range. (This is an example only: no proposals have yet been made, nor decisions taken.)

52.   We are keen to know if respondents think that a change of this type could be beneficial, and if they have any suggestions about what type of groupings might be used. As far as possible we will provide information about the effect of the changes before they are made, and in any case no change will be possible before the publication of the PIs based on this HESA data in 2009.

Consultation question 15
On entry qualifications, are you content with the current groupings based on tariff scores for A-level and Scottish Higher qualifications, and qualification type for others?
If no, why not?

Consultation question 16
Do you think the more detailed data on entry qualifications could provide better groupings for benchmarking?

Transfer to HESA

53.   Since 2004, the production of the indicators has been transferred to HESA from HEFCE. This was always the intention once the production became more routine. The immediate benefit has been that most of the indicators, although not the benchmarks, can be previewed before an institution submits its final data to HESA, with the consequence that publication can take place much earlier in the year. Because of this change, there may have been changes to the way stakeholders perceive the indicators, and possibly even to the way they use them. In order to understand the process we would like to know if either perceptions or use of the indicators have changed following this transfer.

Consultation question 17
Has the transfer of production of the PIs from HEFCE to HESA altered your perception of the indicators?
If yes, has your perception improved or deteriorated?

> **Consultation question 18**
>
> Has the transfer of production of the PIs from HEFCE to HESA affected your use of the indicators?
>
> If yes, in what way?

54.   Every year before the indicators are published, institutions are given a preview of their own results. At the same time, they can request extra information which allows them to see how the indicators have been obtained. This extra information includes individualised records for each of their students, a table of some of the main indicators by subject of study and by entry qualifications of students, and the transition matrix for the institution used to obtain projected outcomes. While HESA is happy to provide this information, we would like to know whether it is useful, and if its usefulness could be improved.

> **Consultation question 19**
>
> As well as the published indicators, extra information can be supplied to each institution about its own students. Do you make use of this extra information?

> **Consultation question 20**
>
> Is there any other information connected with the PIs that you think would be useful to you, or could the existing information supplied be made more useful?

Responding to the consultation

55.   The consultation questions are listed in the response form at Annex G. This is available as a separate download on the web and includes a section for comments on any issues not covered in this document.

56.   All responses should be returned by e-mail to j.akinbolu@hefce.ac.uk or by post to Judy Akinbolu, Analytical Services Group, HEFCE, Northavon House, Coldharbour Lane, Bristol, BS16 1QD, by **10 November 2006**.

57.   A summary of the replies will be published, along with recommendations to the PISG, by early 2007. Additionally, all responses may be disclosed on request, under the terms of the Freedom of Information Act. The Act gives a public right of access to any information held by a public authority, in this case HEFCE. This includes information provided in response to a consultation. We have a responsibility to decide whether any responses, including information about your identity, should be made public or treated as confidential. We can refuse to disclose information only in exceptional circumstances. This means responses to this consultation are unlikely to be treated as confidential except in very particular circumstances. Further information about the Act is available at www.informationcommissioner.gov.uk.

Annex A

Terms of reference for the review of PIs

Objectives

1.   The review is expected to result in a report to the PISG, which will subsequently be published. The report will:

a.   Review the recommendations from the PISG's first report, and see how far these have been implemented.

b.   Re-affirm, or where necessary re-define, the rationale and purpose behind the indicators and benchmarks, taking into account both the changes that have already taken place in HE, and those that are envisaged in the next two years.

c.   Put forward proposals for new principles of working on the PIs, if these are needed.

d.   Explore the impact of transferring responsibility for the production of the performance indicators to HESA.

e.   Re-assess the needs of existing stakeholders and how these are being met, and set out a priority list of requirements.

f.   Identify new stakeholders, along with their requirements.

g.   In the light of the above, set out any requirements for further indicators.

h.   Incorporate a regulatory impact assessment of PIs.

i.   Look at the effect on the indicators of the new environment in which HE operates, and whether changes are needed to take this new environment into account.

j.   Set out proposals for future reviews of the PIs.

k.   Put forward proposals for the better communication and dissemination of the indicators.

2.   In carrying out this review the on-going review of the HESA student record needs to be borne in mind.

Annex B
Current indicators

1.   The rationale for each set of indicators is shown below, with their definitions. The tables provide a summary of what indicators are currently produced, their coverage, and the source of information used to produce them.

Rationale for the indicators by broad group

Students included in indicators

2.   The steering group decided at an early stage that although indicators that covered as much of the population as possible were desirable, in practice there would need to be some restriction on coverage. Initially, indicators were designed to cover full-time first degree students, which not only formed the largest single group of the student population but also were the group with the most robust data available. Subsequently, most indicators were extended to cover other full-time undergraduate students, and one or two also covered part-time undergraduates.

3.   Many of the indicators were based on students entering a course at an institution in the most recent academic year (entrants). For widening participation indicators, it made sense to concentrate on entrants as their demographic background should be easiest to obtain at that point; and for retention indicators it would be the behaviour of entrants to the system that would be of most interest to groups such as potential students.

4.   For pragmatic reasons it was agreed that most indicators would include just home-domiciled students. Several of the definitions used applied only to those from the UK, and the retention indicators which relied on tracking students through their HE career could not take account of students from overseas who returned home to complete their course, for example.

Indicators of widening participation (WP)

5.   The WP indicators were designed to measure progress in redressing the under-representation of certain social groups in HE. For those students applying through UCAS (the majority of full-time undergraduates), both school attended and social class were available, and it was decided that these should both be used to define indicators. The schools indicator was defined as the percentage from state schools (state schools include further education colleges as well as all school types that are not independent); and the social class indicator was defined as the percentage from skilled manual, semi-skilled and unskilled social classes (IIIm, IV and V).

6.   However, neither of these measures was suitable for mature students. The schools indicator could relate to many years previously for mature students, so school attended might not be relevant to the current situation; while the class indicator, based either on the student's own occupation or on that of their spouse, would give no information about their background. In addition, applicants to part-time courses did not go through UCAS, and so neither of these variables were available for part-time entrants.

7.   Work had previously been carried out on using postcodes to determine the area type in which a student had been living immediately before entering HE, and it was agreed to use this to define a third indicator which could cover all undergraduate entrants. This was done by using clusters of enumeration districts with similar characteristics to split up the UK into about 200 groups, and obtaining the HE participation rate for each group. Those groups whose rate was below a certain threshold were defined as low participation.

8.   For young full-time students, the indicator was defined as the percentage of entrants from low participation neighbourhoods; while for mature and part-time entrants the indicator was defined as the percentage of entrants who did not have a previous HE qualification and came from a low participation neighbourhood. This was to take into account that fact that many mature and part-time entrants already had an HE qualification, and should not therefore be included in any count of widening participation. These indicators were included as Tables T1, for young full-time entrants, and T2 for mature and part-time entrants.

9.   There was considerable discussion about how an indicator of disability could be defined. There were two fields on the HESA record that could be used. One showed a student's self-assessment of their disability, and it was felt that this could be of variable quality and possibly open to manipulation. The other field, whether or not the student received the Disabled Students' Allowance (DSA), had the advantage of being readily checked, and less likely to be manipulated. It was agreed to use this field, with a base population of all undergraduates, rather than just entrants, because of the very small numbers involved. The indicator was defined as the percentage of all students who received the DSA, and included as Table T7.

Indicators of progression and non-continuation

10.   There are a variety of methods of measuring progression and retention, and it was decided that two of these should form the bases of indicators for full-time undergraduates. Both relied on robust methods of linking the HESA record year on year, which had been developed previously. Other possible methods depended on fields that were not sufficiently reliable, for example the 'reason for leaving' and the 'date left' fields. This lack of reliability was partly because students who left before the end of the year did not always inform the institution at the time, and partly because some of this information did not become available until after the student record returns had been submitted.

11.   The first method used to measure progression considered students who had entered an institution in one academic year, and looked for their record in the following year. Students without any such record, or whose record in that second year showed them to be inactive, were assumed to have left HE; and it was the percentage they formed of the total entrants in the previous year that defined the indicator. This was included as Table T3.

12.   This was not to say that such students would not return to HE, so context information was provided, in Table T4, to show what proportion of students classified as leaving in one year had returned to HE the next year, either to their original institution or to some other institution.

13.   The second method considered all progression routes between two consecutive years followed by students on full-time first degree courses in the first of the two years, or who had

been on such courses in the year before that and had not qualified. The outcomes for students who started in that first year were projected, on the assumption that they would follow the same pattern of progression throughout their period of study until they either qualified, or transferred to another institution, or left HE and did not return within a further year. The indicator was defined as the percentage projected to leave with no qualification and without transferring elsewhere. This was included as Table T5.

14.   A third method was proposed for measuring progression for part-time students. Although such students may not continue from one year to the next, by design, and so the progression rates used for full-time students may not be appropriate, measuring partial completion – by the percentages passing individual modules – was felt to be useful. However, not all institutions return data to HESA in a form from which this information can be extracted, and so it was not possible to produce these results except for institutions in Wales. These Welsh figures are provided in Table T6.

Indicator of employment outcomes

15.   The employment indicator was required by the Treasury, in order to inform the debate on the value of higher education. Initially the First Destination Survey (FDS) was used to obtain the necessary information, although its use was controversial. A number of steps were taken to ensure the data from the survey were as robust as possible. The definition of the indicator using the FDS data was the percentage of students who were employed or studying among those who were employed or studying or seeking employment. The percentage of students who were not available for work, for example because they were sick or travelling, was provided as context, as they were excluded from the population used for the indicator. The employment indicator is given in Table E1.

16.   The introduction of the Destinations of Leavers from Higher Education (DLHE) survey led to a slight change in the definition used, because the way of recording a person's activity was altered to allow both work and study to be shown. The present definition of the indicator is the proportion of students who were working or studying or both, among those who were working or studying or seeking employment or any combination of these.

Indicator of research quantity

17.   While recognising that the Research Assessment Exercise is the most rigorous measure of research quality, it was agreed that certain quantitative measures should be introduced to complement this. The measures used were developed as relative input/output measures: the input measures were academic staff costs and funding council funding for research, and the outputs were PhDs awarded and research grants and contracts obtained. The relative measures were obtained for each cost centre, and institutional figures were obtained using a weighted average. The results are given in Table R1.

Sector tables

18.   For many of the indicators, supplementary tables give the sector breakdown of the indicator by subject and entry qualification, and by other factors where this is appropriate. These are produced as part of the work done to calculate the various indicators and benchmarks.

19.   The following list summarises the indicators currently produced, with their coverage and the source of data used in their construction.

Current indicators

Table	Indicator	Coverage	Source of data
T1	From state schools	Young entrants to full-time undergraduate courses	School and social class are collected on the UCAS application form. These are now passed to institutions for inclusion on their HESA record.
T1	From low social class	Young entrants to full-time undergraduate courses	
T1	From low participation neighbourhoods	Young entrants to full-time undergraduate courses	Postcodes are collected by institutions for all UK-domiciled students. The postcode at time of application to the course of study is the one returned on the HESA record, and used here.
T2	No previous HE and from low participation neighbourhoods	Mature entrants to full-time undergraduate courses	Postcodes are used as above to determine the neighbourhood type, and the entry qualifications from the HESA record provide information on whether or not the student has a previous HE qualification.
T2	No previous HE and from low participation neighbourhoods	Entrants to part-time undergraduate courses	
T7	In receipt of Disabled Students' Allowance	All with at least 50% full-time equivalence on undergraduate courses	Collected on the HESA record, and is available for all students who are eligible for this allowance.
T3	Not continuing in HE after first year of entry	Entrants to full-time undergraduate courses	Obtained by matching HESA records across two consecutive years. Records not found in the second year are classed as not continuing.

Current indicators (continued)

Table	Indicator	Coverage	Source of data
T4	Returning to HE after a year out following year of first entry	Entrants to full-time undergraduate courses	An extension of above to the third consecutive year. Note this is a context statistic, not an indicator.
T5	Projected outcomes - obtain a degree, leave with no award	Starters on full-time first degree courses	Summarises whether students would eventually graduate with a qualification, transfer elsewhere, or leave HE if the year on year progression rates at the institution were to continue. Progression patterns obtained by linking four consecutive years' data
T6	Modules passed	Entrants to part-time undergraduate courses, Welsh institutions only	Uses information on returns to HESA made using the modular record
E1	Employed or studying six months after graduation	Graduates from full-time first degree courses	From DLHE survey – survey of qualifiers from HEIs six months after leaving.
R1	PhDs per academic staff costs	n/a	PhDs obtained, by cost centre, come from the HESA student record. Research grants and contracts and academic staff costs, by cost centre, come from the finance record. Research funding by unit of assessment is obtained from the funding councils, and the unit of assessment is then mapped to cost centres.
R1	Income from research grants and contracts per academic staff costs	n/a	
R1	PhDs per research funding	n/a	
R1	Income from research grants and contracts, per research funding	n/a	

20. The following list shows the supplementary tables published, and their contents. The data sources are as above.

Supplementary tables

Table	Indicator	Coverage
SP1	State school, social class, low participation neighbourhood	By region, young full-time first degree
SP2	Number of entrants	Young full-time first degree by subject, entry qualification
SP3	Number of entrants	Mature full-time first degree by subject, entry qualification
SP4	State school	Young full-time first degree, by subject of study, entry qualifications
SP5	Low social class	
SP6	Low participation neighbourhood	
SP7	Low participation neighbourhood	Mature full-time first degree, by subject of study, entry qualifications
SD1	In receipt of Disabled Students' Allowance	Full-time first degree, by subject, entry qualifications
SN1	Non-continuation after first year	Young full-time first degree, by subject, entry qualifications
SN2	Non-continuation after first year	Mature full-time first degree, by subject, entry qualifications
SN3	Non-continuation after first year	Full-time other undergraduate, by subject, entry qualifications
SN4	Sector transition matrix	The matrix and starter values for the whole sector. Institutional equivalents are used to produce Table T5
SN5	Starters by year of programme	
SE1	Employment after 6 months	By subject of study
SE2	Employment after 6 months	By entry qualifications
SE3	Employment after 6 months	By age
SE4	Employment after 6 months	By sex
SE5	Employment after 6 months	By ethnic group

Annex C

Proposed indicators

Introduction

1.   The 2003 White Paper 'The future of higher education' Cm 5735 referred (paragraphs 6.22 – 6.23) to the need for the availability of good information for both institutions and students to see clearly how well they are doing at improving fair access. It explained that the PIs give information on how well each institution recruits low participation groups and how that compares to 'benchmarks' based on what would be expected for an institution in similar circumstances, taking the qualifications and background of applicants into account.

2.   The White Paper explained that the current ways of measuring access relate to social class, postcode and state/private school, and that the Government wished to develop some more sensitive indicators looking at a student's family income, their parents' levels of education, and the average exam results of the school or college they attended. These new indicators (described below) would be additional to, rather than replace existing indicators. A broader range of indicators would provide a more sensitive and accurate picture of students' backgrounds and progress in widening participation.

Widening participation indicators

Parental education

3.   An indicator based on parental education – such as the percentage of young entrants to full-time undergraduate courses whose parents have some experience of HE – would be relatively easy to understand. However the main advantage is that it should be possible to derive comparable indicators for young and mature entrants to full-time and part-time undergraduate courses. None of the existing widening participation indicators enable comparisons between young and mature students. The existing low participation indicator for mature entrants, although helpful, is about the student's current situation and not about their parental background. As attention focuses on mature entrants, it is crucial to understand their background more fully. The proposed parental education indicators would be derived from data collected by HESA from HEIs in the UK, as proposed in HESA's recent student record review.

Parental (household) income

4.   An indicator based on parental (household) income is appealing because incomes are relatively well understood by the public. It could be, for example, the percentage of young entrants to full-time first degree courses that receive the means-tested maintenance grant (from 2006-07), or the percentage of young entrants to full-time first degree courses whose parental (household) income is below a certain level. The indicator would be based on entrants to full-time undergraduate courses, all of whom are eligible for a means-tested maintenance grant.

5.   Institutions have not been approached for these data because the PISG is looking into using existing administrative data from the Student Loans Company (SLC) to produce the

indicator. The development of suitably robust indicators and benchmarks will depend on linking these data on individual students to that held by HESA.

6.   Although the SLC data cover both young and mature students, in most cases parental income is used to assess the eligibility of young students for grants or full loans, and the student's own or their spouse's income is used to assess mature students. Indicators based on this information would therefore not be comparable for young and mature students, and it is unlikely that both indicators would be produced.

7.   Data from the SLC is subject to stringent data protection requirements, and could only be used for this purpose if the only disclosure were to be in aggregate format. While institutions could preview such indicators as usual, they would not be able to obtain the individual student-level data on which they were based. However, it might be possible to supply some of the information by subject and entry qualification group, for example, where the base numbers were sufficiently large.

Average examination results of school/college attended

8.   The current schools indicator splits up schools according to whether they are state or independent. It would be possible to split schools instead according to their average examination results, using data from the DfES, Scottish Executive, Welsh Assembly and the Department of Employment and Learning in Northern Ireland. These data could be used to produce an indicator such as the percentage of young entrants to full-time undergraduate courses from schools and colleges with results that were relatively poor. Data on the average exam results of schools and colleges need to be evaluated to determine their suitability for use in this way, and in particular to see if the data collected by HESA on the school or college attended before entry to HE could be linked to it.

Revised area-based widening participation indicator

9.   Because the existing low participation indicator (the 'postcode' indicator) is based on an outdated classification, the PISG is considering replacements.

10.   The geographical unit used to obtain the current indicator is a cluster of (1991) census enumeration districts (EDs). Each cluster contains a number of these EDs from different areas of the country, in general, and it is therefore difficult to locate them geographically. The proposal is that the new indicator will be based on areas such as wards which are large enough to locate geographically, but not so large that they are too heterogeneous. A student's postcode on entry to an HEI would still be used to map students to these areas, using one of the readily available mappings.

11.   Two possibilities are being considered: an indicator based on an updated version of the existing classification of areas according to the level of participation of young people from these areas (similar to the method used to produce the POLAR maps, see www.hefce.ac.uk/widen/polar/); or one based on the Index of Multiple Deprivation (IMD) or one of its components. In either case, wards or equivalent areas would be classified as 'low

participation' using the first method or 'deprived' using the second, and the indicator would be the percentage of entrants from the low participation or deprived wards.

12.   This indicator would be produced for young and mature full-time and part-time entrants to undergraduate courses.

Employment indicator based on job quality

13.   When the original employment indicator was introduced, it was criticised because it did not take account of the quality of the job obtained. The introduction of the new DLHE survey in 2002 provided an opportunity to collect more detailed information about the job type of new graduates than was previously available. This would allow a new employment indicator to be produced, based on the quality of job obtained.

14.   More work is required to determine the most useful way of defining 'job quality' for this purpose. There is already a classification of jobs as graduate (four categories) or non-graduate, produced by the Institute of Employment Research at Warwick University. If this were to be used, the indicator could be defined as the proportion of graduates for whom a job classification has been provided who are in one of the four graduate job categories.

15.   As with the other indicators, it is assumed that this would be used in conjunction with the existing indicator, and coverage would be the same as for that indicator, which at present is all graduates from full-time first degree courses.

Annex D

Adjusted sector benchmarks – rationale and methodology

Introduction

1. The National Committee of Inquiry into Higher Education, which recommended producing the performance indicators, also suggested that a means should be found of allowing very different institutions to be compared. Its suggested method, of dividing institutions into 'families' containing those with similar characteristics and aspirations, was rejected by the PISG, as it was felt that a fixed division of institutions into groups would not be helpful. However, the group accepted the principle that indicators needed to be viewed in the context of the institution's circumstances, and only compared with others in similar circumstances. Therefore it introduced the concept of an 'adjusted sector average', or benchmark, for comparison.

Benchmark definition

2. The benchmark is defined as the sector average weighted to take account of factors considered to be important. The criteria laid down for a variable to be used as a factor were that:
- it was associated with the characteristic being measured
- it varied between institutions, and
- it was not wholly in the control of the institution.

It was also expected that there would be no unwanted effects of including the factor in the benchmark.

3. For example, the subject a student studied was known to be related to the non-continuation rate of the student. However, an institution could not change its subject mix radically, at least in the short term, and so this was not wholly within its control. However, the quality of library facilities, for example, could also affect the non-continuation rate, but this was within the institution's control and therefore not valid as a factor.

4. Computational details of the benchmark are provided in paragraph 31 of this annex.

Factors used in defining the benchmarks

5. A wide variety of factors were considered for use in the benchmark calculations, and this section describes those finally used.

Subject and entry qualifications

6. A number of factors were known to be important in influencing both students' socio-economic backgrounds and their propensity to drop out of higher education. The two initially identified as most important were the entry qualifications of the student and his/her subject of study at the institution. These satisfied the first two criteria given in paragraph 2 above, and neither are wholly within the control of the institution in the short term.

7. Originally 21 entry qualification categories were defined, based on the HESA fields QUALENT2 and the points score for A-levels and Scottish Highers. This included 13 categories

where the student had a known score for A-levels or Highers, the remaining eight categories were for students with other types of entry qualification. In 2002, these categories had to be changed as the points scores were dropped and replaced by the tariff system. There are now 22 categories, 12 for those with A-levels or Scottish Highers and known tariff scores, and 10 for those with other entry qualifications. See paragraphs 25-29 for more details on the use of the tariff.

8.   Subject of study was initially made up of 13 groups, and each student was wholly allocated to one of these groups. Under the new system, there are 18 subject categories, each consisting of one Joint Academic Coding System (JACS) subject group except for one, which combines the group for medicine and dentistry with that for veterinary science.

9.   However, in 2002 not only was a different coding system introduced but also students studying more than one subject were allocated pro rata to the different subject heads. So a student studying mathematics and chemistry as a joint degree would be allocated half to mathematics and half to chemistry for a balanced programme; or two-thirds to mathematics and one-third to chemistry under a major/minor programme. Before 2002, such a student would have been allocated to 'combined studies' in either case.

Age on entry

10.   Many of the indicators produced are for young entrants to higher education (under 21 on entry) <u>or</u> for mature entrants (21 or over on entry). However, some indicators cover all entrants, and for most of these this age split was used as another factor. So for the non-continuation rate produced for all entrants and given in the last section of Table T3, as well as for the projected outcomes in Table T5, age was taken as a factor in the benchmark in addition to subject of study and entry qualification.

Location-adjusted benchmark

11.   Following publication of the first set of indicators, it was suggested that some way of allowing for regional effects should be introduced, at least for the widening participation indicators. It was agreed to produce a 'location-adjusted' sector average for these indicators, in addition to the original benchmark, where the student's region of origin was included as a third factor. The 'regions' used are the Government Office regions in England, plus Wales, Scotland and Northern Ireland.

12.   The location-adjusted benchmarks are only produced for the widening participation indicators (excluding the disability indicator) for English institutions. One or two institutions suggested that they should be extended to the non-continuation indicator. However, while it was possible to justify their use for the widening participation indicators on the grounds that the regional differences were long-standing and could not be altered overnight, there was no similar justification for using them for the non-continuation indicator.

Benchmarks for the disability indicator

13.   When the disability indicator was introduced, for students in the 2000-01 academic year, the factors to be included in the benchmark were discussed in some detail. It was finally agreed

that both subject of study and entry qualification should be included, while making it clear that this was not to condone the subject differences that became apparent.

14.   The indicator was not produced separately for young and mature students, nevertheless age was not included in the benchmark, as this could lead to unwanted effects. For example, mature students were more likely to be disabled than younger students, and allowing for age in the benchmark would mean that institutions with fewer mature students would have a lower benchmark for disability than those with a relatively high number. This might encourage institutions to reject mature students in order to reduce their benchmark (rather than increase their indicator), which would not be desirable.

Benchmarks for the employment indicator

15.   The employment indicator was quite different from other indicators in that it was based on a survey, and many more factors which were outside the institutions' control were likely to affect it.

16.   As with the other indicators, subject of study and entry qualifications were included as factors, although with broader entry qualification categories than for the other indicators. In addition age was taken as a factor, as were both gender and ethnic background. These five factors are the only ones currently included in the benchmark.

17.   In its first three years of publication, however, in order to make sure that all factors that could affect the indicator were included, the benchmark took account of other student-level variables and a number of institution-level variables. The student factors were social class, whether or not they had come from a low participation neighbourhood, degree classification and whether or not they graduated from a sandwich course, as well as those mentioned above. The institutional characteristics were the average A-level score of all entrants to full-time first degree courses in the institution, the unemployment rate among 20-29 year-olds in the institution's catchment area, and the percentage of graduate jobs within that same area.

18.   The large number of factors and the nature of the institutional ones (all continuous variables) meant that a complex model had to be used to obtain the benchmarks. However, many of the additional factors did not add significantly to the explanatory power of the model. So when changes were made to the code used, following the introduction of a revised student record and the DLHE survey, as well as the transfer to HESA, it was agreed to drop them and use the simpler methodology with the remaining five factors.

Factor groupings

19.   In addition to deciding which factors would be appropriate, it was also necessary to define relevant groupings for each factor. In general this was done pragmatically by considering the spread of values of the indicator for different factor values, and grouping together those with similar values. The aim was to produce as small a set of groups as possible, where each group was homogeneous with respect to the characteristic being measured.

20.   In some cases, the original factor groupings combined areas which at the time appeared to show similar characteristics. Some such areas have now been split because they later became more diverse, or because there was a perception that the two areas should be kept separate. For example, initially the subjects of mathematics and computing were combined into one category, but by the time the new JACS codes were introduced it seemed more sensible to keep them separate. Similarly for entry qualifications, the fairly small number of students with a Baccalaureate were initially combined with the group for A-level entry with up to four points. Subsequently a separate group was formed for those with a Baccalaureate.

21.   The number of groups defined by the factors was important. At the extremes, a single group would not take account of any variation between institutions, while a system that put each student into a separate group would account for all the variation. This can be seen, for example, in the difference between the 'original' benchmark and the 'location-adjusted' benchmark for the widening participation indicators, where adding in an extra factor (equivalent to increasing the number of categories) reduced the number of institutions that were significantly different from their benchmarks. The groups finally used were defined as far as possible to strike a balance between too few and too many categories.

Further information

22.   Further information about the specific groupings used for each factor in the benchmarks is provided in the PI publication, available on the web at www.hesa.ac.uk/pi/0405/benchmarks.htm. Supplementary tables are published for selected indicators which provide sector values broken down by the factor categories used. (See Table SN1 at www.hesa.ac.uk/pi/0304/continuation.htm for the non-continuation rates by subject and entry qualification, for example.)

Differences between indicators and benchmarks

23.   Small differences between an indicator and its benchmark can generally be ignored. In order to determine whether a difference should count as small, the standard deviation has been calculated. If the difference between the indicator and its benchmark is more than three times the standard deviation then it is not possible to ignore it, although there may be factors not accounted for that will explain it. In practice, it has also been assumed that only differences of more than 3 percentage points should be counted as large. Cases where the difference is large enough to be significant have been marked in tables using + or - symbols, with '+' indicating the indicator has a better than expected value, '-' indicating worse than expected.

24.   Details of the calculations of the standard deviation are given in paragraph 31 of this annex.

Use of the tariff

25.   Following the introduction of Curriculum 2000, which encouraged sixth form students to study several subjects to AS-level before concentrating on just three or four of them for A-level, the way in which A-level grades (and those for Scottish Highers) were quantified for university admissions was changed. Previously, points were awarded for the best three A-levels or Advanced Highers, or the best five Highers, on the basis of 10 points for an A grade, 8 for a B, 6

for a C, 4 for a D and 2 for an E grade, allowing a maximum score of 30 points. Now there is no upper limit on the number of A-levels or Highers that can be counted, and the tariff is 120 points for an A grade, 100 for B and so on to 40 for an E grade.

26.   Entry qualification information is collected on the HESA record using two sets of variables. The first set consists of a single variable (QUALENT2), providing information about the type of the highest qualification that the student holds. This may be, for example, HND, BTEC, Baccalaureate or an Access qualification, or it may be one of the A-level equivalent qualifications (A-level and/or AS level, Scottish Highers, Vocational A-level/AS-level).

27.   The second set of variables contains summary tariff information about the grades of qualifications held. Not all types of qualification lead to a tariff score at present. This set comprises about 30 variables, which are mainly in pairs: the number of a particular qualification, and the total tariff score for that qualification. There is also an overall total tariff score.

28.   For students identified by the first variable (QUALENT2) as having a qualification type other than A-levels or equivalent, the entry qualification category for benchmark purposes is defined as that qualification type. For those with A-levels or equivalent, those with tariff scores from a Vocational A-level or AS-level are split into two groups, those who also have an A-level or AS-level and those who do not, and the remaining students are categorised according to their total tariff score.

29.   Further details of how the categories are defined, and the effect of changing to the tariff are on the web at www.hefce.ac.uk/learning/perfind/, under 'Using entry qualifications in the benchmarks'.

Entry qualifications on the new HESA record

30.   HESA is currently at the end of a review of its student record, and the revised record will be introduced for students entering HE from August 2007. Among the changes is a proposal to collect more detailed entry qualification data, including the subject and grades of individual qualifications. This will replace the (summary) tariff score data currently held, and should provide more flexibility in defining entry qualification categories for benchmarking. In theory it would be possible to take into account both grade and subject in defining categories, but in practice any changes are likely to be limited. The effects of any category changes made will be investigated before implementation, and made publicly available.

Technical details

31.   The factors used are all defined as categorical variables, and so split the population into a finite number of groups. With 22 entry qualifications categories and 18 subject categories, there would be 396 groups. If age is added in (three categories to include those with age unknown) there would be 1,188 groups. For the employment indicator, there are 18 subject categories, 10 for entry qualification, three for age, two for gender and four for ethnic background, giving 4,320 groups altogether. The following technical definitions assume the total number of groups is m, numbered 1, 2, ... m. This method of obtaining the benchmarks holds for all tables except T5, projected outcomes.

Let the number of students at institution k who are in group i be n_{ki} and let the equivalent number of students across the sector be: N_i, i.e. $N_i = \sum_k n_{ki}$

The total number of students at the institution is $n_k = \sum_{i=1}^{m} n_{ki}$ and the number of students in the sector is: $N = \sum_{i=1}^{m} N_i = \sum_k \sum_{i=1}^{m} n_{ki}$

If p_{ki} is the proportion of students at institution k who are in group i and have the characteristic being measured, for example the proportion from state schools, then the indicator for institution k is:

$$p_k = \sum_{i=1}^{m} n_{ki} p_{ki} \Big/ n_k$$

The proportion of students in the sector in group i and with the characteristic being measured is then:

$$P_i = \sum_k n_{ki} p_{ki} \Big/ N_i \, .$$

The adjusted sector average, or benchmark, for institution k is defined as:

$$\hat{p}_k = \sum_{i=1}^{m} n_{ki} P_i \Big/ n_k$$

In order to calculate the standard deviation to be used in determining whether the difference between the benchmark and the indicator is significant, we need to think of that difference as the weighted sum:

$$D_k = p_k - \hat{p}_k = \sum_{i=1}^{m} n_{ki} p_{ki} \Big/ n_k - \sum_{i=1}^{m} n_{ki} P_{ki} \Big/ n_k = \sum_l \sum_{i=1}^{m} \lambda_{kli} p_{li}$$

$$\lambda_{kli} = \frac{n_{ki}}{n_k} \left(1 - \frac{n_{ki}}{N_i} \right) \quad \text{if } l = k$$

where and

$$\lambda_{kil} = -\frac{n_{ki} n_{li}}{n_k N_i} \quad \text{if } l \neq k$$

Assuming that the n_{ki} students at institution k in category i are like a random sample (with replacement) from the population of all such future students, the variance of D_k can be estimated as:

$$\text{var}(D_k) = \sum_{l} \sum_{i=1}^{m} \lambda_{kli}^2 \, \text{var}(p_{li})$$

We then have to estimate the variance of p_{li}.

Draper and Gittoes (see Journal of the Royal Statistical Society Series A, 2004 part 3) show that a reasonable estimate of this variance is obtained by using a shrinkage estimation procedure. The value used here is:

$$\text{var}(p_{li}) = p_{li}^*(1 - p_{li}^*)/n_{li}$$

where $p_{li}^* = 0.5\hat{P} + 0.5p_{li}$ and $\hat{P}$ is the proportion of students in the sector as a whole with the characteristic being measured.

Projected outcomes

32.   The benchmarks and standard deviations for the projected outcomes in Table T5 are obtained in a rather different way. The indicator itself is derived from a matrix containing the proportions of students moving from one state to another. In order to obtain the benchmark, a similar matrix is constructed but rather than basing the proportions on the number of such students, they are based on the sum of weights given to each student to reflect the proportions in each subject/entry qualification/age category at the institution.

33.   The standard deviation is obtained by assuming that the n starters at an institution have been chosen randomly from a large population. If the proportion of students at the institution projected to leave with no qualification is p, then the standard deviation is: $\sqrt{\dfrac{p \times (1-p)}{n}}$

See the technical notes on the web at www.hesa.ac.uk/pi/0405/projected_definitions.htm for more details of the states used and the calculations.

Annex E

Stakeholders – in addition to higher education institutions

The following is the list of stakeholders to be contacted as part of the consultation exercise for the PI review.

To be contacted through their PISG representative

Department for Education and Skills
Department of Health
Funding Councils for UK Higher Education
Higher Education Statistics Agency
HM Treasury
National Union of Students
Office of Science & Technology
Scottish Parliament
Standing Conference of Principals
Training and Development Agency for Schools
Universities and Colleges Admissions Service
Universities Scotland
Universities UK
Welsh Assembly

Other bodies to be approached

Action on Access
Association of Colleges
Association of Graduate Careers Advisory Services
Association of Graduate Recruiters
Association of School and College Leaders
Audit Scotland
Commission for Racial Equality
Council for Advancement and Support of Education
Disability Rights Commission
Equality Challenge Unit
Equal Opportunities Commission
Higher Education Careers Service Unit
Higher Education Policy Institute
Independent Schools Council
Learning and Skills Council
National Audit Office
National Bureau for Students with Disabilities (SKILL)
Quality Assurance Agency for Higher Education
Regional Development Agencies
Royal Statistical Society
Sutton Trust

We also welcome responses from others, including but not limited to:

Academic staff in HEIs
HEFCE staff, and those from other HE Funding Councils
Other providers of funds (such as local education authorities and charities)
Press and media
Professional bodies
Prospective students and their advisers
Teachers and Careers Advisers in schools

Annex F

Membership of the Performance Indicators Steering Group

1.   The Performance Indicators Steering Group (PISG) was set up in March 1998, with members representing the then Department for Education and Employment (DfEE), HM Treasury, HESA, the Committee of Vice-Chancellors and Principals (now Universities UK), the Standing Conference of Principals (SCOP), the Higher Education Funding Council for England (HEFCE) and the Higher Education Funding Council for Wales (HEFCW). The Scottish Higher Education Funding Council (SHEFC) originally sent an observer, but subsequently became a full member of the group. The Higher Education Management Statistics group (HEMS) send an observer. Papers were sent to both the Welsh Office and the Department of Higher and Further Education, Training and Employment (DHFETE) in Northern Ireland. The Department for Employment and Learning Northern Ireland (DELNI) is now a full member of the group.

2.   A number of other bodies were later invited to join the group. The National Union of Students (NUS), Committee of Scottish Higher Education Principals (now Universities Scotland), Universities and Colleges Admissions Services (UCAS), Office of Science and Technology (now the Office of Science and Innovation, OSI) and the Department of Health (DH) have all been members since the end of 1999. More recently, the Scottish Executive, the Welsh Assembly and the Training and Development Agency for Schools (TDA) have been invited to join.

3.   The following are the current members of the steering group.

Chairman	**Representing**
John Selby (Director, Widening Participation)	HEFCE

Members	
Simin Abrahams	Universities Scotland
Patricia Ambrose	SCOP
Carole Barrington	HESA
Catherine Benfield	HESA
Gregory Boone	DfES
Alison Brown	DELNI
Stephen Cook	DfES
John Duffy	SFC
Martin Furner	TDA
Frances Good	HEFCW
Frank Gribben	Universities Scotland
Glyn Jones	Welsh Assembly
Helen Limbert	DH
Sue Matthews	UCAS
Ian Mitchell	DfES
Gerhard Mohrs	Scottish Executive

Sofija Opacic	NUS
Dan Rieser / Fiona Hoban	Universities UK
Robin Sibson	HESA
Chris Thompson (Observer)	HM Treasury
Joanne Watts	OSI
Judy Akinbolu (Secretary)	HEFCE

4.   A sub-group of PISG was set up to oversee this review. The members of the sub-group are:

John Selby (Chairman)
Judy Akinbolu
Carole Barrington
Stephen Cook
John Duffy
Frances Good
Frank Gribben
Dan Rieser