London South Bank University

	PAPER NO: AC.41(12)
Board/Committee:	Audit Committee
Date:	27 September 2012
Paper title:	Internal Audit – Student Data Quality
Author:	PricewaterhouseCoopers, Internal Auditors
Executive sponsor:	Richard Flatman, Executive Director of Finance
Recommendation by the Executive:	The Executive recommends that the Audit Committee note the attached report.
Aspect of the Corporate Plan to which this will help deliver?	- Creating an environment in which excellence can thrive. - Financial sustainability

Matter previously considered by:	n/a	n/a
Further approval required?	n/a	n/a
Communications – who should be made aware of the decision?	n/a	

Executive summary

The internal audit report on Student Data Quality is attached. The report was given an overall classification of 'High Risk'.

The Executive recommends that the Audit Committee note the attached report.

London South Bank University
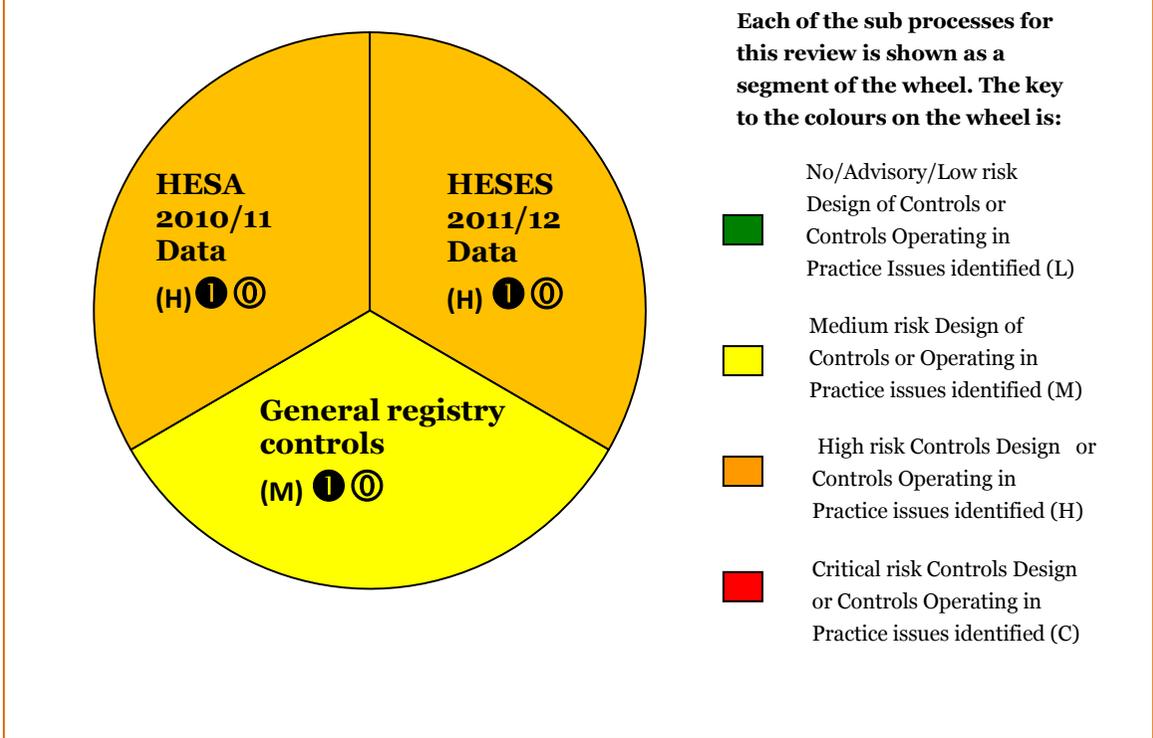
1. Executive Summary

Department: Registry **Audit Sponsor:** Phil Cardew **Distribution List:** Andrew Fisher and Jenny Laws	**Overall report classification** 🟠 **High risk** See section 4B for overall report classification criteria	**Direction of Travel** N/a this is the first year of review	**Control Design findings identified** ❶ Critical risk ❷ High risk ❶ Medium risk ❶ Low risk ❶ Advisory	**Control Effectiveness findings identified** Ⓞ Critical risk Ⓞ High risk Ⓞ Medium risk Ⓞ Low risk Ⓞ Advisory

Control Design findings identified: 0 Critical risk, 2 High risk, 1 Medium risk, 0 Low risk, 0 Advisory

Control Effectiveness findings identified: 0 Critical risk, 0 High risk, 0 Medium risk, 0 Low risk, 0 Advisory

Scope of the Review:	We will review the design and operating effectiveness of key controls in place relating to student data quality during the 2011/12 academic year.
Limitation of scope:	This review is not a replacement for any future HEFCE review.

Summary of findings
(Refer to section 3A for individual finding ratings criteria):

From discussion with Registry staff and tests performed on both the 2010/11 HESA population and the 2011/12 HESES population we have established the following findings:

- We found 16 errors in the standing HESES data from our sample of 60 students, including PT load, student mode of study and inclusion of courses that should not have been returned.

- We found eight errors in the HESA data from our separate sample of 60 students, including completion status returned incorrectly and courses that should not have been returned. The standing data should be regularly reviewed to ensure that it is accurate. Exception reports are not run on key areas of the above standing data. We have suggested some areas of standing data and exception testing that should be performed in section 3 below.

- Limited guidance is in place around the production of both the HESA and HESES return for University-specific processes. A comprehensive "how to" guide should be created, and project plan should be in place for each review detailing the timeline for producing the return and the staff responsible.

HESA 2010/11 Data (H) ❶ Ⓞ

HESES 2011/12 Data (H) ❶ Ⓞ

General registry controls (M) ❶ Ⓞ

Each of the sub processes for this review is shown as a segment of the wheel. The key to the colours on the wheel is:

🟩 No/Advisory/Low risk Design of Controls or Controls Operating in Practice Issues identified (L)

🟨 Medium risk Design of Controls or Operating in Practice issues identified (M)

🟧 High risk Controls Design or Controls Operating in Practice issues identified (H)

🟥 Critical risk Controls Design or Controls Operating in Practice issues identified (C)

2. Detailed Findings Recommendations and Action Plan

	Finding	Potential Risk Implications	Recommendations	Finding rating	Management Response and agreed actions
Guidance– control design					
1	Procedure manuals to support production of the statistical student returns are a key control in ensuring continuity in Registry teams over longer periods, and also set out expected practice. They are also an important source of information for University staff to supplement the external HEFCE guidance. HESA and HESES guides are produced by the University to aid in the compilation of the returns. Although these appear to have been updated for the latest HEFCE guidance there is no date of production or date for next review. These guides contain some information on the HESA and HESES production but do not form a "how to" guide for users. They do not address issues specific to LSBU or the methodology employed by the University to create the returns.	Processes may potentially be inefficient, and University specific knowledge could lost in the event of loss of key staff.	HEFCE have produced comprehensive guidance on the compilation of the technical aspects of the HESA and HESES returns. The University should use this guidance when compiling the return and should create specific guidance for the University to reflect locally managed systems and processes. Process notes should include information on the systems used, how the data is extracted, any manipulation that is performed, any additional data checks that are performed and who is responsible for what areas. This will particularly reflect University specific data management practices, such as module outcome data. The guidance should also formalise any key areas of judgement or interpretation used by the University in the compilation of the returns.	● **Medium risk**	**Agreed:** Yes **Action to be taken:** Review and update all process documentation. **Responsibility for action:** Assistant Registrar (Returns) **Target Date:** January 2013
HESA 2010/11 Standing data– control design					
2	We selected a sample of 60 students in the HESA 2010/11 return. These students were selected to ensure all FUNDCOMP status outcomes were considered and that the completion status was appropriate based on the data within the student records. On the HESA 2010/11 return there were seven instances where the completion status of the student was incorrect based on the module marks recorded on the system. This included four students that were recorded as non-completion but should have been recorded as completion and three students that were recorded as completion but should have been non-completions. We also noted one instance where a course that should have been excluded from the return as it did not meet the criteria had been included incorrectly. Management do not currently carry out a full suite of exception reports using Computer Aided Audit Techniques (CAATs) on either the HESA or HESES data in the return. See section 3 for detailed findings.	Incorrect data could potentially returned to HEFCE which could result in funding clawbacks if these issues were systematic across the student population.	Robust processes should be established to ensure that all standing data is accurate. Management should perform comprehensive exception reports or CAATs based on key risk areas. This should be build into the production of the return. See section 3 for potential exception reports and sample testing that could be performed to minimise the errors noted in testing. Further guidance can be found in section 3.	● **High risk**	**Agreed:** Yes **Action to be taken:** Additional data quality checks are being introduced. We will be calculating MODOUT values and checking these back against FUNDCOMP. The spot checks and tests proposed in Section 3 will be implemented. **Responsibility for action:** Assistant Registrar (Returns) **Target Date:** October 2013

	Finding	Potential Risk Implications	Recommendations	Finding rating	Management Response and agreed actions
HESES 2011/12 Standing data– control design					
3	We selected a sample of 60 students in the HESES 2011/12 return. These were selected to ensure that we covered a range of students mode and load factors. We noted multiple exceptions in the standing data tested on the HESES return. Testing on the HESES 2011/12 return noted the following exceptions: • Six out of the population of 60 had an incorrect mode of study assigned. Three were part time that should have been full time and three were full time that should have been part time; • Seven out of the population of 60 had incorrect part time load factors on the return based on their total credits assigned on the system; • Two errors were noted where the course had been incorrectly returned and should have been excluded from the return as was not fundable; and • One student was noted as having incorrect credits assigned on the system. They were recorded with 135 credits to be taken when it should have been 120. Management do not currently carry out a full suite of exception reports of CAATs on either the HESA or HESES data in the return. See section 3 for detailed findings.	Incorrect data could potentially returned to HEFCE which could result in funding clawbacks if these issues were systematic across the student population.	Robust processes should be established to ensure that all standing data is accurate. Management should perform comprehensive exception reports or CAATs based on key risk areas. This should be build into the production of the return. See section 3 for potential exception reports and sample testing that could be performed to minimise the errors noted in testing. Further guidance can be found in section 3.	● **High risk**	**Agreed:** Yes **Action to be taken:** The spot checks and tests proposed in Section 3 will be implemented. **Responsibility for action:** Assistant Registrar (Returns) **Target Date:** December 2012

3. Detail of issues noted

FUNDCOMP status	Number in testing population
1 (completion)	42
2 (non-completion)	11
3 (not yet completed)	7
Total	**60**

We selected a sample of 60 students in the HESA 2010/11 return. These students were selected to ensure all FUNDCOMP status outcomes were sampled and that the completion status was appropriate based on the data within the student records. The table sets out the distribution of the sample across the different completion statuses.

Mode	Level	Total number within sample
Full-time	UG	31
	PG	9
Part-time	UG	14
	PG	6
Total		**60**

We selected a sample of 60 students in the HESES 2011/12 return. These were selected to ensure that we covered a range of students mode and load factors. The table sets out the distribution of the sample across the different completion statuses.

Nature of Error	Proposed remedial action
Incorrect Courses being returned Through testing of the population it was noted there were three instances where courses had been included in the returns that should not have been returned. This was because the courses had not been correctly stated as not to be returned on the system and therefore had been automatically pulled into the return. 1) One instance in HESA testing. See reference 2 in the HESA 2010/11 detail of errors table below. 2) Two instances in HESES testing See references 4 and 10 in the HESES 2011/12 details of errors table below.	A listing of all courses that have been agreed should not be returned should be agreed prior to the return submission. A check should be performed on the data in the return to ensure these are not included.
Treatment of non-standard courses A total of 17 students on non-standard courses were selected as part of the sample. Of these we found one non-fundable course affecting two students in the sample. During the testing further investigation had to be performed with course leaders to ensure that courses had been correctly recorded as non-standard.	A listing of non-standard courses should be compiled. The treatment of non-standard courses should be documented as part of the guidance as per recommendation 1. A sample of non-standard courses should be tested prior to submission of the return to ensure correct treatment in line with the funding rules.
Treatment of Accreditation for Prior Learning (APL) modules From HESES 2011/12 testing one student (ref 2004819) was noted as having APL. Their total load as per the calculation did not reflect the fact that they had APL in line with the guidance. As this student studied FT this did not affect their	A consistent approach should be applied to students with APL. As per the HESES 2011/12 guidance (p70) APL should not be included when calculating FTE load of the student.

Nature of Error	Proposed remedial action
overall load returned per the HESES return.	
Mode of study Three were included on the system as part-time, but should have been full time based on their actual study intentions. See references 6, 7 and 11 in the HESES 2011/12 details of errors Three were included on the system as full time but should have been part time based on their actual study intentions. See references 4, 5 and 10 in the HESES 2011/12 details of errors Overall there was no impact on the sample tested as the errors were equal and opposite in terms of student mode of study. This had implications for the PT load factors for two students as noted below under PT load factor finding.	Spot checks should be performed on the underlying data to ensure it is accurate prior to the compilation of the report.
HESA Completion status Seven instances where students had been assigned the incorrect completion status. See table on the next page, HESA 2010/11 details of errors noted - references 1 and 3-8	Spot checks should be performed on the underlying data to ensure it is accurate prior to the compilation of the report.
PT Load factor Seven instances where the load assigned to the student was incorrect see references 1, 2, 3, 4, 8, 10 and 12 in the HESES detailed error table below. For two of these errors it was because the students' mode had incorrectly been assigned as full time and therefore their load automatically pulled into the return at 100% (references 4 and 10 in the HESES detailed error testing table below).	Spot checks should be performed on the underlying data to ensure it is accurate prior to the compilation of the report.
Credits recorded on QLS One student had incorrect credits recorded on the QLS system. An additional module was on the system for 15 credits, The student was registered for 135 credits when they should only have been registered for 120 credits.	Spot checks should be performed on the underlying data to ensure it is accurate prior to the compilation of the report.

Details of issues noted:

HESA 2010/11

Reference	Student number	Nature of issue	Status as per return	Correct Status	Further information
1	2824701	Completion status incorrect	1	2	n/a
2	2900686	Course should not have been returned	3	-	This was for course CEG Foundation Campus. When the total population was filtered to see the number of instances in the return for this course. There were a total of 286 records for this course in the HESA return. The FUNDLEV status of these records was 99 – not returned in HESES. *This course has now been set to exclude on the QLS system.*
3	9751489	Completion status incorrect	1	2	n/a
4	2004819	Completion status incorrect	2	1	n/a
5	2900303	Completion status incorrect	1	2	n/a
6	2911993	Completion status incorrect	2	1	n/a
7	247849	Completion status incorrect	1	2	n/a
8	9953448	Completion status incorrect	3	2	n/a
	Total number of issues	**8**			

HESES 2011/12

Reference	Student Number	Mode	Load	Other	Further information
1	2000269		X		Load was 37.5 but should have been 75
2	2250337		X		Load was 33.5 but should have been 50
3	2458715		X		Load was 50 but should have been 25
4	2477849	X	X	X	Course should not have been returned. As returned as full time the load was automatically calculated as 1 FTE. Load was 100 but should have been 3.
5	2510434	X			Returned as full time but should have been part tme
6	2801570	X			Returned as part time but should have been full time
7	2820197	X			Returned as part time but should have been full time
8	2827936		X		Load was 75 should be 87.5.
9	2909704			X	The modules recorded on QLS are incorrect. Overstated by 15 credits.
10	3030537	X	X	X	Course should not have been returned. As returned as full time the load was automatically calculated as 1 FTE. Load was 100 but should have been 3.
11	9751489	X			Returned as part time but should have been full time
12	2003949		X		Load was 37.5 but should have been 50.
	TOTAL ERRORS	**6**	**7**	**3**	

4. Basis of our report classification and finding ratings

A. Individual finding ratings

Finding rating	Points	Assessment rationale
Critical	40 points per finding	*A finding that could have a:* • **Critical** *impact on operational performance resulting in inability to continue core activities for more than two days; or* • **Critical** *monetary or financial statement impact of £5m; or* • **Critical** *breach in laws and regulations that could result in material fines or consequences over £500k; or* • **Critical** *impact on the reputation or brand of the organisation which could threaten its future viability, e.g. high-profile political and media scrutiny i.e. front-page headlines in national press.*
High	10 points per finding	A finding that could have a: • **Significant** impact on operational performance resulting in significant disruption to core activities; or • **Significant** monetary or financial statement impact of £2m; or • **Significant** breach in laws and regulations resulting in significant fines and consequences over £250k; or • **Significant** impact on the reputation or brand of the organisation, resulting in unfavourable national media coverage.
Medium	3 points per finding	A finding that could have a: • **Moderate** impact on operational performance resulting in moderate disruption of core activities or significant disruption of discrete non-core activities; or • **Moderate** monetary or financial statement impact of £1m; or • **Moderate** breach in laws and regulations resulting in fines and consequences over £100k; or • **Moderate** impact on the reputation or brand of the organisation, resulting in limited unfavourable media coverage.
Low	1 point per finding	A finding that could have a: • **Minor** impact on the organisation's operational performance resulting in moderate disruption of discrete non-core activities; or • **Minor** monetary or financial statement impact £500k; or • **Minor** breach in laws and regulations with limited consequences over £50k; or • **Minor** impact on the reputation of the organisation, resulting in limited unfavourable media coverage restricted to the local press.
Advisory	0 points per finding	A finding that does not have a risk impact but has been raised to highlight areas of inefficiencies or good practice.

Each individual finding is given points, based on the rating of the finding (Critical, High, Medium, Low or Advisory). The points from each finding are added together to give the overall report classification of Critical risk, High risk, Medium risk or Low risk, as shown in the table on the next page.

B. Overall report classification

The overall report classification is determined by allocating points to each of the findings included in the report

Report classification	Points
🟢 **Low risk**	6 points or less
🟡 **Medium risk**	7– 15 points
🟠 **High risk**	16– 39 points
🔴 **Critical risk**	40 points and over

Responsibilities of management and internal auditors

It is management's responsibility to develop and maintain sound systems of risk management, internal control and governance and for the prevention and detection of irregularities and fraud. Internal audit work should not be seen as a substitute for management's responsibilities for the design and operation of these systems.

We endeavour to plan our work so that we have a reasonable expectation of detecting significant control weaknesses and, if detected, we shall carry out additional work directed towards identification of consequent fraud or other irregularities. However, internal audit procedures alone, even when carried out with due professional care, do not guarantee that fraud will be detected.

Accordingly, our examinations as internal auditors should not be relied upon solely to disclose fraud, defalcations or other irregularities which may exist.

Limitations inherent to the internal auditor's work

Our internal audit work has been performed in accordance with HEFCEs Financial Memorandum. As a result, our work and deliverables are not designed or intended to comply with the International Auditing and Assurance Standards Board (IAASB), International Framework for Assurance Engagements (IFAE) and International Standard on Assurance Engagements (ISAE) 3000.

Internal control

Internal control systems, no matter how well designed and operated, are affected by inherent limitations. These include the possibility of poor judgment in decision-making, human error, control processes being deliberately circumvented by employees and others, management overriding controls, and the occurrence of unforeseeable circumstances.

Future periods

Our assessment of controls relating to Key Information Sets (as set out in our terms of reference) is for the twelve month period prior to the date of audit. Historic evaluation of effectiveness is not relevant to future periods due to the risk that:

- the design of controls may become inadequate because of changes in operating environment, law, regulation or other; or
- the degree of compliance with policies and procedures may deteriorate.

Appendix - Terms of reference

London South Bank University

Terms of reference – Student Data Quality - Final

To: *Andrew Fisher (Academic Registrar)*
Cc: *Richard Flatman (Executive Director of Finance), and Phil Cardew (Pro-Vice Chancellor (Academic))*

From: *Justin Martin, Engagement Leader*
This review is being undertaken in addition to the 2011/12 internal audit plan approved by the Audit Committee.

Background

In recent years, there has been a sector-wide risk of claw backs associated with the HEFCE teaching grant, largely stemming from non-compliance with student completion rules. Recently we have also seen a number of institutions incurring fines for over-recruitment of new student entrants.

The financial memorandum also includes requirements for the Audit Committee to give an annual opinion over the management and quality assurance arrangements over data submitted to external bodies, including student data.

The longer-term risks around claw back of HEFCE teaching grant are expected to reduce significantly from 2012/13 onwards. This is because the University provides programmes which are largely in price groups C and D, which HEFCE will fund to a limited extent from 2012/13 onwards, with the funding for these courses coming predominantly through student tuition fees via the Student Loans Company in many cases. We are also aware a significant proportion of the University's provision is price group B, which will experience a lower funding reduction than those in price groups C and D. Whilst the risk of claw back could significantly reduce going forward, management remain conscious of the risks facing the current financial year's contract, and as such have requested a review covering student data. This review will particularly look at the University's compliance with HEFCE's rules around student completion, and focussing on the other areas of inherent risk of claw back of funding council income. We will also consider areas of data which contribute to recording of the University's outturn against its student number control target, as this is an important area which management are focussing on going forward.

The University expects a HEFCE funding audit at some stage in the next two years. The overall aim of this review is therefore to consider key areas which HEFCE consider in their funding audits, but not to replicate the HEFCE audit as it currently stands, given the changing requirements around student data and student number controls. The scope of this review is therefore set in that context.

Scope

We will review the design and operating effectiveness of key controls in place relating to student data quality during the 2011/12 academic year. The sub-processes and related control objectives included in this review are:

Sub-process	Control objectives
• 2010/11 HESA data and accuracy of student data	For a sample of students we will perform testing to verify whether: • The HESA student completion status is consistent with the student's actual completion of study recorded on the University's registry system, through completion of individual modules intended for completion.

Sub-process	Control objectives
• 2011/12 HESES data	For a sample of students we will perform testing to verify whether: • Part-time load factors and mode of study are correctly applied; • Price groups are correctly applied to individual modules and programmes; • The appropriate level of qualification is assigned to the student, based on the FUNDLEV HESA field; • Individual students have a unique HIN reference, which links different years of instance (i.e. academic years) on the same programme, and avoids double-counting of students or inconsistent information between years; • The start date for that year of instance is correct, and is clear if any students are repeating an academic year, or are direct entrants (for example into level 2 of an undergraduate qualification); • ELQ students are appropriately identified, with fundable status amended accordingly; and • Non-standard year students are appropriately recorded on the system and within the HESA / HESES data.
• General student registry controls	• Management understand and appropriately apply the non-completion funding rules, as well as other areas of data quality around ELQ, and HIN linkages; and • Process notes and manuals are retained by the University to ensure continuity in completing the statistical returns and provision of management information.

Limitations of scope

This review is not a replacement for the HEFCE review.

Audit approach

The budget for this review is 10 days (£5,590). Our audit approach is as follows:

• Obtain an understanding of the processes through discussions with key personnel, review of systems documentation and walkthrough tests;

• Identify the key risks around student data quality;

• Evaluate the design of the controls in place to address the key risks; and

• Test the operating effectiveness of the key controls.

Internal audit team

Name	Title	Role	Contact details
Justin Martin	Partner	Engagement Leader	justin.f.martin@uk.pwc.com
Debbie Tilson	Manager	Internal Audit Manager	debbie.e.tilson@uk.pwc.com
Lizzie Scragg	Senior Associate	Team Leader	elizabeth.a.scragg@uk.pwc.com
Ian Roberts	Manager	Higher Education and Data Quality Specialist	ian.d.roberts@uk.pwc.com

Key contacts – London South Bank University

Name	Title	Role	Contact details
Andrew Fisher	Academic Registrar	Audit Owner	fishera7@lsbu.ac.uk
Phil Cardew	Pro Vice Chancellor (Academic)	Audit Sponsor	phil.cardew@lsbu.ac.uk
Jenny Laws	Deputy Registrar	Key contact	lawsjr@lsbu.ac.uk

Timetable

Fieldwork start	25 June 2012
Fieldwork completed	6 July 2012
Draft report to client	20 July 2012
Response from client	3 August 2012
Final report to client	10 August 2012

Agreed timescales are subject to the following assumptions:
- All relevant documentation, including source data, reports and procedures, will be made available to us promptly on request

- Staff and management will make reasonable time available for interviews and will respond promptly to follow-up questions or requests for documentation.