Using the SCONUL statistics

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This year those who have anything to do with collecting the data for the annual SCONUL return will have noticed that it has changed – quite a lot – in some sections. The aim of the changes, many of which were piloted with a small group of libraries during the course of the academic year 2009-10, was to make the SCONUL statistics more relevant to today's academic libraries and to align the data collected more closely to those which are being used internally. The e-measures pilot process and its conclusion are the subject of a separate article; the aim of this paper is to consider the use of the statistics by individual libraries. The SCONUL statistics are a phenomenal resource, not only in their aggregated form for the sector as a whole, but also at an institutional level, and the envy of the world (well, some of it, anyway).

The extent to which libraries are required to justify their resources varies between institutions, with some making regular reports on institutionally set key performance indicators (KPIs), while others are left pretty much alone. The extent to which libraries use statistical evidence for management also varies, as does the range of applications for such evidence. In this article I shall draw on LISU experience of working with individual academic libraries, and on examples presented at the annual SCONUL statistics workshops run by LISU and Evidence Base on behalf of SCONUL'S Working Group on Performance Indicators to provide a flavour of what the SCONUL statistics can do.

Performance monitoring

Performance monitoring is one of the key areas where the statistics and data collected for SCONUL can be valuable for individual libraries. The data used for this purpose are likely to be more detailed than those published in the SCONUL statistics, and may be collected and examined monthly or quarterly rather than annually. Many of the figures collected by SCONUL can be used in this way; electronic statistics, including database searches, article downloads,
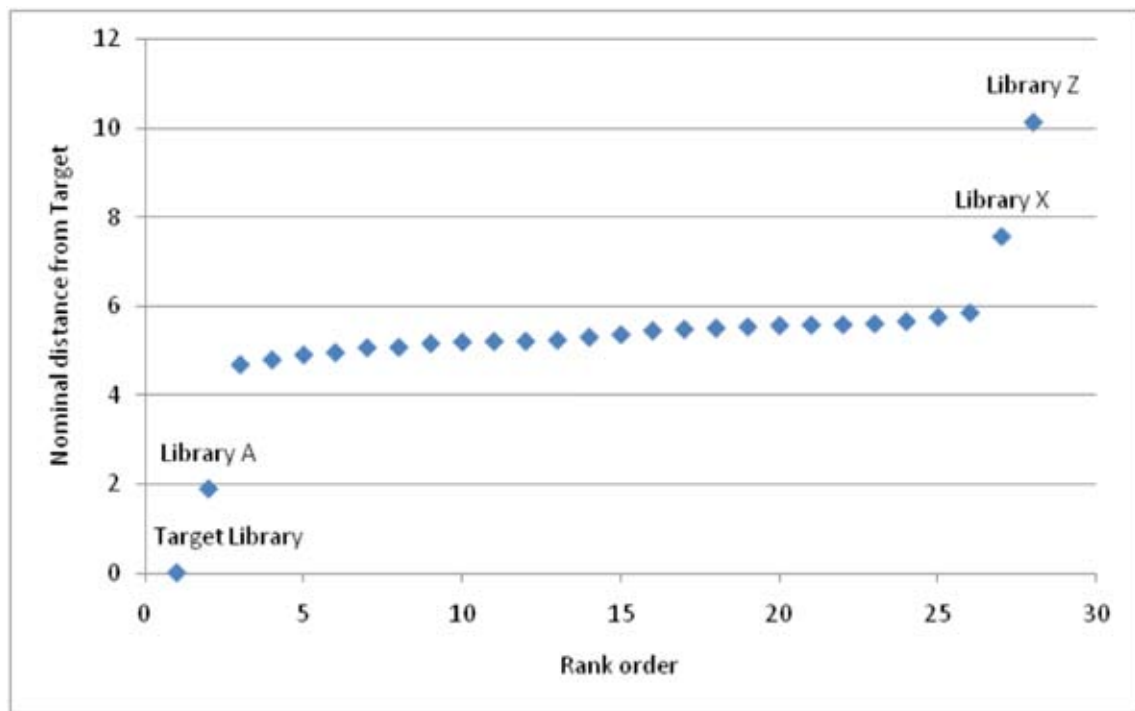
Figure 1 Example results from nearest neighbour analysis

e-book accesses, etc., are a key example, and can be used for evaluation of value for money and to inform future collection strategy.

Many libraries use KPIs which are reported to senior management, and which may be derived from the data that, eventually, are submitted to SCONUL. Examples of such KPIs include:

- seat availability: seat hours per week per full-time equivalent (FTE) user should exceed the sector median
- journal subscriptions: the number of e-journal titles available should increase annually by at least 10%
- full-text article requests: cost per download for e-journals should be lower than the previous year
- expenditure: library expenditure on information provision should be no less than 49% of total library expenditure and greater than the sector median.

There are clearly many more examples, and those used in individual libraries will depend on local priorities. Not all KPIs will be derived from SCONUL data – for example, targets for queuing times, or shelving accuracy.

BENCHMARKING

This is one of the areas where the SCONUL statistics come into their own. In its most basic form benchmarking is a formal comparison of some activity between two or more institutions. The SCONUL statistics support benchmarking by providing a comprehensive data set which can be used to support the selection of appropriate comparator libraries, as well as to carry out the analysis. This is an area in which LISU is frequently involved. Every year we produce a SCONUL-wide trends analysis, which can be tailor-made to fit the circumstances of any individual library.

The data can first be used to select appropriate comparator libraries in cases where there is no 'obvious' set, although some discretion and professional expertise is needed to filter out institutions with substantially different missions and library user populations. Statistical techniques such as nearest neighbour and cluster analyses can be used to rank libraries by similarity to your own. Figure 1 shows example results; these show that library A would clearly be an appropriate member of a comparison group for the target library, whereas libraries X and Y would not, while making a choice from the remaining candidates is less clear-cut.

One way to inform this choice is to vary the set of input measures used for the analysis, and compare the results. Figure 2 compares results from three analyses, showing the ranks obtained from each. For some libraries the ranks from all three analyses were very similar, suggesting that these could appropriately be included in a comparator set, while others have more inconsistent results.
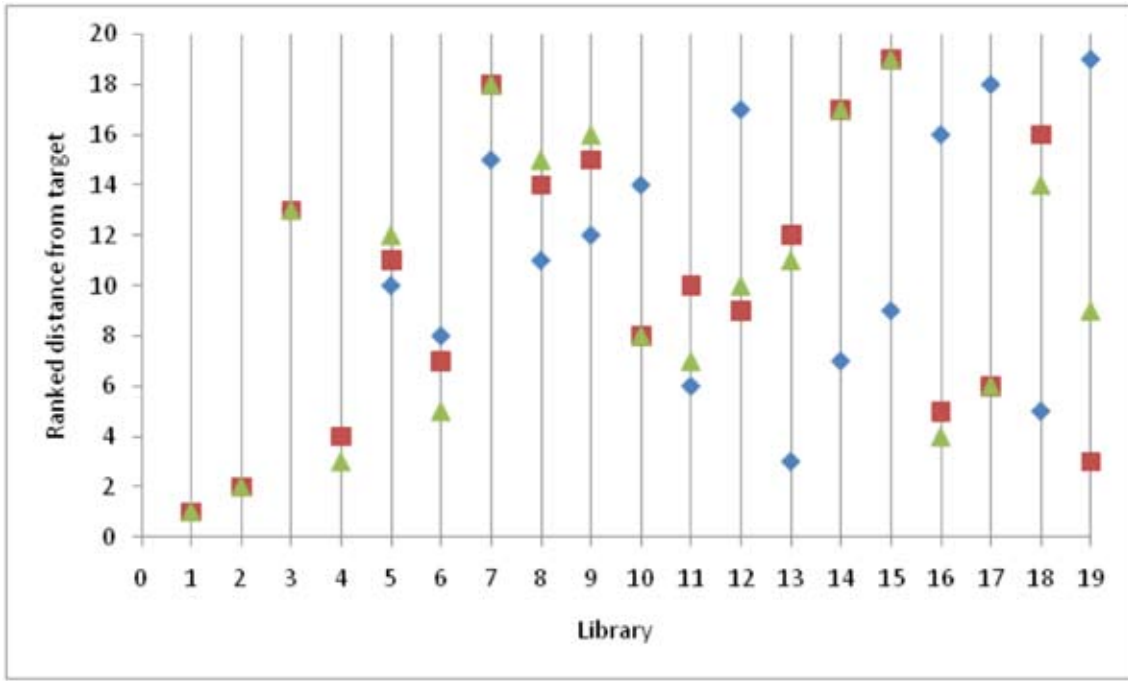
Figure 2 Relative ranks on three analyses

Once a comparator set has been chosen, statistical profiles can be devised and benchmarking tables and graphs produced.

While benchmarking on current data is useful, it is perhaps more valuable to benchmark using trends, so that unusual figures can be identified as such. It is also helpful to compare against the average of the comparator group or sector-wide groupings, again so that the broader trends can be seen without the 'noise' that can be apparent in individual library figures. Figure 3 shows an example of a typical benchmarking graph, with trends for the

target library, the average of its comparator group, the average of its wider sector and the average of all SCONUL members. Detailed examination of the data for the target university revealed that the increase in 2004-5 was caused by an increase in student numbers without additional staffing provision. Such analyses should be put into context with, for example, data on staff expenditure and proportions of professional staff, to give a broader perspective.

Figure 3 Example trend analysis – students per library staff member
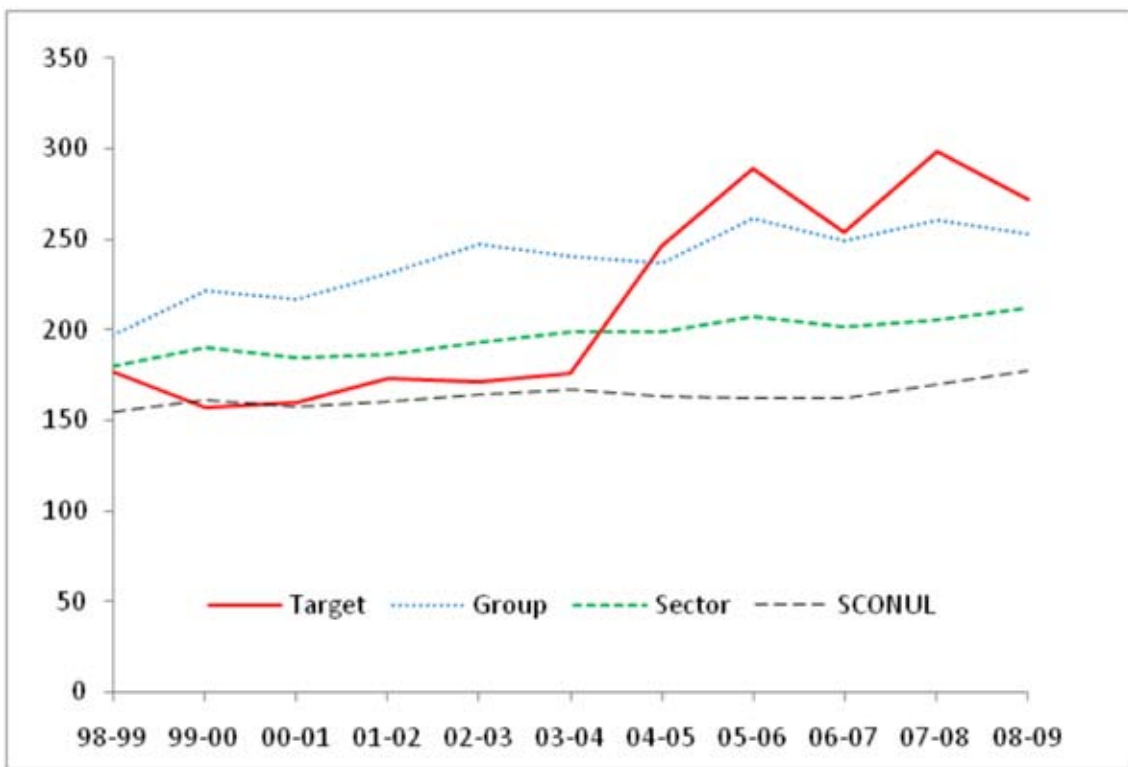
A third role for SCONUL statistics is in advocacy and making a case for support, whether to keep what you have already, or to get more. It follows on from performance monitoring and benchmarking, and the data required will depend on exactly what you are making a case for. For example, demonstrating that you are under-resourced compared to other libraries, or that levels of use warrant additional input, might be areas where the SCONUL data could provide the evidence you need to back up your argument. The data are also valuable to promote the service, in library reports to stakeholders, for example. Showing where you are performing well helps to highlight the library's value and contribution to the wider institution.

Accessing the SCONUL statistics

As well as having access to the printed annual publication and the electronic copy on the SCONUL web site, contributors to the SCONUL statistics can also obtain Excel spreadsheets of the annual tables and can access and analyse the data using the statistical reporting tool (SRT). These give considerable analytical flexibility, and the database underlying the SRT has data going back to 1993-4.

- Estimates are made for missing values by interpolation between known figures, extrapolation from known figures based on wider sector trends or grossing up using the sector average ratio per FTE student.
- Where a single figure on the original return includes data which properly belong in another field, the figure given is apportioned between the relevant items according to ratios in the remainder of the sector (e.g. where a single figure includes both procedural and information resource enquiries, the relative proportions of the two types are calculated from separate figures provided by the rest of the sector, and the single figure supplied is apportioned accordingly).
- Where institutions have not submitted a return to SCONUL for five consecutive years, the estimates have been suppressed, although allowance has been made in the relevant sector totals. Newer members who have never submitted any returns are similarly excluded.

As well as the data for individual instructions, the main sector totals are also included so that wider comparisons can easily be made. A variety of analyses can be carried out online, shown in figure 4.

Figure 4 Statistical reporting tool index page

Note that this database contains an edited version of the published statistics, in order to make comparisons between institutions and over time more consistent. There are three key areas which users should be aware of:

The SRT is accessed via the statistics pages of the Performance Portal[1] where you can also find examples of how libraries have used the SCONUL statistics, access a copy of the latest return and its notes and find the annual reports. This is not the

place to go through all the options in detail, but I would encourage members who are interested to take a look. If you find it daunting LISU offers an analysis service to all SCONUL members and can provide customised training in using the SRT or the SCONUL statistics more generally.

NOTE

1   http://vamp.diglib.shrivenham.cranfield. ac.uk/statistics