Opportunities & Success Stories

A personal overview of library statistics taking the ‘bottom up’ approach and concentrating on successes more than problems!

John Sumson
Senior Research Fellow, Department of Information Science, Loughborough University, UK

Abstract

In concentrating on current problems for a professional audience we easily overlook what statistics demonstrate in the broader historic and geographic context. Sometimes the success is so complete that nils (or tiny figures) are now recorded, for instance, for: closed access material; material not on the OPAC; copying done by staff; charges for book borrowing. Other changes are so huge that they go unrecorded: items requiring original cataloguing; recording access (entrance) to the library; security staff controlling physical access. But inter country comparisons show that such signs of the modern service are not yet universal.

Examples, from public and academic libraries, are discussed where particularly successful initiatives and projects comprised important statistics in their origination and/or monitoring. References to other speakers’ examples are included.

Statistics are considered that are appropriate for a one-way interpretation or for an average rather than an extreme target.

Contrary to fashionable opinion, there is a need for more statistics about library operations rather than less – though their selection for each target audience has to be undertaken sensitively to avoid negative overload. Academic researchers could profitably spend more effort in collating and analysing statistics from individual libraries to monitor current trends and development.

Careful use of statistics is essential for effective library management. In practice, those libraries that provide a superior service have managements attuned to quantitative assessment of their results. Under-resourced or poorly managed services are generally weak in their statistics.

Areas where management is historically weak also feature statistics that are relatively underdeveloped – for example cataloguing, and cost accounting.

The future scenario of networked, generally unmediated services will call for major changes in librarians’ statistical armoury with some new performance targets. Work towards these is in progress. Regular statistical series have, by definition, to monitor and follow rather than precede actual development. However, some speculative (and provocative) targets can usefully be formulated at this stage.

Introduction

I was delighted to be asked to contribute to this Conference. Having spent more than a decade reading the story of libraries by way of their descriptive statistics, it is something of a personal treat to be allowed to concentrate on, and to publicise, some of the highlights of this experience.

My transition from a career in shoe manufacturing took place via the Public Lending Right operation, which I set up and ran from 1981–91. Research initiatives there included serious work at the Department of Applied Statistics at Reading University and an initiative to compare PLR Schemes, and their ‘host’ public library operations, in different countries.
In 1991 I moved to Loughborough University to direct LISU (the Library & Information Statistics Unit) for five years. Since 1996 I have been ‘winding down’ with various research and consultancy assignments that included active involvement in IFLA, in the LibEcon European library statistics, and in revising the ISO 2789, the International Standard for Library Statistics (Sumsion, 2002). In all this time I have been privileged to meet many librarians and to share with them all sorts of issues involving library statistics. Librarians in general tend to fight shy of the quantitative disciplines, but the ‘camaraderie’ that exists among the small naturally numerate cliques has been most rewarding.

What I want to do today is to reflect on the most noteworthy and memorable events in this part of my career – to give an individual insight into the library business, with the hope of emphasising some features that make libraries so valuable a feature of 20th century culture. Let us hope you too will enjoy the next forty minutes’ look at the facets of Library Statistics! Informal anecdotes and digressions are part of this approach, and do not necessarily have any moral or instructional overtones!

Optimistically there may be examples and references here that will help lecturers and their students overcome the ‘statistics block’ that can be a problem for those who are not naturally numerate.

Many of the examples are elegant and enjoyable in themselves. Well-produced informative statistical data has its own attraction: statistics are for reading as much as textual explanation. These, moreover, are all examples of statistics used for a practical purpose; they demonstrate how statistics have been used to influence management, development, political debate, and decision making.

Much of what follows is exceedingly obvious: little is either ‘clever’ or ‘original’. So my examples are not all referenced. One purpose today is to remind ourselves of much that is so obvious that it can all too easily get overlooked or forgotten!

To give it some structure, my ‘headings’ are:
A. Success stories – library achievements
B. Success stories – library research
C. Distinguishing features of library statistics
D. The need to have and use more library statistics
E. Some crystal ball projections for the future scenario (prompted by trends apparent in present library statistical work)

Successes

Time series graph falling to zero

When concentrating on the here and now for a professional audience we naturally overlook how statistics can demonstrate the success in the broader historic and geographic arenas. Sometimes the success is so complete that nils (or tiny figures) are now recorded. Note, for instance, how the pattern in Fig 1 – normally associated with service decline – reveals dramatic reduction in:

- Closed access material – and costs in fetching it
- Photocopying (and other copying) done by staff
- Charges for book borrowing
In other cases there are reductions so huge that they go unrecorded:

- Items requiring original cataloguing
- Material not on the OPAC
- Recording access (entrance) to the library
- Costs of security staff controlling physical access

While these signs of efficiency in a modern service are to be found in most countries, there are some odd exceptions on the international scene. Cuba requires users to complete a form on entry, so they know not only the number of visits but also the number of individual users. Despite the IFLA Manifesto (IFLA, 2001) there are still countries that charge borrowers either a fee or subscription. However, the borrowing service is always heavily subsidised and there is much variety in the critical detail of subscription arrangements.

Research into charging arrangements in some Canadian provinces, the Netherlands, and Israel shows how charging in detail can be quite user friendly – by varying annual subscription arrangements, for instance, so that single payments are accumulated to credit patrons’ accounts. The actual detail revealed by the statistics is rather less of a deterrent than the arguments of principle would suggest (Morris et al, 2001, chap 7).

We tend to limit the collection of statistics to finance and to features of professional interest/curiosity. The result is a lack of publicity for developments and modernisation such as the above – where we have succeeded in not claiming credit for improvements in productivity and efficiency and in major savings achieved! Even more important is the relative dearth of statistics on buildings and on space.

The most critical limitation of library service development comes about through lack of space for innovation. The latest examples of this spring from the need to cram People’s Network terminals into the pint pot – on the quite mistaken assumption that computers do not need extra space. Combined with cuts in the book fund, shortage of space for books to read simply hits the most popular part of the public library often in an indefensible and undemocratic neglect of the keen reader. This effect is exacerbated by the absence of proper statistics and standards for space.

In 1992 The Follett Review of Resources led directly, but against the odds, to a new building programme (Joint Funding Councils’ Libraries Review Group,1993). Statistics showed a huge increase in student numbers and hardly any increase in accommodation for readers (Fig 2).

The survey showed library managers adamant on the need for space for students. This surprised some, particularly academics, who thought all new funds should go on electronic development. In the event, this turned out to be a successful use of a simple survey to generate substantial building investment - but against an alarming tendency to discount simple space needs.
While on the subject of Follett, we learnt some lessons the hard way. The survey was so large that it outstripped the data processing capacity that had been budgeted and timetabled. It was not so difficult to complete as some imagined, since most of the data had already been supplied for the SCONUL return. Some of the most successful questions were open ended – of the type ‘name your top three priorities’, and the scattergraph presentations were particularly meaningful. Technically the data problems were largely overcome by using the interquartile range and medians rather than arithmetic means. There are still data processing and analysis lessons to be learnt from innovative aspects of that very ambitious study. Fig 3 shows an interesting analysis of how professional staff spend their time. These data were assembled not from complex activity logs but simply from staff’s own assessment of the percentage of their time they spent on various activities. Accounting precision is not necessary for such an exercise. Answers to a percentage question have the redeeming feature that they must, by definition, add to ‘100’.

**Some shortfalls**

In other areas the lack of a statistical base has negative effects, where achievements go unrecorded and unpublicised:

- Costs/savings involved in centralised stock control and acquisition not calculated
- Costs/savings involved in consortia purchasing, or purchasing at national level, not calculated

(Local decision making on acquisitions...
is expensive and the alleged need to reflect particular local conditions may not stand up to scrutiny. Compare the economies got by JISC in negotiating national database access)

• ‘Last resort’ collection arrangements might work better with regular statistical reporting (Fiction Reserve Schemes have fallen into disuse – partly because reporting stopped)

Large scale success stories focus initially on increases in investment, loans and visits

New buildings, in big catchment areas, mean big increases in activity. In the UK there have been surprising changes in membership of the ‘million plus club’ – annual loans above 1,000,000 (in: Croydon, Peterborough, Chelmsford, Milton Keynes; out: Victorian city centre buildings like Leeds, Birmingham, Bradford, Liverpool, Huddersfield: see The LIST*). Statistics show that libraries need new buildings – just like other retail outlets. With good buildings statistics record success; without new buildings statistics record stagnation. Anne Fine, at Glasgow IFLA 2002, “urged librarians to stop selling off perfectly good books from library collections in the interests of space.”

Noteworthy among building developments in recent years are:

Norwich – here user research showed the building need to fulfil both the traditional Central Library role and also serve the population living within one mile

New Towns – Milton Keynes topped the league table; West Swindon’s overflow population majored on mothers and children

Shopping Centres – Hounslow, Ealing, Clayton-le-Woods, and many others. Tower Hamlet’s ‘idea stores’ yet to come

In a period of apparent and publicised stagnation in UK public libraries, the 1990s, there has nonetheless been considerable new building. In reporting new buildings and extensions there is a serious reporting problem. It arises from the simple fact that, in any particular authority, new buildings are ‘one offs’ and there is no statistical series into which they have to fit. So nationally there is no perspective. In the excitement of new openings, reporting the results of new projects, and the associated success, tends to get a low priority: often there is too much action taking place for an objective assessment. What is unavoidably a one off experience is not repeated every year. There is a strong case here for a regular annual survey to record and publicise for the whole country what has been achieved through new building investment, and how it has spread over the last four to five years. Single year results are not meaningful. So there is a role here for one of the national bodies – the NOF, Audit Commission, DCMS or Resource – to sponsor statistics to monitor not only new building developments but also the increases in users and in activity that has resulted.

Effective forward planning

The most impressive planning document I have come across was in West Sussex. There was a page for each service point giving basic trend data. In a period of expansion the ‘saturation’ year was forecast with a provisional decision as to whether a new library, an enlarged library, closure (rare) or refurbishment would be required – along with other developments. In this way it was clear that the key issue was being addressed: were there enough libraries of adequate size in the right places? With a page for each service point each place was clearly being considered. Preliminary architects plans were drawn up to be ready for any unexpected financial windfalls. Cosmetically the ‘ownership’ of the plan was explained like this: “Committee members are grateful to the County Librarian and his staff for

* http://www.lboro.ac.uk/departments/dis/lisu/list02/list02.htm
their assistance in preparing data for this Plan.”

Expansion internationally
LibEcon tables for Europe in the last 12 years give comparisons between countries and over time (LibEcon, 2000). Successes in borrowing have been shared with book trade expansion. The relative strengths of borrowing and buying are both impressive. Public libraries may have peaked in the UK and Scandinavia, but most countries still have a long way to go to exploit the demand for traditional materials. Note particularly how public libraries have expanded dramatically in France, Slovenia, and Estonia.

How to tell a quality public library?
This is easier than you think. Users in neighbouring authorities vote with their feet. They have to get a library ticket for the place where they live, but that entitles them to use an excellent service next door. Well known examples of excellence include the London Boroughs of Hounslow, Barnet and Sutton: let their below standard neighbours stay unidentified!

Benchmarking: the Derbyshire case
In the last quarter of the 20th century there was one instance only where central government intervened with a local authority to ‘protect’ a service. This happened in Derbyshire where political considerations were prominent. However, as the situation developed enquiry teams covered themselves with glory. The combination of local government treasurers and experienced library managers worked well. The result was splendidly objective in that Derbyshire was compared with Nottinghamshire, Staffordshire and Lincolnshire as neighbouring benchmark services (Newman et al, 1991). To the promoters’ surprise the objective data clearly showed Staffordshire to be the weakest service at the time.

League tables; confidentiality
A common apprehension is the fear that stakeholders will use the evidence of high scores to cut resources. I have never come across this as a committee or management reaction, though there are stories of the Audit Commission exerting downwards pressure in what they regarded as overly high spending authorities. More typical was the former polytechnic university where the Vice Chancellor said quite simply that he would insist on seeing his library spending within the top three – as part of the institution’s image building policy.

Typically when groups of institutions start collecting statistics that can be used to compare results, they begin with an attempt to keep the data confidential – often with quite elaborate ‘secrecy’ codes. Just as typically this stage lasts only a few years before it is realised that there is much more benefit in transparency than in the, usually unsuccessful, attempt to put a lid on the data. Nowadays, with a few notable exceptions, it is becoming common practice to make all data available on the Internet. This is much in the interest of comparisons internationally and spreading best practice between countries.

Speed of response
My favourite ‘success story’, without a doubt, is what Essex managed to do with their request service. What follows is a particularly dramatic illustration of the success recorded by Essex County Libraries (UK) in reducing the time taken to satisfy requests and so improve and extend their service to borrowers. Essex, as a large authority, buys a very wide range of stock, but many titles are held in only a few locations. So copies have to be fetched for the interested user from elsewhere among the 91 branch libraries.

An improved computer system facility allowed staff to ascertain whether the desired book was in fact on the shelves at a
particular location or out on loan – thus eliminating delays when previously the request form went backwards and forwards between several branches. Along with reorganisation of transport and clear improvement targets, this resulted in reducing the average time taken from 21 days in 1990 to 10 days in 1992 and, subsequently, to six days. Not surprisingly the public responded by increasing their use of this particular service – in the event, threefold.

A second improvement was the introduction of a self-service reservation facility through the Online Public Access Catalogue (OPAC) – at slightly less cost to the user – which allowed the increased ‘business’ to be handled without increasing staff.

This story is cleverly illustrated in Fig 4 – a good example of time series presentation. The success of Essex, and of several other authorities, in this technological and management development proved to be convincing pathfinders for all public libraries in Britain – where national standards now reflect the much shorter times being achieved nation wide.

My enthusiasm for this narrative was somewhat tempered in Slovenia when I explained what I thought was our advanced performance – only to be told that their ‘normal’ procedure was to fax the national library on Day 1 and get the material delivered the following day. Progress can take many (dis)guises!

Comparisons with retail

Early in my quest for PLR sample libraries I came across a brilliantly effective print out at Coventry. Every month (or fortnight) the print out showed, for the top 50 or 100 titles in adult and children’s fiction and non-fiction categories, basic data like loans, reservations, stock/location, and on order. From this one could quickly see where reordering was needed. The software was taken from IBM standard BOMP and is basic stock control stuff. I looked forward to seeing similar applications elsewhere: I am still looking.

Fig 4 Essex requests 1989/90 – 1996/97
Compared to routine retail practice I continue to be surprised to find so little equivalent on ‘doing your day’, ‘doing your week’. Are we not in the retail lending business? Efficiency in stock control and stock management is something we should be in a position to boast about.

Successful research
Results of research can take years to percolate professional opinion, by which time they may have become so well accepted that their initial originality is forgotten. The ‘hybrid’ concept was, for instance, novel and debatable at first but is now accepted as obvious. Among many candidates for research rosettes in this category there are five that call for particular mention:

- ‘Use & user’ market research
- Satisfying information needs
- Public library ‘roles’ and priorities
- The ‘tiering’ concept
- Some research techniques

Uses And Users
Statistics demonstrate the widespread provision of information and of other minor services: the ‘others’ need much more publicity. It is vital that, where a variety of interests are satisfied and where this is done efficiently to benefit from economies of scale, that this be counted a strength not a weakness.

An interesting event occurred with the splendidly adventurous graphic printed by the Audit Commission in their Due For Renewal (1997). Being shown this in draft it transpired that the compilers had omitted ‘book borrowing’ from the list of services – an incredible oversight given that this is far and away the most popular service, more popular than all the other services put together. Moral: what appears obvious to some may be unrealised by others – unless the basic statistical quantities are quoted and explained.

Both the Book Marketing Ltd surveys and the CIPFA PLUS activity analysis have to be counted as major successes in library statistics. Activity of users in the library has now been mapped so that the take up of different services can be assessed both in its strategic dimension and in quantitative detail. User activity can be mapped by age, gender, education, socio-economic status and residence of users. CIPFA PLUS is an exit survey conducted to a national standard that can be reported at national, authority, and library levels. The basic statistical data are in the two Perspectives of Public Library Use volumes (England and Sumison, 1995; Bohme and Spiller, 1999) and are more fully explained in ‘Library Statistics for Marketing’ IFLA Journal 27 (4) and in Cultural Trends 42.

Table 1 analyses users’ activity with a cross tabulation by age group.

A more sophisticated and powerful cross tabulation type of analysis has been developed by statistical researchers. Its exciting potential is illustrated in Table 2 where the subject of material is cross tabulated with the mode of learning and enjoyment. Once again variety is all.

Information needs
The methodology surrounding the Enquiry Count has been known to be unsatisfactory for years. This is due, in the first place, to problems of definition and the practical difficulties in getting librarians to keep an accurate tally when they are often under acute time pressure. The latter point can be dealt with by having a third party do the actual logging, but there remains the problem that many users get information directly from the shelves without involving professional assistance (or ‘mediation’). Such provision of information, on a self-help basis, is just as valid as the visit to the enquiry desk. User questions on this were introduced into the CIPFA PLUS methodology along with the users’ estimate
of success or failure. As a result we see in Tables 3 and 4 not only an activity analysis but also a clear demonstration that successful information seeking correlates with involvement of staff. The effective participation of staff is statistically proven.

Table 1  CIPFA PLUS User Survey 2000 - Percentage of people undertaking various activities on their library visit

<table>
<thead>
<tr>
<th>Activity in Library</th>
<th>UK average</th>
<th>Up to 24</th>
<th>Age Groups (adults)</th>
<th>25-44</th>
<th>45-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Borrow/return book(s)</td>
<td>76</td>
<td>50</td>
<td>70</td>
<td>77</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>Borrow/return cassette(s)</td>
<td>6</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Borrow/return CD(s)</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Borrow/return video(s)</td>
<td>8</td>
<td>8</td>
<td>15</td>
<td>7</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Read newspaper/magazine</td>
<td>13</td>
<td>11</td>
<td>11</td>
<td>14</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Seek information/find something out</td>
<td>22</td>
<td>33</td>
<td>22</td>
<td>23</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Use photocopier</td>
<td>6</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Browse</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>31</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Sit to study or work</td>
<td>7</td>
<td>26</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>See exhibition/event</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Did something else</td>
<td>10</td>
<td>16</td>
<td>13</td>
<td>9</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>186</strong></td>
<td><strong>194</strong></td>
<td><strong>182</strong></td>
<td><strong>186</strong></td>
<td><strong>173</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: CIPFA Public library user survey 2000 - 2001 National report
Note: Age categories amalgamated and results rounded. Age analysis supplied specially by Institute of Public Finance Ltd. Croydon, Surrey, UK.

Table 2  Reasons for borrowing by subject category of book 1998-99

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hobby</th>
<th>Pleasure</th>
<th>Personal Learning</th>
<th>Practical</th>
<th>Study</th>
<th>Job</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no.</td>
<td>no.</td>
<td>no.</td>
<td>no.</td>
<td>no.</td>
<td>no.</td>
</tr>
<tr>
<td>History, War, Transport</td>
<td>30</td>
<td>7</td>
<td>13</td>
<td>12</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Biography</td>
<td>5</td>
<td>31</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Science, Technology</td>
<td>7</td>
<td>-</td>
<td>10</td>
<td>5</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Geography, Travel</td>
<td>2</td>
<td>5</td>
<td>-</td>
<td>33</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Family, Health, Food</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>29</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Social Science, Religion</td>
<td>-</td>
<td>1</td>
<td>11</td>
<td>10</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Arts, Music</td>
<td>15</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>Nature, Animals</td>
<td>11</td>
<td>3</td>
<td>2</td>
<td>11</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Craft, DIY</td>
<td>16</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Sport, Games</td>
<td>17</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Language, Literature</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Timperley and Spiller, 1999
Table 3 Information seeking by age

<table>
<thead>
<tr>
<th>Age</th>
<th>Seeking information</th>
<th>Yes</th>
<th>%</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=14</td>
<td>29.0</td>
<td>54.5</td>
<td>45.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>34.4</td>
<td>45.8</td>
<td>54.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>30.5</td>
<td>53.4</td>
<td>46.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>24.8</td>
<td>54.2</td>
<td>45.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>23.7</td>
<td>55.5</td>
<td>44.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45-54</td>
<td>23.9</td>
<td>55.7</td>
<td>44.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-64</td>
<td>20.2</td>
<td>58.1</td>
<td>41.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65-74</td>
<td>17.2</td>
<td>60.2</td>
<td>39.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;=75</td>
<td>13.2</td>
<td>63.5</td>
<td>36.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: CIPFA PLUS, 1998

Table 4 Did you seek information/find something out?

<table>
<thead>
<tr>
<th>Were you successful?</th>
<th>Did you consult staff?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
<td>72</td>
</tr>
<tr>
<td>Yes in part</td>
<td>14</td>
</tr>
<tr>
<td>No</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: CIPFA PLUS Archive, 1999

‘Roles’ and priorities

One legacy of the Carnegie era was the ‘one size fits all’ approach where it was considered undemocratic not to have representation of all subject matter and quality in every service point. Debates that took place were on the overall objectives of the public library. Small service points were shadows of the main library regardless of demographic features. This concept was deeply ingrained and, consciously or subconsciously, treated as an article of professional faith. It is when viewed against this background that the achievement of Van House and colleagues (1987) reveals its cardinal importance.

The set of ‘public library roles’ that they developed was:

- community activities
- community information
- formal education support
- independent learning
- popular materials
- pre-schoolers
- reference library
- research centre

Realistic priorities were set for each service point and not more than two were expected in the top priority slot. What started as an exercise in statistical categorisation transformed the policy thinking on the roles of large, medium and small service point delivery.

The ‘Tiering’ concept

This concept has now been developed into quite elaborate statistics of activity by library tiers. A sophisticated management information profile on the use and users of each tier was constructed for Essex (England and Sumson, 1995: p 195-199) where the large county system at the time of the 1993 survey had 91 service points arranged in six tiers, A to G. Table 5 contains the detailed analysis; the largest libraries are in tier A, while those in tier G are small community libraries. The percentages are of people taking part in that activity.

The main features illustrated are the diversity of service provided in the larger libraries and the relatively narrow options in the small libraries. In meeting information needs, the provision of more staff means that the larger libraries clock up higher success rates. However, the success rate in meeting people’s needs is interesting. There are important differences between large and small libraries, with the small libraries apparently doing better.
Table 5  Essex data by library tier: Selected features

<table>
<thead>
<tr>
<th>TIER</th>
<th>Whole county</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of libraries</td>
<td>91</td>
<td>3</td>
<td>3</td>
<td>12</td>
<td>14</td>
<td>29</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>Ave, catchment pop'n 000s</td>
<td>14.6</td>
<td>80</td>
<td>46</td>
<td>27</td>
<td>14</td>
<td>10</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

**Purpose of visit:**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Whole county</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrow books</td>
<td>91</td>
<td>74</td>
<td>76</td>
<td>87</td>
<td>90</td>
<td>94</td>
<td>96</td>
<td>97</td>
</tr>
<tr>
<td>Borrow cassettes</td>
<td>7</td>
<td>11</td>
<td>9</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Borrow CDs</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Borrow videos</td>
<td>2</td>
<td>7</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Read newspapers/magazines</td>
<td>10</td>
<td>18</td>
<td>12</td>
<td>14</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Use photocopier</td>
<td>7</td>
<td>14</td>
<td>11</td>
<td>11</td>
<td>8</td>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Attend exhibition/event</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Place to study</td>
<td>5</td>
<td>16</td>
<td>11</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Find information</td>
<td>15</td>
<td>27</td>
<td>22</td>
<td>19</td>
<td>15</td>
<td>13</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Other reason</td>
<td>5</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Average no. of uses</td>
<td>1.5</td>
<td>1.9</td>
<td>1.7</td>
<td>1.7</td>
<td>1.5</td>
<td>1.4</td>
<td>1.3</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: England & Sumson, 1995, p 197

Users of large libraries are likely to be more discriminating, with higher expectations, so their success rate in borrowing the books they want is relatively low – despite the provision of larger stocks. Here a straight reading of the performance indicator would be quite misleading.

From the same data but not shown in this table an important analysis by age showed the greater use of large city centre libraries by younger patrons. Is there scope for even more specialisation and a more concentrated offer in the smaller service points?

**Some research techniques**

Springing ‘surprise’ concepts and proposals on people at meetings is rarely successful. It is much more effective to circulate a draft paper in advance of the meeting so that people can do some homework, can concentrate on critical points and not waste time on what everyone agrees.

Asking people to name their top three priorities works well and the open-ended answers are manageable.

When data have been collected, one should explore their value beyond the specific purpose for which they were collected. Make good use of what has cost money to collect: squeeze its value in exploring the unexpected. This runs counter to some research teaching, and implies some free time available beyond a strict budget. It is, however, important in maximising research results.

Use scattergraphs. With Excel they are easy to produce and, once the reader has acquired some basic familiarity, the information
display is superior to anything else. Two examples below are taken from the Follett Survey, where the key to categories of library are:

2. Pre 1945 universities
3. Post 1945 universities
4. Former Polytechnics
5. HE Colleges
6. Other HE

Fig 5 shows not only the disparity of funding between types of university but also some very low levels in the smallest institutions. Fig 6 analyses a more conventional scenario of ILL take up where there is a surprising degree of variation. In each case the average position can be seen by inspection and the presence and significance of outliers is clear.

Fig 5  Net expenditure: students

Fig 6  ILL loans: students
(There are some software techniques for manipulating Excel columns and arrays of data that are not to be found in manuals or guidelines, associated mainly with ‘Paste Special’ and graphic transfers between documents. It would be helpful to have publicity for these.)

The development of web sites to display data, and to provide enquiry facilities, has been exciting in the years 1998–2002. Note the pioneers: Association of Research Libraries (ARL); British Columbia; and, in the UK, IPF Ltd for DCMS.

Distinguishing features of library statistics

The geography

Typically statistics are collected by library authority or institution and then aggregated into national totals. There is a danger that the size parameters are regarded as immutable, when, in fact, the optimum size of library for management purposes is very much an open question. Within each country the forces of tradition, political as much as managerial, inhibit debate on alternative options. The ‘status quo’ in that country is the only situation of which people are aware. For example, it is not generally known that the average size of public library authority in the UK is two or three times as large as in any other country. It is when comparisons are made internationally that very wide variation is found in the structure of library management and funding and in the average size of public library authority (Hanratty and Sumsion, 1996; LibEcon website).

Some exceptional situations call for brief comment. In Canada and Australia, the federated State and Province administrations are most influential, in some ways taking on the role of the national library. In Scandinavia (and elsewhere) the national library has direct supervisory functions for public libraries; elsewhere its role is advisory only. Some extremely large cities (Paris, Rotterdam, New York City, Toronto) have very large administrations – but in countries where the average size of library authority is small. Suffice it to say that there is scope for statistical investigation into the optimum size of library administration.

Variations in the geography of service delivery, and in funding decisions, are likely to become even more important in future, and these options should not be neglected. Statistics are needed at all these levels.

Fig 7 Management/funding levels?

- National
- Regional
- Library authority/institution
- Library building/location
- Home delivery:
  - physical
  - telephone
  - Internet

Self help general services vs mediated services and programmes

Two components in the library service each need recognition. In a well-ordered and signposted library the client should be able to locate what he or she needs on their own, and credit for this needs to be recognised in the performance statistics. On the other hand, for many activities, staff assistance is important. Good statistics are required of special programmes and user training. Neither should be neglected at the expense of the other.

Statistical interpretation

The healthy mean One cannot always aim for high or low results. Some statistics need a good balance rather than high or low results, and they do not convert into simple performance targets. The concept of a healthy mean applies, for instance, to:
• Proportion of children’s
• Proportions of adult non-fiction: adult fiction
• Proportion of information enquiries mediated by staff
• Proportions of American public library ‘roles’
• ILLs – acceptable levels
• Proportion of electronic journals

One way statistics  In other cases statistics imply a one way interpretation. For example:

• Without a high book fund you cannot improve provision; but, on its own, it does not guarantee a good selection of titles/copies
• Unless electronic journal subscriptions are taken out, they will never have the opportunity to prove popular
• If the user is satisfied with information provided, that is half the battle, but there is no guarantee that the information is correct.
• More space will allow services to develop, but will not guarantee their take up.

In these cases the appropriate question is how your own results fit in with the ‘family’: are you average, above average or exceptional? For this scattergraphs are particularly good for the presentation.

Do statistics matter for library management?
This is a matter of faith rather than provable evidence, but these are the hypotheses suggested by my personal experience and by a mass of professional opinion. Let us assert them, even where they cannot be proved. Better still, get them assessed and the successes publicised. If we do not blow our own trumpet, who else will?

• Checking and learning from the statistics produces sharp and bright managers, receptive to the concept of change
• Sizing up and publicising the results of successful initiatives gives job satisfaction
• Typically in authorities with one or two outstanding services the other services are also ‘good’ (Audit Commission Inspectors). Demonstrated success is contagious
• New and upgraded building projects also entail better systems, more bookstock, and more, better paid, staff
• Advanced useable websites are a sign of sharp, sensitive management (see British Columbia, Sutton, East Renfrewshire, Australian universities)
• Some areas generally acknowledged to be weak have underdeveloped statistics: cataloguing, cost accounting, stock management, marketing. To improve performance in such areas, concentrate on counting; in the worst cases, start counting

The need for more library statistics
Contrary to popular management belief, we actually suffer from too few statistics – to demonstrate the diversity and success of libraries:

• Increased use from new and larger buildings
• Cost savings, and customer benefits, from new computer systems – both circulation, cataloguing and acquisition
• Speedy response times
• Users’ value from the (ILL and other) networks: small authorities need more from national networks – how is this arranged?
• Economies of scale in larger libraries: guidance on tiering policies
• How users get to libraries
• How long users spend in the library
Frequently these statistics are collected and used by library managements, but no one else knows about them. LIS academics need to collate, study and analyse them – for policy makers to appreciate.

**The future scenario**

1. Statistics and many library services will be turned upside down by the Internet. We need to aim for the stars, to set new expectations. There are prospects ahead to revolutionise what libraries negotiate with publishers and offer their users. On some of these we can start counting now:

   - Academics need ‘automatic browsing’ at their home computer. Eliminate ‘abstract & indexing’ stage for the user
   - Public library users need information either at home – or in the library. Unmediated, but with help lines and training
   - Most of the new content can best be provided nationally or regionally – the local library role can be reduced to transmission and individual help and training
   - Telephone help lines will become significant: the more activity the better
   - Watch home delivery of books – as an extra the bookshops cannot offer
   - Watch development of readers’ advisory services: be proactive in suggesting likely good reads

2. It follows that there will be fewer physical visits to the library and more service to the user at home. So what will librarians do?

   - Acquire access rights – in a challengingly complex financial situation
   - Select the appropriate database information and arrange the best portal access to it. (Most reference data will become digital and networked, but not necessarily free)
   - Publicity and marketing for both mediated and unmediated access to this
   - Advise users on effective searching for information
   - Sort out users’ IT problems with them
   - User training

3. Consider some speculative **targets** right now, to show the scale and direction of change expected:

   - Double professional and IT staff levels
   - Treble facilities for telephone ‘hot line’ assistance (12 hours a day)
   - Public libraries should budget to include costs of information databases, but provided at national or regional level
   - User training to be expanded, with participation from teaching and other agencies
   - Reference data to be electronically available in all branch libraries by 200X
   - Reference data to be electronically available to users on their home PCs by 200Y
   - Home access to all scholarly journal articles – negotiated by institution libraries – by, say, 2006
References


