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Acknowledgements

The authors would like to thank Jane Scott for carrying out the very substantial work on preparing and analysing the data, and producing all the figures and tables; Claire Creaser for her advice on methodology; and Mary Ashworth and Sharon Fletcher for page design and preparing the text - all LISU; and Eddie Young - UKOLN - for compiling the datafiles from the Currency Survey sample database.

Funding support for the project was provided by the British National Bibliography Research Fund to whom we are very grateful. We should also like to thank Martin Nail and the British National Bibliography Research Fund Committee for their advice and assistance in preparing the project.

We acknowledge the co-operation of Book Data and J. Whitaker & Sons in making their data available.

UKOLN is funded by the Library and Information Commission and the Joint Information Systems Committee (JISC) of the Higher Education Funding Councils, as well as by project funding from the JISC and the European Union. UKOLN also receives support from the University of Bath where it is based.

Summary and conclusions

Introduction

Since 1980, UKOLN has collected from UK public and higher education (HE) libraries random bibliographical samples of acquisitions awaiting local cataloguing. In the period 1980-99, some 700 records per year were added to both the public and academic library databases, representing 17 academic and 17 public libraries annually, and amounting to over 26,000 records in total. Over the 18-year period, most public library authorities and HE libraries contributed records - many of them twice.

Analysis of these sample titles was largely related to their hit rates and timeliness on a variety of bibliographic record sources union catalogues, library management systems, and book trade databases. In1998, UKOLN invited LISU to work with them to carry out different kinds of analysis, in a project funded by the British National Bibliography Research Fund (BNBRF). This included analyses by subject, acquisition date in relation to publication date, format and price; also some investigation to determine what proportion of the original samples had been retained in the stock of the participating libraries. The overall aim was to analyse changes in acquisitions and stock management processes, and to provide information of practical value to library managers, and to publishers and booksellers targeting these markets.

In this section we briefly summarise the findings reported below, and make comparisons (where these are of interest) between public and academic libraries. We also draw conclusions, and make recommendations where there are implications for library management or for the book trade.

Subject analysis

Subject analysis of the samples was carried out using BIC Standard Subject Categories, Level 2¹.

In the subject analysis of public library data, the proportions of samples for fiction and for children's books were found to be considerably smaller than in public library data collected by other organisations. Discussion with those submitting samples provided clear reasons for these relatively low proportions of fiction and children's books, and these are described in the text (*page 13*). The non-fiction element of the samples - the largest part - were consistent throughout in their breakdown between sub-groups of subjects.

The largest elements of public library non-fiction acquisitions were found in three groupings, each comprising more than 10% of total acquisitions: 'family, home and practical interests' (where acquisitions had doubled during the period under review), sport, travel and leisure interests', and 'language, literature and biography'. The size of these first two groups relates to the very strong library user interests in practical and hobby subjects reported elsewhere^{2,3} and may perhaps be regarded as the key function of public library non-fiction lending today. Amongst the largest sub-groups were family, health, food and drink, self-help, travel and sport. The high rate of acquisitions in 'language, literature and biography' is perhaps more contentious: 'biography' acquisitions trebled during the period, reflecting large increases in the publication of biographies, but their use (particularly after the first year of publication) may not support acquisition on this scale; and the heavy acquisition of 'literature' titles is certainly not warranted by statistics of use³. Publishers and suppliers may note the importance of these groups in public library purchasing, and

perhaps the need for full supporting information in the practical and hobby groups, where bibliographies and reviews of material are rare.

In most of the other public library non-fiction groups analysed - arts, humanities, social sciences, maths and science, technology - the proportion of public library acquisitions diminished during the period under review, as a consequence of increases in the groups described above.

Acquisitions of 'computing and IT' books comprised a mere 0.9%-1.2% of total public library acquisitions during the period 1984 to 1995, then rose to 1.7% in 1996-99. This suggests a sluggish response to the relentless demand for computer books in public libraries reported in a number of other sources. The proportion of computer acquisitions in the HE libraries sample was much higher: 2.4% in 1983, rising to 5% in 1998.

Subject analysis of the academic library acquisitions naturally produced very different results. The most surprising feature was the dominance of 'social sciences', which took a massive 40%-45% of all HE acquisitions throughout the 1990s. This is a much larger proportion than is represented by the percentage of students studying these subjects, and the trend may be noted with relish by social science publishers, but also perhaps with some concern by non-social science departments in universities. In 1998, 'science and technology' acquisitions took 23% of the total, 'the arts' 17.9%, and 'the humanities' 9.7%.

Amongst the most prominent sub-groups of academic acquisitions were 'economics' (with 12%-16% of total acquisitions over the period), 'sociology' (8%-11%), 'technology' (6%-9%), 'science and mathematics' (5%-9%), 'literature' (4%-9%), 'history' (6%-8%) and 'politics/government' (5%-7%).

In the period under review, the proportion of total academic library acquisitions taken by individual subjects saw many fluctuations, but few pronounced trends. Exceptions were the 'science and mathematics' and 'technology' groups, which saw steady reductions - and these did not appear to be justified by any comparable reductions in student numbers during the same period. The largest increases were seen in the sub-groups of 'computing' and 'law'.

Acquisition date analysis

In a second analysis, the acquisition dates of books in the samples were related to their publication dates. In the public library samples, more than three-quarters of all acquisitions were made in 'the year of acquisition or the year following', for all individual years except 1995 and 1996. The proportion stood at 85% in 1984, dipped to a minimum of 74%, then rose to 84% in 1998. Correspondingly, the percentage of total acquisitions made 'five or more years after publication' was small: 4% in 1984, rising to 8% in 1995, but falling to 3% in 1998.

The small proportion of 'older' material acquired - considerably smaller than in academic libraries - is surprising and rather disconcerting. It is hard to generalise about this, since some subjects (computing, for instance) require acquisitions to be made fairly soon after publication. But many of the public library's key subject areas, as outlined above, do not date quickly, and many of the books most sought by the public are standard works with a long pedigree³. In contrast to the bulk of academic library stock, the heavy use of public library stock demands two forms of maintenance: replacement of important titles worn out from repeated issuing; and stock revision to ensure that subject areas are covered on library shelves following withdrawals and loss of stock from use over time. (This need for replacements is enhanced by the large proportion of paperbacks now purchased by public libraries.) Such revision should be drawn not merely from recent titles, but from the whole range of key titles available in print in each subject area. This is a time-consuming but essential activity for public librarians, but it seems clear from these data that very little stock revision is taking place. Even academic libraries where revision is less often necessary, outside short loan collections - are acquiring larger proportions of older material.

From the point of view of the book trade, the concentration on recently published acquisitions can be variously interpreted. It is possible that booksellers may be content with the trend for library buying of more recent material - and may indeed have influenced it, as more public libraries rely (contentiously) on supplier selection. On the other hand publishers will no doubt be keen to increase library purchasing of older 'standard' material, which is largely sustained in any case by the consumer market, and will require suppliers to include more of it in stock revision lists. There is a particular need for stock revision lists which compare and contrast existing titles in a subject field, especially in the 'practical and hobbies' categories, and these could be prepared by suppliers or by librarians.

Concern over this matter of acquisition/publication dates in public libraries increases if we examine their relationship in particular subject areas. The obsolescence rate of books' subject matter appears to have had little impact upon the timing of acquisition. In a comparison of acquisitions made in 'the year of publication or following year' for four different subject groups, the largest proportion was in the 'language, literature and biography' group, and the smallest proportion (for much of the period) in the 'law, medicine, technology and computing' group - where currency of information would seem to be the most important.

The timing of acquisitions was more logical at the 'older' end of the scale. An analysis of the same subject groups for books acquired 'more than five years after publication' found that, as might be expected, the 'law, medicine, technology and computing' group had the smallest proportions of total acquisitions for much of the period - although since 1996, 'language, literature and biography' had the smallest proportion.

Analysis of the academic library samples showed that - compared to public libraries the universities are making smaller proportions of their total acquisitions near to publication date. During the 1990s about two-thirds of academic library acquisitions were made 'in the year of publication or subsequent year'. The figures were 71% in 1984, falling to 64% in 1996, and rising to 68% in 1998. The percentage of acquisitions made 'five or more years after publication' was 6% in 1984, and subsequently fluctuated between 6% and 9% - i.e. substantially *more* than in public libraries.

It is surprising that HE libraries are acquiring more older material than public libraries, given that they do not need to carry out as much stock revision. It is also surprising that the proportion of older material is increasing, when all the reports suggest that books stay in print for shorter periods. There are a number of possible reasons. Funding cuts, and increasing pressure on bookfunds, may have encouraged librarians to hold onto orders of borderline material until funding became available - a delaying process which can have an impact over several years. Reviews of academic books, always slow to appear in print, may be appearing even more slowly though we have no evidence to support this. There may be increased buying of

second-hand material. As the newer universities upgrade their stocks, more older material may be ordered. It is also possible that expenditure on short loans collections has increased, leading to more orders of standard texts.

Publishers of academic material will want to note that it is worth keeping titles in print for several years after publication, and suppliers that these titles are worth promoting for longer periods.

Again, the obsolescence rate of the subject matter was not a defining characteristic for academic libraries, though it had more effect than in public library acquisitions. A comparison was made of acquisitions 'in the year of publication or following year' for four subject groups. The largest percentage was in the 'social sciences'. The 'science and technology' category was below the three other categories in the period 1983-85, and briefly above all three in 1993-95, while in the period 1996-98 it was below the social sciences and above the other two groups.

In 1998 the percentage of total HE library acquisitions in the 'year of publication or following year' was: 59.2% for the arts, 58.2% for the humanities, 73.8% for the social sciences, and 70.1% for science and technology. It is reasonable to assume that most of the remainder of the titles were being added for the first time to library stocks. In this case, the fact that nearly 30% of science and technology titles were acquired *later* than 'the year of publication or following year' may give universities some cause for concern, since many of the books were likely to be of most value in the years immediately after publication.

Another analysis was made for the same four groups for acquisitions 'more than five years after publication'. Here the 'arts and humanities' group was - as expected- above the social science and 'science and technology' groups for most of the 15-year period.

Format

There was analysis of the format of acquisitions, essentially to determine whether these were in hardback or paperback. In public libraries, the proportion of hardbacks stood at 48-50% in the late 1980s, then fell to 44% in 1998. Publishers will note the increased preference for paperback purchasing in public libraries - though it is hard to say how much the trend is determined by an increase in paperback formats available.

Surprisingly, public library hardback acquisitions for non-fiction (55% in 1984, 42% in 1998) were lower than for fiction (75% in 1984, 54% in 1998). In part this may be because there is less choice of format for non-fiction, whereas many libraries opt initially for fiction hardback formats - though this is speculation. Public librarians should note that practice runs counter to the stated format policies of public librarians⁴, in which preference, where expressed, is for hardback when purchasing non-fiction books (including reference).

The proportion of hardback acquisitions in academic libraries was somewhat higher than in public libraries: 60% in 1984, falling to 49% in 1994, and rising to 56% in 1998. This may well be a function of the academic libraries' policies of long-term retention of material, linked to the greater longevity of hardbacks. But it is again difficult to say how far the figures are influenced by publishing patterns, since many publishers do not offer a choice of formats for non-fiction titles.

Price

Acquisition samples were also analysed by price. Price information was obtained from Whitaker, and the median price calculated for each year of the samples. This median was related to average prices of all books published, taken from a relevant price index.

For public libraries, the price indexes used were those published biannually in *The Bookseller*⁵. For adult fiction, the ratio of the sample median price to The Bookseller average price was between 1.32 and 1.72 in the period 1986 to 1998 - i.e. the public libraries consistently purchased *above* the average price of all fiction published. This is no doubt related to the two factors mentioned above: the mixture of hard and paperback formats published for fiction, and the libraries' initial choice of hardback formats over paperbacks. A similar pattern may be observed for children's books, where the ratio of sample price to published price was between 1.14 and 1.40 in the same period - i.e. libraries again purchased titles more expensive than the average of published titles. But the acquisitions samples for fiction and for children's books were small, and the price information may therefore not be very reliable.

The picture for public library non-fiction buying was very different. The ratio of the mean acquisition price of the samples to the average price of all published non-fiction was 0.72 in 1986, falling to 0.62 in 1998 i.e. the public libraries consistently purchased well below the average price of all non-fiction published. The ratio is falling. The reasons for this can only be surmised, since factors affecting price are complex. No doubt the increased publishing of paperback formats is one reason, together with more public libraries opting for paperback versions of titles (when both formats are available).

But another strong possibility is that public libraries are more often opting for cheaper titles, leaving more expensive titles to be obtained - if requested - through interlending. A recent survey of selection methods⁶ provided some evidence to support this. There are some strong arguments against such a strategy, should it be the case. Expensive books are precisely the ones that many public library users cannot afford to buy. Public libraries should provide a full range of published material, including material for minority tastes. A commitment to obtain through interlending (at a charge to the user) is a very different matter from having books available in stock, with their availability to users publicised through the library catalogue.

The ratios for academic library acquisitions are noticeably similar to those for public library non-fiction acquisitions. In their case, the median price of samples was related to the LISU Academic book price index for UK books⁷. The ratio of mean price to average index price was 0.73 in 1984, falling to 0.55 in 1994, then rising slightly to 0.63 in 1998 - i.e. academic libraries purchased well below the average price of all academic books published. The reasons may be - as with public libraries - a combination of increased publishing of paperback formats, together with academic libraries buying fewer expensive titles. Increased borrowing from interlending systems by academic libraries supports the second point. (For instance, the average 'new' university borrowed about twice as many titles in 1997-98 as ten years earlier⁸.) Again, the advantages to the user of availability over potential access through interlending should be stressed.

It is difficult to summarise the implications for the book trade of this price information. Clearly, publishers need to be conscious of the increasing reluctance of both public and academic libraries to buy costly titles, and to fix prices accordingly - especially since consumer purchasing is likely to be equally price-sensitive. But it must be accepted that some minority-interest titles *will* be expensive to publish, but are nevertheless a highly important ingredient of the total published output. The trade may need to employ a combination of value-for-money pricing, astute marketing of worthwhile-butexpensive titles, and a long-term campaign to change attitudes of library purchasers.

There is also a case for further research on the publishing and library purchasing of expensive titles, and perhaps research linking price to format.

Stock retention analysis

Finally, a random selection of acquisitions samples from five public and five academic libraries was made, and these were checked in the current catalogues of those libraries to determine what proportions of the original titles were still in stock. This exercise could only take into account whether *any* copy of the title with the same ISBN had been retained (and not whether it was the same copy that had originally been used for the sample).

In five public library samples submitted between 1981 and 1984, the mean percentage of titles still in stock at those libraries was 55% (with a broad range between 32% and 88%). In the five samples submitted between 1995 and 1998, the mean percentage of titles still in stock was 93% (with a range between 90% and 100%).

In the five academic library samples submitted between 1980 and 1982, the mean

percentage of titles still in stock at those libraries was 88% (with a range between 79% and 98%). In the four samples submitted between 1988 and 1989, the mean percentage of titles still in stock was 91% (with a range between 83% and 97%).

Not surprisingly, there was a considerably higher retention rate in the academic libraries, where the research function requires the retention of older stock, and where use of stock is much less intensive than in public libraries (and physical dilapidation correspondingly less). There were examples in both sectors of libraries with much higher or lower rates than the average for their samples, suggesting that retention rates were related in part to local stock management policies. There is no 'right' rate of retention, but borrowing from interlending systems needs to be balanced with stock retention policies, and effective arrangements for retaining last copies of titles within each authority, and these could be reviewed against the norm. In academic libraries, the varying importance of the research function in the institutions was probably the main factor behind the range of retention rates. Again, there is a case for a more extensive research project in this area, covering a wide range of institutions, and matching findings against the retention policies of the institutions concerned, and their policy and practice of borrowing from interlending systems.

Introduction

Background

Within the library world, the inter-related areas of acquisitions, stock management and bibliographic management have undergone many changes in the last few years. The current financial climate means that libraries are following more selective acquisitions procedures in order to cope with budgets with less buying power. Libraries, booksellers, library suppliers and publishers are all interested in how acquisitions and stock management have changed. Some information is already available: for example, the average price of titles in different subject areas, and studies on weeding and stock selection. What work has been done has looked at specific areas of interest or the situation at specific institutions rather than an overall view of the national picture. Work has also tended to focus on the present rather than long term analysis.

UKOLN, and its antecedent organisations, has been carrying out the BNBMARC Currency Survey continuously since 1980. This long-running survey⁹ monitors the availability of records in MARC format from the British Library British National Bibliography (BNB) files for titles acquired by libraries in the UK.

In order to carry out the survey, from 1980 onwards UKOLN has collected random samples of titles acquired by libraries, resulting in a relatively unique set of data. While the survey was set up to measure the availability of bibliographic records for the UK imprint, the sample used to measure this is also, by its parameters, a database of the acquisitions of public and academic libraries in the UK between 1980 and the present day. Originally the survey used a single sample, at the point when a library wanted to create or acquire a bibliographic record for its catalogue, but in 1988 a second sample was added, at the point when a library was about to order a title.

Samples are obtained from a wide range of UK libraries, both public and academic. Each month six public libraries and six academic libraries each send in two random samples – ten titles at the cataloguing stage and ten titles at the ordering stage. The libraries are selected randomly for participation and each takes part for six months, at which point they are replaced by another library of the same type. The selection procedure, reviewed for statistical validity in 1987¹⁰, ensures that each month's 12 participating libraries represent a range of library types.

To date, analysis of these samples has largely been related to their hit rates and timeliness. Initial analyses focused on the performance of the BNB files^{11,12}. Then from 1996 to 1999 the same samples were used to measure the performance of a variety of bibliographic record sources book trade databases, library management systems, and union catalogues - and the same analyses were carried out^{13,14,15,16}.

However the sample data for one year (1994) were the subject of several additional analyses, which looked at publication date/acquisition date, and the proportions of titles in different subject areas¹⁷. The results of this study prompted UKOLN to consider more work in this area. There were two issues that had to be addressed in taking the work further. Firstly, it was felt that a study partner with statistical expertise was needed to carry out the analyses and LISU agreed to collaborate in the study. Secondly, some of the issues to be explored required data that were not in the original samples and additional data had to be imported into the database. This was achieved with the co-operation of Book Data and J Whitaker & Sons.

Since the survey was set up to monitor the performance of the BNB files, there are limits to the titles that are eligible for inclusion in the sample. Titles must be published in or after 1974, published or distributed in the UK, and not fall into any of the BNB exclusion categories (excluded material includes printed sheet music, maps, promotional and ephemeral material and items in non-print formats). Data from the sample sheets returned by libraries are entered into a Microsoft Access database together with results from the BNB file searches. The original sample sheets are also archived.

Approximately 1,400 records per year are added to each year to each of the two databases.

Cataloguing stage database

• This database contains samples from January 1980 onwards, estimated at a total of 26,550 items in January 1999.

Ordering stage database

• This database contains samples from February 1988 onwards, estimated at a total of 14,850 items in January 1999.

Sampling base

- Within any twelve month period, 34 libraries (17 academic and 17 public) will have contributed samples.
- Since 1980, 206 public and 98 university libraries have contributed records many of them contributing twice and 19 university libraries have contributed three times.

The project proposal

After consultation with the BNBRF Committee, a proposal was submitted in December 1998, and funding was granted to UKOLN and LISU to carry out the work in the first half of 1999. The aim of the proposal was to analyse changes in acquisitions and stock management practices in UK academic and public libraries over the period 1980 to 1998.

UKOLN's cataloguing stage database was used for this set of analyses. It was felt inappropriate to use the ordering stage sample as it includes some items that never go into stock - as they become unavailable (out of print) at the point of order, or are never actually published – so that including these records would skew the results.

The analyses proposed were:

1. Date

Tracking over time book acquisition dates in relation to publication dates. Monitoring changes in the acquisition of recently published material *vis à vis* older material through replacement or stock revision programmes.

2. Format

Quantifying over time the acquisition of paperbacks in relation to hardbacks.

3. Subject

Monitoring over time quantitative changes in the acquisition of materials on different subjects, using second level BIC codes¹ (150 categories).

4. Price

Quantifying over time changes in the average prices of materials acquired, and relating these to average prices of books published over the same period (using *The Bookseller* average prices tables⁵ for public library data, and LISU's *Average prices of British academic book*⁷ for university library data).

5. Library stock retention

For selected libraries, monitoring the proportions of the original stock samples

retained in stock (and/or re-ordered) over different time periods.

Analysis of all these features would distinguish between public library and academic library practice.

An analysis of publisher information was also considered, but the BNBRF Committee felt that the numerous changes in ownership and imprint in publishing firms would make this information very difficult to track.

Methodology

The data files

The data used in these analyses were obtained by merging the file obtained from UKOLN with additional information from the Book Data database and Whitaker database. The UKOLN file consisted of samples from academic and public libraries taken over the twenty-year period from 1980 to 1999 - the samples from 1999 being for January only. For each sample, the items of relevance to our study were the library type (academic or public), the year the sample was taken, the year of publication and the ISBN.

UKOLN commissioned the Book Data agency to provide specific bibliographical details for all titles in the UKOLN BNBMARC Currency Survey cataloguing stage database for which ISBNs were known. The list of ISBNs was given to Book Data who matched as many as possible to their database. They provided LISU with a file containing information on the various features required for the analyses: format of the book (paperback, hardback etc), the BIC subject code as described below, and the Dewey number.

LISU used the ISBNs to merge these three large files, using Microsoft Excel. The data were then transferred to a mainframe computer at Loughborough University and all analyses were carried out in SPSS. The number of samples for which Book Data could find a match in their database increased over time from around a third in 1980 to over 90% during most of the 1990s. Thus, for any analyses involving the format or BIC subject code, greater weight should be placed on results during the second half of the study period. Because of the sparse data available for the period 1980-83, the analyses of subject and format in the report use data from 1984 onwards.

The analyses have looked at the time between publication and acquisition, the proportion of hardbacks and paperbacks purchased (the numbers of books in other categories and of items other than books were very small), the pattern of acquisition of different subject categories as described below, and the price at the time of publication as described below. Where considered appropriate, additional analyses of subsets of the data (for example, fiction books) have been carried out. In all analyses academic and public libraries have been treated separately.

Subject analysis

On the Book Data database, subject analysis is carried out using the BIC Standard Subject Categories, Level 2¹. They consist of 17 major subject areas, each of which can be further divided into between four and 15 sub-headings. In this report we have analysed data under the main headings and/or the sub-headings, depending upon the sector (academic or public libraries) and the numbers of titles acquired by these sectors under each heading. We felt that the BIC headings were highly appropriate for analysis of both public and academic library data, and precluded the need for any further analysis under Dewey numbers. Further comment may be found in the subject analysis sections of this report for both academic and public libraries.

Price analysis

To carry out the price trend analyses it was necessary to obtain the price at publication for titles in the samples. Possible sources for these data were examined. BNB records only contain this information if it is printed on the physical item, whereas Book Data records only the last known price. On investigation it was established that the database of J Whitaker & Sons retains the price at publication, as well as the last known price, and an approach was made to them. They were able to provide price information for 80% of the titles in the database, using ISBN matching.

In the price analyses, for public and academic libraries separately, the median price was calculated for each year. To take account of the increase in book prices over time, the median was related to the relevant average published book price. For academic libraries this was the LISU average book price for UK academic books (calendar years)⁷, and for public libraries this was *The Bookseller* average price⁵ for all books. For each year the ratio of the median price paid to the relevant average price of publication was calculated, and these are presented in the figures. For this ratio, a value greater than one indicates that the average price of books purchased by libraries is greater than the average price of all books published in that year, i.e. that libraries tend to buy 'more expensive' books. The converse is true if the ratio is less than one.

Stock retention analysis

The study also looked at stock retention. In addition to the database used for the time, format, subject and price analyses, UKOLN also retains the sample sheets sent in by libraries, and keeps a record of when libraries participated. From the participation records, libraries that had taken part on at least two occasions were identified. From this list five university libraries were selected to reflect the range of institutions in this sector and five public libraries selected to cover both rural and urban services spread over the UK. The selection process also tried to pick libraries that had participated at around the same period. The libraries selected were contacted and agreed to participate in the study. Copies of the samples they had originally supplied for the currency survey were sent to them, and they were asked to check the titles against their current catalogues, and to mark the titles that were still in stock. The marked up sheets were then returned for analysis to monitor the proportions of the original samples that had been retained in stock.

Using the report

Note that many of the tables giving supporting evidence for figures presented in the findings of this report are given in the Appendix.

Nearly all the tables and figures present 'smoothed data', so that trends over time are less likely to be obscured by random fluctuations from year to year. This was done by replacing the actual value for a given year by half that value, plus a quarter of the values for each of the years immediately preceding and immediately following the given year - i.e. smoothed value for year n = (actual value for year n - 1 + twice actual value for year n + actual value for year n + 1) ÷ 4. The use of smoothed data is clearly indicated on each table and figure where appropriate.

The data for public libraries are presented first (*pages 11-33*) and academic library data second (*pages 34-49*).

Public library findings

The sample

Table 1 and Fig 1 (*overleaf*) show for public libraries: the number of library acquisitions for each year from 1980-98; and the number and percentage of acquisitions for which a publishing date, format information, and subject information were provided.

Information on publication date is available for the great majority of the samples.

Format information has been available for at least a third of the samples since the beginning (1980), and for 75% of the samples since 1987. Subject information has been available for at least a third of the samples since 1984, and for 75% since 1990.

Table 1	Number of public library acquisitions per year, with availability of date, format, subject
	and price information

Year	Number of acquisitions	Number (%) with publishing date provided	Number (%) with format provided	Number (%) with subject provided	Number (%) with price provided			
1980	600	597 (99.5%)	204 (34%)	101 (17%)	554 (92%)			
1981	719	701 (97%)	280 (39%)	137 (19%)	667 (93%)			
1982	685	684 (100%)	288 (42%)	156 (23%)	630 (92%)			
1983	719	712 (99%)	318 (44%)	203 (28%)	679 (94%)			
1984	717	716 (100%)	383 (53%)	264 (37%)	666 (93%)			
1985	708	706 (100%)	404 (57%)	272 (38%)	649 (92%)			
1986	705	703 (100%)	456 (65%)	320 (45%)	665 (94%)			
1987	695	690 (99%)	524 (75%)	407 (59%)	648 (93%)			
1988	674	669 (99%)	554 (82%)	469 (70%)	619 (92%)			
1989	697	695 (100%)	602 (86%)	509 (73%)	639 (92%)			
1990	591	591 (100%)	523 (88%)	467 (79%)	555 (94%)			
1991	564	563 (100%)	525 (93%)	475 (84%)	535 (95%)			
1992	564	556 (99%)	515 (91%)	473 (84%)	533 (95%)			
1993	576	576 (100%)	546 (95%)	510 (89%)	550 (95%)			
1994	672	672 (100%)	627 (93%)	596 (89%)	627 (93%)			
1995	511	511 (100%)	464 (91%)	440 (86%)	466 (91%)			
1996	580	580 (100%)	539 (93%)	538 (93%)	540 (93%)			
1997	634	633 (100%)	602 (95%)	603 (95%)	610 (96%)			
1998	638	637 (100%)	618 (97%)	621 (97%)	629 (99%)			



Fig 1 Number of public library samples per year, with availability of format and subject information

Clearly, for the analysis of different subject areas, and to a lesser extent of format, the trends shown below are more reliable for the decade of the 1990s than for the 1980s. In the early 1980s many of the individual sub-categories analysed (for instance, the arts) contain relatively small numbers of titles, so that small numbers of additional titles in subsequent years can result in large changes in the percentages. It is also the case that if more information is missing for some sub-categories than for others, then the observed percentages will not reflect the real percentages of these categories in the

samples. For instance, if books on the arts are less well represented in the early years, then an apparent increase in buying of books on the arts may simply reflect their increased representation on the database.

Most of the analyses which follow therefore begin from the year 1984, and readers should note that for the subject analysis there is a sharp increase in the reliability of conclusions from 1988 onwards.

Subject analysis

The BIC Standard Subject Categories (Level 2)¹ are used by Book Data for subject analysis (*see page*). The letters (or combinations of letters) mentioned below (e.g. 'V', 'JW' etc.) each represent one of the BIC subject categories. Table 2 shows for five 4-year bandings - the percentage of the total acquired within each of the 17 main subject headings.

Table 2	Distribution of public library acquisitions between main subject categories, by 4-year
	bandings

	1980-83	1984-87	1988-91	1992-95	1996-99
A The arts	10.2	8.9	6.3	7.1	6.7
C Lang./lit./biography	13.2	11.6	14.2	14.3	13.3
E ELT	0.0	0.2	0.1	0.0	0.1
F Fiction	10.6	11.4	12.3	13.0	15.0
G Reference/Info. etc	2.0	2.2	1.4	1.5	1.3
H Humanities	11.2	11.0	8.9	7.9	7.6
J Social sciences	6.9	11.2	9.6	9.6	8.1
K Economics etc	5.4	5.5	5.1	4.5	3.6
L Law	0.5	0.6	1.0	1.3	0.6
M Medicine	1.8	1.6	1.8	1.5	1.8
P Maths & science	2.5	2.9	1.9	1.6	3.1
R Earth science etc	1.7	0.9	1.4	1.2	0.8
T Technology etc	4.4	3.2	2.2	1.7	1.4
U Computing & IT	2.2	0.9	1.0	1.2	1.7
V Family, home etc	5.5	8.7	11.1	12.8	12.6
W Sport etc	11.9	10.1	12.3	12.4	10.6
Y Children	10.1	9.1	9.5	8.5	11.8
Total no of titles (in 4-year bands)	597	1,263	1,920	2,019	1,762

Note: Data are smoothed so that trends over time are less likely to be obscured by random fluctuations from year to year (see p 10).

The proportions of the overall sample found in the various subject categories are consistent - within the various trends found during the period under review. However it is immediately apparent that the percentages for fiction and children's books fall well below those reported in CIPFA returns¹⁸ respectively, 39% and 30% of all UK public library acquisitions in the year 1996-97. We therefore contacted 11 authorities which had recently submitted UKOLN samples, to determine whether there were any probable reasons for this discrepancy. Seven of the 11 authorities reported that there were factors which would depress the proportions of adult fiction and/or children's books in

the samples. Amongst factors mentioned were:

- There were separate cataloguing streams for adult non-fiction, adult fiction, and children's books, and samples were predominantly taken from the non-fiction stream
- The bulk of fiction and children's books received short entry cataloguing, using information put on at the time of ordering (thus pre-empting the books from going through a cataloguing stage)

- Funding shortages had prevented the purchase of fiction during the year in question
- Paperback fiction stock was not formally catalogued
- Classic fiction was catalogued as non-fiction.

We must therefore conclude that the proportions of fiction and children's books in the public library samples *are* considerably smaller than the proportions of fiction and children's books added to stock, consequently the proportions of non-fiction books as a percentage of total additions are correspondingly smaller than the proportions reported here. We have not attempted – at any point in the report – to weight the data to take account of these factors.

Leaving aside the fiction and children's categories, we may make a number of observations about percentages within the 15 'non-fiction' categories:

- The largest of these, consistently throughout the five time bands, is the 'language' category (C), which consists mainly of literature and biography books.
- The 'family, home and practical interests' group (V) is the second largest, and has more than doubled in size over the 20-year period.
- The 'sport, travel and leisure interests' group (W) is the third largest. Its proportions have changed little over the 20-year period.

- Both the 'arts' (A) and 'humanities' (H) groups have substantially reduced in size over the 20 years.
- The science, technology and medicine subjects (represented by groups M, P, R and T) account for a relatively small proportion of public library acquisitions
 7.1% in the period 1996-99. That proportion has not changed greatly over time.
- The social sciences (represented by groups J, K and L) account for a higher proportion of acquisitions than either the arts or the humanities although the proportion has reduced in recent years.
- Computing (U) accounts for a surprisingly small proportion 1.7% in 1996-99.

Because of small numbers in the samples in the early 1980s, the comment on the figures below refers to the year 1984 onwards.

Fig 2 depicts acquisitions trends in the 'family and home' and 'leisure interests' groups, which may broadly be described as the two main non-fiction groups of particular relevance to the public library market. They show a marked contrast: whilst 'leisure interests' books have been acquired in similar quantities throughout the period under review, 'family and home' acquisitions have more than doubled over the same time. Supporting tables for these figures, and for many others, are in the Appendix to the report.



Fig 2 Percentage of total acquisitions in sub-categories 'Family and home' and 'Leisure interests', by year of acquisition

Note: Smoothed data - see page 10

Fig 3 depicts the 'Family, home and practical interests' group (V), broken down into sub-categories. Amongst these, the largest sub-categories are those for 'family health' and 'food and drink'. The most growth may be observed in 'mind, body and spirit', and 'self help and practical interests'. Two other recent studies^{2,3} have emphasised the importance of this 'practical interests' group to public library users.

Fig 3 Percentage of total acquisitions in sub-categories of 'Family, home and practical interests' group, by year of acquisition



Note: Smoothed data - see page 10

Fig 4 depicts the 'Sport, travel and leisure interests' group (W), broken down into sub-categories. Amongst these, the largest are 'travel and holidays' and 'sport'. 'Warfare and defence' (JW) has been moved from social sciences to this group in the case of public libraries, acknowledging its pursuit as a leisure interest by a large number of public library users. (See the Timperley survey² for further information on this phenomenon.)





Note: Smoothed data - see page 10

Figs 5 and 6 depict acquisitions for the broad groupings of 'arts and humanities' and 'science and technology'. The arts and humanities group includes: arts (A); language and literature (C, except for CV); humanities (H); social sciences (J except for JW); economics (K); and law (L). The science and technology group includes: medicine (M); maths and science (P); earth sciences (R); technology (T); and computing (U).

Over the 15 years since 1984, acquisitions in the arts and humanities groups have fallen from 44.7% of all acquisitions to 31.4% in 1998 - with humanities and economics acquisitions falling by about a third in that time, and the language and literature acquisitions falling by 58%.

The science and technology groups overall follow a similar pattern of decline in

importance between 1986 and 1992, but have ended the period in a similar position to that at the start (10.5% in 1998 and 9.7% in 1984). This is largely due to increases since 1996, particularly marked in mathematics and science and medicine.

It is surprising - given the intensive demand for computer books in public libraries^{2.3} that computing acquisitions have remained fairly stable at 0.9%-1.2% of total acquisitions over most of the period, before rising to a comparatively modest 1.7% in 1996-99. Comparison of computing acquisitions for public and academic libraries is shown in Fig 7 (*page 18*) - with the academic library trend reflecting more closely the increased impact of this subject area upon its clientele.



Fig 5 Percentage of total acquisitions in broad category of 'Arts and humanities', by year of acquisition

Note: Smoothed data - see page 10



Fig 6 Percentage of total acquisitions in broad category of 'Science and technology', by year of acquisition

Note: Smoothed data - see page 10



Fig 7 Percentage of total acquisitions in computing in public and academic libraries, by year of acquisition

Note: Smoothed data - see page 10

Fig 8 shows acquisition trends for the category of biography (CV). Biography's percentage of total acquisitions has increased greatly, from 3.2% in 1984 to 10% in 1998. This is no doubt linked to the major expansion in publishing biographies

over the past two decades. During the period 1991 to 1998, the number of biographies published annually, according to *Bookseller* figures¹⁹, rose steadily from 2,195 to 3,180 – an increase of 45%.

Fig 8 Percentage of total acquisitions in biography category, by year of acquisition



Note: Smoothed data - see page 10

The group of subjects headed 'Reference, information and interdisciplinary subjects' (G), which includes encyclopaedias and major reference works, as well as smaller subject areas such as libraries and museums, has a small proportion of acquisitions throughout the 20-year period, never rising above 2% of the total sample.

Fig 9 shows acquisition trends for fiction, divided into 'general and literary fiction', 'genre fiction', and 'special features' (which includes short stories, anthologies, cartoon stories, and classic novels). The data represented here have been affected by authorities' varying methods for cataloguing fiction – reported on pages 13-14. During the 15-year period, the percentage of 'general and literary' fiction was at a peak of 12% of all acquisitions in 1984, but declined at a fairly even rate to 4% in 1998. In contrast, the percentage of 'genre fiction' rose from small percentages in the 1980s (2%-4%) to 10% in 1996, though falling to 6.8% in 1998. These changes are shown more clearly in Fig 10 (*overleaf*), which shows types of fiction acquisitions as a percentage of total fiction acquisitions.

Fig 9 Percentage of total acquisitions in fiction category, by year of acquisition



Note: Smoothed data - see page 10



Fig 10 Percentage of acquisitions in different fiction categories, by year of acquisition

Note: Smoothed data - see page 10

Fig 11 shows acquisition trends for children's titles, divided into 'fiction', 'non-fiction', and 'young children's titles'. A caveat should be recorded – *see note on page 13*– about the data for children's books, which certainly show smaller numbers than the actual numbers of children's acquisitions in the library.

During the period, children's non-fiction in the sample exceeded children's fiction, though there were fluctuations in both sub-categories throughout. The percentage of young children's titles reported was very small, particularly before 1987, but it is again probable that this was affected by local cataloguing procedures.



Fig 11 Percentage of total acquisitions in children's books categories, by year of acquisition

Note: Smoothed data - see page 10

Acquisition date analysis

When the acquisition dates of books in the samples were related to their publication dates, we were able to shed some light on libraries' stock management processes. Two main approaches to acquiring books are adopted by public libraries: buying shortly before or soon after publication date, when information about books is readily to hand, demand from the public is at its most intense, and books are known to be available (however short their print runs); and buying at a later date, either to replace titles which have physically worn out, or as part of the process of stock revision, to ensure coverage on the library's shelves of all the key subject areas.

Table 3 and Fig 12 (*overleaf*) show the pattern of acquisitions in four categories reflecting time intervals between books' publication and acquisition.

Year of acquisition	In calendar year of publication or next calendar year	Within 2 or 3 calendar years of publication	Within 4 or 5 calendar years of publication	More than 5 calendar years after publication
1980	87.0	8.3	2.9	1.8
1981	85.5	8.5	3.3	2.8
1982	84.5	8.5	3.4	3.6
1983	84.7	8.0	3.6	3.8
1984	84.9	7.6	3.5	4.0
1985	84.3	7.8	2.9	5.1
1986	82.7	8.6	3.1	5.6
1987	83.1	7.8	3.6	5.5
1988	83.9	7.1	3.9	5.2
1989	83.5	7.9	3.7	4.9
1990	81.7	9.3	3.5	5.5
1991	78.3	11.5	3.5	6.7
1992	78.4	11.2	3.5	6.9
1993	79.9	9.5	4.3	6.3
1994	77.8	10.2	5.0	6.9
1995	74.0	12.9	5.1	8.0
1996	73.6	14.2	4.8	7.3
1997	79.1	12.0	3.8	5.1
1998	83.9	9.7	3.2	3.3

Table 3Percentage of acquisitions related to time intervals after publication,
by year of acquisition

Note: Smoothed data - see page 10



Fig 12 Percentage of acquisitions related to time intervals after publication, by year of acquisition.

Note: Smoothed data - see page 10

It is apparent that the great majority of books are acquired when new, rather than as part of replacement or stock revision programmes. More than three-quarters of all books were acquired in the year of publication or the following year, in all but two years – 1995 and 1996. There was, however, a steady decline in this proportion of 'new' books acquired throughout the period to 1996, since when it has risen sharply, by some ten percentage points. In 1998 it stood at 84% of all acquisitions.

One can only speculate about reasons for the relatively small proportions of older material being acquired by public libraries. Amongst the most probable are fewer programmes of stock revision, more 'supplier selection', and a greater proportion of titles dilapidated from heavy use being bound rather than replaced. It is also probable that acquisitions have been affected by the size of publishers' print runs, with shorter print runs leading to fewer 'old' books being available, and therefore fewer acquired. However, our study of acquisitions related to publication date in academic libraries (see pages 35 to 49) produces different patterns, with academic libraries progressively buying larger proportions of older material throughout the period of the study. The percentage of public library acquisitions made in the year of publication or the year following - between 74-84% since 1984 – may be compared to 64-72% for academic libraries over the same period. This is surprising, given the much more intensive use of public library stock^{*}, and hence the need for public librarians to carry out more stock revision, and to order more replacements for material which is

^{*} Stock turnover (average issues per book per year) for all UK stock 1996-97 was: public libraries, 3.8; academic libraries (HE), 0.8

physically worn out. It seems unlikely that the difference between public and academic libraries can be accounted for entirely by the different types of publications acquired.

In Figs 13, 14, and 15, acquisitions are broken down into adult non-fiction, fiction, and children's books, and again show the pattern of acquisitions in four categories related to time intervals after publication. Not surprisingly, given that the sample is predominantly comprised of non-fiction titles, the trend for adult non-fiction acquisitions shows a similar pattern to the overall trend for all acquisitions (*Fig 13*).

The trends for adult fiction and children's books are different - though in both cases the relatively small numbers in the samples suggest that they may not be representative of total adult fiction and children's acquisitions, and may not therefore represent trends accurately. In the case of adult fiction, the largest proportions of 'old' fiction were acquired in the early 1980s - though 'old' fiction is also acquired in larger quantities in the last two years of the study, particularly in the 'within 2-3 calendar years of publication' band (*Fig 14 overleaf*).

In the case of acquisitions of children's books, there are various fluctuations between the four time bands, and no real trend is discernible - though we may observe that in the last three years of the study the percentage of acquisitions purchased within three years of publication has increased dramatically, to a point where in 1998 almost nothing was acquired *after* three years (*Fig 15 overleaf*).





Note: Smoothed data - see page 10



Fig 14 Percentage of acquisitions related to time intervals after publication, by year of acquisition - adult fiction.

Note: Smoothed data - see page 10





Note: Smoothed data - see page 10

Figs 16 and 17 examine acquisition date in relation to year of publication for four different subject areas: one of these ('law, medicine, technology and computing', combined because of the relatively small numbers of acquisitions in these subjects), where currency may be assumed to be particularly important; and three ('arts', 'humanities' and 'language, literature, biography') where currency may be less important. Analysis in these figures begins in 1988, because of the small numbers of acquisitions in these subject areas in years prior to 1988.

In practice, the obsolescence rate of the subject matter appears to have had little impact upon acquisition dates. Fig 16 shows material acquired in the year of publication or the following year. The subject area for which most material has been acquired in this period is 'language, literature and biography'. On the other hand the subject area for which *least* material has been acquired for much of this period (including 1996-98) is the 'law, medicine, technology

and computing' group – where currency of information seems most important.

Fig 17 (*overleaf*) shows the percentages of books acquired more than five years after publication. Here the 'law, medicine, technology and computing' group has, as would be expected, had the smallest proportions of acquisitions for much of the period 1988-98 – although since 1996 the 'language, literature and biography' category has had the smallest proportion.

It is possible that when books are ordered near to publication date, the factor which most affects their speed of acquisition in public libraries is publishers' promotion of their titles – and that subjects such as biography come more readily to the attention of public librarians than technical subjects. Later on, however, it is probable that for periods of five or more years after publication date, librarians' purchasing is affected by the obsolescence rate of subjects such as 'computers' or 'law'.

Fig 16 Percentage of acquisitions made in calendar year of publication or subsequent calendar year for certain categories of books, by year of acquisition



Note: Smoothed data - see page 10



Fig 17 Percentage of acquisitions made more than 5 calendar years after publication for certain categories of books, by year of acquisition

Note: Smoothed data - see page 10

Format analysis

Acquisitions from the sample were analysed by format - for all titles, all adult non-fiction, all adult fiction, and all children's books. The format options offered by the Book Data file were grouped into three: hardback, paperback, and an 'other format' category (a very small proportion, never more than 0.9% of the total sample).

Table 4 shows the percentages of acquisitions for these three formats, by year of acquisition, and Fig 18 shows the percentages for the two main groups of 'hardback' and 'paperback'. The proportion of hardbacks was highest in 1987 - at 52% then fell gradually to 44% in 1998. The high proportion of paperback acquisitions in current public library provision - over half since 1991, in this survey - is also examined in a 1999 survey of public library paperback provision⁴.

Year of acquisition	hardback	paperback	other formats
1984	48.1	51.6	0.3
1985	49.4	50.2	0.4
1986	51.7	47.8	0.5
1987	51.9	47.4	0.6
1988	50.6	48.5	0.9
1989	50.0	49.1	0.9
1990	50.5	49.0	0.5
1991	49.3	50.4	0.2
1992	48.2	51.5	0.2
1993	47.4	52.3	0.3
1994	44.5	55.0	0.4
1995	42.6	56.7	0.7
1996	43.7	55.6	0.7
1997	44.7	54.8	0.5
1998	44.1	55.6	0.3

Table 4 Percentage of acquisitions by format and year of acquisition.

Note: Smoothed data - see page 10



Fig 18 Percentage of acquisitions in two main formats, by year of acquisition

Note: Smoothed data - see page 10

Fig 19 and Fig 20 (*overleaf*) show the percentages of acquisitions respectively for adult non-fiction and adult fiction, by format. For non-fiction, hardback acquisitions were at a high point of 57% of the total in 1986, then fell steadily throughout the period to a low of 36% in 1995, rising again slightly to 42% in 1998. Adult fiction acquisitions in hardback were

at a high point of 75% in 1984, then fell steadily to 1989, rose again until 1994, then fell sharply to a low of 54% in 1998. It is surprising that the percentage of hardback acquisitions of fiction in the sample is higher than for non-fiction throughout the period. This runs counter to the stated format policies of public library authorities, as reported in the Reuben study⁴.





Note: Smoothed data - see page 10



Fig 20 Percentage of acquisitions of adult fiction in two main formats, by year of acquisition

Note: Smoothed data - see page 10

Price analysis

For this analysis, price information for books in the public library samples was obtained from Whitaker, and the median price was calculated for each year of the sample. To take account of the increase in book prices over time, the median was related to *The Bookseller* average price⁵. For each year the ratio of the median price to the average price was calculated, and results are presented in Fig 21 for all books, and Table 5 and Fig 22 for books split into categories of fiction, non-fiction and children's books (*pages 29-31*).



Fig 21 Median price of public library books relative to average book price

Note: Smoothed data - see page 10

Table 5	Median price of public library books split into major categories, relative to average
	published book price
	(a) Adult fiction

Year of acquisition	Median price of adult fiction books	<i>Bookseller</i> average book price	Ratio of price to average	Number of books in sample
1984	£7.70			39
1985	£8.70			42
1986	£9.70	£6.34	1.53	25
1987	£10.20	£6.64	1.54	35
1988	£10.83	£6.92	1.56	64
1989	£11.45	£7.15	1.60	44
1990	£11.83	£7.70	1.54	43
1991	£11.96	£8.12	1.47	80
1992	£12.73	£8.64	1.47	90
1993	£14.24	£8.70	1.64	36
1994	£14.99	£8.73	1.72	60
1995	£14.99	£9.03	1.66	69
1996	£14.49	£9.47	1.53	96
1997	£13.49	£9.91	1.36	112
1998	£12.99	£9.86	1.32	55

Table 5 (cont)

(b) Adult non-fiction

Year of acquisition	Median price of adult non- fiction books	<i>Bookseller</i> average book price	Ratio of price to average	Number of books in sample
1984	£8.45			206
1985	£8.83			206
1986	£9.20	£12.80	0.72	259
1987	£9.70	£13.63	0.71	318
1988	£9.96	£14.15	0.70	348
1989	£10.61	£14.62	0.73	407
1990	£11.99	£16.08	0.75	374
1991	£12.10	£17.28	0.70	333
1992	£11.48	£18.01	0.64	301
1993	£12.23	£19.06	0.64	452
1994	£12.46	£19.27	0.65	473
1995	£11.96	£18.88	0.63	324
1996	£12.48	£19.68	0.63	348
1997	£12.99	£19.35	0.67	406
1998	£12.99	£21.07	0.62	515

(c) Children's

Year of acquisition	Median price of children's books	<i>Bookseller</i> average book price	Ratio of price to average	Number of books in sample
1984	£3.53			14
1985	£3.48			19
1986	£4.03	£3.54	1.14	31
1987	£4.20	£3.78	1.11	49
1988	£3.95	£3.94	1.00	47
1989	£4.95	£4.48	1.10	41
1990	£6.20	£4.85	1.28	39
1991	£6.20	£5.27	1.18	50
1992	£6.46	£5.29	1.22	68
1993	£6.98	£5.49	1.27	16
1994	£7.24	£5.44	1.33	49
1995	£7.74	£5.67	1.37	35
1996	£7.62	£5.62	1.35	79
1997	£7.74	£5.87	1.32	72
1998	£8.49	£6.08	1.40	47

Note: Smoothed data - see page 10



Fig 22 Median price of public library books split into major categories, relative to average published book price

Note: Smoothed data - see page 10

The average price of books published – as well as of books acquired – tends to increase year on year in every category. However the ratio of the median acquisition price to the published price has fallen over the period under review for both adult fiction and non-fiction – but not for children's acquisitions.

In Fig 21 (*page 29*) for 'all books' the ratio of the median price of books acquired to the average price of books published is 0.56 in 1984, falls steadily in the early 1990s to 0.43 in 1996, then rises slightly to 0.47 in 1998. In other words, public libraries are tending to buy less expensive books than average during the period. This is no doubt, in part, the effect of librarians opting for cheaper formats – paperbacks rather than hardbacks. The relative proportions of fiction, non-fiction and children's material in the two averages will also have an effect.

In Fig 22, annual sample sizes for fiction and children's books during the entire period were small: ranging between 25 and 112 books for fiction, and 16 and 79 for children's books. The analysis of non-fiction acquisitions – where sample sizes ranged between 259 and 515 – bears closer inspection. The figure shows that the average price of non-fiction books purchased by public libraries is considerably lower than the average price of non-fiction books published in each year. The ratio is 0.72 in 1986, dropping in 1991 and 1992 to 0.62 in 1998.

One must be extremely cautious in drawing conclusions from these data, since so many different factors affect the prices of library acquisitions. Where books are published in both hard and paperback formats, the choice of format available to librarians is obviously a factor; as the proportion of libraries' total acquisitions absorbed by paperbacks increases (*see pages 26-28*), the lower prices of paperbacks depress the average prices paid.

For fiction and children's books, the average price of books acquired is consistently

greater than the average price of books published, whereas for non-fiction it is consistently *lower*. One may speculate that for fiction and children's books there is more often a choice of format, and because libraries often opt for the hardback (and more expensive) format, this results in higher ratios. With non-fiction books there is less often a choice of format – hence the lower ratio. Subject may also be influential - see below.

Perhaps the most interesting discussion concerns the low ratio of median acquisition price to average publication price for non-fiction -0.72 in 1986, falling to 0.62 in 1998. The full range of non-fiction books published includes a number of expensive academic and specialist works which would not normally be considered for purchase by public libraries, and one would expect the lower ratio for non-fiction to apply. However the fact that the ratio has fallen, by 14% over 12 years, suggests that funding pressures have precluded public libraries from buying some of the more expensive titles previously acquired. Against this trend, one can argue that the public library should address the full range of minority tastes, and that more expensive titles are precisely the ones that should be stocked,

since many public library users may not be able to afford to buy them.

Retention of stock

One other analysis was carried out on the public library acquisitions samples, to determine the proportions of titles added to stock in earlier years which had been retained in 1999. We made a random selection of five authorities, each of which had submitted two samples to UKOLN over the period 1980-98. The first set of samples had been submitted in the period 1982-84, and the second in 1996-98. Copies of the original sample sheets were sent to managers at these libraries, who were asked to check whether copies of the books with the same ISBNs were still registered in stock. The sheets were marked either 'in stock' or 'withdrawn'. It was only possible to check whether 'a' copy of a book with that ISBN remained in stock (and not whether it was the same copy that had originally been used for the sample). Books found in stock with the same title but a different ISBN were discounted.

Tables 6 and 7 show the findings, first arranged by individual authority, and secondly by the year when the sample was submitted.

Type of authority	Dates of sample	Number retained	% retained	Number in original sample
English county	Oct '82 - March '83	37	62%	60
Authority 1	Nov '95 – April '96	51	85%	60
Metropolitan district	April – Sept '84	53	88%	60
Authority 2	April – Sept '98	58	97%	60
Metropolitan district	May – Oct '82	29	58%	50
Authority 3	April/July/Sept '96	29	97%	30
London borough	Feb – July '83	21	35%	60
Authority 4	Sept '95 – Feb '96	45	90%	50
Scottish authority	Jun – Nov '81	19	32%	60
Authority 5	Jun – Nov '97	59	100%	59

Table 6 Numbers and percentages of titles retained in stock from 10 original public library samples, by authority

Note: The findings in authorities 1 and 5 may have been affected by local government reorganisation.
Date of sample	% retained	Date of sample	% retained
1981	32%	1995/96	90%
1982	58%	1995/96	85%
1982/83	62%	1996	97%
1983	35%	1997	100%
1984	88%	1998	97%
Mean 1981-84	55%	Mean 1996-98	93%

Table 7 Percentages of titles retained in stock from 10 original public library samples, by date

The proportions of older titles retained in public library stock are partly a function of loss rates, and also of library policy. Many authorities coordinate withdrawals from service points, so that the last copy in the system is considered with a view to retention, either on open shelves or in reserve stock. The idea is to keep in the system any title which is likely to be requested in future, so that traffic through the interlending system is kept to a minimum.

Table 6 shows the wide variety of practice between different authorities in the processes of retaining/withdrawing stock, and suggests that library policy is a strong factor, in addition to the passage of time. Authority 4, with the second lowest percentage of retained stock from the 1980-84 samples, and the lowest from the 1996-98 samples, is clearly less likely to retain older material in stock than other authorities.

The range of percentages of titles still in stock (*see Table 7*) from the 1981-84 samples was between 32% in authority 5 and 88% in authority 2. The range from the 1996-98 samples was between 85% in authority 1 and 100% in authority 5. With the odd exception, there was a clear correlation between the passage of time and a diminishing percentage of older material retained in stock – as would be expected.

The mean percentage of titles still in stock from the five samples collected 1981-84 is 55%, and from the five samples collected 1996-98 is 93%.

Academic library findings

The sample

Table 8 and Fig 23 show for academic libraries: the number of acquisitions in the samples for each year from 1980-98; and the number and percentage of acquisitions for which publication dates, format information and subject information were provided.

Information on publication date is available for the great majority of the samples.

Format information has been available for at least a third of the samples since the beginning (1980), and for 75% of the samples since 1988. Subject information has been available for over 40% of the samples since 1983, and for 75% or more since 1989.

Table 8	Number of academic library acquisitions per year, related to date, format, subject and
	price information

Year	Number of acquisitions	Number (%) with publishing date provided	Number (%) with format provided	Number (%) with subject provided	Number (%) with price provided
1980	576	569 (99%)	199 (35%)	135 (23%)	489 (85%)
1981	699	696(100%)	274 (39%)	206 (29%)	571 (82%)
1982	692	688 (99%)	293 (42%)	225 (32%)	573 (83%)
1983	701	697 (99%)	352 (50%)	284 (41%)	609 (87%)
1984	661	652 (99%)	320 (48%)	267 (40%)	561 (85%)
1985	665	662 (99%)	386 (58%)	330 (50%)	559 (84%)
1986	683	683(100%)	446 (65%)	389 (57%)	604 (88%)
1987	706	704(100%)	475 (67%)	419 (59%)	603 (85%)
1988	672	671(100%)	509 (76%)	459 (68%)	578 (86%)
1989	711	709(100%)	592 (83%)	538 (76%)	659 (93%)
1990	557	557(100%)	493 (89%)	475 (85%)	511 (92%)
1991	624	624(100%)	556 (89%)	525 (84%)	560 (90%)
1992	604	600 (99%)	543 (90%)	521 (86%)	553 (92%)
1993	634	634(100%)	576 (91%)	558 (88%)	582 (92%)
1994	651	651(100%)	593 (91%)	580 (89%)	603 (93%)
1995	637	637(100%)	565 (89%)	563 (88%)	581 (91%)
1996	600	600(100%)	560 (93%)	562 (94%)	556 (93%)
1997	576	576(100%)	550 (95%)	553 (96%)	542 (94%)
1998	598	598(100%)	559 (93%)	558 (93%)	552 (92%)



Fig 23 Number of academic library samples per year, related to date, format and subject information

Clearly, for the analysis of different subject areas and, to a lesser extent of format, the trends shown below are more reliable for the decade of the 1990s than for the 1980s. In the early 1980s many of the individual sub-categories analysed contain relatively small numbers of titles, so that small numbers of additional titles in subsequent years can result in large changes in the percentages. It is also the case that if more information is missing for some sub-categories than for others, then the observed percentages will not reflect the real percentages of these categories in the samples. Most of the analysis which follows therefore begins from the year 1984, and readers should note that for the subject analysis there is a sharp increase in the reliability of conclusions from 1989 onwards.

Supporting tables for all figures (when not shown in the text) are given in the Appendix.

Subject analysis

The BIC Standard Subject Categories $(Level 2)^1$ are used by Book Data for subject analysis (*see page 9*). The letters mentioned below (e.g. 'A', 'C' etc) each represent one of the BIC categories.

Table 9 and Fig 24 (*overleaf*) depict the percentages of the total samples acquired each year within five very broad subject areas: the arts (A+C+E+F); humanities (H); social sciences(J+K+L); science, technology and medicine (M+P+R+T+U); and the remainder (G+V+W+Y).

	Arts	Humanities	Social Sciences	Science/ technology	Remainder
1984	21.0	10.0	36.7	24.8	7.5
1985	18.6	10.0	37.4	27.2	6.8
1986	17.2	10.5	39.3	27.1	5.9
1987	15.4	11.9	40.3	26.4	6.0
1988	12.6	11.2	41.0	28.3	6.9
1989	12.7	9.7	42.5	28.0	7.1
1990	13.8	9.7	42.1	27.8	6.6
1991	14.3	10.0	40.9	29.0	5.8
1992	16.1	9.8	42.5	26.2	5.4
1993	17.6	10.4	44.3	22.8	4.9
1994	17.6	11.8	43.6	22.2	4.8
1995	18.7	11.3	42.6	21.7	5.8
1996	20.1	10.9	41.1	21.4	6.6
1997	19.2	11.0	40.9	21.9	7.0
1998	17.9	9.7	41.9	23.0	7.5

Table 9 Distribution of academic library samples between main subject categories

Fig 24 Distribution of academic library samples between broad subject categories, by year of acquisition



The proportions of academic library acquisitions in these five categories have undergone relatively slight fluctuations during the period under review, and the situation in 1998 was fairly typical, *viz*: science and technology, 23%; social sciences, 41.9%; humanities, 9.7%; the arts (including biography and fiction), 17.9%; and the remainder, 7.5%. The dominant feature is the extremely high proportion of total acquisitions from the social sciences, which have accounted for between 40% to 45% of all acquisitions during the 1990s. Fig 25 shows acquisition trends for categories in the arts and fiction, and Fig 26 *(overleaf)* for language, literature and biography. The percentage of total acquisitions in the arts was 7.7% in 1984, then fell below 5% in the period 1987-94, before rising above 8% in 1998. Fiction constitutes a uniformly small percentage of total acquisitions - between 0.2% to 2.0% over the period 1984-98.





Note: Smoothed data – see page 10

Fig 26 (*overleaf*) shows acquisition trends for language, literature and biography categories. Language books constitute between 1.7% and 2.6% of total acquisitions for nearly all of the period 1984-98. English language teaching books are a small sub-section of these, comprising between 0.1%-0.9% throughout the period. Literature acquisitions fluctuate between 4.3%-9.2% of total acquisitions, whilst biography comprises between 0.6% to 2.0% of the total.



Fig 26 Percentage of total acquisitions in language, literature and biography, by year of acquisition

Note: Smoothed data - see page 10

Fig 27 shows acquisition trends for the humanities. Percentages for the subject area of history are consistent throughout the period - from 5.8% to 7.8% of the total. The percentages for philosophy never rise above 2.7% in any year. Those for archaeology

and religion are small: for archaeology, never rising above 1% since 1984, and for religion rising above 2% only in one year. No trends are observable in any of these sub-categories.

Fig 27 Percentage of total acquisitions in the humanities, by year of acquisition



Note: Smoothed data - see page 10

Fig 28 shows acquisition trends for the social sciences, a grouping which – as has been observed – constitutes over 40% of all academic library acquisitions. Over the period 1984-98, percentages of the total are fairly consistent for the politics and government category (5.5%-6.7%) and sociology and social studies (8.1%-11.0% for all but two years). For the economics category, percentages fluctuate between

11.6% and 15.8%. Education acquisitions fluctuate between 3.1% and 6.3%, with lower range figures over the period 1994-98. Law acquisitions have shown the biggest increases, rising steadily from 2.4% in 1984 to 5.6% in 1998. The 'other social sciences' category - comprising 'psychology' and 'warfare' - fluctuates between 3.2% and 4.1% of total acquisitions.





Note: Smoothed data - see page 10

Fig 29 (*overleaf*) shows acquisition trends for science, technology and medicine. The percentage of total acquisitions on 'science and mathematics' has fallen substantially throughout the period, from 9.1% in 1988 to 5.5% in 1998. Technology acquisitions have also fallen in the 1990s, from 8.7% of the total in 1989 to 5.6% in 1998. Medicine acquisitions were 5.7% of total acquisitions in 1984, and 5% in 1998, though this percentage also dipped in the late 1980s.

It would be of interest to try to link subject trends in library acquisitions with subject

trends in the development of university courses and/or student numbers, but this would be a complex process. If we take a broad overview, the 1997 National Committee of Inquiry into Higher Education²⁰ shows that student numbers have increased in all subject areas during the period 1984-95. The smallest increases were in engineering and technology students, and the largest in medicine. Increases in the numbers of science students were average, and do not provide a justification for the big reductions in science book acquisitions.



Fig 29 Percentage of total acquisitions in the sciences, by year of acquisition

Note: Smoothed data - see page 10

Further analysis of the science and technology categories suggests that only one sub-category - computing - has bucked this trend of diminishing acquisitions during the 15-year period. Fig 30 shows acquisition trends for books on computing. The percentage of total acquisitions has doubled over the period under review. From 2.4% in 1984 it rose sharply until 1988, since when it has fluctuated, and was 5% in 1998.

Fig 30 Percentage of total acquisitions in computing & information technology, by year of acquisition



Note: Smoothed data - see page 10

Fig 31 shows acquisitions trends for a rag-bag of other categories in academic libraries. Two of these - 'sport, travel and leisure', and 'family, home and practical'- are essentially categories for public library materials, and in academic libraries rarely rise above 1% of total acquisitions during the 15-year period. The 'children's and

educational' category has slightly higher percentages - between 1-2% for most of the period. The category for 'reference, information and inter-disciplinary' subjects took 3.4% of total acquisitions in 1983. This fell to 2.1% in 1990, but then rose steadily to 4.1% in 1998.





Note: Smoothed data - see page 10

Acquisition date analysis

In this analysis, the acquisition dates of books in the samples were related to their publication dates. The intention was to observe what proportion of material was purchased by academic libraries shortly before or soon after publication date, and what proportions were acquired in later years.

Table 10 and Fig 32 (*overleaf*) show the pattern of acquisitions in four categories defined by time intervals after publication.

Year of acquisition	In calendar year of publication or next calendar year	Within 2 or 3 calendar years of publication	Within 4 or 5 calendar years of publication	More than 5 calendar years after publication
1980	77.9	13.4	6.7	2.1
1981	78.0	13.4	5.5	3.1
1982	76.4	13.9	5.1	4.7
1983	73.6	15.3	5.8	5.3
1984	71.4	16.3	6.5	5.8
1985	70.1	16.8	6.5	6.5
1986	70.8	16.9	5.9	6.4
1987	72.5	16.3	5.6	5.6
1988	70.6	17.5	6.7	5.2
1989	68.4	18.5	6.7	6.5
1990	66.7	19.2	6.2	8.0
1991	65.2	20.1	6.9	7.8
1992	66.9	19.1	7.4	6.6
1993	67.2	19.0	7.3	6.5
1994	64.9	19.1	8.0	8.0
1995	64.3	18.4	9.1	8.2
1996	64.3	18.7	9.9	7.1
1997	65.5	17.9	9.1	7.6
1998	68.1	16.4	6.8	8.8

Table 10Percentage of acquisitions related to time intervals after publication, by year of
acquisition

Note: Smoothed data - see page 10

Fig 32 Percentage of acquisitions related to time intervals after publication, by year of acquisition



Note: Smoothed data - see page 10

The percentage of books acquired when new - i.e. in the year of publication or the year following - has been around two-thirds of all books acquired during the 1990s. It was just under 78% in 1980, but fell fairly steadily to a low of 64.3% in 1995 and 1996, before rising again to 68% in 1997-98. Correspondingly, the percentage of books acquired within two or three calendar years of publication rose from 13.4% in 1980 to 19.1% in 1994, before declining to 16.4% in 1998. The total percentage acquired four or more years after publication (the two right-hand columns in Table 10) has generally increased throughout the period. From 8.8% in 1980, it was between 13-15% in the years 1989-93, before rising to 16-18% in 1994-97, but falling back slightly in 1998.

Surprisingly, the percentage of older material acquired is larger than that in public libraries throughout the period (*see page 21*). There are a number of possible reasons for this. One factor may have been funding cuts, and increasing pressure on bookfunds, which may have encouraged librarians to hold on to orders of borderline material until funding became available - a delaying process which can have an impact over several years. Reviews of academic books, always slow to appear in print, may be appearing even more slowly – though we have no evidence to support this. There may also be increased buying of second-hand material. It is probable that, as the newer universities and HE colleges upgrade their basic stocks, more older material is ordered. It is also possible that expenditure on short loan collections has increased, leading to more orders of standard (and therefore older) texts which have become established on reading lists.

Nevertheless the increase in orders of older material during the 1990s is surprising when viewed against the shorter print runs adopted by many academic publishers. (One may also speculate whether publishers – instead of producing straight reprints - more often bring out a 'new edition' which may only be marginally different from the original.)

Figs 33 and 34 (*overleaf*) show acquisition date in relation to year of publication for four very broad subject areas: the arts (BIC subject codes A+C+E+F); the humanities (H); the social sciences (J+K+L); and science and technology (M+P+R+T+U) – the last of these a grouping where currency is assumed to be particularly important. The figures show acquisitions related to two 'intervals' after publication: in the calendar year of publication or subsequent year (*Fig* 33); and more than five years after publication (*Fig 34*).



Fig 33 Percentage of acquisitions made in calendar year of publication or subsequent calendar year for broad categories of books, by year of acquisition

Note: Smoothed data - see page 10





Note: Smoothed data - see page 10

In Fig 33, showing acquisitions in the same calendar year or year after publication, there are few differences between the subjects shown, particularly in the first half of the period. The largest percentage of publications acquired for much of the 15-year period was in the social sciences. The figure for the science and technology category was, surprisingly, below the three other categories in the period 1983-85, briefly above all three in 1994-95, and in 1996-98 was below the social sciences but above the other two groups. The percentages for arts and humanities acquisitions fell steadily throughout the 15-year period, and in 1998 were well below those for the social science and science categories.

In 1998 the percentage of total acquisitions added in the year of publication or following year was 59.2% for the arts, and 58.2% for the humanities. By comparison, for the social sciences it was 73.9%, and for science and technology 70.1%.

The fact that nearly 30% of science and technology titles are acquired *later* than the year of publication or the following year must give some cause for concern, given that many of the books are likely to be of most value in the first years after publication. In Fig 34, showing acquisitions made more than five years after publication, acquisitions in the arts and humanities subjects are - as would be expected - above those for social science and science categories throughout most of the 15-year period, with arts and humanities groups rising particularly sharply between 1996 and 1998. Even so, they do not at any point exceed 15% of total acquisitions. In the sciences and social sciences the percentage only once exceeds 7% (for the social sciences, in 1995).

Format analysis

Acquisitions from the academic sample were also analysed by format. The format options offered by the Book Data file were grouped into three: hardback, paperback, and 'other format' (a very small proportion, never more than 0.5% of the total sample).

Table 11 (*overleaf*) shows the percentages of acquisitions for these three formats by year of acquisition, and Fig 35 illustrates this for the two main groups of 'hardback' and 'paperback'. The percentage of hardbacks fluctuated from a high point of 59.8 in 1985, falling steadily to 48.6% in 1994, but then rising again to 56.2% in 1998. The percentage of paperbacks was therefore only above 50% in the period 1993-95.

Year of acquisition	% which were hardback	% which were paperback	% which were in other formats
1984	59.6	40.2	0.2
1985	59.8	39.9	0.3
1986	58.1	41.6	0.3
1987	57.5	42.3	0.2
1988	57.8	42.0	0.2
1989	57.4	42.2	0.4
1990	56.2	43.3	0.5
1991	53.7	45.9	0.4
1992	50.4	49.2	0.4
1993	48.7	50.8	0.5
1994	48.6	51.1	0.3
1995	49.9	50.1	0.1
1996	53.1	46.6	0.3
1997	55.7	43.8	0.5
1998	56.2	43.3	0.5

Table 11 Percentage of acquisitions in three formats, by year of acquisition

Note: Smoothed data - see page 10





Note: Smoothed data - see page 10

It is interesting to note that the percentage of paperbacks acquired in public libraries is consistently higher than for academic libraries throughout the period - often by as much as ten percentage points (*page 27*).

Price

Price information for books in the academic library samples was obtained from Whitaker, and the median price calculated for each year of the sample. To take account of the increase in book prices over time, the median was related to the LISU average price for UK published academic books⁷. For each year, the ratio of the median price to the average price was calculated, and results are presented in Table 12 and Fig 36 (overleaf). The average prices of academic books published - as well as of academic books acquired - tends to increase year on year. However the ratio of the median acquisition price to the average published price fell from 0.75 in 1985 to 0.55 in 1994, before rising to 0.63 in 1998.

Year of acquisition	Median price of books	Academic book price index	Ratio of price to index	Number of books in sample
1980	£9.30	£12.19	0.76	489
1981	£10.13	£13.75	0.74	571
1982	£11.26	£15.30	0.74	573
1983	£12.10	£16.78	0.72	609
1984	£13.21	£18.14	0.73	561
1985	£14.23	£19.07	0.75	559
1986	£14.48	£22.09	0.66	604
1987	£15.36	£23.81	0.65	603
1988	£16.88	£25.44	0.66	578
1989	£17.61	£27.40	0.64	659
1990	£18.34	£29.21	0.63	511
1991	£19.45	£32.06	0.61	560
1992	£19.84	£34.51	0.57	553
1993	£19.74	£35.39	0.56	582
1994	£19.61	£35.44	0.55	603
1995	£20.28	£36.00	0.56	581
1996	£22.60	£37.50	0.60	556
1997	£25.12	£39.77	0.63	542
1998	£26.49	£41.96	0.63	552

Table 12	Median price of academic librar	y acquisitions relative to academic book price index
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Note: Smoothed data - see page 10



Fig 36 Median price of academic library acquisitions relative to average academic book price

Note: Smoothed data - see page 10

One must be cautious in drawing conclusions from these data, since so many different factors affect the prices of library acquisitions. Format (i.e. hard or paperback editions) may be one of those factors, although academic librarians do not often have a choice of format in their acquisitions. However there is some correlation between an increased percentage of paperback acquisitions in the period 1986-95, followed by a reduction in 1996-98, and the falling ratio of acquisition price to average published price in the period 1986-95, and a rising ratio in 1996-98. It is possible that the lower prices of paperbacks published and/or purchased during these periods affected the ratio.

It is also interesting to discuss whether the low ratio of average acquisition price to average publication price for academic books - between 0.55 and 0.65 during the period 1986-98 - is appropriate for academic libraries. In libraries with a heavy research support function, one might expect the average prices of academic books acquired and books published to be similar. On the other hand, in libraries which are more oriented to support undergraduate teaching than research, a lower ratio is to be expected. That the ratio has fallen over the period under review suggests that libraries are declining to purchase some expensive material, and leaning more heavily upon interlending services to provide these books on request.

Retention of stock

One other analysis was carried out on the academic library acquisitions samples, to determine the proportion of titles added to stock in earlier years which had been retained in 1999. We made a random selection of five libraries, four of which had submitted two samples to UKOLN over the period 1980-98 (the other had submitted one sample). The first set of samples had been submitted in the period 1980-82, and the second set in 1988-89. Copies of the original sample sheets were sent to managers at these libraries, who were asked to check whether copies of the books with the same ISBNs were still registered in stock. The sheets were marked either 'in stock' or 'withdrawn'. It was only possible to check whether 'a' copy of the book with that ISBN remained in stock (and not whether it was the same copy that had

originally been used for the sample). Books found in stock with the same title but a different ISBN were discounted.

Tables 13 and 14 show the findings, first arranged by individual library, and secondly by the year when the sample was submitted.

Academic library	Dates of sample	number retained	% retained	Number in original sample
Library 1	Nov '81 – April '82	48	98%	49
Library 2	Feb – July '82	49	89%	55
	Aug '88 – Jan '89	56	97%	58
Library 3	March – Aug '80	54	90%	60
	Jan – June '89	55	92%	60
Library 4	Nov '80 – April '81	46	79%	58
	April – Sept '89	50	83%	60
Library 5	July – Dec '81	51	88%	59
	Jan – May '88	47	94%	50

Table 13 Numbers and percentages of titles retained in stock from nine original academic library samples

Table 14 Percentages of titles retained in stock from nine original academic library samples

Dates of sample	% retained	Dates of sample	% retained
1980	90%	1988	94%
1980/81	79%	1988/89	97%
1981	88%	1989	92%
1981/82	98%	1989	83%
1982	89%		
Mean 1980-82	88%	Mean 1988-89	91%

The proportions of older titles retained in academic library stock are partly a function of loss rates, but mainly of library policy. Libraries with a strong research support function are likely to retain most of the acquisitions related to research, whilst those largely dedicated to undergraduate support are more likely to withdraw texts which are out-of-date or physically worn out. Space factors also play a part.

Table 13 shows some variety of practice between different libraries in the processes of retaining/withdrawing stock. Library 4, for instance, has the lowest percentages of retained stock for both the 1980-82 and 1988-89 samples. Nevertheless, in all but one of the academic samples, four-fifths of the books originally sampled were still in stock in 1998. The range of percentages of 'retained stock' from the 1980-82 samples was between 79% and 90%, whilst the range for the 1988-89 samples was between 83% and 97%.

The mean percentage of titles still in stock from the five 1980-82 samples was 88%, and for the four 1988-89 samples, 91%. The difference between the two groups of samples is small, and retention of older material seems to have as much to do with library policy as with the passage of time.

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