Alexis Weedon, Victorian Publishing: The Economics of Book Production for a Mass Market 1836–1916, Aldershot UK: Ashgate, 2003, pp 5-30. ©Copyright Alexis Weedon.

Chapter 1 Archives and Information Sources

Researchers may be put off looking at the economics of literary production because the skills of interpreting what are essentially business documents, and extracting from them data which can produce sound statistical analysis, are not common among literary critics. The uniqueness of each surviving archive and the need to learn how the systems of the firm worked mean that generalisations are inadequate and only intimate knowledge based on time and patient exploration of the archive can help the researcher decipher the precise path of the book in production. Having said that, each system has a similar function, and each firm needs to know and record for future reference certain facts and figures, from the profit and loss of the business to legal agreements and correspondence with authors. Once that is fully understood it is easier to define a search strategy. In this chapter I will first look at what quantitative information is available on the book trade, how to find publishers archives and what information they contain; then at the problems and pitfalls of data collection and handling. This will lead onto an explanation of some basic statistical measures which have been used in this book.

Contemporary sources of information on the book trade

As archival evidence is often patchy and hard to interpret, it is useful to be aware of what contemporary Victorian accounts of the publishing industry are available. These range from the anecdotal, such as publishers memoirs, to handbooks for printers and statistics on the tonnage of paper produced. Such sources are useful in the interpretation of business archives and the extracted data. Unlike today however, there were no regular surveys of economic growth and production during the period, so what there is has to be pieced together. Therefore, as Simon Eliot (1994) points out, coincidental patterns derived from a range of sources rather than definitive indexes of economic growth are the best route to understanding the overall picture of the publishing industry.

Government reports, the blue books, are a very useful source of statistical data on trade, including, for instance, the growth of the paper industry, book and stationery exports and duties payable on printed material in both Britain and the Empire. Complementary tables were also drawn up in the dominions. In India duty on books and stationery imported was recorded by customs and the government produced an annual statement of trade along similar lines to the British one. At home the first wholescale survey of industrial production was carried out in 1907: The *Census of Production* (1912–13) was followed by further censuses in 1924, 1930, and 1935. These quantified output and employment in the printing and paper trades. For the earlier period there are statistics on tax paid on advertising, paper, and import and export duty paid at customs and copyright dues. Additionally, the reports of the Royal Commissions on the conditions of factories, schools, houses, transport and so on, are to be found in the blue books. These contain a wealth of evidence as commissioners drew attention to social and educational problems

such as the poor conditions of schools, of child workers in the paper and print industries, the growing pollution of the waterways and the dissemination of blasphemous and defamatory material. Some pointed to the positive benefits to the Empire of a strong industry at home and to the role of publishing in educating and informing the citizenry. These reports were hotly debated in parliament and opened up public discussion in the periodical press. Hansard is a good source for the parliamentary debates. Businessmen and observers also recorded the opinions and innovations of the manufacturers (see for example Spicer 1907). All these investigations and debates reflected, directly or indirectly, on the conditions of the book trade.

Bibliographical information can be obtained from the trade publications. Contemporaries attempted to register the growth in publications by producing lists such as *The English Catalogue* and *The Reference Catalogue of Current Literature* which give the author, title, publisher, price and date of publication. They also updated training manuals and wrote for the increasing number of trade periodicals. These provide some insights into the working practices of printing and publishing firms, for example J. Gould *The Letterpress Printer* (1876) J. Southward *Practical Printing* (1887), *Estimating for Printers* issued by the Costing Committee of the British Federation of Printers in 1916 and trade magazines such as *The Publishers' Circular, The Bookseller, Bents Monthly Literary Advertiser* and *The Printer's Register*. The issues of the day were often recorded by publishers and printers themselves such as Stanley Unwin's *The Truth about Publishing* (1926), which was a controversial justification of the publishers' role, or by societies or associations representing the point of view of the author, bookseller or publisher such as the Society of Authors' publications.

These contemporary external sources give us vital quantitative data and so too do modern reference works. Eliot's (1994) study of the trade magazines, the British Library copyright ledgers, and Spicer's paper figures, has addressed many of the questions about the number of new titles published each year, the pricing strategies employed and the popularity of different genres. The Nineteenth Century Short Title Catalogue or NSTC (1984-) series I and II covering the period 1801-1870 is available on CD-ROM. For statistical analysis it remains problematical (see appendix), however as a bibliographical aid to books published in the nineteenth century it is most useful. More general reference works such as Basil Mitchell's (1988) collection of historical statistics also contain relevant data such as wage indices for compositors in addition to the common economic indices for prices, production and exports. Mitchell provides references to original sources which offer more detailed examination of the data (Bowley 1900, Schofield 1973), though this valuable work is rather dated now and has been superceded in places by more up-to-date sources offering revised indexes to prices, literacy and wages (Twigger 1997). Recent work in geographical information systems (GIS) in the book trade suggests that this may well be a fruitful way of drawing together disparate research databases (Black, Bertrum and Black 1998).

The use of publishers' archives

External sources are vital but they cannot resolve some difficulties: we can discover the number of titles published, but not the quantity of books produced; we can evaluate the price to the customer but not the cost of production; we can compile a list of an author's works but we cannot say what his income from them was. Working from within the industry, using publishers' and printers' account books we can trace the change in professional practices. New inventions took a while to become standard and there is

evidence in printers' accounts that discounts were offered to encourage the use of cylinder presses, for example. By the end of the century numerous photo-reprographic techniques had been patented, some of which were commercially successful, others were quickly superseded by better processes. Printers' archives reveal which were being used in a given period, how often and the cost of the procedure.

The advantages of using these in-house sources therefore are very great, but where external sources provide the same or similar information they provide an easier route for the researcher. It is good practice to check the results of an in-house survey with the data from external surveys, but the methods of collection and representation of data require some interpretation before the results can be compared. For example if we compare the wage of a compositor in 1866 with Mitchell's (1988) statistics on wages or the rates of pay in Howe and Waite's The London Society of Compositors (1948) we can see some of the variables immediately. A report to the London Society of Compositors in 1866 showed the variability over the country: at the bottom of the scale were the Plymouth compositors who were paid 20 shillings per week whereas their colleagues in Liverpool received 31 shillings per week. The average of 56 towns surveyed was 25 shilling for a week which varied from 54 to 60 hours. Mitchell's figures are largely derived from Bowley's analysis of the Reports of the Scottish Typographical Society. His figures range from 18s 3d in provincial towns in Scotland to, at the top end of the scale, Liverpool compositors earning 28s 3d per week. There are many reasons for the variation in figures; hours of work, terms of employment (piece-work or 'stab hand) and the different rates of pay for newspapermen and bookmen. For piece-workers the setting of small type and tables was paid at a higher rate than long primer or pica fonts. Similarly, compositors who were able to set type in foreign languages were paid more, and the rate varied according to the urgency of the job. Thus an average wage in a highclass printers will differ considerably from Mitchell's or Howe and Waite's average figures. Such differences must be borne in mind when statistics derived from accounts are interpreted.

The use of publishers' and printers' accounting records require the development of new methods of data collection and analysis. Learning and borrowing methods used by economic and business historians, statisticians and accountants broadens the scope and definition of book history. Each must be tailored to the peculiar needs of book trade research.

Locating publishers's archives

Finding the relevant publishers' archives is rarely straight forward. Many archives have been lost, some fragmented or damaged, others are held privately and access is restricted. Also it is worth remembering that many British publishers' archives are dispersed and correspondence and other material may be found in the archives of another firm, for instance, the firm who took them over, their bank, their solicitor, in the personal archive of the manager or family who began the firm. (Similarly indexes of holdings are sometimes listed by author, for example Bradbury & Evans and Chapman & Hall's accounts with Charles Dickens are listed under Dickens in the Victoria and Albert Museum's catalogue.) A good place to start is on the Internet where the national location aids below are available, though sometimes in shortened form. If material has gone abroad then there are various centres which keep up-dated records of the location of publishers archives: the Canadian Publishers' Archives database is held at Simon Fraser University; The Book Industry Study group in USA have published a listing of twentieth

century book publishers archives and Nan Albinski's list of nineteenth and twentieth century American publishers' archives is published in the Dictionary of Literary Biography (DLB) yearbook 1993. In Britain, The Book Trade History Group (BTHG) hold such information and has published a Location Register (Weedon and Bott 1996) which has been updated in subsequent newsletters and online. Also the National Register of Archives (NRA) in Quality Court, London, houses reports from record offices, libraries and universities throughout Britain. Its company index is on computer (and Internet), and handlists of catalogued material are available on the shelves. The NRA houses copies of the Business Archive Council's reports of private collections. BAC's surveys were carried out in the 1980s and contact names and addresses have changed. The BAC offices in London will provide updated information. They have also published some useful guides and directories. Such searches will lead you to the repository which may be the firm, record office, library or other source. Even if you draw a blank it is worth contacting the local county record office who inevitably have more up-to-date information about their holdings, and have business records of the firms in their area. Otherwise the big specialist collections of book trade material are held in Reading University Library, The National Library of Scotland in Edinburgh, St Bride Printing Library in London, Glasgow University Library, The John Rylands Library in Manchester, The British Library and the National Library of Wales in Aberystwyth.

Companies do not always advertise their holdings despite the BAC's efforts, and, indeed, are often not aware of what they do have. It can be difficult to get access, and conditions may not be ideal and you can be sure they will be dusty (I have had various experiences from sitting on packing cases at the back of a large and busy warehouse to crawling around pallet boxes in a loft above a post room). Sometimes the books have been kept in poor conditions and may have mould, mildew or mouse damage. A few companies employ a friendly archivist and some have handlists of their material. The better preserved archives such as John Murray's in Albemarle Street used to charge a consultation fee per day (and sit you at a comfortable antique desk in an elegant booklined room and the material is brought to you). Following the sale of John Murray to Hodder Headline, the archive has moved. It is always worth checking where the archive is and whether it still contains what is advertised in the handlist before you visit.

Handlists provide a guide to the holdings and indicate whether the archive covers part or all of the century. However, they vary in usefulness. A good list will quote the title of the account book, its series, whether that series is consecutive, the period covered and specify what it contains. The handlist for the William Blackwood accounts at the National Library of Scotland is an excellent example. However, cataloguing account books is a low priority for archivists as most scholars work on the letters or drafts of manuscripts. Therefore the handlist may be an inventory dating from the original deposit of the books, or there may not be a list at all. Kindly librarians may allow you into their stacks which is a real boon as you can make your own list or annotate the existing one. Seeing all the books at once allows you to check the accounts posting system (i.e. the cross referencing between accounts books) which gives you some idea of what is missing. Once the archive has been located, the first step is to establish what it contains, particularly in terms of financial information.

Understanding accounting systems

Accounting systems changed considerably over the period as company legislation was put in place and businesses changed hands. In the last quarter of the century specific

standards became commonplace but before that printers and publishers accounts were largely idiosyncratic. Writing at the turn of the century, one accountant characterised 'the easy-going methods of the old-fashioned printer' who:

in days gone by obtained much better prices, and had not to contend with competition, so that close examination of each item of cost appeared to him to be a mere waste of time, and who contented himself with a Purchase Day book containing only a single money column, even if he did not post from the invoice direct to his ledger — [These ways] are dying out; and in these days of keen competition a satisfactory profit can only be earned by watching most carefully every item of cost and expense. (Lakin-Smith, 1903: 12)

Accounting histories, though useful, only offer general insights rather than specific explanations of particular accounts systems (cf. Parker 1980 and Accounting History). Carey & Lea have published their cost book of 1825-38 (Kaser, 1963). Although only one book, it is a useful starting point for those unfamiliar with working with nineteenth century financial accounts. Winship's detailed insights into the American literary publisher Ticknor & Fields' accounting systems in the 1840s and 1850s are most valuable and can be used alongside my general comments as a case study of one particular firm's system, albeit with the caveat that Ticknor & Fields' records are both more complete and less idiosyncratic than those of contemporary British Publishers (Winship, 1995) (Although it should be noted that American and British printing terms and methods do differ in this period.) Winship has reconstructed the publisher's unique system, and this needs to be done with each firm to understand how it works. An additional problem occurs when the system changed as they did irregularly — often without changing the titles of the series, so your 'publishing accounts' series which appeared to be complete from 1840 to 1880, is likely to have recorded different information in 1880 than in 1840. Those publishers who were floated on the stock exchanges were subject to articles of association, even so the content of their annual report varied from the simple statutory balance sheet to a more detailed breakdown of the company's financial year. These are held with the archives of the stock exchange which in London's case is at the Guildhall Library. The capital's stock exchange was formally constituted in 1802 while other provincial stock exchanges arose in the 1830s and 1840s in Belfast, Birmingham, Bristol, Glasgow, Liverpool, Manchester, indeed most of the big commercial towns of the time. But many publishers were partnerships and had no other shareholders. Their accounts, withdrawals from the firm and balance sheets were then kept in a locked private ledger. When one partner died or left, an inventory of the plant and stock was taken in order to ascertain his share of the business. This occasionally gave rise to disputes over the value of copyrights and the goodwill of the business. For instance, when Frederick R. Daldy left the partnership of Bell & Daldy in 1873 one such dispute was resolved by the valuation of a third party. These change-over points in a company's history often herald a revision of the accounting system, and the establishment of a new (and more numerous) set of books.

Printers' records have the advantage that they provide more of a cross-section of the print media. British book printers in the nineteenth century did a range of work including pamphlets and periodicals, and some stationery and jobbing work as well. Newspaper presses printed news sheets, large circulation magazines, simple stationery items and they often had a hand press for jobbing work. The division depended on the machinery the printer had and the design of the product. Cheap fiction, printed in a column format on low grade paper and wire stitched was similar to a magazine in its requirements and, for instance, Newnes printed such books at his newspaper and magazine works (F.W.H., 1895). In the earlier part of the period some printers kept separate books for large

customers, government printing or for magazine work, latterly printers kept separate set of books for lithographic printing.

Many terms commonly used in eighteenth century bibliography cannot be accurately applied to the working practices of the nineteenth century. Publishers do not, for example, make the distinction between impression and edition. They use the latter term to apply to both a new impression or to a specially bound or illustrated section of a longer print run. However, old practices lie along side newer ones and some publishers' clerks were more rigorous in their application of the correct term than others. Additionally, printing and publishing practices changed considerably over the period, many of these changes can be seen in the accounts where innovative practices and new methods are recorded. Michael Sadlier warns that 'during the first fifty years [of the nineteenth century] publishers printed to paper and their own convenience, regardless of uniformity between volumes of the same work' and only later did methods of book making become standardised (Sadleir 1922: 12). Mr Owen Rees, giving evidence to the copyright commission of 1818 explained the system:

It has been the regulation of the trade time immemorial to print and pay for tokens of 250, which is an hour's work for two men; 250 forms half a ream of paper, and it is the custom of paper—makers and stationers to sell their papers in reams. A ream prints 500 sheets, and consequently 250 forms half a ream. (*Parliamentary Papers* 1818 IX: 260)

The print run was calculated as the number of such 'tokens' rather than by estimating sales. This practice was wasteful and clearly untenable in the more competitive 1830s when steam printing challenged the old system. It also shows how one must not project back working practices common to a firm in the latter half of the century, nor assume practices evident in the fuller, later accounts existed earlier but have been lost with the missing accounts books. However, with the caveat that the following are indicative rather than universal practices, some general observations on interpreting the accounts may be helpful.

Types of Ledgers and Books

Although early accounts systems were less rigorous than their modern day equivalents, they were not as simple as H. Lakin-Smith implies and it is essential to get an overview of the peculiarities of the accounts system you are dealing with. For the researcher the lack of standardisation can be confusing as it led to inconsistency in the naming and function of the different series of account books. For instance, one firm's authors' ledgers may contain the information that you want, perhaps the day of publication, while another firm's records the number printed at each impression. Therefore, it is necessary to look at a number of examples of each series. Where authors' ledgers are kept, they can be very helpful. If the agreement is a half-profit or shared-publication agreement the author or partner in the investment will need his/her own breakdown of the costs and the sale of the publication, typically a quarterly or half-yearly statement taken from the authors' ledger. However, these ledgers will not contain entries for works which the publisher has bought outright from the author. And sale of copyright was the most common form of agreement for the first half of the nineteenth century. If the authors' ledgers are of no use, then a good place to start is with the day books, which (usually) record the daily orders for print in date sequence. They often go into detail about the work carried out by the printer and specify the amount, weight and type of paper invoiced.³ Impression (or edition) books record the date and number ordered to be reprinted and may also note the amount of paper and the printer. Even so in the

Macmillan archive there are two sets of impression books, one in the British Library and the other held at Macmillan's in Basingstoke. They contain similar (but not exactly the same) information, but recorded in different ways. Oliver & Boyd's impression books from the 1870s record date, quantity required, title, paper and size and also note any alterations required but do not mention printing costs. It is their cost books series (from 1833 into the 1890s) and copyright ledgers which contain printing costs. Publication ledgers can also be useful: Thomas Nelson's is organised by title with the number of copies printed and sold annually, and the final totals with the amount paid, amount received, and total profit. This is a better source than their day books for example, which contain some calculations of royalties, but mostly are summaries of the work done in each room of the factory each month (binding, press, case, foundry, lithography etc.) and Publication ledgers are also the main source of trade accounts with booksellers. production information in Blackwoods' archive, reassuringly they are indexed by author. These ledgers transfer balances to the new (that is, the next) publication ledger, the copyright ledger, the credit and debit of author ledger. It is rare to find a set of accounts intact and it is usually the lower level, the more detailed cost, day and estimate books which are disposed of first.

Whereas today account systems are divided into bought (purchase or creditors) ledgers and sales (or debtors') ledgers, these are not common terms in the first seventy years of the nineteenth century. However, it is worth bearing in mind that earlier accounts systems had broadly similar functions: to record purchases and payments (for example, wages), to record sales, stock and plant (for example, the building and equipment) and ultimately to provide a balance of income and expenditure so that the owners could identify their worth. Some of these accounts were protected from the prying eyes of clerks and held in the owners' private ledger. Other costs commonly accounted for today are absent from nineteenth century publishers' accounts, few reckoned overheads, calculated inventories or did a regular cost analysis of the profitability of their titles. In general, firms transacted business in three different ways: on account (that is giving credit, a system which made them vulnerable to liquidity crises both within the trade as in 1826 and in banking as in 1866-67), on commission and in cash. This is reflected in the account books. Ledger series draw together the different transactions dispersed within the books. Therefore, in order to reconstruct the production costs of a particular title when the accounts system which remains is fragmentary, it is necessary to reconstruct the system by following the posting of accounts through the books. I have found it best to start with the one series which contains the majority of the information I am after arranged in the way which is most convenient to extract. Such a series may be organised alphabetically by author/title or be in chronological order and may have a separate index book. For example, in my longditudinal study for the Book Production Cost database (BPCD) I was looking for all titles printed in a certain year and therefore books organised by date were the most useful to me - in other words, day books and publication ledgers, rather than authors' ledgers. A common alternative is to look for a single author's work thoughout the history of the firm, which means that books organised by name are the most useful. If you are fortunate a popular author's work will be kept in a separate ledger as happened to Mrs Henry Wood, or grouped together, as George Eliot's works are in Blackwood's ledgers. Otherwise you need to look for authors' ledgers, name indexes and copyright ledgers. (In most account books the name used is the author's pseudonym. The author/title/edition information given is enough to distinguish one publication from another, but you need to go to the publisher's list to recover the full details.) whichever *ledger* series (or day book) contains the most relevant information as the key to the posting system and avoid account books – cash books, estimate books, stock books,

and binding books – as they tell you less about account posting system. Then survey the archive to find out which other books, ledgers and journals were active at that date as clearly it would be futile to look for a reference to a 'publication ledger' if the only fragment of that series which remains is from a different period. Then you can begin to map where the figures in your ledger came from and where the totals are posted to using the abbreviations in the ledger.⁴ For instance, the composition and machining costs are sometimes quoted from the printer's invoice whereas the quality of paper and cost is often posted from the *paper stock book*. Beware though, as the date of entry in a *publication ledger* or *day book* can be the date of the receipt of the invoice, the date the work was sent to or received back from the binders, or the date the order was given to the printer, depending on the account system. You need to match amounts, dates and page references to be sure. Checking though the posting system enables you to find out which date is in your ledger by referring to the invoices themselves, the stock books, or the cost/cash/cheque books if any survive. If this fails you can attempt to check the date with the printer's own accounts in their archive.

Finding Manufacturing Costs

It may not be necessary to master the whole system if you are looking solely for print runs or the number of editions of the print costs of an individual title. Such information is more easily extracted. However, some explanation of how the costs are entered is necessary, printing costs rarely come as one figure, but are divided into composition, corrections, machining and stereotyping. The composition costs are broken down into different fee bands. If foreign matter is set it is charged separately, so are small type, tables, and other time-consuming work. Corrections are usually quoted separately and the distinction between author's corrections and printer's proof corrections is sometimes made. (Where the figures are missing they can be obtained from the invoice or the compositors' wages book.) Occasionally, the calculation remains undone and the ledger simply gives the number of formes and the rate of composition per forme. Machining (or 'working') costs are calculated as price per ream (or part) or price per sheet (or part). The sheet is regularly made up from one, two or four formes, and should equate with the paper size (for example, single, double or quad paper). However experiments were made with new imposition systems. Similarly new cutting and binding techniques meant that more pages could be fitted on to one sheet of paper and paper sizes varied (such changes are discussed in chapter 3). For marketing reasons, publishers continued to use the traditional terms to refer to the size of the book, but they no longer bore any relation to the mode of imposition or folding. In 1922 Sadlier observed:

The terms used to-day to describe sizes in uncut books vary from those of an earlier period. For example, the terms "Post 8vo" and "12mo" are now rarely met with, whereas prior to 1880 they were in regular and common currency. ... The "8vo" book of the fifties is the "Demy 8vo" of the nineteen-twenties; "Post 8vo" has become "Extra Crown 8vo"; '12mo" has become "Foolscap 8vo" (Sadleir 1922: 11).

It is always best therefore to use exact dimensions where given.

Other machine costs such as inserting illustration blocks and hot or cold pressing are sometimes separate, although making—ready the press seems to have been largely incorporated into the standard machining price. As the practice of incorporating illustrations into the text became more common, fees for underlaying and electrotyping cuts appear along side prices for plate—paper and printing. Making stereoplates from the type before it was distributed was a cheap and efficient way of prolonging the life of an

edition. Winship records how the American publisher Ticknor & Fields used them in the 1840s and 1850s for works for which the firm expected a strong demand (Winship, 1995). In Britain, the practice of taking a plaster of Paris or flong mould was an even cheaper way of storing the typesetting of a book. If it was commercially successful a stereoplate could be made from the mould, if it was not, then little was lost. As stereotyping became cheaper printers printed from the stereos and their type was distributed without going on the press. This meant that they did not need to keep large stocks and it prevented wear on type. In fact stereos lasted well and were kept for several decades — many being melted down for the war effort in 1916. Warehousing appears rarely to have been added to the publisher's bill, so stereos were kept many years just for the occasional reprint. But they did need repairing and this cost frequently appears in the accounts.

Publishers frequently reimposed pages of an earlier and more expensive edition to print the cheap edition and so avoided the expense of resetting. Sometimes stereos were made of both impositions. There is no consistency amongst publishers about how these different impressions are listed in their accounts books. They may all appear listed under the one title, or they may appear under a separate heading as if they were unique editions. The fiction publishers, Chatto & Windus, regularly printed the 3s 6d and 2s editions from the same stereos. In the 1920s when new folding machines were available old stereos of popular classics such as R. L. Stevenson's *New Arabian Knights* and Mark Twain's *Tom Sawyer* (which had been reprinted nearly a dozen times since 1876) were reimposed to fit the new Dexter folding machine. These 'new editions' were then given a separate entry.

Paper was priced by weight, so four reams of double pott 65lb at 5d per pound weight was £5 8s 4d (4 x 65 x 5). The number of sheets per ream did vary, for instance Hansard (1869) states that reams were 516 sheets for book papers, but Unwin (1926) said they varied from 480 to 516 sheets subdivided into quires of 25 sheets. Winship calculates the ream from the number of copies produced, comparing 'the record of paper orders with the number of copies produced' which 'points to the likelihood that the standard ream still consisted of 480 sheets, or 20 quires of 24 sheets' in America (Winship, 1995, pp 102-3). It is not always easy to discover which ream the publisher was getting. Printers' letterbooks, paper books and purchase books sometimes hold this information, but the actual quantities received by the printer for a work and the amount invoiced to the publisher are very difficult to relate.⁷ The discrepancy could be the result of using paper held in stock for part of the run, or the quantity ordered may have been too much and some of it was returned (and credited). If the paper in the order book was a different size then it may have been for cancelled work, and was cut to size for the new one. The introduction of new paper and print technology affected paper sizes: the use of double sheets for book work followed the introduction of the improved Cowper and Applegarth machine in 1828 (Pollard 1941) and the invention and refinement of the Fourdrinier machine meant that paper could be made-to-measure. Made-to-measure paper saved wastage though it also meant that it had to be ordered well in advance or delays would The letterbooks reveal complex negotiations for discounts on bulk purchases between the printers and paper manufacturers on the one hand, and heart-rending tales of increases in the price of paper from the printers to the publishers on the other! The discerning publisher could compare machining and composition rates between printer and printer but he was at the mercy of the fluctuations in the price of paper. Some publishers supplied their own paper which was the only way they could avoid the printer's additional margin, but few could negotiate the discounts available to the large scale printers.

Fees, Discounts and Warehousing

The day books of George Bell & Son in the 1860s and 1870s reveal a large service industry of skilled etchers, engravers and colourists some of whom were women. Before photographic repro processes took over the trade the price of illustrations was extremely high and a good living could be made. Many of the same names occur in Bell's books again and again. Purchase day books list the fees paid to individuals for specific plates, but itemised lists of the illustrations rarely occur with the other costings and usually only a total figure is given. So it can be difficult to link the named artists and their work without recourse to a copy of the purchase book or the block books. Sometimes frontispieces, plates and wrappers were left to be printed in small quantities as and when the quires were bound.

Often fees paid to authors, editors or translators were paid in instalments and the record of the agreement was kept in a separate book. Retainers to series editors or consultants are not always assigned to specific books and on occasions must have been incorporated in the overheads. Shared publication or shared profit agreements are frequently noted at the end of the account. Longman continued this eighteenth-century practice well into the following century. Their impression books contain summaries of the numerous partners' shares calculated as parts of a common denominator. A more common nineteenthcentury practice was to share the risk with one or two partners, for instance George Bell had a long-standing business relationship with the Macmillan brothers and published, amongst other works, an edition of Eslangon's French Verbs with the firm. But these were relatively uncomplicated agreements compared with the divisions of costs and profits from the English stock which were Longman's inheritance. And the problem for the researcher is that a specific publisher's cost books only contain the costs of the shared publications which he printed so it is difficult to gauge a publisher's total assets. These arrangements between publishers are not to be confused with shared profit agreements between publisher and author which are calculated in a similar manner and kept by the publisher for the author.

Discounts given by suppliers for cash or cheque payments and discounts given by the publisher to wholesalers, libraries and the trade are complex. William Clowes invoiced quarterly and offered discounts which discouraged publishers from paying with post—dated bills. They offered a 5 per cent discount to George Bell while the Scottish publishers Oliver & Boyd negotiated a discount of 10 per cent on composition and machining costs as did William Blackwood. Oliver & Boyd were also able to get 5 per cent off the paper. Such evidence is scattered in the printers customer accounts and in the publishers' receipt, day, cash or credit books (see Chapter 3).

Publishers traditionally offered the trade 25 books for the price of 24, or 13 for 12. In addition they negotiated special prices for wholesalers, libraries, and discounted their remainders. So the catalogue's trade price can only be a guide to the publisher's return. In fact the publisher often received less than the advertised trade price. Mudie's library in particular was able to buy books at a fraction of the price offered to the rest of the trade. Some reprint publishers, such as H. G. Bohn, or remainder publishers such as Tegg and Glaisher, bought up the old stock, plates and copyrights, and/or obtained the last few hundred of an ageing title which might otherwise have been sold as waste. They reprinted or bound them and sold them on. These transactions are recorded in the sales ledgers and the credit side of the authors' ledger. With this data and the information from

the binding and stock books we can reconstruct the sale history of a work and get a better insight into techniques of stock control. As previously mentioned, many publishers did not calculate warehousing costs as a separate item and added a percentage for overheads. Similarly printers calculated 'deadweight' as a percentage on top of labour and materials, though warehousing stereos was sometimes charged as a separate item.⁸

Sample page of accounts

An example from an account book of John Menzies will illustrate the level of detail sometimes documented. The entry for the *Comic Annual* (Figure 1.1) is transcribed from the manuscript accounts book and the paper, printing, binding and advertising costs are laid out on one page. (The name of the printer, Bradbury & Evans, was added under the subhead 'printing'.) This highly illustrated work retailed at 12 shillings, although Menzies received 8s 6d or 7s per *Annual* sold.

Figure 1.1. Transcript of a page from John Menzies account book illustrating the account for their *Comic Annual* of 1832.

Comic Annual Fox					No 5580 sold 12/–			
Paper	198 Rms foo	olscap 17/6	173	5	0			
_	2 3/4 Rms T	hick tinted P	4	19	0			
Printing	12 Sheets w	ith woodcuts	102	6	"			
_	6 Sheets Cu	ts	40	10	"			
	Covers 2 Cu	ıts & pressing	4	4	"			
		corrections &	3	18	6			
	Night Work		7	15	"			
Binding		s @ 5/12/– pe	er 100			312	9	10
Remnant	_	1/2 Moro gt e						
Advertising	`	C				11	1	6
C	14	17	"					
	my 24/	4	16	"				
	Printg do (3		,		,	4	18	"
	•	ards (for wind	lows) 2	_		3	"	"
	Printg do		,			1	7	"
		ntg Circulars	(Trade)			11	"
	Bindg 6 Cor			,		1	19	"
		xtra for the k	King				12	"
			Ü			692	8	10
4650/4464 Sold at	8/6	1897	4	0	as above	692	8	10
300/288 to Wardle	100	16	0	Tilts Com ^m				
65 given away		"	"	"	10 per cent	199	16	"
565 on hand Feby	28	"	"	"	Hoods Share	1105	15	2
, and the second		1998	"	"	1	1998	"	"

The account tells a story of a book which was produced in a hurry by Menzies almost certainly to catch the new-year sales as they paid extra for night work. By the end of February, 90 per cent of the *Annuals* had been sold. Evidently a popular book, it appears to have been advertised on its own through circulars and window displays The most expensive part of the production was the half-binding in morocco with gilt edging — essential for the gift market — and one copy appears to have been presented to the King. It is clear that the author-cum-illustrator did well from the *Annual* — Thomas Hood, who also cut *Hood's Whims* for Menzies, received 55per cent of the income from the book.

Although Hood's fee was his final profit from the work (not an advance), the significance of this figure becomes clear when you consider that Sutherland (1976) took £1000 as a watershed figure for mid-century novelists, being offered a thousand in advance meant you were one of the few highly-paid writers.

A comparison of the *Comic Annual* with a later account shows, not only the differences in systems, but also how some of the technological advances in printing are represented in the accounts.

Chatto & Windus' 1873 account for Mark Twain's Works in their publication ledgers (fig. 1.1) like the *Comic Annual* lists the print run, printer and quantity and cost of paper required. The ledger also has dedicated space for composition costs, corrections, and notably advertising costs. The handwriting and abbreviations used in publishers' account books are not always easy to decipher. Chatto & Windus's books are in fact amongst the more legible. However, some translation may help: the paper for 20 September reprint cost 5.5d per pound, and 36.5 reams of 70lb quad crown was used to print the text. The cost of printing is added next to the original working figure: the 36 reams cost £21 12s 0d, the extra eight pages 18s 6d and the illustrations on 10 reams of the more expensive 40lb crown plate paper from also from Spalding & Hodge cost £6 15s 0d. A note is made of who has the stereoplates – here they are kept by the printer, Ballantyne, as was the usual custom – the cover blocks (with Leighton, Son & Hodge the binder) and the plates for the illustrations (some with Ballantyne and some with Banks). The entry also records how frequently Twain's Works were reprinted, how swiftly and in what numbers these reprints were bound for sale and thus gives us some indication of the demand for the books.

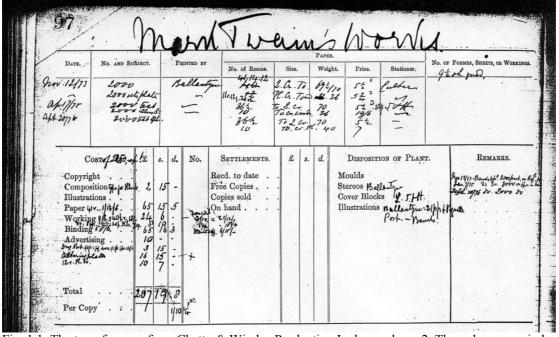


Fig. 1.1. The top of a page from Chatto & Windus Production Ledger volume 2. The volumes are indexed by author and accounts are entered in chronological sequence. © Chatto & Windus.

These sample pages are rich sources, and other firms' ledgers often do not give this amount of information in such accessible form on one page. Many individual accounts have to be reconstructed from several different books and you may only be able to find the total printers' bill or the title and the print run ordered. Nevertheless surviving

archives, fragmented though they are, still hold a vast amount of information – so some kind of sampling method may have to be used. The data must be collected consistently so that in the subsequent statistical analysis you are analysing the same variable.

In this book a variety of archival sources have been used from incoming and outgoing letterbooks to agreements and memoranda to stock sheets and the balance sheets of the firms themselves. The source and methods used are given in the Appendix 1.

Statistical Methods and Calculation of Error

However good the source of the data there is never a complete record. Gaps occur for a number of reasons including fires, a frequent and dangerous threat in nineteenth century printing factories, bomb damage through two world wars, mice (one account book revealed a firm which had a cat who, in her enthusiasm to do her job, had caused considerable damage in the paper store), modern-day researchers (a ledger was borrowed by a previous researcher and never returned) and tidy-minded archivists disposing of the books. Therefore when sampling and analysing the data it is important to think about the problems gaps create for the representativeness of the sample.

Table 1.1. Records gathered from publishers' and printers' archives for the sample years. Bell was sampled in the first and fifth years of the decade (table 1.2), only the fifth year sample is included here. Other publishers were Chapman & Hall, Harris, Hodder & Stoughton and Jack. Bracketed figures refer to printing costs found in publishers' archives.

Publisher	1836	1846	1856	1866	1876	1886	1896	1906	1916	1926	Total
Bell	1030	1010	1050	207	132	106	287	341	1710	1)20	1073
Bentley	78	87	50	60	76	124	65	341			540
•											
Blackwood	7	35	76	75	119	161	93				566
Chatto & W			1	14	79	72	199	172	36	1	574
Oliver & B	57	47	86	76	66	26	8				366
Macmillan		6	54	144	307	458	1002				1971
Others	2						36	1	63		102
Total	144	175	267	576	779	947	1690	514	99	1	5192
Printers											
S. Bentley	(31)	47									78
Clowes		233		(21)	(36)	(29)	35	(25)	(8)	130	517
Constable	1	(4)		160	120	198	192	231			906
McFarlane & E						102	95				197
Total	32	284		181	156	329	322	256	8	130	1698

Clearly a longitudinal survey of book production costs will depend on the age of surviving archives. Each publisher or printer may have books covering only part of the period. In the survey which forms the statistical basis of this book, the longest continuous records were from the firms of Richard Bentley, George Bell, Blackwoods, Chatto & Windus, Macmillan and Oliver & Boyd each of which had data for at least 50 years. However, the total number of books published in each of the sampled years in the database varied from 107 (in 1916) to 2012 (in 1896). The low number of books produced in 1916 can be explained by the war, however a count of the titles in the *Publishers' Circular* for each decade indicates a steady rise in the number of titles until the 1896 sample year, and then a more rapid increase (see fig. 2.2 in chapter 2). Therefore you would not expect 1896 to be the year with the highest number of book cost

records. The explanation is not hard to find. Of the six publishers with the largest surviving archives, three show a significant falling off in the number of books printed in 1896, Bentley, Blackwood and Oliver & Boyd, and none of these three have any data after this year (Oliver & Boyd was sold in 1896 and two years later R. Bentley & Co was sold to Macmillan & Co). In the early twentieth century many family firms or partnerships became limited companies and new sets of books were ordered. In the subsequent merges and take-overs such series have become separated or gone missing.

The Book Production Cost database which forms the basis of much of the statistical analysis of the book trade in this book includes data from ten publishers and four printers (table 1.1 and 1.2). The selection of the six main publishers was based on a) the breadth of their list b) the length of time their archive covered c) the comprehensiveness of the surviving bibliographical records and accounts books. My aim was to achieve as representative a selection as possible, despite the limitations of the method.

Table 1.2. Sample years and records of book production costs from George Bell & Son.

	1860	1865	1870	1875	1880	1885	1890	1895	1900	1905	1910	Total
Bell	37	207	107	132	130	106	396	287	368	341	130	2241

The limitations inherent in the selection of these publishers are a) the representativeness of their combined lists when compared with other indicators of the subjects of titles published by the trade as a whole (see Chapter 4); b) their longevity which means that the database underrepresents new publishers in the latter half of the century and transcent or failing firms c) the weighting of the database towards the educational publishing of firms such as George Bell, Oliver & Boyd and Macmillan (see chapter 5).

A brief sketch of the history of the main contributors to the database and their archives is given in the Appendix 2.

Descriptive statistics: measures of central tendency, variability and skewness

An impression of the range of titles published can be gained from publishers' catalogues and trade magazines which in the nineteenth century as now, listed the subjects, titles and prices of the books published. An analysis of these by subject shows the changing fashions in reading (Eliot 1994). Nevertheless this information only tells us what was published not how many of each book were produced. A well–known example is Bernard Quaritch's publication of Edward Fitzgerald's *Rubáiyát of Omar Khayyám* (1859) originally priced at a shilling and printed in a small run with a paper–bound cheap edition. It did not sell well and was remaindered. After Swinburne changed the fortunes of the work the *Rubáiyát* went on to sell in plain and illustrated, deluxe and vellum bound editions by publishers such as Macmillan, Duckworth, Adam & Charles Black and Golden Cockerel Press. Yet a list of the editions is only a partial indication of the thousands of books featuring the poem which went on sale. Only by knowing the quantities printed we are able to truly gauge the scale of the *Rubáiyát*'s success.

Familiarity with the records will suggest patterns and provoke theories which can be explored using statistical methods. However, it is worth looking closely at the nature of the data – its variability – before doing any statistical calculations (Williams 1984, Middleton 1997). For instance, print run data can be meaningfully assessed by two measures of central tendency: means and modes, though a comparison with the median

also shows the skewness of the distribution. The modal value is the most frequently occurring value, the median is the middle ranked value, the mean is the average value. Table 1.3 shows the print run figures for every book printed in two sample years per decade taken from the accounts of George Bell & Son. Presented as a frequency table it is clear that the distribution is skewed. The reason is not a sampling error, it is in the very nature of print run data. Publishers printed short runs of books to avoid heavy outlay and to test the market. Only a very few were sufficiently successful and popular to be printed in long runs. Statistically, this means that the mean or average print run is towards the right of the peak, i.e. higher than the mode (fig. 1.3)

Table 1.3. Summary table of print runs from George Bell & Son.

Frequency											
Print run	1860s	1870s	1880s	1890s	1900s	Total					
1—500	48	78	75	310	339	850					
600—1000	51	85	60	156	94	446					
1100—1500	15	9	9	29	39	101					
1600—2000	12	37	5	49	83	186					
2100—2500	1	0	1	1	2	5					
2600—3000	5	13	9	20	47	94					
3100—4000	1	1	3	35	32	72					
4100—5000	4	7	20	22	16	69					
5100—7000	1	5	0	6	4	16					
7100—9000	0	0	0	2	2	4					
9100-20000	0	2	2	13	41	58					
20100-30000	0	0	0	2	3	5					
N	138	237	184	645	702	1906					
	Measu	res of cen	tral tender	ncy							
Mode	1000	1000	1000	500	250						
Median	1000	1000	1000	1000	1000						
Mean	1210	1387	1483	1562	2089						
Measures of dispersal											
Std error (SEM)	90	95	129	105	139						
Std Dev	1041	1451	1738	2675	3691						
Skewness	+2.48	+2.95	+2.21	+5.91	+3.84						

The use of the two measures of central tendency together tell different sides of the story. The mode (and modal interval when there is a range of values with the highest frequency) is an indicator of the *preferred* print run and this in itself is interesting, as it makes it clear that Bell preferred to order quantities of between 1000 and 250 and only exceptionally ordered longer runs. However, the modal values do not show the increasing occurrence of longer print runs later in the period, and this is where the mean is of use. Only 8 per cent of Bell's titles topped the 2500 mark in the 1860s whereas by the first decade of the twentieth century 21 per cent of titles printed in or above this number. The increase in the quantity of books being produced is evident in the higher mean value for each sampled decade: 1210 for 1860s rising to 2089 in the 1900s. Therefore the mean value is more often used in the statistical calculations in this book.

In addition to measures of central tendency, measures of dispersal also aid the interpretation of the trends in book production and provide a useful check on the data. Standard deviation is the most widely used measure of dispersal in data analysis and it is found on almost all statistical software packages. The standard deviation value tells you the interval in which 68 per cent of the data falls. For example if the mean print run of George Bell & Sons books in 1860s is 1210 and the standard deviation is 1041 then 68

per cent of the sampled books have print runs between 169 and 2251. However standard deviation assumes a normal distribution, and the print run distribution is skewed. Also, in this example the standard deviation from the mean becomes considerably greater with the increasing occurrence of print runs above 20,000 in the 1890s. The variation in the length of print runs is greatest among the above average print runs rather than those below the average. As a consequence the gap between the modal value and the mean increases with the greater variation. Therefore care needs to be taken when using standard deviation to assess the variation in the length of print runs, and the calculation of error is often preferable.

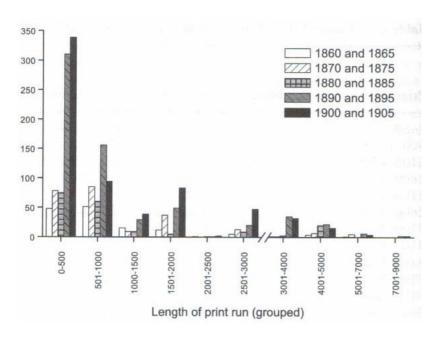


Fig. 1.3. Frequency of print runs (see table 1.4)

All samples can offer only an approximation of the whole picture, therefore some indication of the likely error in that approximation is essential before any interpretation can be confidently made. The standard error of the mean is a measure of the uncertainty about the mean. The value is calculated by dividing the standard deviation of the sample by the square root of the sample size. Thus if the standard deviation of the print run of Bell's books in the 1860s is 445, then this is divided by the square root of n, the number of records collected, table 1.3 shows this is 138.

By using the standard error you can narrow down the area of uncertainty. The mean of the sample is 1440, but how close is that likely to be to the mean of all the books Bell printed in the 1860s? The standard error enables you to say that you are 68 per cent confident that the mean of the whole population lies between 1402 and 1478 — the range is calculated by subtracting the standard error from the mean to give the lower value and adding the standard error to the mean to get the higher value.

Standard error =
$$\frac{\text{Std Dev}}{\sqrt{n}}$$
 37.88 = $\frac{445}{11.74}$

The basic methods of data collection and handling are relatively straight forward. What requires time and patience is getting to know and understand the archive and the level of information it contains. This in turn informs the interpretation of the results and corroborative evidence from external sources aids this process. However, the very nature of the data and of publishing practice means that in some cases certain statistical methods are ruled out or need to be treated with caution. Set-up costs for printing creates, for instance, skewness in the distribution of book print runs statistics which affects the determination of central tendency. Such a determination is essential for estimating the potential sales value of a publisher's annual output or for calculating the value of the book trade to the British economy at a certain time. Our best estimate is based on average print runs and calculations of the error on the mean which are useful in the interpretation of the change in book production costs, but which cannot reflect the skewness of the distribution.

This does not mean that we have to throw out statistical methods. It does however, mean that we need to be cautious in our interpretation, and where possible compare sources for trends.

Where specific authors are under discussion or where smaller scale analysis is required, statistical methods are not always required. The publishing history of a book tells its own tale of authorial craft and revision, of popular and critical success, and of the many hands who shaped it before it was picked up by the reader.

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Notes

¹ Of course the prices are in old British currency where there were 12 pennies (d) to a shilling (s) and 20 shillings to a pound (£). Thus 3s 6d, sometimes written 3/6, is 3 shillings and 6 pennies.

² See the SHARP web site at: http://www.sharpweb.org which gives access to the lists of Weedon, Albinski, the BISG guide, and the Canadian Publishers' Records database http://www.lib.sfu.ca/researchtools/databases/dbofdb.htm?DatabaseID=57. The NRA also have a web site at: http://www.nationalarchives.gov.uk/nra/default.htm which gives access to the NRA database and contains links to UK record offices (website addresses as of 7 February 2006).

³ See Michael Winship (1995, ch. 2) for a description of how double-entry bookkeeping accounts were supplemented to suit Ticknor & Fields's particular needs. Winship has reconstructed the posting system between the accounts books and ledgers to recreate the financial systems of the company despite the reorganization of the firm in 1854, 1864, 1868 and 1871 and the opening of new sets of accounts books in 1853 and 1868.

⁴ Such as GL for General Ledger, PL for Publication Ledger, CB for Cash book, P&L for Profit and Loss accounts, AL for Authors' Ledger and so on.

⁵ The Dexter machine required insetting 16pp in 32s.

⁶ Hansard (1869) mentions reams of 516 sheets made up of 21.5 quires of 24 sheets to a quire. This was because the two outside quires were damaged or wrinkled. Later in the period paper prices were given in pounds per 1000 sheets (British Federation of Master Printers 1936: 139).

⁷ Paper was stored for the printing of several works, often works in one series, and while particular papers for one-off titles can be traced, it is more difficult to trace one of a series. Winship has been more successful with Ticknor & Fields' paper books (Winship, 1995, p.27).

⁸ William Clowes Ltd charged George Bell & Sons £20 per year for rent of fire-proof vaults in 1895 and the amount was the same in 1900 and 1905.

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