1834-1844: A Decade of Statistical Societies, with some Contemporary Parallels.

Ref. 5401

The 1830's was a decade of great enthusiasm for statistics, possibly matched only by our own times. During this period the demand for statistical data and statistical societies reached a peak unparallelled either before or since. (The demand for statistical techniques came later.) The London (later Royal) Statistical Society (LSS) was founded in 1834, some 140 years before its younger counterpart, Radical Statistics. Lest this comparison be thought facetious, I should mention that one prominent member of RSS Council, ungiven to radical views, mentioned to me recently, almost in passing, that "Radical Statistics is really a subsection of the RSS in all but name". This misconception — if that it be might give cause for concern, but the differences should reassure us. Heaven forbid that Radical Statistics should survive to celebrate its 150th anniversary!

The imminent tenth birthday of Radical Statistics prompts the following thoughts concerning the first decade of the RSS. I have drawn on two standard histories (Mouat 1885; Bonar and Macrosty 1934), as well as other primary and secondary sources, especially Cullen (1975).

OUSE and WINDOW TAXES,—At a very numerous MEETING of the CENTRAL COMMITTEE of WESTMINSTER, held at the British Hotel, Cockspur-street, on Tuesday, the 4th of March, 1834, Mr. WYLD in the chair,

on Tuesday, the 4th of March, 1834, Mr. WYLD in the chair,
It was unanimously resolved, That the conduct of Col. EVANS
in the House of Commons, on the subject of the House and Window
Taxes, and his adherence to the best interests of his constituents,
pre-eminently entitle him to the thanks of this Committee.
WILLIAM LINSELL, Secretary.

TATISTICAL SOCIETY.—A PUBLIC MEETING will be held THIS DAY at the Rooms of the diorticultural Society, \$1. Regent-street, the Most Noble the Marquis of LANSDOWNE in the chair, for the purpose of establishing a STATISTICAL SOCIETY in London, for the collection and classification of all facts illustrative of the present condition and prospects of society. The chair will be taken at \$0 clock precisely.

By order of the Committee, J. E. DRINKWATER, Hon. Sec. 1. Dorset street, Manchester-square.

OT. MAKY NEWINGTON, Surrey.—At a VESTRY MEETING of the Inhabitants of the above-named Parish, held in the School-room, on Wednesday, the 12th day of March, 1834, to receive the Report of the Committee appointed in Vestry on the 8th day of May last, in reference to the House and Window Tax, also for the purpose of petitioning the House of Commons respecting the same, and for other purposes connected therewith:

1. Advert for inaugural meeting of LSS (15.3.1834) in <u>The Times</u>. Adverts also appeared in the <u>Morning Post</u>, <u>Herald</u>, and <u>Standard</u>.

Provincial and other societies

The LSS was not the first Statistical Society. Its Manchester counterpart had been founded the previous year, and Nassau Senior and other Benthamites had proposed a "Society for the Collection of Facts" in 1831 (see my article in the last Newsletter). An earlier, possibly Owenite, LSS also existed in the 1820's, and the second LSS clearly sought to profit from this. Its Council wrote to Cesar Moreau, who had been the inspiration for the first LSS, and asked for "information as to the manner in which other Societies have proceeded; ... (We are) anxious to profit by their experience, to endeavour as much as possible to combine what is advantageous, and to avoid what has been observed to be prejudicial" (LSS Letter Book 18, 21.5.1834).

Willcox (1934) listed fifteen statistical societies founded between 1834 and 1844, along with several earlier ones (including the French Statistical Society later abolished by Napoleon, and those of Wurtemberg, Marseilles and Saxony). Of particular interest to us are the British provincial societies which existed in Aberdeen, Barnsley, Birmingham, Bristol, Doncaster, Dublin, Edinburgh, Gateshead, Glasgow, Glasgow and Clydesdale, Halifax, Hull, Leeds, Leicester, Liverpool, Manchester, Newcastle, Nottingham, Portsmouth, the Potteries, Sheffield, Tavistock, Tonbridge, Worcester, and possibly elsewhere. Unfortunately, these societies survived their first decade. The LSS Council wrote "it is not without regret that (we) witness how ephemeral is the existence, or transitory are the exertions, of the local Statistical Societies generally" (LSS Report, 1844-45). They also recommended that where Fellows in the country were sufficiently numerous, these should unite as a "local committee". (A similar idea has been much mooted but little implemented in Radical Statistics.)

It is of interest to note that, despite the proliferation of provincial statistical societies, the LSS continued to attract provincial members: in December 1839, for example, 11 out of 28 Fellows elected came from the provinces, including Northumberland (5) and Glasgow (2).

Of any learned society - and also of Radical Statistics - one might ask the following:

What social factors and individuals were associated with its foundation?

What social factors and individuals were associated with its continuation or decline?

What were the society's activities, and to what extent are these accurately reflected in the documentary evidence?

STATISTICAL

ILLUSTRATIONS

OP THE

TERRITORIAL EXTENT AND POPULATION,
RENTAL, TAXATION, FINANCES, COMMERCE, CONSUMPTION,
INSOLVENCY, PAUPERISM, AND CRIME,

OF THE

HANGE HOLLING

COMPILED FOR AND PUBLISHED BY ORDER OF THE

LONDON STATISTICAL SOCIETY

THIRD EDITION.

2. The title page of a book published by the <u>first LSS</u> (3rd.edn, 1827), dedicated to Cesar Moreau .

LO

MONSIEUR CESAR MOREAU,

HIS MOST CHRISTIAN MAJESTY'S VICE-CONSUL,
RESIDENT IN LONDON, &c., &c.,

MONSIEUR,

For the uniform courtesy and liberality which the experienced from you, and for the facility of research which your extensive and valuable library of official state Members of the London Statistical Society have papers and statistical works has afforded to them, they can chanks. And, as in their judgment, no better means can possibly be devised, either to exemplify the ways of God bitions of well-arranged statistical facts, they consider the at so much sacrifice of cost, time, and labour, entitle you request of you to accept their most cordial and grateful to man, or to promote the welfare of society, than exhiseveral valuable statistical works, which you have published to the consideration and regard of every social community; SOCIETY inscribe this volume of kindred labour to you, as and as such, the members of the London Statistical their tribute of unqualified approbation and regard.

JAMES RIDGWAY,

1827

10 P. ORIFFITHS, WELLINGTON

KTEXCHANGE:

The use of documentary evidence

The last question is particularly pertinent, because statistical histories tend to use official documents. Hill (1984, p.131) relies upon the RSS Journal: "By their fruits ye shall know them", he claims. But what are the "fruits" of a society?. The JRSS was not intended to be a historical document, and if given undue emphasis it is potentially seriously misleading — what reliance could be placed upon a history of Radical Statistics which used solely our publications or Newsletter?

The original records of the LSS (Minutes, etc.) go far beyond the Journal in providing insights. I mention just four. First: the early in years, verbatim details correspondence, both incoming and outgoing, were kept in a "Letter Book", and each item came to Council for comment. and Second: the Society's first employee was a Collector who was allowed 5% on each subscription he obtained. (This may have been common practice at the time - a similar situation is reported in the records of the Halifax Mechanics' Institution.) Third: the relative openness of the Society's admission procedures led to problems vis-a-vis more "professional" bodies (is this not still true today?), including the "blackballing" of a Fellow of the Institute of Actuaries. Fourth (and I apologise if this is regarded as in political bad taste): an early Assistant Secretary of the Society was sacked in 1859 because Ωf "certain embezzlements", totalling £47.15.5d - he had been caught with his hand in the till, and the unfortunate's name was Edward Tudor Scargill (Council Minutes, 26.5.1859).

The drive to greater efficiency

To return to the questions posed above, it may be conjectured one social force which assisted the creation of statistical societies in the 1830's was the drive towards greater efficiency. Hobshawn (1968, p.79) has indeed called arithmetic "the fundamental tool" of the industrial revolution. Certainly Babbage, a key figure in the creation of the LSS, was the son of a banker, and efficiency and accountancy were his watchwords. 1832 had seen his publication of <u>On the Economy of Machinery and Manufactures</u>, and his calculating "engines" were part and parcel of the economies of scale required by expanding capitalism. However, in other respects the dominant interests of the Societies may have run <u>counter</u> to this tempo of the times. The emphases placed upon investigating poverty, housing and education placed focus upon <u>negative</u> aspects of industrialisation and urbanisation. If emphasised, such concerns would, in capitalist terms have tended to place a brake efficiency. One might even argue that early statisticians acted in favour of the ancien regime and inefficiency. This certainly would explain why so many Societies swiftly died they attempted to stand Canute-like overwhelming economic forces.

An alternative point of view would argue that the stastisticians emphasised <u>survival</u> rather than efficiency - they realised that social evils such as poverty could, if unabated, lead to the overthrow of the very system that efficiency was designed to protect.

STATISTICAL JOURNAL,

AND

Record of Useful Lnowledge.

On the 1st of October next, will be Published,
PRICE TWO SHILLINGS.

The First Number of a new Monthly Periodical Work, to be called the Statistical Journal, and Record of Useful Knowledge."

Published at Yo. 12, Wellington-street North, Strand, where Orders and Advertisements are received.

(Letters to be Post Paid.)

London, Aug. 29, 1837.

Commission and Salmon, Printers, Crown-court, 72, Fleet-street.

<u>Publications</u>

Initially, the LSS's published transactions were relatively meagre, although a <u>Statistical Journal</u> and <u>Record of Useful Knowledge</u> (undoubtedly linked with the Benthamites via S.D.U.K.) did appear independently for a while. Unpublished letters indicate that the publisher, one Charles Ross, invited the LSS and its Manchester counterpart to publish their Proceedings in his journal. Manchester cautiously accepted, while London declined. Thus it happened that from May 1838 the LSS <u>Journal</u> began to appear under the Society's own auspices.

This was when a "new wave" of activists had entered the Society, and the "old guard" (Malthus, Babbage, Drinkwater, Jones, Senior) had died or withdrawn. Only Hallam and Tooke of the original founders remained active. (May we find counterparts in the history of Radical Statistics?).

Surveys of education

About this time surveys of education began to appear. They were modelled on the investigations of the Manchester Society, and letters exist in the Manchester Central Library showing extensive communication between the two bodies. The Education Committee of the LSS was so active that education proved a dominant theme in the Journal until 1843, when the Committee went into abeyance. However, the interest of the Committee was education, not curriculum - the statistics of education rather than statistics education. Other, more "professional" bodies, such as the Institute of Actuaries were to take this latter focus. (The Society's archives reveal that a Committee on Statistics in Schools was founded around 1870, but that will be reported on separately.)

By 1844 the enthusiasm for education had declined.

Babbage and the BAAS

Thus far, I have considered the history of the LSS pretty much in isolation. That, of course, can only mislead. What BSSRS is to Radstats (one might say), the British Association for the Advancement of Science (BAAS) was to the LSS - only more so.

The BAAS arose out of a frustration felt with the Royal Society by many who objected to the rejection of Herschel's candidature for president in 1830. Baggage and his friends were central in the formation of the BAAS, although he himself did not attend the inaugural 1831 Meeting in York (Hyman 1982, p.150). In 1832, at Oxford, his attempts to found a statistical section were balked (Morrell and Thackray 1981, p.291), although Mouat (1885) does date the section from that date. Little is known of the abortive 1832 episode: Babbage ignores it in his writings, preferring to concentrate on the more successful 1833 meeting in Cambridge, when the Statistical Section was finally established, although not without subterfuge.

Babbage was a compulsive founder of institutions. Analytical Society at Cambridge, his "monument of youthful ambition", derived from a jest made to a fellow-student (Enros 1983, pp.27,42), and one wonders what other Societies may have resulted from his or others' less-than-serious suggestions. Indeed, the accepted account οf Statistical Section's foundation (a sudden inspiration occurring as Babbage walked across Trinity quad) rings of whimsy as, much as truth. Enros (1983, p.44) also has urged that Babbage's autobiographical accounts should be used with caution - his memoirs reek of tongue-in-the-cheek.

However, despite his historical unreliability, Babbage clearly was a most congenial character (Hilts 1978, p.33). He dressed brightly, and the colour of his emerald green waistcoats gave apparently unwitting offence to some attending the Dublin Meeting. About the same time he renewed an interest in fairground automata — surely a topic worthy of Mudfog — and spent £35 on a mechanical dancing lady which he had admired as a child (Hyman 1982, pp.174—5). Closing one's eyes and stabbing, there is perhaps here a line of descent from Babbage's dancing lady via his differential engine, via the music of the Bransviga which I am just old enough to remember, and thence to the present—day computer.

rullical torces and aristocratic interests

The political composition of the early statistical community remains to be fully investigated. Babbage stood for selection as a Liberal parliamentary candidate, but he may have been Aristocratic interests were certainly well represented - the Presidents of the Society during the first decade included a Marquis, a Baronet, an Earl, and two Viscounts. This suggests that statistics may have been intellectual weapon of the old guard, representing aristocrats and landed gentry interests rather than the productive efficiency required by the new industrial capitalism - spent out amateur forces rather than the new professionals, Gentlemen rather than Players. Moreover, Babbage encouraged this. In a letter to Farr he explicitly stated his wish to establish the Statistical Section of the British Association, because "there was no section interest the landed proprietors" (JRSS 34, p.412). This doubtless also entered his rationale for founding the LSS.

Numerists and ameliorists

However, to return to the Statistical Section of the BAAS, a conflict soon arose between numerists and ameliorists. The former regarded numbers as value-free, pure, and non-controversial - Aliis exterendum, as the LSS motto put it ("that others might thresh"). The ameliorists (centred on Bristol and Manchester - the German language has a category known as "Manchesterliberalen") were social activists - Fabians of their day, but bankers and industrialists rather than intellectuals. They feared social upheaval ("Sansculottism"), and social improvement was the sole remedy and social improvement required social control which required social indicators which required numbers, numbers, numbers.

In 1837 the BAAS Meeting at Bristol intervened in a local strike. In 1838 (Liverpool), the Mancunians said some critical things about the Liverpudlian educational system - ameliorists criticising numerists. In 1840 (Glasgow), outsiders criticised the Glaswegian pauper system. The President-elect, Whewell, strongly deplored all this activism - in a letter he stated that it "involved exactly what it was most necessary and most desired to exclude from our proceedings. (and was) inconsistent with the objects and character of the Association". In reply he was reminded that "The Statistical Section has always been a difficult card to play" (Morrell and Thackray 1981, pp.291-295).

Observing this, one wonders about its implications for the statistical societies. Did the Gentlemen feel that their vital interests were threatened by the linking of statistics with public contention?.

To speak politically, there are few persons who, since the French revolution, are not aware of the formidable power of Sansculottism - a power overlooked and almost forgotten in periods of tranquillity, but which, nevertheless, exists in its miserable abode, and is ready, at any season of public weakness and agitation, to sally forth to its work of destruction-a power, indeed, so formidable as to give rise to the opinion that many imperfections in the government and laws of a country, and in the mode of administering them; ought to be endured, rather than run the risk of disturbing the slumbers of a monster whose waking hours are spent in such fantastic atrocities. At the same time, it is admitted, that this power is not always the same? Our own country has witnessed mighty revolutions, which have, nevertheless, been unstained by those heart-sickening horrors which signalized the national bouleversement in France. The question then arises, what are the influences that increase or diminish the sanguihary character of this occult power, or its capacity to do evil? May not remedies be applied which shall go far to extinguish its existence—which shall therefore place a man's liberties, and his honest title to the social comforts he enjoys, on a much more stable foundation-and which shall render practicable an amelioration of our statutes which the present state of things utterly precludes? In the solution of this question, the facts collected by the Statistical Society will not be without their use.

^{4.} Fears of "Sansculottism", expressed in an address to the Statistical Society of Bristol (1839)

The role of Sykes

A crucial personal link between the BAAS and the LSS was provided by Colonel William Henry Sykes. His proposal led to the creation of the LSS Education Committee in 1837, and in the LSS he played an ameliorist role. Yet in the BAAS he was put forward in 1840 as a President who "would not permit (the Statistical Section) to deviate from their straight path of numbers" — a numerist if ever there was one (Morrell and Thackray 1981, p.290). Sykes' role in the two organisations seems slightly contradictory, and merits further investigation. He it was who — dire precursor of worse to come — first introduced mathematical symbolism to the Journal, and he it was, along with Guy, Bowring, and others, who took the LSS out of its first decade and into its second.

REFERENCES.

(Bonar, James, and Henry Macrosty) (1934) <u>Annals of the Royal</u> <u>Statistical Society</u>, 1834-1934. London: The Society.

Cullen, Michael J. (1975) <u>The Statistical Movement in Early Victorian Britain</u>. Harvester Press.

Enros, Philip C. (1983) The Analytical Society (1812-1813): precursor of the renewal of Cambridge mathematics. <u>Historia Mathematica 10(1)</u>, pp. 24-47.

Hill, I.D. (1984) History of the Society: the first 100 years. JRSS 147(2), pp.130-137.

Hilts, Victor (1978) <u>Aliis exterendum</u>, or, the origins of the Statistical Society of London. <u>Isis 69</u>. pp.21-43.

Hobsbawn, Eric J. (1968) History and Empire. Penguin Press.

Mouat, Frederic (1885) History of the Statistical Society. J. Royal Statist. Soc. (Jubilee Volume).

Willcox, Walter F. (1934) Note on the chronology of statistical societies. <u>J. Amer. Statist. Assoc. 29</u>, pp.418-420.

John Bibby

6. Extract the square root of
$$6x - 28x^2 + 49x^4 + \frac{9}{4} - 17x^2$$
. And add
$$\frac{1}{a - b \cdot a - c \cdot b + c} + \frac{1}{b - a \cdot b - c \cdot a + c} + \frac{1}{c - a \cdot c - b \cdot a + b}$$

 The first occurrence of mathematical symbols in the LSS <u>Journal</u> in a paper on examinations set by the East India Company (1845)