

The Industrial system and the Fall of Industrial Statistics

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In the 1980s, a major change took place in the perception of the role of the public sector in society. Indeed, this change was not restricted to Britain or particular political colours. The roots of the process followed from the economic convulsions of the global slump of the early 1970s which led to the fall of Keynesianism. A reconceptualisation followed which now saw the State as a burden and its involvement in economic life as the cause of Britain's problems. In consequence, a new system of financial management was imposed on the public sector as part of its rationalisation.

This strategy has had its successes when viewed from the upper echelons of society. However, its major problem has been that it seriously misconceived the nature of the modern industrial system, the integral role the public sector plays and the global reorganisation of the 1970s. The strategy also wrongly drew inspiration from an earlier stage of history, seen as a golden age, in which Britain's economy grew dramatically as capitalism took root but which, in practice, was of little more than historical interest. Indeed, the State stood in the way of more serious decline rather than being the root of it.

I intend to place the role of a public statistics service in the context of these changes and argue that statistics has an essential role in modern industrial society. This is manifested by the economic problems caused by the decline in industrial statistics.

1 The integral role of statistics

The role of statistics in society has a long history yet, with the emergence of industrial capitalism, its role became generalised. The nature of the system was such that economic regulation took place through the often hazardous route of the market and each unit needed to evaluate inputs and output, was compelled to compete and invest under conditions of risk. The hallmark of this process is the

uncertainty in the conditions of supply and demand, financing, the productive process and the market itself which could change level or rate of growth or undergo qualitative changes at random. This generated a form of uncertainty which required monitoring and control mechanisms and which made statistical information indispensable. Subsequently, in 1832, the Board of Trade set up its own statistical division (covering industry and wealth as well as trade). In 1834, in a period of lively debate on statistical issues, the forerunners of the Royal Statistical Society (RSS) formed and, by 1854, the first Statistical Abstract appeared.

However, the greatest changes have taken place since the 1950s during which period there were fundamental technological, economic and social changes giving rise to modern industrial complexity. Technological change became rapid, the composition of the workforce changed, the numbers of unskilled workers required declined and basic education became essential. Large corporations, particularly multinationals, became representative of the economic unit, replacing the small private firm in significance. Markets were monopolised and concentrated. Domestic economies became increasingly integrated into the global economy and the State grew to fulfil its function in providing education, health and welfare, integrating itself into the corporate society. Indeed, this is the crux of the matter, the integration of the State into the economy and society meant that Government statistical services grew in order to provide information for a diverse range of areas. They are a reflection of social and economic realities of the modern age and to undermine Government statistical services leads to a dysfunctional economy and society.

2 Offensive on the 'burden' of the State

The change of direction in policy was evident by the mid-1970s. Indeed, Prime Minister, James Callaghan, explicitly recognised the demise of Keynesianism in his famous speech to the Labour Party Conference in 1976. It was no longer possible to spend to get out of a recession. This was followed by the severe offensive on public expenditure by the Healey Chancellorship during 1976-78, witnessing the sharpest drop in expenditure in post-war history. Indeed, monetary targets were first introduced at this stage but later gained notoriety under the monetarists until their demise in the mid-1980s.

After the 1979 election, the first Thatcher administration pushed this process forward with a commitment to rolling back the State. A system of financial management was introduced to streamline the public sector. As resources declined, performance indicators were applied in order to redirect attention to public organisations and the individuals in them. A particular objective was the desire to find simple, often financial indicators which generally neglected the fact that *"the complexity and the...simple principal-agent model used in the private sector is inadequate for modelling the desiderata of external reporting in the public sector"*¹.

Indeed, the modern economy consists of three sectors - private, corporate and public and the 'black box' assumptions of the accountability model can only be applied realistically to the first. Most of all, this was a failure to appreciate that a new productive system had arisen which dramatically expanded the need for a large public sector. For instance, many of the elements in national competitive advantage include areas in which only the State can be dominant such as the requirement that the workforce is educated and healthy, infrastructure is adequate, and so on. The experience of market inefficiencies for certain goods and services meant that it would be too costly to rely on the market. In these terms, the *laissez faire* conceptualisation had little relevance to the actual modern economy - monetarism could never be implemented, the rolling back of the State was selective and limited with noteworthy successes in statistics². Yet the central assumption of the new regime was that the modern world of integrated production networks, dominated by multinationals, large State sectors and monopolised, concentrated markets was different only in scale from the world of Adam Smith.

3 The political context of Rayner

The Government Statistical Service (GSS) grew rapidly in the 1950s and 1960s reaching its peak in the Wilson years. For Wilson, it was an integral part of the technological revolution which aimed to modernise the British economy and society.³ Yet, the 1970s were a watershed in which the financial constraints of period were felt throughout the GSS. At that time its primary responsibility was to its political masters and their policy makers. However,

"much of the information it compiles is readily usable by business management, particularly in marketing, and indeed large parts of the system have been shaped with this in mind".⁴

Indeed, in order to encourage business use, the handbook *Profit from Facts* was produced by the CSO. However, following the Rayner review this important service to business enterprise was dropped despite the ideological commitment of the government to the free enterprise culture.

The policy changes following this review began in 1984, with the philosophy that a Government statistical service should serve Government alone. This was based on a conception of a minimalist State and the realisation that there were substantial cost savings to be made. Potential areas of savings included staff, administration, forms, publication and reductions in frequency, coverage and methodological research. The review took place throughout the GSS in order to optimise savings while maintaining basic provision for Government purposes. In its early years, it seemed to wish to sweep away a service regarded as superfluous to Government needs and this was a justification in itself. However, more recently, there has been a change in emphasis (though not of substance) primarily for political reasons. Cost savings are now seen as consequences of a reduced, yet improved, service. As some indication of the future, the latest stage in this process is the likely placement of a non-statistician at the head of the GSS.

4 The fall of industrial statistics

The priorities of the Rayner review led to a decline in the workforce of the GSS, the information produced, its frequency and routine methodological research.

(1) The decline of the workforce in the DTI

The decline in the workforce of the statistical section of the DTI is given below.⁵

Change in Statistics Workforce of the DTI
Business Statistics Office Divisions I & II

	1980	1985	1989	%Change	1981	1985	1989	%Change
Chief/G5	5	5	5	0	9	6	6	-33.3
Statistician/G7	21	18	20	-4.8	27	21	20.5	-24.1
Assistant	3	6	6	0	11	7	6	-45.4
Support Staff	856	611	571.5	-33.2	218	137.5	129	-40.8
Clerical Staff	83	55.5	42	-49.4	12	9	8	-33.3
Total	970	697.5	646.5	-33.4	279	183.5	160.5	-42.5

The half units indicate part-time workers. Support staff include SEOs, HEOs, EOs, COs, CAs and the clerical staff are various ancillary staff. After 1989 comparisons are difficult as part of the statistical work was passed over to the CSO.

It should be emphasised that this information was only made available through a Parliamentary Question. The sort of difficulties involved in even obtaining a simple head count can be seen in inconsistencies of the figures given in the RSS report compiled by some of Britain's most experienced statisticians. For the DTI overall, the table above shows the number of statisticians has declined by 16%, support staff by 35% and clerical staff by 50%.

(ii) The decline of coverage

The change in the workforce above corresponded to a dramatic fall in coverage during the 1980s as given below.

	1983	1991	%Change
Total Commodities	10567	4061	-62

This should not be taken as quantitatively precise but gives some indication of the scale of the change. The Market Research Society has estimated that the change in primary products fell from 4600 to 2400⁷. The estimates above also take account of product types in greater detail and this indicates that the situation is worse than that given by products alone.

(iii) The fall within the fall: 'mini-Rayner' 1989

The situation described above might appear bad enough but worse was to come. A 'scrutiny review' began in 1988 under Alan Armstrong, an economist from Bristol University, and David Rees, a civil servant from the DTI⁸. In the late 1980s, it was realised that its explicit objective was not to rationalise the DTI on cost grounds but to improve "relevant" statistics and to decrease the burden on business. Indeed, it would appear from early press releases, a major theoretical breakthrough had taken place: the quality of the statistics had been improved by reducing the sample size or, as a headline in British Business put it "better figures from fewer forms"⁹. Regrettably, however, for "better" read "cheaper".

Prior to the review, information had been collected quarterly for approximately 200 major industrial sectors (the PQ series) and, monthly, for a further 5 important or erratic sectors (the PM series). Each industrial sector was subdivided into several thousand products and groups. The main changes are summarised below

Industrial Sectors		
	1983	1991
Annual	0	165
Quarterly	200	39
Monthly	5	1

Commodity Change		
	1983	1991
Total	10567	4061
Quarterly	10567	945

The review found that there was "no government need" for the detailed quarterly information provided. There had been a substantial decline in coverage over the 1980s but now the attack resumed on another front - information was being collected too frequently. The recommendation was that much quarterly information need be only collected annually or, in some cases, every five years. Meanwhile, the annual census of production would have its sample size reduced from 16000 to 13000 in four out of five years. An important aspect of the review was to see "improvements in statistical efficiency which could be realised in smaller samples" and a particular innovation was the idea

The neglect of frequency characteristics of time series has some serious implications for business and Government as getting out of phase can be damaging, if not disastrous. Moreover, it can set up transfer impulses or system impulses which may manifest themselves at a later point being interpreted merely as erratic behaviour.

What are the consequences for the British economy?

1. **The small business sector.** This sector requires information on its position in the market, the market trend, its share and how related markets are changing. The Government argues that companies wishing to obtain this sort of information should be prepared to pay for it. While it would not be unusual for these companies to approach a market research firm, they now have to contemplate a major survey which is not financially feasible. The uncertainties involved may mean dysfunctional decision-making which could lead to an increased in bankruptcies.

2. **The corporate sector.** This sector has carried out its own surveys where gaps or inadequacies were found in official statistics. However, it now has to pick up the entire bill which is costly for even a major company. There are unofficial statistics which can be useful secondary sources. However, this information is voluntary and can never match the kind of rigorous criteria set by legal statutory inquiries which can also obtain sensitive, confidential, information which is unlikely to be volunteered. Furthermore, there is also the problem of how to attract foreign investment when little is known about particular markets from official sources.

3. **The Government itself.** The Government, given the objective of the Rayner review, should be the only one to gain. However, its own blindness to the inter-dependence of information means that it is in a serious state. It has undermined the derivation of aggregate indicators, aggregate demand, factors of supply, export performance and import substitution. There is uncertainty as to whether cyclic response patterns are being generated and whether the signals received might be confused with other types of variation. Additionally, recessions are times of dramatic qualitative change and the current recession has wiped out 1 in 50 businesses. This means that there has been a dramatic change in industrial structure which has affected

the industrial base, import penetration and export performance. However, the extent and nature of change is unknown.

6 Conclusion

The decline of the statistical service has taken place in an environment which attempted to shift the terms of reference from the goal of optimising the level of resources subject to financial constraints, to a financial goal which main objective has been to minimise costs subject to the constraint of necessary provision. The primary aim was less ideological than part of a general strategy to raise the levels of profitability throughout the economy. Indeed, the politics of decline underlie the focus on rationalising efficiency.

The response has been noticeably ideological. The problem became not one of resources but the system of accounting and its indicators. The means of monitoring became an end in itself. Moreover, it is based on an accountability model which has little relevance to the realities of a public sector and conveniently diverted attention away from the issues of inadequate provision¹⁰.

The other side of this argument is that provision itself is an intractable problem which is why the emphasis is pushed in the other direction¹¹. From the vantage point of the 1990s, the novelty of this position is often forgotten. Sir Jack Hibbert attempted to draw all participants to this point at the RSS meeting¹². Indeed, as Barry Quirke, Chair of the Institute of Statisticians, put it:

*"the \$64000 question (is how to finance) the provision and channelling of resources into the blackhole of potential statistical inquiries"*¹³.

He implied that statistics, like other areas in the public sector, is an infinite resource which poses a serious, if not insoluble, problem when it comes to financing. This has only been a problem for about a decade. Prior to this there was a functioning GSS which was fully financed. It is a finite resource and as such it is dependent primarily on the level of investment made.

It is important to break from the ideological terms of reference which focus on economising 'efficiency' as a way forward or solving the problems of financial constraints. Firstly, efficiency only becomes a problem when a perceived deterioration has taken place. Secondly,

the strategy must be selective, often leaving important gaps which make the system as a whole incoherent and subsequently inadequate even for its targetted priorities. Thirdly, a further reduction in resources is not a solution as provision is usually the problem. Finally, it is clear that the reduction of resources will weaken the system as a whole.

The focus needs to be on the cost of not investing. The real \$64,000 question is how much it will cost not to have a functioning Government Statistical Service?

References & Notes

1. Smith, P., *J.R.Statist.Soc.,A*, 1990, 'The use of performance indicators in the public sector'.
2. The share of the public sector in GDP only fell by 7% to 20%, public sector employment in total by 6% to 23%. The Thatcher revolution never occurred nor could it, while the 'renaissance' of Britain's (mainly private) industry meant that it declined faster than the public sector, leaving in its wake a vacuum filled by imports and a legacy of balance of payments problems.
3. Wilson, H., *J.R.Statist.Soc.,A*, 1973, 'Statistics and decision-making in government - Bradshaw revisited:the address of the president'.
4. Government statistics:*A Brief Guide to Sources*, p1, CSO, 1977.
5. Hansard, Written Answer to Frank Dobson MP, 29th April 1991.
6. Estimated from the *Index of Commodities* for 1991 and the previous index in 1983.
7. *Market Research Newsletter*, April 1990.
8. The most accessible accounts are found in 'British Business 14th July 1989 and 21st July 1989. The final report is given in *Review of DTI Statistics*, DTI, 1988.
9. *British Business*, 19th May 1989.
10. The extent to which these ideas have taken hold can be seen by the way that all three main British political parties are attempting promote citizens' charters.
11. Ludwig von Mises, 'Economic calculation in the socialist commonwealth' in F A Hayek, ed., *Collectivist Economic Planning* is a useful reference, written in the 1920s, clarifies this position. He argues that State involvement leads to irrational chaos.
12. Hibbert, *J.R.Statist., Soc., A*, 1990, 'Public confidence in the integrity and validity of official statistics (with discussion)'.
13. Quirke, B, in discussion of Hibbert above.