

> 1 Literacy and mass elementary education

Industrialising societies face many dilemmas. Among these is the balance to be struck between the investment in the industrialisation itself and that accorded to the social infrastructure, including education. Education may contribute directly to industrial performance by improving the technical quality of the labour force. Or indirectly it may, for example, induce a sense of discipline and peaceful order within which industrialisation can thrive. Yet there are counterproductive dangers. Too much may be spent on education and social investment to the detriment of industrial capital formation, which may lead to a retarding of growth. Some societies have paid attention to achieving high levels of mass literacy while neglecting to produce technologists; others have sought to run prestigious technical institutes at the top end of a society largely abandoned to illiteracy. In the 1868-1914 period Japan would be an example of the first case and Russia of the second. The English industrial revolution from about 1780 may be counted an economic success. Was this success achieved with the help of strong educational support or in spite of serious education defects? Or was it helped by a judicious balance of attention to areas of education which could pay off cheaply, and a neglect of high cost alternatives which could be disregarded with impunity? To examine this let us first consider the debate about elementary education and literacy.

# (i) Before 1830: conflicting trends

Literacy is usually measured by the ability to sign one's name on marriage registers which can provide a bulk of homogeneous

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information over a long period of time [1]. This was especially so from 1754 when a standard form of certificate was instituted by Lord Hardwicke's Marriage Act of 1753. We should be clear, however, exactly what such signatures can tell us and what their limitations are. A signature on a marriage register can tell us nothing of how much more the party could write, nor can we convincingly extrapolate how much he or she could read. But one thing is certain. If a man or woman cannot write his or her own name even for this one special occasion, then it is fair to conclude that they cannot write anything at all. In no sense can they be regarded as literate. In fact, marriage register signatures measure accurately the certain level of illiteracy. What we, for convenience, call literacy is in effect 100 per cent minus the certain level of illiteracy. Accordingly it should be borne in mind that even those classified as literate contain an indeterminate sector of very low literacy indeed. However, this standard is the only one possible for securing a sufficient sample to make comparisons of illiteracy rates over time, between places and occupations.

There is no dispute that in the first two-thirds of the eighteenth century literacy levels rose in England. This is hardly surprising since it was a period of very slow population growth accompanied by a considerable expansion of endowed schools, sometimes called 'the charity school movement' [2]. The Society for the Promotion of Christian Knowledge (SPCK), founded in 1698, encouraged the formation of such schools for the defence of the Anglican Establishment against Catholicism and Dissent. Not all such new schools needed to be in contact with the SPCK and certainly the idea of an SPCK-directed movement lasting the whole of the century is no longer tenable [3]. But it is plain that there was a very considerable increase in new endowed schools in the early eighteenth century, whether or not we term them 'charity schools'. Between 1710 and 1730, the most intense phase of their formation, 23 new endowed schools were founded in Cheshire [4], 36 in Derbyshire [5: 27] and 32 in Lancashire [6]. As the provision of schools expanded more than the population warranted, so the chances of receiving a few years of education increased. This was also helped by a tradition of self-teaching facilitated by publications like Thomas Dyche's Guide to the English Tongue which went through 46 editions between 1709 and 1796 [7: 73]. Literacy rates



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Table I Male and female occupational literacy in England 1700-70

	1640–99		1700–70	
	Male	Female	Male	Female
Professional	97	76	100	100
Gentry	100		100	
Craft and trade	57	22	74	31
Yeoman, tenant	51	12	74	32
Husbandman	25		58	
Labourer	15	5	36	12
Servant	27	15	50	25
Soldier	45		54	
Unknown	38		70	

rose accordingly. The view that literacy rose in the eighteenth century before the 1760s or 1770s seems at present to be a matter of general agreement. Lawrence Stone has estimated that male literacy in England and Wales rose from just below 50 per cent to 56 per cent between 1700 and 1775 [8].

R. A. Houston has presented the fullest figures for the rise in literacy in England in the first half of the eighteenth century (his figures shown in Table I are converted from illiteracy to literacy figures) [9: 33, 60]. The marked rise in literacy between the later seventeenth century and the first half to three-quarters of the eighteenth century is evident, as is the wide disparity between male and female rates and across the social spectrum.

After the 1760s and 1770s the evidence diverges. In one of the very earliest attempts to calculate eighteenth-century literacy, W. L. Sargent in 1867 found that of a sample of 15,000 people, 51 per cent of those marrying between 1754 and 1762 could sign their names and this percentage rose to 54 for those marrying between 1799 and 1804 [10]. This suggested a steady rise from the middle of the century to the end. In one of the first of the modern surveys, W. P. Baker studied 17 country parishes and chapels in the East Riding of Yorkshire from 1754 and found that male literacy was 64 per cent both in 1754–60 and in 1801–10, rising steadily thereafter [11]. This has been taken as evidence of an overall improvement in literacy from the 1750s to the early decades of the nineteenth century, although



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there is a significant dip in Baker's figures to which we will refer later.

The most important statement of the view that literacy was rising from the 1770s to the 1830s is the major essay by Professor Stone [8]. Stone used the evidence of Sargent and of Baker and added further findings of his own. These consisted of parish register evidence for Penzance, Oxford, Northampton, King's Lynn, Bristol, Nottingham and Halifax, and marriage licence evidence for the Oxford Archdeaconry and the Gloucester Diocese. His town evidence showed that all towns experienced a rise in literacy between 1754 and 1762, and 1799 and 1804, except Penzance which remained stable. Between 1799 and 1804, and 1831 and 1837 all experienced a further rise, with the exception of Northampton and Halifax which declined in literacy. The marriage licence evidence showed that amongst artisans and tradesmen, veomen and husbandmen, labourers and servants there was a rise in literacy from 1755 to 1800 and in the first four cases to 1825 also. For England and Wales Stone regarded literacy as having risen from around 56 per cent in 1775 to around 65 per cent by 1800 and to 66 per cent by 1840. Stone thus saw 'an upsurge of literacy after 1780' underlying the process of industrialisation and partly due to 'the demand for a literate workforce for an industrialising society'. These conclusions have been taken up by R. M. Hartwell, who finds the literacy studies of Sargent, Baker and Stone in accord with the assumptions of contemporary development economists that education is important for economic growth now as it was also in the eighteenth century. He also holds that there was an increased demand for artisans who could read and concludes that 'there was a notable expansion of education in Britain before the industrial revolution and that the expansion was important in promoting faster economic growth and finally the industrial revolution' [12].

There are, however, grounds for thinking that this may be too optimistic a view for England as a whole. The sharp rise in population from the 1760s to the 1830s, partly caused by a rise in the birth rate, began to swamp the existing provision of schools. There was also a decline in the creation of new endowed schools. Whereas 131 schools had been founded in Derbyshire, Cheshire and Lancashire in the four decades 1710–50, this fell to 81 schools



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founded in the same area in the five decades 1750-1800. The

donors who had put funds into charitable endowments for education in the early part of the century now had more expensive and pressing outlets - enclosure, canal and turnpike investment - to divert their surplus funds. Moreover, much of the religious tension that had motivated the finance of education in the early decades of the eighteenth century had slackened after 1760. The dynamic areas of growth in the education system were no longer the charity schools for the lower orders, but private paying schools for a somewhat higher social class. The grammar schools, too, became more middle-class, fee-paying establishments, as we shall see.

Most important, children were drawn into the new process of industrialisation. Whereas there was very little for a child to do in domestic industry that would occupy him for more than the hour or two devoted to bobbin winding, the factories demanded a long, full day's work. This was especially the case from the 1790s when large numbers of children were needed to assist the spinners of steam-powered mules. Children were also employed in mines, canals and metal working as a result either of technical change or of the expansion of production. As the economic position of thousands of hand-loom weavers deteriorated after the 1810s, so the potentially high earnings of children in cotton factories changed from being a welcome addition to the family budget to being a stark necessity. Moreover, factories could usefully employ children at an earlier age, say 9, than they could start full-time domestic weaving or farm work, say 12, which cut back three valuable years of basic literacy schooling. All this - population rise, decline of formation of new school endowments, increase of opportunities for child labour – militated against working-class children receiving an education that would make and keep them literate, especially in industrial districts. Accordingly, it would be surprising if literacy rates did not sag under these various pressures.

The chief development countering these factors which were unfavourable to literacy was the Sunday School movement from the 1780s. In 1780 Robert Raikes, a Gloucester newspaper proprietor, gathered some children who were idle and disorderly on Sundays and had them taught some lessons in a church. Following this experiment the movement spread with some 2,290 schools in

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1801 rising to 23,135 by 1851, and enrolled children rising from 59,980 in 1788 to over 2 million by 1851 [13: 44]. By this last date Laqueur calculates that three-quarters of working-class children aged 5-15 were attending such institutions. However, there are some limitations to making a strong case that Sunday Schools sustained the literacy rate. Firstly, Laqueur finds their growth only slow in the last two decades of the eighteenth century. Secondly, after sabbatarian disputes in the 1790s many schools ceased the teaching of writing [14]. Laqueur's view that the Sunday Schools were the creation of a working-class culture of respectability and self-reliance has been questioned by those who see them still as middle-class conservative institutions for the reform of their working-class pupils from above [15]. The strength and power of these schools is undeniable in providing some part-time education for children otherwise engaged in factories during the week, and a focus of their social lives. A positive force in a darkening situation, they probably prevented literacy falling more than it did in areas vulnerable to decline.

We may now turn from the balance of circumstantial evidence to the firmer statistical data in which can be detected a fall in literacy in the last decades of the eighteenth century and the first decades of the nineteenth. The data are presented in Tables II and III with the peaks (usually some time between 1750 and 1770) and the troughs (usually some time between 1800 and the 1820s) cited for clarity. There is ample evidence of a sharp fall in literacy in Lancashire and adjacent Stockport presented by Sanderson [6], Birtwistle and Laqueur [16]. The argument is by no means confined to this area, since similar declines are found in work on Leamington Spa [17: 159] and Devon [18] and even in W. P. Baker's work on the East Riding. This does not present a picture of a forward surge of literacy after 1780. In particular the Lancashire evidence, together with that for Halifax and Nottingham presented by Professor Stone, does not suggest that the industrial revolution was underpinned and facilitated by improving levels of literacy and education before the 1810s or 1820s.

Most important of all are the findings of R. S. Schofield based on his sample of 274 parishes [19]. He found a slight rise in female literacy from just below 40 per cent in the mid-eighteenth century to just above 50 per cent by 1840. For males, however, he found



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Table II Declining percentage in literacy trends c. 1760-c. 1820: male

		Peak		Trough	
	1750s	1760s	1770s	1810s	1820s
Lancashire					
(inc. Stockport)					
Bury (S)	69				32
Chorley (S)		65.7	61		49.6
Deane (S)					20.1
Eccleston (S)	66.2				49.7
(St Helens)					
Kirkham (S)	76.5			51.4	
Preston (S)	72.7				49.6
Manchester (L)	66.5			42	
Stockport (L)	71.1			51.6	
Bolton (L)	66			37.9	
Industrial Lancashire (L)	67.3			43.1	
Other areas					
		1781-90		1801-	-10
East Riding (WPB)		67		64	!
		1761–70		1781-	-90
Leamington Spa (FOS)	68		41		

Key: (S) Sanderson [6], (L) Laqueur [16], (WPB) Baker [11], (FOS) O'Shaughnessy [17].

no improvement in literacy at all from the 1750s to around 1815. What Schofield's finding in fact conceals is at least two, and possibly more, quite different trends. There is clearly the declining trend of areas like Lancashire and industrial or merely populous towns. There is also a stable or rising literacy trend of rural areas or towns not experiencing severe social strains. When these divergent trends are aggregated as in Schofield's study, they emerge as a horizontal line. This is sufficient, however, for Schofield to conclude that 'The English experience in the century from 1750 to 1850 may perhaps be taken to cast doubts on the utility of positing universal relationships between literacy and economic growth.'

The most recent study is that of Stephen Nicholas who has examined 80,000 convicts transported to Australia between 1788



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Table III Declining percentage in literacy trends c. 1760-c. 1820: female

Peak

Trough

	Peak			1 rough	
	1750s	1760s	1770s	1810s	1820s
Lancashire					
(inc. Stockport)					
Bury (S)		(No tre	nd)		
Chorley (S)	29.2			18.2	
Deane (S)		15.2			8
Eccleston (S)					
(St Helens)			26.4		19.5
Kirkham (S)		33.8		23.4	
Preston (S)		43.6		21.7	
Manchester (L)	29			19	
Stockport (L)	27.6			15.7 (178	0s)
Bolton (L)	22			12.1	
Industrial Lancashire	26.3			17.9	
Other areas					
		1781-90		1801-	10
East Riding (WPB)		48		43	
		1761-70		1781-	· <b>9</b> 0
Leamington Spa (FOS)		42		32	
		A	ggregated	rates	
		1754-70		1800-	-20
Blackburn (B)		33		31	
Burnley (B)		29		28	
Clitheroe (B)		50		38	
Great Harwood (B)		37		29	
Newchurch-in-Pendle (B)		34		27	
Whalley (B)		44		37	
		1765-74		1795–1	804
Devon (WBS)		59.6		43.4	ł

Key: (See also key to Table II). (B) Claude Birtwistle cited in [6], (WBS) Stephens [18].

Note: The literacy percentages for females are somewhat more erratic in movement than those for men. No meaningful trend is evident for Bury women. In Manchester and Eccleston there were quite exceptionally high scores for the 1790s and 1800s respectively but since they were single quirks in an otherwise consistent trend they are not cited here. At Stockport Laqueur finds the trough unusually early. Otherwise the figures for women show broadly the same pattern as those for men over a period when differences in literacy levels between the sexes were becoming somewhat less marked.



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and 1840 [20]. Before departure convicts were questioned as to their literacy skills. This may tend to exaggerate actual levels but gives a very good indicator of trends over time. However, Nicholas convincingly suggests that the occupational structure of convicts was broadly representative of the (non-criminal) English working class. He finds that urban literacy continued to rise to 1808 and rural literacy to 1817 but then both fell consistently for the rest of the period. Moreover, many of the new occupations created by industrialisation were the least literate: 'Britain's industrialisation process was set in the mould of unskilled labour-intensive production at an early stage . . . once started, the industrial revolution did not call for increasing literacy levels in the years before 1840.' And in Nicholas's view it did not get in.

W.B. Stephens's compilation of the results of probably all known local surveys up to 1987 is the best overall view so far [21: 6, 7]. He finds that literacy in towns measured by brides' and grooms' marks moved as shown in Table IV between 1754–62 and 1831–7. A similar compilation for over 400 rural parishes finds all except one increasing their literacy rates between the 1750s and 1830s.

Divergent as the views are of Stone and Hartwell on the one hand and of Schofield, Sanderson and Nicholas on the other, there is no real dispute. One has no more to believe that literacy was rising or falling throughout the whole of England during the period 1760-1820 than one has to believe in uniform national movements in the standard of living or the birth rate over the same time. The regional variations are known to be considerable and findings about some areas do not invalidate those about others. The present picture is very far from complete. Indeed it is a jigsaw with few pieces in place and many puzzles. For to undertake the documentary research to trace literacy movements in even one parish is very laborious; to relate them to precise explanatory local economic and social changes even more so. This is an area where much new research is being undertaken. In the meantime we clearly need to avoid thinking of 'England', especially urban England, as a homogenous unit experiencing 'optimistic' or 'pessimistic' literacy trends before the 1830s.

If, then, literacy was declining in several industrial areas, it raises the question of how far literacy was necessary for industrialisation

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Table IV Change in literacy as measured by brides' and grooms' marks (parishes)

	Rise	Fall
South West	4	4
East	9	
Midlands	6*	1
North	4	10

<sup>\* (</sup>though literacy in Worcester and Nottingham fell 1750s-1800s)

and the formation of the labour force. A small élite in the new factories was literate - clerks, overseers and mechanics. So, too, were many of the traditional craftsmen like carpenters, masons and wrights. Yet paradoxically the industrialisation in its classic focus of the north-west thrived through some fifty years of declining literacy. By the 1830s barely 30 per cent of the workers in South-East Lancashire could even write their own names and almost all the new factory jobs created by the new technology were successfully operated by sub-literate labour, as were the mines and canals [6]. In weaving, for example, power-loom weavers (female) were only a third as literate as the (male) hand-loom weavers they were replacing. Schofield found that the literacy of textile workers halved between 1754 and 1784 and between 1784 and 1814, and that it declined also for metal and transport workers. He suggested that 'some occupations were still less literate than they had been in the mid-eighteenth century . . . [figures] suggest the possibility that for many males in a variety of occupations literacy did not become more essential as a cultural skill during this period . . . since many of the new industrial occupations recruited a mainly illiterate workforce' [19: 452]. Schofield, Nicholas and Sanderson agree on the limited relevance of literacy for much job performance in the new industrialisation. The industrialisation itself, with its rising population, technical change and demand for children, helped to create an illiterate society. In turn the new technology could operate with an illiterate labour force which it had helped to produce, and economic growth was not impeded by educational retardation.