

UNIVERSITY OF OXFORD

Discussion Papers in Economic and Social History

Number 37, October 2000

STATE INTERVENTION IN ENGLISH EDUCATION, 1833-1891: A PUBLIC GOODS AND AGENCY APPROACH

MARTIN WEST

UNIVERSITY OF OXFORD

Discussion Papers in Economic and Social History

- 1 Hans-Joachim Voth and Tim Leunig, Did Smallpox Reduce Height? Stature and the Standard of Living in London, 1770-1873 (Nov. 1995)
- 2 Liam Brunt, Turning Water into Wine New Methods of Calculating Farm Output and New Insights into Rising Crop Yields during the Agricultural Revolution (Dec. 1995)
- 3 Avner Offer, Between the Gift and the Market: the Economy of Regard (Jan. 1996)
- 4 Philip Grover, *The Stroudwater Canal Company and its Role in the Mechanisation of the Gloucestershire Woollen Industry*, 1779-1840 (March 1996)
- 5 Paul A. David, *Real Income and Economic Welfare Growth in the Early Republic or, Another Try at Getting the American Story Straight* (March 1996)
- 6 Hans-Joachim Voth, *How Long was the Working Day in London in the 1750s? Evidence from the Courtroom* (April 1996)
- 7 James Foreman-Peck, 'Technological Lock-in' and the Power Source for the Motor Car (May 1996)
- 8 Hans-Joachim Voth, Labour Supply Decisions and Consumer Durables During the Industrial Revolution (June 1996)
- 9 Charles Feinstein, Conjectures and Contrivances: Economic Growth and the Standard of Living in Britain During the Industrial Revolution (July 1996)
- 10 Wayne Graham, *The Randlord's Bubble: South African Gold Mines and Stock Market Manipulation* (August 1996)
- 11 Avner Offer, The American Automobile Frenzy of the 1950s (Dec. 1996)
- 12 David M. Engstrom, *The Economic Determinants of Ethnic Segregation in Post-War Britain* (Jan. 1997)
- 13 Norbert Paddags, *The German Railways The Economic and Political Feasibility of Fiscal Reforms During the Inflation of the Early 1920s* (Feb. 1997)
- 14 Cristiano A. Ristuccia, 1935 Sanctions against Italy: Would Coal and Crude Oil have made a Difference? (March 1997)
- 15 Tom Nicholas, Businessmen and Land Purchase in Late Nineteenth Century England (April 1997)
- 16 Ed Butchart, Unemployment and Non-Employment in Interwar Britain (May 1997)
- 17 Ilana Krausman Ben-Amos, *Human Bonding: Parents and their Offspring in Early Modern England* (June 1997)
- 18 Dan H. Andersen and Hans-Joachim Voth, *The Grapes of War: Neutrality and Mediterranean* Shipping under the Danish Flag, 1750-1802 (Sept. 1997)
- 19 Liam Brunt, Nature or Nurture? Explaining English Wheat Yields in the Agricultural Revolution (Oct. 1997)
- 20 Paul A. David, Path Dependence and the Quest for Historical Economics: One More Chorus of the Ballad of QWERTY (Nov. 1997)
- 21 Hans-Joachim Voth, *Time and Work in Eighteenth-Century London* (Dec. 1997)
- 22 Tim Leunig, New Answers to Old Questions: Transport Costs and The Slow Adoption of Ring Spinning in Lancashire (Feb. 1998)
- 23 Title reserved
- 24 Federico Varese and Meir Yaish, Altruism: The Importance of Being Asked. The Rescue of Jews in Nazi Europe (May 1998)
- 25 Avner Offer, *Epidemics of Abundance: Overeating and Slimming in the USA and Britain since the* 1950s (Nov. 1998)

[Continued inside the back cover]

STATE INTERVENTION IN ENGLISH EDUCATION, 1833-1891: A PUBLIC GOODS AND AGENCY APPROACH

Martin West (formerly of Worcester College, Oxford)

> Government Department Harvard University 011 617 493 4192 mrwest@fas.harvard.edu

ABSTRACT

By anachronistically attributing the origin and growth of popular education entirely to state intervention, standard histories of state education have failed to delimit sufficiently the state's role in educational development. This paper offers a theoretically based examination of the British state's intervention in the emerging market for popular education in England during the nineteenth century. It complements conventional neoclassical analysis with recent developments from the fields of methodological individualism and "new institutional" economics to identify the specific reasons the state first became involved in mass education. The eventual national system of state-provided, free elementary schools, managed by local representative bodies and funded in part through local rates is reconceptualized as an imperfect solution to problems inherent in achieving an optimal level of schooling in the emerging mass market for education.

1. Introduction: re-conceptualizing the history of state education

Why did the British state intervene in the provision and consumption of primary education in the nineteenth century?¹ This study returns to the familiar issue of the state's role in education. Based in the economics of education, the theoretical model it develops examines the underlying problems that the creation of a statemandated system of free elementary schools was intended to solve. Acknowledging the extensive market for popular education that developed prior to state involvement, it presents the establishment of a compulsory and statemandated school system as the end result of a series of efforts to address deficiencies in market outcomes. This new perspective serves as a necessary corrective to standard narrative accounts which privilege the British state's role in educational expansion, as well as to more recent neo-liberal critiques of that view. Its conclusions are also relevant to the larger question of why modern governments have universally been so salient in the provision and governance of education. It is thus hoped that the economic model that is applied here to the particular historical case of nineteenth-century England will ultimately prove useful as an analytic tool for understanding and evaluating the role of the state in education more generally.

2. Educational Markets in Theory: the economics of education

It is first necessary to lay out the basic conceptual model that will guide the inquiry.² In a neoclassical perspective, the demand for education is understood as a direct function of the present and future utility it provides. If educational markets were perfect, a level of education optimal for society in terms of both quantity and quality would result from the aggregate investment decisions of individual parental consumers. The assumption of perfect markets, however, is quite strong, requiring at a minimum efficient capital markets, perfectly informed consumers, and the absence of significant externalities. Neoclassical justifications of government intervention in education thus depend on demonstrating that the market for education fails when left to its own devices.

¹ This paper is a shortened version of an M.Phil. dissertation written while at Oxford University on a Martin-Wilson Fellowship. I am thankful to Williams College (MA) and the donors of the fellowship for the opportunity to spend two years in such a unique intellectual environment. I would also like to express my gratitude formally to David Mitch and Jane Humphries, who selflessly shared with me their vast knowledge of child labor, schooling, and literacy in Victorian England. Finally, I am most indebted to my supervisor, Avner Offer, for his patience in helping me to formulate my ideas and to express them clearly. Responsibility for whatever errors remain is mine alone.

² Each of the issues addressed in this section is developed more extensively in West 2000.

The ability of parents with limited resources to make investments in their children's education is at all times subject to financial constraints. Efficient capital markets are thus critical, providing parents a means of securing the funding needed to finance their children's education.³ Yet the impact of capital market imperfections is likely to be particularly acute in the case of investments in human capital due to the impossibility in a non-slave economy of providing security for the amount borrowed in the form of residual claims on the physical assets. While individuals unable to acquire capital can simply postpone investments while they accumulate sufficient funds, such delays are particularly costly for investments in human capital due to the associated reductions in the total lifetime return.⁴

Moreover, unlike many investment opportunities, which if truly profitable will attract other individuals with sufficient resources, the particular individual in question constitutes an integral part of any investment in human capital. If his or her education is delayed, or fails to occur altogether, that opportunity cannot be exploited by another investor. The aggregate productivity gain for society that would have been realized as a result of the educational investment is irrevocably lost.⁵

The assumption of perfect knowledge is also highly problematic with regard to education. It is impossible to know whether someone will be capable of successfully acquiring a new skill or qualification through education until an actual attempt is made. Moreover, the question of whether an investment in education will be adequately rewarded in the form of higher economic rewards for subsequent labor is obviously contingent on the state of the labor market at some time in the future, and is therefore subject to risk. If students fail to complete successfully his or her intended course, are not sufficiently compensated with improved employment, or if they die prior to adulthood, the money and time invested in their education are lost. Such uncertainties make choices concerning how much to invest in an individual child's education inherently risky. Assuming parents are risk averse, they will exhibit a tendency towards under-investment.⁶

The aggregate value of education's external benefits relative to its benefits for the individual being educated is a matter of considerable debate, and obviously depends to a large extent on the time period and the type of education under consideration. Although it is doubtful that the indirect benefits of education are often greater than its direct benefits, they are in most cases undeniably positive

³ Johnes 1993, 12-3.

⁴ Ribich 1968, 4.

⁵ Ribich 1968, 5.

⁶ Johnes 1993, 14-5.

and non-trivial in magnitude.⁷ Education can therefore be considered a semipublic good; the amount of resources which individuals will choose to invest in their own education in a completely free educational market is likely to be less than the amount that would constitute the most efficient allocation of resources for society as a whole.

The incentive problems resulting from the failure of markets to account for the external benefits of education are magnified by two characteristics of educational investments hitherto ignored by the literature on the economics of education. The first is the simple fact that parents, who are the actual purchasers of most forms of education, are not those who receive the majority of its benefits. Most economists simply brush over this issue by referring to the 'family decision' to invest in education. This approach does have some theoretical justification, as a disproportionate share of the external benefits of a child's education is enjoyed by his or her family, either in the form of child-care, the usefulness of having an additional literate member of the household, or the more substantial financial assistance he or she will be able provide during old age. Nevertheless, the fact remains that in a free market parents generally serve as principal decision-makers regarding their children's education and bear the majority of its associated costs, but a significant fraction of the economic and non-economic rewards of education are enjoyed by the children alone. Although parents love their children, they love themselves slightly more. If parental decisions are not regulated, patterns of education in a free market for education can be expected to accommodate partially their own needs and preferences on occasions when their self-interest conflicts with their children's educational priorities.

Even if parents derived the whole benefit from educational investments, the long delay preceding the majority of the payoffs would encourage a myopic reduction in educational outlays. The myopia of children regarding their own education has long been recognized by teachers and economists alike, but it too is typically abstracted away with an appeal to the family's role in educational decisions. McMahon, for example, argues that, 'although children are quite myopic, there is evidence that the "generalized preferences for schooling" ... depend on family aspirations.'⁸ It is taken for granted that parents, who in practice determine their children's educational aspirations, make investment decisions rationally, giving adequate weight to the returns educational investments will yield far in the future.

However, recent empirical research demonstrates that myopia is a congenital and pervasive problem affecting all human decision-making, even

⁷ Blaug 1991, 114.

⁸ McMahon 1992, 137.

among adults. Psychologist George Ainslie suggests that the allocation of disproportionate value to imminent rewards is a fundamental property of motivation, implying that individuals are naturally predisposed to forego investments for which the payoff is distant in favor of immediate gratification.⁹ Rationality, while attainable, can only be achieved through the exercise of self-control. Strategies of self-control may be cognitive, involving knowledge, willpower, or personal rules, or may draw on social resources in the form of pledges, contracts, norms, or external regulations. As these strategies often require investments of time and/or money, the affluent have greater access to them than the poor.¹⁰ In the case of education, an area in which the vast majority of rewards come only after a long delay, the difficulty of deferring gratification should thus result in chronic under-investment, concentrated in particular within the least advantaged segments of society.

Therefore, the assumption of perfect markets is wholly inappropriate in the context of education. Yet while the likelihood of significant market failures in education justifies a general presumption in favor of state intervention to compensate for their effects, it says nothing about the precise form that intervention should take, and is thus of little help in explaining the evolution of state-provided systems.¹¹ The government always has at least two alternatives when intervening in the free market to ensure the optimal provision of an economic good for which the market produces inadequate incentives: (1) it can create its own administrative bureaucracy to produce the service itself; or (2) it can engage in market-like transactions with independent producers who agree to supply the services at a stipulated price.¹² The existence of two distinct options makes the universal dominance of state-provided education across almost all developed nations a puzzle to be explained, particularly given the various advantages that market-based provision in theory holds over nationalization.¹³ The emergence of a state-provided system of elementary education in Victorian Britain is especially difficult to account for given its strong tradition of liberalism, its commitment to the principle of voluntarism in education, and the existence of vigorous political and religious opposition to state intervention.

Fortunately, however, the recently developed field of 'new institutional' economics and its central analytic model of the principal-agent relationship offer a variety of new insights into alternative governance mechanisms and the reasons

⁹ Ainslie 1992.

¹⁰ Offer 1998, 6.

¹¹ Johnes 1993, 14; Blaug 1991 114.

¹² Moe 1994, 759.

¹³ Rowley 1969, 162.

why particular institutional forms develop and thrive.¹⁴ Despite its roots in the study of business contracts, principal-agent theory has considerable relevance to the public and non-profit sectors of the economy. Government intervention to regulate or finance the production and consumption of a good with significant externalities leads to the establishment of principal-agent relationships with the firms that produce that good, as well as with its citizens for whom private incentives for consumption are insufficient. Agency problems are particularly acute in industries such as health care and education, in which information asymmetries make it difficult for individuals to judge the quality of the good supplied. It is commonly argued in such cases that the government will perform better than for-profit or voluntary organizations as its citizens' agent for the production of that good.¹⁵

Drawing on the theoretical concepts outlined above, the development in England of a collectivist system of state-provided and controlled elementary education can be reinterpreted as an attempt on the part of the state to address fundamental deficiencies in the rapidly expanding market for popular education. The initial decision to subsidize elementary education was made on general grounds, although the decisive factor in mobilizing sufficient political support to propel the bill through Parliament was a desire to regulate the content of the education increasing numbers of the poor were already acquiring on their own. The fiscal risk the government assumed by participating in the finance of elementary education then allowed, and in a fiduciary sense even required it to address more directly the various agency problems inherent in education. Accordingly, in the decades following the 1830s the state steadily increased its role in the provision of elementary education in an effort primarily to improve the quality of instruction available to the working classes, and secondarily to address the failure of the market to produce sufficient incentives to encourage optimal consumption. The remainder of this paper presents the historical evidence in support of this interpretation.

3. Educational Markets in Practice: the case of Victorian England

The first two thirds of the nineteenth century in England were years of extraordinary growth in popular education and literacy, a reflection of the combined influence of increased private demand for basic instruction and the government-subsidized efforts of voluntary religious societies to construct schools for the working classes.¹⁶ By 1858, the Newcastle Commission appointed to

¹⁴ Thompson 1998, 1060.

¹⁵ Pratt and Zeckhauser 1985, 23.

¹⁶ Mitch 1992a.

investigate the state of popular education in England was able to report that there remained 'very few cases indeed in which children have been at no school whatsoever.'¹⁷ Nevertheless, a close analysis of the findings of both contemporary observers and modern historians studying nineteenth-century England confirms the basic hypothesis that the incentives for investing in education were inadequate, and that overall levels of investment were sub-optimal. Although the vast majority of working-class children had at least some experience of formal schooling, the general pattern throughout the period was one of irregular attendance and early withdrawal, a situation which was clearly detrimental to educational progress.¹⁸ This pattern can be attributed to various imperfections in the educational market.

* * *

The tendency for school attendance to decline during times of elevated economic activity, as opportunities for children's employment increased, only to increase again during slumps suggests that an inability to pay the relatively trivial fees charged by most schools was rarely an obstacle to attendance.¹⁹ For most parents a lack of efficient markets on which to borrow capital would have had little impact on their ability to invest in elementary education at existing levels of provision. The inability to borrow might, however, have presented a barrier to the purchase of higher standards of education. But however low the fees might be, there was a substantial segment of the working classes living on the brink of primary poverty for whom the economic costs of school attendance did represent an insurmountable obstacle. As John Hare wrote of the relatively prosperous maritime region he examined on behalf of the Newcastle Commission, 'It is not to be denied that, in every division of my district, some parents are too poor to pay even the trifling sum charged by schools supported by the Committee of Council on Education.'20

A report filed in 1855 by a Committee of Council inspector provides a clear illustration of the significance of school fees. The inspector describes a Lancashire town in which a prolonged lock-out during the previous year had left many parents entirely 'unable to pay school fees.' Recognizing the parents' economic difficulties, several local school managers had decided to suspend fees temporarily, and their schools were immediately flooded with students.²¹ Nor did

¹⁷ Newcastle Report, pt. I, 85.

¹⁸ Newcastle Report, pt. I, 178.

¹⁹ Smelser 1991, 261-3; Stephens 1987, 122-3, 125-7.

²⁰ Newcastle Report, pt. III, 236-7.

²¹ Minutes, PP 1854-55, 42, 521-22. Cited in Smelser 1991, 263.

the relatively modest fees charged by elementary schools constitute the only, or even the most significant, cost of educational investing. John Hare and James Fraser both reported to the Newcastle Commission that an inability to provide suitable clothing or shoes frequently led parents in their district to withhold their children from school, particularly in poor weather conditions.²² The prevalence of this problem and the magnitude of its impact on day-to-day attendance was recently confirmed by a study of school log books from Liverpool in the 1860s.²³

An even more significant financial cost of school attendance was the sacrifice of the child's contribution to the family economy. For many workingclass families, sending their children to school would have entailed the loss of their financial independence.²⁴ As a government inspector of schools concluded in 1854,

The earnings of the adult operative are insufficient to support himself and *children* up to fourteen years of age, hence the removal of them from school in order to meet the wants of his household. Compel them to go to school, and you drive the family to the workhouse.²⁵

The difficulties Victorian workers faced in amassing sufficient resources for investments in elementary education were magnified by the point in life at which such investments must be made. Excluding early childhood and old age, during which he himself was unable to earn an income, the period in which a worker was at greatest risk financially was when he had multiple children who were not yet contributing to the family income.²⁶ It is precisely this period during which investments in elementary education must take place.

Michael Sanderson's detailed historical study of Lancashire handloom weavers confirms that a significant number of parents who typically sent their children to school in times of prosperity were forced to send them to work when facing economic difficulties.²⁷ Nor was this merely an isolated phenomenon limited to the impoverished manufacturing regions of the North; similar trends have been documented for the city of Birmingham as a whole and among parents employed in specific industries in Derbyshire, Gloucestershire, and Norwich.²⁸ For families living at or near the level of subsistence, therefore, times of financial hardship frequently necessitated the withdrawal of children from school, in direct contrast to the dominant trend that served as the basis of the opinions of most

²² Newcastle Report, pt. III, 237; pt. II, 68.

²³ Ellis 1973, 35.

²⁴ Humphries 1988, 108.

²⁵ *Minutes*, PP 1854-5, 79-80.

²⁶ Rowntree 1902, 169-72.

²⁷ Sanderson 1968, 153.

²⁸ Mitch 1992a, 88; Stephens 1987a, 20.

contemporary observers. This division within the working classes may account for the lack of any general correlation at the county level between income levels and literacy rates.²⁹

And yet if investments in elementary education for their children did produce real economic returns, prudent parents without sufficient resources would presumably have attempted to borrow the capital necessary to make investing possible. Unfortunately, the difficulties Victorian workers faced in borrowing money at reasonable rates made this alternative unrealistic. Paul Johnson has identified three basic forms of credit available to members of the working classes in the late nineteenth century: 'not-paying', pawning, and borrowing.³⁰ Each of these options was unsuited to the modest but protracted expenses associated with investments in human capital. Furthermore, the complete lack of discussion by contemporary observers of the possibility of taking out temporary loans to cover educational expenses confirms its unfeasibility. In short, for those Victorian parents incapable of paying school fees or of subsisting even temporarily without the financial contributions of their children, existing capital markets were of little help. Even if the level of demand for education were optimal, capital market imperfections would have prevented some families from investing sufficiently in education. However, historical evidence also suggests that educational demand was in fact seriously deficient.

* * *

The economic incentives to acquire a basic education offered by the Victorian job market increased significantly during the period as a result of structural changes in the British economy.³¹ As technology developed and the potential uses of literacy increased, the skills taught in elementary schools came to be valued by employers in a far wider range of industries. As James Fraser reported to the Newcastle Commission in 1858, 'prejudice against an educated labourer was rapidly passing away' even in agricultural districts due to the development of 'more scientific methods of cultivation' for which 'more intelligence is required in those who actually have to apply them.'³² Basic skills taught in elementary schools thus frequently came to serve as prerequisites not only for the traditionally middle-class jobs of clerk or solicitor, but also for more modest occupations.

David Mitch has confirmed the beneficial effects of the acquisition of literacy on economic opportunity through a statistical analysis of the occupations

²⁹ Stephens 1987a, 20.

³⁰ Johnson 1985, 144-92.

³¹ Mitch 1992a, 15.

³² Newcastle Report, pt. II, 105.

recorded by brides and grooms and their parents in a sample of marriage registers taken from 29 English counties for the years 1839 to 1843 and 1869 to 1873.³³ Despite the fact that these data provide no information about the effects of literacy on career advancement after marriage, when the advantages of literacy presumably continued to have a positive impact, the results of the study are convincing. Literate workers from every rank in the occupational hierarchy were significantly more likely to work in higher-status occupations than illiterates with the same background. The economic advantage conferred by literacy was most pronounced for grooms with fathers of high or low social status. Literate sons of parents from the lowest occupational grouping, for example, were twice as likely as their illiterate counterparts to have obtained higher status employment by the time they married.

Investments in elementary education, therefore, did generally offer an economic return for members of the Victorian working classes. Nevertheless, this payoff was far from certain, and 'many literate workers found that the ability to read and write did not guarantee them respectable jobs.³⁴ Over 50 percent of the literate sons of unskilled workers in Mitch's sample remained in completely unskilled occupations despite their educational advantage. Reflecting on this uncertainty, several contemporary observers asserted that an elementary education only improved job prospects for individuals endowed with 'surpassing energy and ambition³⁵ The failure of a substantial number of literate workers to gain any apparent advantage from their instruction must also be ascribed at least in part to chance. Regardless of which explanation carries more weight, the implication for the overall performance of the educational market remains the same. Assuming parents were risk averse and unable to assess confidently their children's future ability and ambition as adults when making decisions regarding their education, the uncertainty inherent in the economic return on their investment must have resulted in sub-optimal levels of investment.

* * *

The likelihood of receiving a significant economic return on an investment in elementary education was also contingent on the structure of the local economy, and parents made educational decisions accordingly. The Assistant Newcastle

³³ Mitch 1992a, 22-36. The data cited in the following two paragraphs is taken from Table 2.3, 24. The procedures used for the collection and analysis of the marriage register sample are provided in Appendix B, 215-21. ³⁴ Mitch 1992a, 36.

³⁵ Newcastle Report, pt. II, 251-53. See also *Minutes*, PP 1841, 20, 74; Newcastle Report, pt. II, 203.

Commissioners examining districts in London and the major port cities concluded that in general the local economy did provide sufficient incentives to encourage demand for elementary instruction. The reports emanating from manufacturing districts, however, were far more circumspect. J. S. Winder's investigation of the Northern manufacturing towns of Bradford and Rochdale led him to conclude that 'at the outset of life, a child's scholarship has in nine instances out of ten no influence upon its [sic] immediate capacity for earning wages' nor on 'its [sic] prospects for future advancement.' Such districts were filled with working-class men in positions of great influence and wealth who owed their rise 'simply to superior thrift, sagacity, and good fortune' rather than to 'the possession of wider intellectual accomplishments than those of their fellows.'³⁶ In view of such prominent examples, parents were understandably reluctant to make great sacrifices to support their children's education.

Visitors to mining communities, which were notorious for not sending their children to school despite relatively high earnings, were equally pessimistic. The Newcastle Commissioners acknowledged that the miners' choice to send their children to work in the pits rather than to school was not necessarily selfish or near-sighted. Rather, it often represented a rational economic decision to equip their children with the experience and skills that would benefit them most as miners, a career which offered high earnings relative even to the small number of jobs in the region requiring literacy. As one informant from North Wales explained:

The workmen take their children to the quarries with them from nine to ten and eleven years of age, as it is found by experience that the earlier they begin the worse workmen they become. Unless a boy begins to practise at quarrying the slate by the time he is twelve years of age at furthest, there is little chance of his hereafter becoming a good workman in that department. It is a 'knack,' and must be begun early, in order to perfect it. A boy left until he is fourteen years old would have little chance of becoming a good workman.³⁷

Such observations led at least one assistant commissioner to conclude that in regions 'where the demand for labour is urgent, and where there is an abundance of work requiring little more than mere manual skill, the stimulus of private interest has but little power to induce the working people to aim at more than the mere rudiments of education.'³⁸ Parents who were themselves uneducated

³⁶ Newcastle Report, pt. II, 204.

³⁷ Newcastle Report, pt. II, 479.

³⁸ Newcastle Report, pt. II, 204

and illiterate could hardly have been expected to recognize the full extent of the non-economic rewards associated with a more substantial education.

* * *

Although the external benefits accompanying the expansion of elementary education in Victorian England defy precise quantification, the writings of both contemporary observers and twentieth-century historians confirm that they were positive and substantial. Perhaps most significant was the dramatic increase in the usefulness of literacy in the everyday lives of working-class men and women during the nineteenth century. The lack of opportunities to put literacy to use in everyday life at the start of the century is indicated by the large number of workers who had been taught to read and write as children yet lost the skill by early Similarly, David Levine's study of inter-generational literacy adulthood.³⁹ patterns between 1754 and 1851 reveals a 'haphazardness with which this skill was handed down from generation to generation [that] seems to question the value which parents (and their children) placed on it.⁴⁰ As the nineteenth century progressed, however, the usefulness of literacy to members of the working classes increased dramatically, a direct consequence of the growth in the proportion of the population that had acquired the skill. Clear examples of this process include the growth of mass publishing, the establishment of the penny post, and the use of newspapers as a clearinghouse for opportunities for working-class employment.⁴¹

In addition to encouraging the development of new uses for the skills it imparts, increasing or improving education can also generally be assumed to have a positive effect on national economic productivity and growth. Forty percent popular literacy, a level achieved in England by the middle of the eighteenth century, is widely considered to be a basic threshold for industrial development, while higher levels of attainment in both literacy and numeracy facilitate economic growth in more advanced economies.⁴² Although the precise relationship between the expansion of education and industrialization during the classic industrial revolution period in Britain is a subject of ongoing debate, there is general agreement among historians concerning the existence of a direct causal link between educational progress and continued economic development during the latter stages of the industrial revolution.⁴³

³⁹ Altick 1957, 168; Mitch 1992a, 46; Vincent 1989, 36.

⁴⁰ Levine 1979, 378.

⁴¹ Mitch 1992a, 46-8; Vincent, 1989, 32-49.

⁴² Anderson 1965, 347-62; Schofield 1973, 438; Johnes 1993, 13.

⁴³ Sanderson 1972, 75-104; Laqueur 1974, 96-107; Sanderson 1974, 108-12.

The external benefits of education cited most frequently by the Victorian political elite at the start of the century, however, involved the reduction of crime and the promotion of social order. In the 1807 debate over his 'Bill for establishing a Plan for the Education of the Poor', for example, Samuel Whitbread proclaimed: 'Search the Newgate Calendar. The great majority of the executed in London every year were Irish; the next in order were English, and the last Scots. This was in exact proportion with their respective systems of education among the lower orders.⁴⁴ The validity of such unqualified inferences about the social impact of education from raw crime statistics is obviously dubious.⁴⁵ Nevertheless, it is indisputable that this belief constituted an argument frequently used by the classical economists to advocate government intervention to encourage popular By mid-century the fear that excessive education might actually education. increase social disorder had largely dissipated, replaced by almost universal agreement that improving popular education would generate social returns in the form of a more orderly and manageable population.

The final major social benefit of education relevant to nineteenth-century England was its presumed impact on the effectiveness and stability of democratic governance. The timing of the extension of the franchise by means of the Second Reform Act in 1867 and Forster's Education Act of 1870 underlines the close connection between popular democracy and mass education in the minds of the Victorians. Robert Lowe, a former vice-president of the Committee of Council on Education and the most vigorous opponent of franchise reform in Parliament in the years immediately preceding 1867, based his position primarily on the grounds that education had not yet progressed far enough to make such a move prudent. The right to vote was not an *a priori* right of all men, he claimed, but rather was conditional on the attainment of a suitable degree of civilization and intelligence; educated and uneducated opinions did not deserve equal weight.⁴⁶ When the Conservatives overcame his objections and passed the Second Reform Act, Lowe immediately took the opportunity to emphasize to his fellow members of Parliament the urgency of prevailing on their 'future masters to learn their letters.' 'From the moment that you intrust the masses with power,' he proclaimed, 'their education becomes an absolute necessity,' critical for the sustained 'peace of the As Lowe's rhetoric suggests, the expansion of democracy likely country.⁴⁷

⁴⁴ Quoted in West 1964, 163-4.

⁴⁵ The empirical validity of the proposition that education reduces crime remains even today a matter of considerable controversy. For a skeptical discussion of the supposed inverse relationship between education and criminal behavior, see West 1970, 29-39.

⁴⁶ Dyson and Lovelock 1975, 195-6.

⁴⁷ Hansard, 3rd Ser., CLXXXVIII, 1549.

increased the magnitude of the positive externalities associated with the spread of education among the newly enfranchised elements of society.

* * *

The likelihood that the demand for education exhibited by some parents was influenced by their own self-interest provides the simplest explanation for the experiences of the small minority of Victorian children who attended school rarely or never at all. Fraser, in his report to the Newcastle Commission, estimated that the non-attendance of up to one third of the children in his district who were of school age but not in school was a result of neither poverty nor even the temptation of wages offered by child employment, but of the 'indifference, thriftlessness, and recklessness of their parents.' Although parents often cited factors such as distance or the unsatisfactory content of the education offered in local schools as explanations for their children's non-attendance, Fraser was convinced that the real explanation lay in the parents' 'selfish sensuality which will gratify itself, at what cost to others.'⁴⁸ Inspector Morell in 1847 similarly commented on the '*apathy or cupidity of parents*, who either have no interest in

Although the vast majority of Victorian parents were clearly willing to make the considerable sacrifices necessary to provide a basic education for their children, the sporadic attendance patterns of nearly all students suggests that even these parents at least occasionally placed their own interests above their children's education. The irregular attendance of working-class children was second only to early withdrawal as the complaint most commonly voiced by nineteenth-century school managers, and obviously did considerable harm to educational progress.⁵⁰ An 1851 article on 'late-comers' in a popular magazine for teachers claimed that they 'seem as though they are as essential to a school as the books, or the desks, or the very walls.' The author also emphasized, however, that most of these children did not deserve punishment, having merely been running errands obediently on behalf of their parents; the underlying cause of the problem was the parents' lack of consideration of the disruptive effect of their child's late arrival.⁵¹

seeing their children instructed, or would rather put their little earnings into their

Assistant Newcastle Commissioner J. S. Winder attributed the fact that most working-class children were sent out to work even if their wages were not

pockets at week's end."49

⁴⁸ Newcastle Report, pt. II, 57.

⁴⁹ *Minutes*, PP 1847-8, 50, 406.

⁵⁰ 'Introduction', *Papers for the Schoolmaster*, 1, 1 (March 1851), 3; *Census of Gt. Britain, 1851, Education*, xxx-xxxi; Newcastle Report, pt. I, 177.

⁵¹ 'A Paper on Late-Comers', *Papers for the Schoolmaster*, 1, 2 (April 1851), 35.

essential to their families' subsistence both to the parents' 'selfish desire of profiting from their children's earning' and the pragmatic calculation by some that 'the early formation for industrial habits, is the vital acquisition for those destined to depend for subsistence on manual labour.' Yet although self-interest and rationality obviously played a role in these decisions, the influence of myopia should not be discounted. As Winder's own report noted, 'from everyone, indeed, who mixes with the working people, one hears the same story, that education is of secondary importance, and made to give way to the convenience or interest of the moment without any scruple or hesitation.'52 Likewise, the Commission's summary report stated that irregular attendance 'often arises more from want of self-control and perseverance than from indifference to education.⁵³ The apparent prevalence of myopic decision-making among the working classes and its persistence even as the economic and non-economic rewards of education increased, both puzzles to contemporaries, are consistent with the general conceptual model. The strategies of self-control needed to overcome myopia are costly and take time to develop; as a consequence, the affluent generally have more access to them than the poor.⁵⁴

In summary, therefore, convincing evidence suggests that various imperfections in the educational market in Victorian England were preventing the attainment of the level of demand for primary education that would have been most beneficial for society as a whole. The lack of efficient capital markets and perfect information, the existence of significant positive externalities, the divergence between investor and beneficiary, and the innate myopia of parents all combined to produce suboptimal levels of investment. The limited scale of the government subsidies to education, and the fact that they were financed by a tax system that was heavily regressive, made them insufficient to compensate for the market's failure to provide adequate incentives and resources for investment. Although the effect of some of these failures was particularly acute for certain segments of the population, usually the very poor, they can be considered in aggregate to have systematically influenced the decisions of all parental consumers.

* * *

Nevertheless, these factors were rarely sufficient to preclude entirely investments in formal education. The Newcastle Commissioners' general conclusions concerning the diffusion and consumption of education confirm the pervasive but limited nature of the failures of the market: 'The means of obtaining

⁵² Newcastle Report, pt. II, 203.

⁵³ Newcastle Report, pt. I, 177.

⁵⁴ Offer 1998, 6.

education are diffused pretty generally and pretty equally over the whole face of the country, and the great mass of the population recognizes its importance sufficiently to take advantage *to some extent* of the opportunities thus afforded to their children.⁵⁵ The inadequacies of the private demand for education stimulated by the market instead made children's schooling too short and too irregular, characteristics that correspond precisely with the most common complaints of school managers and other promoters of popular education.

4. Supply and Demand in the Victorian Educational Market

If private demand for a good or service is sub-optimal, then the dynamics of unregulated market competition may result in sub-standard supply. Therefore, the lack of sufficient incentives for private consumption of education in Victorian England likely affected the quality as well as the quantity of the education supplied. This section examines the public and private institutions providing basic instruction for the working classes in the nineteenth century to determine the extent to which the supply of education responded to and reflected the deficiencies of private demand.

The lack of a national system of state-provided elementary schools meant that working-class parents in early nineteenth-century England had two basic options when purchasing day schooling for their children. The first alternative was to send their children to one of the expanding number of voluntary schools built and maintained by religious societies dedicated to the provision of education for the poor. The denominational schools' initial reputation for quality was the result of widespread faith in the benevolent motives of the school promoters and managers, who it was thought had a genuine interest in spreading education among the masses that outweighed any selfish drive to reduce expenditures. As the Newcastle Commissioners later commented, voluntary schools were 'established by persons who derive no personal advantage from them, and who are actuated in their foundation by charitable and religious motives.'⁵⁶ In the eyes of the Victorians, this gave them a clear advantage over their for-profit counterparts.

However, as the state recognized in the late 1830s when it began to consider the quality of the schools it was by then supporting financially, reliance on the supposedly benevolent motives of the voluntary sponsors was far from a perfect solution to the problem of quality control. While many of the patrons of these schools may have been motivated primarily by charity rather than self-interest, this was not universally true of the salaried teachers they employed, who experienced ordinary temptations to minimize their effort despite the potential impact on their

⁵⁵ Newcastle Report, pt. I, 86, my italics.

⁵⁶ Newcastle Report, pt. I, 33.

students' educational progress. Indeed, reports from the first half of the nineteenth century confirm that the performance of teachers in voluntary schools during this period was inconsistent at best. John Stuart Mill, a keen observer of popular education, approvingly quoted a contemporary periodical's assertion that 'the schoolmaster may be abroad, but it is in quest of his daily bread, which he earns hardly and ungratefully', adding himself that the master generally attempts to do so 'with as little thought and as little labour to himself as possible.'⁵⁷

Finding competent and enthusiastic instructors was difficult due to the relatively small number of qualified candidates, a problem typical of periods of rapid educational expansion that was exacerbated in industrial England by the extensive opportunities for advancement in other careers for ambitious and talented individuals. Fierce competition between the two dominant religious societies (the Anglican National Society and its Nonconformist rival, the British and Foreign Schools Society) drove each to reduce expenses in each individual school in order to maximize the number of different areas it could serve given its finite resources. This dynamic, together with the scarcity of qualified teachers, accounts for the persistent dependence of both societies' schools on the monitorial system of instruction and its mechanical and highly repetitive pedagogical methods.

Reliance on the voluntary societies as the principal suppliers of education was also problematic in that it left the content of education entirely in their hands. The central purpose of elementary education as understood by the religious societies was the inculcation of the doctrines of their own particular denomination, and they frequently pursued this goal at the expense of more straightforward academic instruction, particularly in the skill of writing.⁵⁸ Not only did this ranking of educational priorities stand in sharp contrast to that of most workingclass Victorians, it may also have prevented the voluntary sector from contributing as efficiently as possible to the development of the skills most critical to national economic progress. Many of the sponsors of voluntary schools subscribed to the conservative notion that only a limited amount of education was appropriate for members of the working classes, and therefore opposed any attempts by individual schoolmasters to provide them with more substantial instruction. As Mill put it, 'With many of these patrons of education ... the constant alarm is, not lest too little, but lest too much, should be taught.⁵⁹ It is therefore unsurprising that one inspector of schools interviewed by the Newcastle Commission reported

⁵⁷ Mill, J. S., 'Reform in Education', *Monthly Repository*, 8 (1834) in Robson 1984, 67.

⁵⁸ Quoted in Coulson 1999, 88.

⁵⁹ Mill, 'Reform in Education', 65.

encountering several voluntary schools 'in which he could estimate a pupil's length of stay by the stupidity impressed upon his countenance.'⁶⁰

The second alternative confronting parental consumers of schooling in Victorian England was to send their children to a working-class private school. Although precise figures are difficult to determine, it is clear that the number of these wholly independent institutions increased rapidly in the early nineteenth century in response to growth in popular demand for instruction. The decidedly profit-driven character of these schools was a matter of great concern for government inspectors, who were quick to emphasize that they were not permanent institutions dedicated to the dissemination of knowledge, but 'mere makeshifts for the purpose of obtaining a precarious livelihood.'⁶¹ Private schools were consistently referred to in official publications as 'adventure schools', a derogatory term intended to characterize them as opportunistic businesses trying to turn a quick profit. This description implicitly called into question the motives, and therefore the reliability, of their proprietors, who they believed were committed to teaching not as a vocation, but simply as a means of putting food on the table.

Despite their skepticism, middle-class commentators initially lauded the emergence of these institutions as evidence of desire on the part of the working classes for self-improvement. Implicit in this praise, however, was the assumption that as the supply of voluntary schools extended over the whole country, working-class parents would recognize their evident superiority and transfer their allegiance to the typically less expensive public institutions.⁶² Much to the consternation and annoyance of these observers, however, private, for-profit schooling continued to thrive as an institutional form alongside the steadily expanding public sector. Writing in 1876, an inspector of schools was forthright about his inability to account for their success:

The colliers of Mold ... are not in other respects a class of people who are regarded as slow to perceive what is to their interest, so I am at a loss how to account for the encouragement which they have been in the habit of giving to those nurseries of ignorance.⁶³

Contemporary authorities, in their attempts to account for the sustained attraction of private schools, turned instinctually to negative explanations focussing on the indifference or apathy of parents. Historian Phil Gardner contends, however, that 'positive class-cultural explanations' generally have more

⁶⁰ Newcastle Report, pt. III, 509.

⁶¹ Newcastle Report, pt. I, 94.

⁶² Census of Gt. Britain, 1851, Education, xlii-xliii.

⁶³ Quoted in Gardner 1984, 83.

validity than those relying on the alleged deficiencies of parents.⁶⁴ The workingclass private schools, by their very existence and by the fact that parents were willing to pay higher fees so that their children could attend, demonstrate the existence of specific educational demands that were not being met by the voluntary sector. The under-utilization of the voluntary schools is evidence not of parental apathy but of widespread dissatisfaction with the content of the instruction and the context in which it was provided.⁶⁵

The Victorian private schools are best understood in economic terms as a mechanism for tuning the supply of education precisely to parental demand. The lack of compulsory attendance legislation until the last quarter of the century meant that the voluntary and private schools faced competition not only from each other, but also from child employment and other, less formal means of socialization. Extensive evidence suggests that the resulting educational market was extremely fluid, with parents 'willing to make full use of such purchasing power as they possessed, shopping around and transferring their patronage from one establishment to another.'⁶⁶ As the Newcastle Commissioners observed, 'there can be no doubt that a school which combined high fees with a reputation for inefficiency would soon lose its pupils.'⁶⁷

In order to stay in operation, therefore, schools had to offer education that parents valued at a competitive price, providing all schools with an incentive to respond to parental demands concerning the content and quality of the instruction they offered. However, unlike the independent private schools, which relied entirely on student fees for their income, voluntary schools typically received a large percentage of their income from other sources. At the start of the century, many of the denominational voluntary schools charged no fees whatsoever.⁶⁸ Data from the 1851 census of schools indicates that at mid-century those public day schools in England and Wales supported by religious bodies as a group depended on student fees for less than one third of their total income.⁶⁹

This diversity of income sources offered the voluntary schools some protection from the strict market discipline endured by their private competitors. It thus explains their tendency to subordinate parental demands to the goals of the sponsoring church society, who usually accounted for the largest proportion of their annual revenue. While the schools' primary goal of disseminating religious

⁶⁴ Gardner 1984, 100.

⁶⁵ Gardner 1984, 84.

⁶⁶ Vincent 1989, 70. Also cited in Coulson 1999, 95.

⁶⁷ Newcastle Report, pt. I, 74.

⁶⁸ Mitch 1986, 374.

⁶⁹ Census of Gt. Britain, 1851, Education, li, Table 14.

instruction among the masses depended on attracting a large numbers of students, their failure to respond to parental demands inconsistent with their sponsor's objectives was an understandable consequence of their financial situation. Consistent with the conclusion that voluntary schools were unresponsive to market pressures are the findings of government inspectors and statistical societies that voluntary schools consistently had space for additional students that went unused.⁷⁰ This stands in stark contrast to the vast majority of private schools, which were typically filled up to, and even beyond their physical capacities.

The private schools' conspicuous responsiveness to parental preferences reflected their dependence on student fees as their sole source of income. Although their proprietors frequently supplemented their income by performing other jobs in addition to teaching, their ability to earn a living effectively depended on their ability to attract students. As economist Nassau Senior, a member of the Newcastle Commission, observed, 'the teachers [in private schools] have no authority to consult, they have no one else to please ... their faults and merits alike arise from a desire to meet the exact demands which the parents make... Accordingly, they find out what parents like and how to best fill the school.'⁷¹

The ability of private-school teachers to recognize exactly what workingclass consumers wanted was enhanced by their shared cultural background and personal relationships with their students' parents. One government inspector reported that private schools were 'popular with the poorer classes ... chiefly because they are kept by persons in their own station of life, and over whom they seem to exercise a certain amount of control.'⁷² Or, as a frustrated voluntary schoolmaster put it, '[the teachers'] ideas were on a par with the parents' ideas; they were metal that anyone could work upon; were pliant to every whim sycophancy their virtue, hypocrisy their faith; they could be snubbed and rebuked at pleasure, and gave way to every illiterate prejudice.'⁷³

Working-class parents' preferences regarding education manifested themselves in the private schools in several clear ways. Most importantly, the private schools' curricula were characterized by a marked emphasis on literacy and the almost complete absence of religious and moral indoctrination of the kind dominating lessons in the voluntary sector. Given the increasing usefulness of literacy in the everyday lives of the working classes and their notorious lack of religious fervor, it is unsurprising that this was the aspect of education that they

⁷⁰ Census of Gt. Britain, 1851, Education, xxxix.

⁷¹ Senior 1861, 29-30.

⁷² Quoted in Gardner 1984, 92.

⁷³ Quoted in Newcastle Report, pt. II, 337-8.

valued most highly. Gardner presents numerous cases in which parents transferred their children from public to private schools because the latter focussed more exclusively on the teaching of literacy. One private-school teacher, for example, told a visiting inspector that 'she had several scholars from National schools, because their parents said they learned nothing there but clapping hands and singing.'⁷⁴

The limited evidence available concerning the actual performance of working-class private schools in teaching students to read and write is less clear. By mid-century, literacy had become more central in the voluntary school curriculum, and criticisms of private schools shifted in focus from their lack of appropriate biblical or moral instruction to their inability to impart basic skills. David Mitch has attempted to assess the claims of voluntary school promoters to academic superiority by conducting a statistical analysis of signature rates at marriage in 1866 and school attendance rates as indicated by the 1851 educational census. His results show that, controlling for background factors with a 'valueadded' model, the proportion of students enrolled in *voluntary schools* does seem to have had a small positive effect on literacy when comparing only English counties. When Welsh counties are included, however, the effect becomes insignificant, and when the analysis is performed at the smaller level of registration districts, it is swamped by variations in background conditions. Therefore, as Mitch concludes, 'it would be rash to dismiss the ability of mid-Victorian private schools to transmit literacy'.⁷⁵ What is more, the private schools achieved their modest success in teaching literacy despite average per pupil expenditure levels only two thirds of those in the voluntary sector, casting considerable doubt on the credibility of those contemporaries and historians dismissing them as 'inefficient'.⁷⁶

In contrast with the voluntary schools, working-class private schools were extremely tolerant of erratic attendance, allowing students to be removed and returned at any time in accordance with the demands of the household economy. As one government official concluded regarding the attraction of private schools,

Above all, the liberty of sending or detaining the children when they like is much appreciated by many parents. To a poor and ignorant woman living in an irregular hand-to-mouth way, and accustomed to employ her children on trifling errands, or to yield weakly to their wishes, the discipline of a good public school, and the persistent enquiries after absentees are very irritating; she escapes all this

⁷⁴ Quoted in Gardner 1984, 172.

⁷⁵ Mitch 1992a, 147-9.

⁷⁶ Mitch 1986, 377.

by sending the children now and then whenever she can easily spare the money, to a so-called private school where no questions will be asked.⁷⁷

The willingness of substantial numbers of working-class parents to pay the higher fees typically charged by private schools so that their children would be permitted to attend school less often at first seems paradoxical. It is important to recall, however, that the main consequences of the educational market's imperfections were that private demand, if left unchecked, would result in irregular attendance and early withdrawal. It is an education consistent with this general pattern that the private schools supplied. Recognizing the brief length of time that their children would realistically spend in school, working-class parents desired an efficient instruction focussed exclusively on the skills they considered However, because of the integral role children played in a most important. domestic life that was inconstant and unpredictable, it was also critical that they be able to remove their children without punishment or penalty whenever circumstances required. Private schools were therefore designed to maximize the contribution children could make to the family economy while still allowing them to master the basic skills of reading and writing; greater flexibility and reduced hassle more than compensated for marginally higher weekly fees throughout a child's brief career in school. If the myopic tendencies enforced on working-class parents by economic necessity and their own cognitive biases are accepted as inevitable, then the decision to pay more to obtain the particular type of education best matched to their demand constitutes a rational allocation of resources.

Yet from the standpoint of the national government, for-profit education is only satisfactory as a mechanism for the provision of popular education if parents can be trusted to recognize and demand the standard of education that is optimal for society. As shown above, private demand for education in Victorian England was deficient, a consequence of both the inability and unwillingness of most parents to send their child to school for an extended period, as well as of their incompetence to evaluate accurately the quality of the instruction provided. As one factory inspector remarked in 1847, many private schools simply would not exist if the parents 'were capable of judging the value of the article set up for sale, which they are not; for the parents of the children were themselves left to grow up in ignorance.⁷⁸ It is therefore not surprising that the responsiveness of private schools to parental demand was seen by the government not as a virtue but as an obstacle to continued progress. Even before mid-century the bulk of the educational establishment convinced working-class was that parents'

⁷⁷ Quoted in Gardner 1984, 95.

⁷⁸ Quoted in Gardner 1984, 88.

incompetence as consumers made reliance on the private supply of education hopelessly insufficient.

5. Understanding State Intervention

With the preceding analysis as background, the national system of compulsory, free, state-provided elementary schools in place in England by the end of the nineteenth century can be rationally reconstructed as an imperfect solution to under-investment and agency problems associated with the provision and consumption of education in a free market. This eventual 'solution' was not achieved all at once, but rather was the product of a gradual political learning process taking place over the course of the final two-thirds of the nineteenth century.

It was not a lack of ideas that prevented the government from becoming involved in education at the start of the century, for members of Parliament were well aware of the state-mandated systems of education emerging on the continent in Prussia and France. Bills to establish rate aid for schools were presented in Parliament and defeated in 1807, 1820, and in 1833, when John Roebuck presented a bill which would also have made elementary education compulsory.⁷⁹ William Cobbett even expressed his opposition to Roebuck's proposed system by comparing it to that of their cross-channel rivals: 'It was nothing but an attempt to force education-it was French-it was a Doctrinaire plan, and we should always be opposed to it.'80 Cobbett's rhetoric illustrates the danger of explanations of the development of a national system of education in England that rely too heavily on the examples set by other nations; while these models obviously had a profound effect on British policy, that effect was as often negative as positive. It is thus more productive to examine the specific educational objectives that led the British government to adopt many of the key components of the systems developed by their continental competitors.

The British government's earliest interventions in the market for popular education represent attempts to increase the supply of suitable education available to the working classes at a price they could afford. Although significant factions in Parliament continued to view the expansion of education as a threat to the existing social order, there was general agreement that if the working classes were going to be educated, their social superiors had to monitor the content and character of their instruction. The political consensus necessary to take action was thus a product of a growing body of evidence demonstrating the increased anxiety of the working classes for education and the rapid expansion of unregulated forms

⁷⁹ Hurt 1971, 27.

⁸⁰ Quoted in West 1975, 135, fn. 29.

of instruction.⁸¹ As Henry Brougham informed his fellow members of the 'upper classes' in an 1825 pamphlet, 'the question no longer is whether or not the people shall be instructed—for that has been determined long ago, and the decision was irreversible—but whether they shall be well or ill taught.'⁸² In 1831, an anonymous contributor to the *Quarterly Journal of Education* appealed directly to the fears of the propertied classes with the observation that an education confined merely to reading and writing 'is incomplete and may, indeed, be perverted to the very worst purposes.'⁸³

Therefore, although Roebuck's more ambitious education bill of July 1833 was defeated, on 17 August of that same year the House of Commons voted to allocate funds 'not exceeding 20,000 pounds' to be distributed 'in aid of private subscriptions for the education of the poorer classes in Great Britain.'⁸⁴ Government grants were paid by the Treasury directly to the promoters of individual schools, whose applications had to be supported by one of the two major voluntary societies. At first these grants did not subsidize the operating costs of schools, which were still to be covered entirely by a combination of voluntary subscriptions and student fees, but rather were merely intended to cover up to one half of the initial costs of establishing a new school. Priority in distributing the government's funds was given to schools from larger cities and towns, in which the supply of acceptable schools was considered most wanting.⁸⁵

The 1833 legislation signifies the government's first assertion of a legitimate interest in the quality of instruction offered to its population. By taking advantage of the administrative infrastructure provided by the religious societies, and thus avoiding the expense of establishing a new educational bureaucracy, the grant system allowed the government to maximize the short-term educational return it received from the limited funds devoted to the task. This arrangement also reflected the government's ideological commitment to the principle of voluntarism and the political influence of the established suppliers, who were vehemently opposed to any substantive state intervention in education. As Lord John Russell pointed out to his colleagues in an 1839 Parliamentary debate on education, unlike in other countries in which 'the government had from the beginning undertaken the task of educating the people,' the British government's alternatives were limited. The voluntary societies' established presence on the ground made it altogether impossible for the government to create its own system

⁸¹ 'Report from the Select Committee on the Education of the Lower Orders.' 1818.

⁸² Brougham 1825, 58.

⁸³ Quoted in Hurt 1971, 24.

⁸⁴ Quoted in Gosden 1966, 1.

⁸⁵ Gosden 1966, 1.

of schools without 'doing violence to the habits and feelings of the people of this country.⁸⁶

The Treasury's grants for the construction of new schools proved to be an effective stimulus to voluntary effort. In their first year the government received applications for aid totaling 44,238 pounds, far exceeding the sum Parliament had made available.⁸⁷ With regard to the effectiveness of the schools it had helped build, however, the lack of a regulatory bureaucracy forced the government to rely entirely on the abilities and charitable motives of the schools' managers and on the voluntary societies' internal mechanisms of inspection and quality-control. The use of government funds implied that the state had a fiscal responsibility to ensure that money it had contributed was spent as intended, and that its primary goal of expanding access to efficient education was, in fact, being accomplished. By the late 1830s, anecdotal evidence of the uneven quality of instruction offered in subsidized schools had exposed the inadequacy of the original arrangement.

Forced to take a more active role, the government commenced an extended effort to improve the standard of education in the voluntary sector. To accomplish this goal it had to overcome the quality-lowering incentives shown above to affect the performance of teachers in both private and voluntary schools. Two parallel solutions presented themselves. The most direct was the creation of performance indicators for schools and teachers and a national inspectorate with sufficient powers of enforcement to ensure a certain standard was met. A second, more sophisticated attempt to control quality relied instead on a professional ethic to be instilled among teachers in part by requiring that they be trained in specialized This solution drew on the best-practice traditions of several other colleges. nations, as well as the 'Public School' model of elite private education in Britain.⁸⁸

Despite their common goal of improving educational quality, these strategies were not entirely compatible, and often came into conflict. The inspection system created perverse incentives of its own, for performance indicators could only be enforced if they were easily measurable, and hence crude. Since inspectors initially relied heavily on the physical condition of school buildings and attendance, school managers could substantially increase their score (and the size of their grant) simply by pressuring children to attend on inspection day. Measures of academic progress developed later led many teachers to 'teach to the test' or to present only certain students to be examined. The antagonistic relationship between inspection and the emerging professional ethos of teachers

⁸⁶ Quoted in Hurt 1971, 29-30.
⁸⁷ Hurt 1971, 28.

⁸⁸ Gathorne-Hardy 1979.

was most evident in the teachers' reaction to the Revised Code of 1862 and its controversial system of 'payment by results'.

Moreover, as in its initial decision to provide grants rather than to build schools itself, the government's options in enacting each of these solutions were severely limited by the established institutions for the supply of education. Initially unable to overcome the National Society's objections to any form of inspection not under its exclusive control, the government decided in 1838 to award each society 500 pounds to meet the costs of inspecting its own schools. However, the failure of the National Society to conduct inspections and report their results in a thorough and timely manner soon exposed the limitations of the Treasury as the lone instrument for encouraging educational expansion.⁸⁹ On 10 April 1839, Parliament created the Committee of the Privy Council on Education (henceforth CCE), the administrative body which would ultimately evolve into the Education Department, with the responsibility to administer the grants and to ensure the quality of instruction in the voluntary sector.

One of the CCE's first acts was to propose the construction of a government-run normal school for teacher training in an effort to increase the supply of qualified teachers. Although the scarcity of qualified teachers continued to be one of the main hindrances to educational progress, the religious societies were vehement in their opposition, forcing the CCE to withdraw its proposal. The Committee instead in 1843 established a new program of grants to encourage the religious societies to construct denominational training colleges. In 1846 it took more direct action to secure an adequate supply of talented and properly trained teachers, adopting the Dutch system of paid apprenticeships for promising students willing to be trained as teachers.⁹⁰

On the issue of inspection the Committee did not back down as readily, declaring that no more grants would be distributed 'unless the right of inspection be retained, in order to secure a conformity to the regulation and discipline in the several Schools, with such improvements as may from time to time be suggested by the Committee.⁹¹ This proclamation led to prolonged negotiations with the National Society that once again demonstrated the political influence of the Anglican church. The Concordat eventually reached with the Archbishop of Canterbury on 15 July 1840 declared that no one could be appointed as inspector of Anglican schools without the approval of the bishop of the region under consideration. That approval could be withdrawn, and the inspector's authority

⁸⁹ Hurt 1971, 30.

⁹⁰ Gosden 1966, 4.

⁹¹ Quoted in Hurt 1971, 32-3.

revoked, at any point if the relevant bishop was dissatisfied with the inspector's reports.⁹²

The concessions won by the church in the Concordat of 1840 drastically reduced the potential efficiency and effectiveness of the newly-created inspectorate as a mechanism for controlling quality. The assignment of inspectors to schools by denomination rather than geography greatly increased expenses on travel and reduced the number of schools each inspector could visit annually. Furthermore, as a former Vice-President of the CCE told the House of Commons in 1861, inspectors rarely ever reported that the overall character of a school was so bad that it should not receive its annual grant from the state. He attributed this not to the quality of the schools, which he knew was frequently deficient, but rather to the denominational system of inspection; inspectors, who were themselves members of the clergy, could not reasonably be expected to give a report that would reduce their denomination's share of the government funds.⁹³

The difficulty of the negotiations regarding inspection and teacher training demonstrates the extent to which the incipient Victorian Education Department was, in historian John Hurt's words, a 'prisoner of the voluntary system.'⁹⁴ Unable to build schools itself, it was entirely dependent on the willingness of volunteers to dedicate themselves to the task. Each denomination was hesitant to subject its schools to a civic or nondenominational authority, and therefore urged the state to provide it with funds and stay out of the way. The lack of a unified central authority made it impossible to achieve an even distribution of quality schools throughout the country. In areas where voluntary effort was weak, the government was powerless to encourage educational growth. As one observer described the pre-1870 system:

there might be a school here or there, as benevolent persons think proper, in the exercise of their private judgment, to establish them, but the representatives of the people in Parliament had never said that there ought to be schools everywhere, and that every English child ought to be taught his duty to God, to his neighbour, and to himself.⁹⁵

As Vice-President of the CCE from 1859 until 1864, Robert Lowe had consistently opposed any fundamental changes to the established system of provision and inspection on the grounds that it would be difficult to administer and wasteful of voluntary effort. He had devoted his energies instead to devising the Revised Code as a means of making the existing system of grants and

⁹² Hurt 1971, 35.

⁹³ Hurt 1971, 192.

⁹⁴ Hurt 1971, 191.

⁹⁵ Wilkinson 1873, 10.

inspection more efficient⁹⁶ However, after the passing of the Second Reform Act, which he had vehemently opposed, Lowe informed his colleagues in Parliament that 'this rash and abrupt measure having been forced upon [the working classes], the only thing we can do is as far as possible to remedy the evil with the most universal measures of education that can be devised.' The existing voluntary system, he declared, would have to 'give way to a national system' despite the 'great injustice to those who have so warmly embarked their energies on the cause.'⁹⁷

The threat of international economic competition further heightened the government's interest in popular education. The vulnerability of Britain's industrial dominance was made evident to the general public by the Paris Exhibition of 1867, at which British goods were reported to have been 'beaten in everything.' Consequently, the economic benefits of universal education became an important element of arguments for expanding state involvement. W. E. Forster, introducing the landmark Elementary Education Act of 1870 to Parliament, declared that,

upon the speedy provision of elementary education depends our industrial prosperity. It is no use trying to give technical instruction to our citizens without elementary education . . . and if we leave our work-folk any longer unskilled, notwithstanding their strong sinews and determined energy, they will become over-matched in the competition of the world.⁹⁸

The rapid formation of a political alliance between the Liberals and the newly enfranchised labour aristocracy for the first time provided Liberals in Parliament with 'an instrument powerful enough to carry out a programme of collectivist reform.'⁹⁹ By 1870, therefore, the political consensus necessary to overcome the government's commitment to the voluntary supply of education had finally been achieved. Although the final version of the Elementary Education Act drafted by W. E. Forster allowed voluntary bodies a full year to meet existing educational need, any deficiency in provision that remained after this period was to be remedied immediately by the creation of schools managed by locally elected school boards and paid for out of local rates.

The eventual substitution of statutory elementary schools financed by local taxation for voluntary and for-profit modes of supply represents an attempt to address the imperfections of the private educational market. Many of the positive externalities associated with education are concentrated exclusively within the

⁹⁶ Sylvester 1974, 117.

⁹⁷ *Hansard*, 3rd Ser., CLXXXVIII, 1549.

⁹⁸ Quoted in Jones 1977, 53.

⁹⁹ Jones 1977, 48.

community of the individual being educated. Therefore, by establishing local school boards and authorizing them to raise the necessary funds from local rates, the government empowered the group most motivated to act by its collective interests. Organizing the finance of education on a local basis also enabled investments in education to be scaled to the local tax base and to the needs of the regional economy, thus allowing for substantial variation in the amount invested while retaining the budget constraint of ability to pay. The replacement of voluntary contributions with mandatory taxation eliminated the possibility of freeriding on the contributions of others, a factor inevitably slowing progress in completely voluntary systems. Furthermore, sharing the cost of elementary schools among the entire community effectively lessened the problem of life-cycle poverty by distributing the direct costs of education evenly over each individual's life span.

There is some evidence that similar collective remedies to the financial problems hindering educational investments had already developed independently in the private market. School fees were often adjusted according to a family's ability to pay, credit extended to families temporarily short of funds, or payment accepted in the form of goods or services in kind. One arrangement, described by an inspector in 1837 as both 'remarkable and characteristic', deserves special mention:

A kind of club, which does not consist exclusively of the parents of the scholars, meets every Saturday evening at a public-house; when, after some hours spent in drinking and smoking, a subscription is raised and handed over to the schoolmaster, who forms one of the company, and who is expected to spend a part of the money in regaling the subscribers.¹⁰⁰

Despite the poverty of the parents, the average payment the teacher received per scholar was more than five pence per week.¹⁰¹ With the expenses of the school distributed throughout the entire community, including those without school-age children, and payment scaled according to ability to pay, this private arrangement was substantively equivalent to the financing of mass education out of a progressive system of local taxation. Such arrangements were rare, however, and obviously depended on large stores of social capital; it is doubtful that they represented a viable permanent solution.

Despite the establishment of local finance, the national government continued to contribute approximately one third of the total costs of elementary education and to play an active role in monitoring the quality of all publiclyfunded schools, theoretically ensuring that they met a specified minimum

¹⁰⁰ Quoted in Gardner 1984, 94-5.

¹⁰¹ Gardner 1984, 95.

standard. Although rarely used for this purpose until the twentieth century, the use of national finance makes possible redistributive financing to subsidize districts unable to amass sufficient resources on their own.

* * *

The supply of efficient schools for the working classes in theory secured, it remained for the state to address the shortcomings of parental demand for education as manifested in the attendance patterns of children and in the type of schools they attended. For a variety of reasons, the state was initially hesitant to interfere directly with parental decisions regarding the consumption of education by compelling their children to attend school. Foremost among these were the potential impact of mandatory attendance on industrial production, which was highly dependent on the availability of child labor, and the reliance of many working-class families on the additional income their children could provide. As HMI Bellairs pointed out in 1854, there was a clear 'antagonism between the material interests of the poor, the laws of political economy in a mere productive point of view, and the objects of educationalists.'¹⁰²

Therefore, while convinced that the brevity of attendance was one of the major problems in English education, many of the Newcastle Commissioners reluctantly admitted that among the poorer segments of the populace it was simply unavoidable. As James Fraser declared concerning the typical working-class boy in agricultural areas, 'We must make up our minds to see the last of him, as far as the day school is concerned, at 10 or 11,' and make provisions for his education accordingly.¹⁰³ For many working-class families, the choice whether or not to send their child to school was apparently a choice between education and independence. In the minds of the middle-class Victorians, at least, independence represented the higher virtue:

If the wages of the child's labour are necessary, either to keep the parents from the poor rates, or to relieve the pressure of severe and bitter poverty, it is far better that it should go to work at the earliest age which it can bear the physical exertion than that it should remain at school.¹⁰⁴

Many Victorian officials were initially convinced that the failure of some parents to send their children to school was the result not of financial difficulties nor of apathy, but rather on 'the inefficiency and repulsive character of the schools within reach.'¹⁰⁵ The government's efforts to expand and improve the voluntary

¹⁰² Quoted in Smelser 1991, 270.

¹⁰³ Newcastle Report, pt. I, 243.

¹⁰⁴ Newcastle Report, pt. I, 188.

¹⁰⁵ Newcastle Report pt. II, 350.

sector can thus be understood secondarily as an indirect attempt to increase the working classes' consumption of education by insuring that they had access to instruction of value. As Horace Mann wrote concerning several elite voluntary schools in his report on the 1851 Census, 'when thus made thoroughly efficient, it is thought that the schools can scarcely fail to attract the children who stay away.'¹⁰⁶ And Fraser described how improvements in the quality of the schools in his district had in fact succeeded in minimizing the effects of the insufficient incentives for school attendance, concluding:

that all the difficulties which surround the attendance of children do not prevent the efficient schools from being full; that these, therefore, may fairly be considered to have solved and overcome them; and that the object, consequently, to aim at is to place all schools in a state of efficiency.¹⁰⁷

George Coode reported that perfectly suitable school buildings could for years sit practically deserted, 'when, if a master chance to be appointed who understands his work, a few weeks suffice to make the fact known, and his school is soon filled, and perhaps found inadequate to the demand of the neighbourhood.'¹⁰⁸ Such rapid growth in attendance may simply have reflected the transfer of students from other schools, and thus have had no net impact on the quantity of educational consumption. Nevertheless, the frequency with which such cases are mentioned suggests the existence of significant pent-up educational demand which private suppliers had been unable to fulfill.

As real working-class incomes rose and as educational skills became more relevant to children's future occupations, private demand for instruction in areas beyond basic literacy and numeracy increased. The relative advantages of voluntary schools with teachers trained in normal schools and access to materials from external sources grew larger. As a consequence, the percentage of students attending working-class private schools declined somewhat over the first half of the nineteenth century.¹⁰⁹ This trend was not simply a byproduct of pure market competition, for as the Newcastle Commissioners admitted, 'the complaint that the government grant enables the public schools to undersell, and so to ruin them' was ubiquitous among private school teachers.¹¹⁰ Forced by competition to keep their fees artificially low, teachers in private schools faced pressure to increase enrollment and to devote less time to each student, surely lowering the quality of the instruction offered. Significantly, the leaders of the emerging labor movement

¹⁰⁶ Census of Gt. Britain, 1851, Education, xliii.

¹⁰⁷ Newcastle Report, pt. II, 116.

¹⁰⁸ Newcastle Report, pt. I, 176.

¹⁰⁹ Stephens 1998, 83.

¹¹⁰ Newcastle Report, pt. I, 95.

did not support continued reliance on private supply, but campaigned actively for 'compulsory, free, secular state education.'¹¹¹ There were apparently limits to the level of instruction that the mostly untrained proprietors of working-class private schools could provide.

Despite these indirect efforts, the problems associated with sub-optimal educational demand persisted into the 1860s. School managers in the voluntary sector continued to complain of the brief and irregular attendance of their students, while a small but substantial minority of children never attended school at all. Moreover, the unregulated private sector was not disappearing as rapidly as anticipated. The Newcastle Commissioners were amazed to find that the overall percentage of children attending private schools only decreased from 35.1 percent to 33.9 percent between 1851 and 1858, and actually increased in four out of the ten sample districts.¹¹² While this may merely have reflected the fact that the Commission's more thorough methods of investigation identified private schools that had previously been missed, the results were still disappointing. Assistant Commissioner Cumin felt compelled to report that 'among the mass of the people, I found no great readiness to abandon the private for the public school.'¹¹³

Since subsidization and competition had failed to achieve the desired level of educational demand in terms of quantity or quality, the state ultimately resorted to coercion. A series of acts passed between 1870 and 1880 made attendance compulsory for all children. Despite its hostility to "adventure schools", the government was unable to outlaw private schooling, as any interference with the right of the middle classes to private education would have been unthinkable. Nevertheless, the manner in which the employment clauses of the Education Acts were drafted and enforced by the local school boards effectively prevented working class children from attending anything but a publicly-funded school.¹¹⁴ The eventual abolition of fees for elementary education in 1891 alleviated administrative difficulties associated with the collection of fees from unwilling parents, and also removed the stigma of having to apply to local Poor Law Guardians for the remission of fees. By increasing the difference in the relative prices of the two sectors, the measure further discouraged the working classes from using private schools. With the provision of schools obligatory and attendance compulsory and free, the establishment of a collectivist system of elementary education was essentially complete.

¹¹¹ Stephens 1998, 17.

¹¹² 'Newcastle Report', pt I, 95-6.

¹¹³ Quoted in Gardner 1984, 88.

¹¹⁴ Gardner 1984, 188-205.

6. Conclusion

Over the course of the nineteenth century a variety of factors exogenous to education including popular disturbances, the intensification of international economic competition, and the expansion of the franchise increased the British government's awareness of its interest in the education of its citizens. These factors have a bearing on the timing of the state's intervention in popular education, and they have accordingly preoccupied historians of the state's involvement. In reality, however, this approach reveals little about the fundamental educational problems driving the state's actions. Those accounts which do attempt to diagnose the specific problems that slowing educational progress in Victorian Britain rely entirely on descriptive approaches, with little or no theoretical grounding.

By using the conceptual framework of the economics of education to analyze the educational market in Victorian England, this paper exposes the underlying rationale for the creation of a national system of elementary schools: The state's assumption of control over popular education was in essence a response to a range of problems inherent in the provision and consumption of education in a free market. While the use of education for the purpose of repression has undeniably been a recurrent theme in the history of education, the analysis presented here demonstrates the state does in fact have a role to play in encouraging the level of educational investing optimal for society as a whole.¹¹⁵ Furthermore, the international predominance of state-provided mass education by the late nineteenth century cannot simply be attributed to the development of a socially constructed model of national development. Rather, its incorporation as an important element in that model should be re-interpreted as a consequence of the inherent problems in educational markets that all nations are forced to address.

Although educational markets are in general deeply flawed, there is no guarantee that the political control of education will in practice produce superior results. By cataloguing the defects of the educational markets during one historical period, this paper may lead some readers to conclude that alternative institutional arrangements are universally preferable. Such an inference is not justified. The optimal balance between political and market control of education is an empirical, rather than ideological issue, with a unique resolution for each particular time-period, nation, and level of education. Since their creation government schools have consistently been plagued by problems ranging from simple bureaucratic inefficiency to the disproportionate influence of organized special interest groups.¹¹⁶ Several historians have even argued that the British

¹¹⁵ Colls 1976, 75-99.

¹¹⁶ Coulson 1999.

government's assumption of control over popular education slowed the pace of educational progress.¹¹⁷ While this paper is unable to resolve this debate, it does confirm that many of the theoretical problems facing educational markets did in fact have real consequences for educational performance. In order to be effective, contemporary attempts to reform the supply of education by restoring market principles must take these potential difficulties into account.

Bibliography

Printed Primary Sources

Hansard, 3rd series.
Elementary Education Act, 1870.
Minutes of the Committee of Council on Education. P.P. 1839-58.
Reports of the Committee of Council on Education. P. P. 1859-84.
Reports of the Commissioners of Inquiry into the State of Education in Wales. PP 1847. Vol. 27, pts. I, II, III. [870, 871, 872].
Census of Gt. Britain, 1851, Education. PP 1852-3. Vol. 90. [1692].
Report of the Commissioners Appointed to Inquire into the State of Popular Education in England. PP 1861. Vol. 21, pts. I-VI. [2794]. (The Newcastle Report).

Periodicals

Papers for the Schoolmaster Quarterly Journal of Education

Books and Pamphlets Published before 1900

- Brougham, Henry, *Practical Observations upon the Education of the Poor* (1825), in A. E. Dyson and J. Lovelock, *Education and Democracy* (London, 1975), 57-60.
- Mill, J. S., 'Reform in Education', *Monthly Repository*, 8 (1834), in Robson, J. M., ed., *Essays on Equality, Law, and Education* (Toronto, 1984), 62-74.
- Senior, N., Suggestions on Popular Education (London, 1861).
- Wilkinson, J., 'School Boards in County Parishes.' A Letter to the Right Rev. James Fraser, D.D., Lord Bishop of Manchester. (London, 1873).

Secondary Sources

Ainslie, G., Picoeconomics (Cambridge, 1992).

- Altick, R. D., *The English Common Reader: A Social History of the Mass Reading Public, 1800-1900* (Chicago, 1957).
- Anderson, C. A., 'Literacy and schooling on the development threshold: some historical cases', in C. A. Anderson and M. J. Bowman, eds., *Education and Economic Development* (London, 1965), 347-62.

¹¹⁷ West 1975.

- Blaug, M., An Introduction to the Economics of Education, 2nd edn. (London, 2nd edn., 1991).
- Colls, R., "Oh Happy English Children!": Coal, Class and Education in the North-East', *Past and Present*, 73 (1976), 75-99.
- Coulson, A., Market Education: Unknown history (Studies in Social Philosophy and Policy, no. 21) (Washington DC, 1999).
- Dyson, A. E. and Lovelock, J., Education and Democracy (London, 1975).
- Ellis, A. C. O., 'Influences on School Attendance in Victorian England', *British Journal of Educational Studies*, 21 (1973), 313-326.
- Gardner, P., The Lost Elementary Schools of Victorian England (London, 1984).
- Gathorne-Hardy, J., The Public School Phenomenon (London, 1979).
- Gosden, P. H. J. H., *The Development of Educational Administration in England and Wales* (Oxford, 1966)
- Humphries, J., 'Protective Legislation, the Capitalist State and Working-Class Men: the Case of the 1842 Mines Regulation Act', in R. E. Pahl, ed., *On Work* (Oxford, 1988), 95-124.
- Hurt, J., Education in Evolution: Church, State, Society and Popular Education, 1800-1870 (London, 1971)
- Johnes, G., The Economics of Education (London, 1993).
- Johnson, Paul, Saving and Spending: the working-class economy in Britain, 1870-1939 (Oxford, 1985).
- Jones, D. K., The Making of the Education System, 1851-81 (London, 1977).
- Levine, D., 'Education and Family Life in Early Industrial England', *Journal of Family History*, 4, 4 (Winter 1979), 368-80.
- McMahon, W. W., 'The Economics of School Expansion and Decline', in B. Fuller and R. Robinson, eds., The Political Construction of Education (London, 1992), 135-151.
- Mitch, D., 'The Impact of Subsidies to Elementary Schooling on Enrolment Rates in Nineteenth Century England', *Economic History Review*, 2nd ser., 39 (1986), 371-91.
- Mitch, D., *The Rise of Popular Literacy in Victorian England: The Influence of Private Choice and Public Policy* (Philadelphia, 1992).
- Moe, T., 'The New Economics of Organization', American Journal of Political Science, 28, 4 (1984), 739-77.
- Offer, A., 'Epidemics of Abundance: Overeating and Slimming in the USA and Britain since the 1950s', *Discussion Papers in Economic and Social History* (Oxford, 1998).
- Pratt, J. W. and Zeckhauser, R. J., 'Principals and Agents: An Overview', in J. W. Pratt and R. J. Zeckhauser, eds., *Principal and Agents: The Structure of Business* (Boston, 1985), 1-35.
- Ribich, T. I., Education and Poverty (Washington, DC, 1968).
- Rowley, C. K., 'The Political Economy of British Education', *Scottish Journal of Political Economy*, 16, 2 (1969), 152-76.
- Rowntree, B. S., *Poverty: A Study of Town Life* (London, 1902).
- Sanderson, M., 'Social Change and Elementary Education in Industrial Lancashire, 1780-1840', *Northern History*, 3 (1968), 131-40.

- Sanderson, M., 'Literacy and Social Mobility in the Industrial Revolution in England', *Past and Present*, 56 (1972), 75-104.
- Sanderson, M., 'A Rejoinder', Past and Present, 64 (1974), 108-12.
- Schofield, R. S., 'Dimensions of Illiteracy', *Explorations in Economic History*, 10, 4 (1973), 437-454.
- Smelser, N. J., Social Paralysis and Social Change, British Working-Class Education in the Nineteenth Century (Berkeley, 1991).
- Stephens, W. B., Education, Literacy and Society, 1830-70. The Geography of Diversity in Provincial England (Manchester, 1987).
- Stephens, W. B., Education in Britain, 1750-1914 (London, 1998).
- Sylvester, D. W., Robert Lowe and Education (Cambridge, 1974).
- Thompson, F., 'Public Economics and Public Administration', in Rabin, J., Hildreth, W. B. and Miller, G. J. eds., *Handbook of Public Administration*, 2nd edn. (New York, 1998), 995-1063.
- Vincent, D., Literacy and Popular Culture: England 1750-1914 (Cambridge, 1989).
- West, E. G., 'The Role of Education in Nineteenth-Century Doctrines of Political Science', *British Journal of Educational Studies*, 12 (1964), 161-72.
- West, E. G., *Education and the State* (London, 1970).
- West, E. G., Education and the Industrial Revolution (London, 1975).

- 26 David Stead, An Arduous and Unprofitable Undertaking: The Enclosure of Stanton Harcourt, Oxfordshire (Nov. 1998)
- 27 Oliver Grant, The Diffusion of the Herringbone Parlour: A Case Study in the History of Agricultural Technology (Dec. 1998)
- 28 Antonia Taddei, London Clubs in the Late Nineteenth Century (April 1999)
- 29 Liam Brunt, Estimating English Wheat Production in the Industrial Revolution (June 1999)
- 30 Matthew Braham, Volunteers for Development: A Test of the Post-Materialism Hypothesis in Britain, c. 1965-1987 (June 1999)
- 31 Paul A. David and Gavin Wright, General Purpose Technologies and Surges in Productivity: Historical Reflections on the Future of the ICT Revolution (September 1999)
- 32 Liam Brunt, An Arbitrage Model of Crop Rotation (September 1999)
- 33 Paul A. David and Gavin Wright, Early Twentieth Century Productivity Growth Dynamics: An Inquiry into the Economic History of "Our Ignorance" (October 1999)
- 34 Avner Offer, *Economic Welfare Measurements and Human Well-Being* (January 2000). Rev. version, March 2000.
- 35 Liam Brunt, "Where there's Muck, There's Brass" The Market for Manure in the Industrial Revolution (February 2000).
- 36 Alasdair Crockett, Variations in Churchgoing Rates in England in 1851: Supply-Side Deficiency orDemand-Led Decline? (August 2000).
- 37 Martin West, State Intervention in English Education, 1833-1891: A Public Goods and Agency Approach (October 2000).

University of Oxford Discussion Papers in Economic and Social History

are edited by:

Liam Brunt Nuffield College, Oxford OX1 1NF

Jane Humphries All Souls College, Oxford, OX1 4AL

Avner Offer Nuffield College, Oxford, OX1 1NF

David Stead Nuffield College, Oxford, OX1 1NF

Papers may be downloaded from http://www.nuff.ox.ac.uk/Economics/History/