The standard of living of people in Britain today is much higher than that of their ancestors: they are typically better paid, enjoy better health and live longer than ever before. In contrast, pre-industrial populations lived 'close to the tyranny of nature under the threat of harvest failure or disease'.[13] There is certainly little evidence to support the existence of a pre-industrial 'golden age' as celebrated by some critics of industrialisation. Yet the period of the industrial revolution (for convenience, often taken as c. 1780-1850) is frequently seen as one of deteriorating living standards. More than a century after the publication of the first major historical critique of industrialisation [15], the impact of the industrial revolution upon working-class life continues to provoke controversy among social and economic historians.

The controversy over the 'condition of England' (as it was dubbed by contemporaries) began with the accounts of social observers around the second quarter of the nineteenth century. Criticism of industrial society was apparent in a number of books which examined working-class conditions. Charles Dickens' *Hard Times* (1854) and Elizabeth Gaskell's *North and South* (1855) - set respectively in 'Coketown' and industrial 'Darkshire' - together with Benjamin Disraeli's *Sybil, or the Two Nations* (1845) painted a grim picture of the effects of industrialisation.

Many writers contrasted the exploitation, pollution and ill-health of the towns with an idealised pre-industrial life. In *The condition of the Working Class in England* (1845), for example, Friedrich Engels argued that the material position of industrial workers was much worse than that of their predecessors in agrarian society. Engels and Karl Marx also developed a systematic analysis of the relationship between capital and labour. In the *Communist Manifesto* (1848) they argued that ownership of production processes by capitalism led to the creation of a large pool of wage-labourers who had no stake in the production process. It was in the Owners' interest to drive down wages to the lowest possible level. Engels and Marx argued that this type of exploitation was an inevitable consequence of the capitalist mode of production.

Evidence presented to royal commissions and parliamentary select committees also indicated a deterioration in the working and living conditions of the poor during the early nineteenth century. Inquiries such as Michael Sadler's Committee (1831-2), the Factory Commission (1833) and the Children's Employment Commission (1842), highlighted the experience of child workers in factories and mines. The health of people in large industrial towns gave increasing cause for concern. Edwin Chadwick's famous *Sanitary Condition of the Labouring Population of Great Britain* (1842) exposed the squalor and disease of urban environments. In addition, early nineteenth-century censuses and reports by the Registrar General revealed strong links between high population densities and high death-rates.

There were some advocates of the benefits of the industrial revolution, notably Andrew Ure, whose *Philosophy of manufactures* (1835) described factory-employed children as 'lively elves' and G.R. Porter whose *Progress of the Nation* (1851) criticised Marx and Engels' analysis of industrial capitalism. However, accounts of the hardships facing the working population were more common. Critics as politically diverse as Disraeli, Engels and Chadwick were equally uneasy about the injurious social effects of industrial and urban life.

Some modern historians have also claimed a deterioration in working-class living standards during the industrial revolution. Others have questioned the accuracy of contemporary views and have argued that, by the end of the 1840s, industrialisation had
helped to sustain a growing population, increased national wealth and brought new opportunities to all classes of society. This difference of opinion has become known as the 'standard of living debate'.

Twentieth-century historians and the 'standard of living debate'

For much of the present century, the historical debate over the standard of living during the industrial revolution has been dominated by two broad groups: the 'optimists' who have argued that living standards generally improved during the industrial revolution and the 'pessimists' who have claimed that welfare generally declined.

Early pessimists were heavily influenced by the work of Arnold Toynbee. Toynbee argued that the first half of the nineteenth century had been 'a period as disastrous and as terrible as any through which a nation ever passed.' It was, he wrote: Disastrous and terrible, because side by side with a great increase of wealth was seen an enourmous increase in pauperism; and production on a vast scale, the result of free competition, led to a rapid alienation of classes and the degradation of a large body of producers.[5]

Between the 1880s and 1920s, the pessimistic view dominated scholarship on the industrial revolution. Its best known exponents were Labour Party activists Sidney and Beatrice Webb and the journalists J. L. and B . Hammond.[5] Writing in the early decades of the present century, these authors produced works that were profoundly critical of industrial capitalism, stressing the plight of groups such as hand-loom weavers, croppers and child labourers.

Moreover, the Hammonds drew evidence from the literary, anecdotal and parliamentary evidence from the early part of the nineteenth century which appeared abundantly to support the view of a catastrophic alteration in living standards during the industrial revolution.

J.H. Clapham's Economic History of Modern Britain (1926), which scrutinised evidence relating to wages and prices, challenged the pessimistic orthodoxy. Clapham's quantitative approach indicated that the real value of industrial workers' wages (and, by implication, working-class living standards) had increased between 1790 and 1850. By the late 1940s, T.S. Ashton, though questioning and refining some of Clapham's evidence, employed additional evidence on population, import and export prices, housing and diets, to confirm Clapham's view that working-class welfare had improved. If poor conditions existed, suggested Ashton, these were more than outweighed by the benefits bestowed by industrialisation.

The optimists later strengthened their case by stressing that contemporary perceptions of bad conditions had stemmed from factors which themselves depended on industrialisation. The growing rail network during the second quarter of the nineteenth century, for example, had brought news of conditions in distant parts of the country under the public gaze for the first time. At the same time social statistics were becoming much more widely collected. As the liberal economist F.A. Hayek argued, While there is every evidence that great misery existed, there is none that it was greater than or even as great as it had been before.[6] These optimistic views of living standards during the industrial revolution dominated the debate until the 1950s.

From the late 1950s the debate intensified. A polarisation of views developed which seemed to mirror the Cold-War debate about the relative merits of communism and western capitalism. Marxist historians Eric Hobsbawm and E.P. Thompson [7, 14] revitalised the pessimist case, arguing that movements in prices and incomes provided only partial answers to what were immensely complicated issues. Hobsbawm argued that there was more to working-class life than food expenditure, augmenting his analysis with quantitative evidence on death-rates and unemployment. In The Making of the English Working Class (1963) Thompson criticised the optimists' emphasis upon statistical evidence suggesting this ignored the complexities of working-class custom and culture. Optimists such as R.M. Hartwell, W.H. Chaloner and W.O. Henderson, meanwhile, continued to argue that anecdotal and impressionistic evidence was inadequate and often biased, stressing the reforming zeal that had motivated early social inquirers.

Chaloner and Henderson, for example, described Engels' view of working-class misery as little more than a 'legend'.[10] Chaloner argued that reliance on the writings of nineteenth-century campaigners was ahistorical, emphasising 'the danger of accepting at face value statements made in the course of the bitter social and economic agitations which enlivened the 1830s and 1840s.[2]

The controversy over living Standards during the industrial revolution has provided a platform for fundamental disagreements about the nature and its implications for subsequent inequalities in wealth and income. Indeed, there is no debate in economic and social history in which the effect of ideology has been felt more strongly. As Peter Lindert has suggested even today Beliefs about the proper role of government in the economy are still shaped by perceptions over how industrialisation and the private market economy treated people 200 years ago.'[11]

Recent research on the standard of living

The past two decades have witnessed a softening of inflexible positions. With the end of the Cold War the desire to 'judge' the record of capitalism in history has become less important. This has been reflected in the tendency of recent research to stress the diversity of working-class experience and the need to supplement the study of real incomes with a variety of non-wage evidence. The relationship between these different types of evidence is examined below.

Real wages

The traditional method of analysing living standards has been to measure the extent to which the purchasing power of workers' wages altered through time. This entails gathering data on the
wages people earned and 'deflating' the results using evidence of prices (usually wholesale prices). Most historians now agree that real wages remained steady over the period 1750 to 1815-20, but rose substantially up to 1850. Much of this increase resulted from falling prices rather than rising wages (for the period 1793-1815, it is almost impossible to distinguish the price increases of the French wars from purely domestic factors). Nonetheless, real wages rose from the end of the wars to the mid-century, a period for which much anecdotal and governmental evidence pointed to a decline in living standards. (See Table 1)

### Problems with real wages

Much of the discussion of income levels assumes a close relationship between income, expenditure and living standards. However, whilst wage and price data are very important economic indicators, they are beset with problems. In 1974 Michael Flinn warned that there were a great deal more elements involved in any consideration of changing levels in living standards than merely the purchasing power of a bread-winner's income.[3] The equating of real income with living standards has attracted serious criticism, some of which is outlined briefly below.

First wage data prove less reliable for studying living standards the further back one looks in history since it is more likely that people were paid 'in kind'. Agricultural workers, for example, were sometimes compensated for their generally low wages by farm produce, free fuel or subsidised rents. Moreover, wages reflect only the living standards of the employed. The proportion of unemployed or under-employed workers in a population may fluctuate widely through time but this will not be recorded in wage data. Wages, therefore, fail to reflect the 'unofficial' parts of the economy (a point first argued by Hobshawn in 1957. [7]) However, other scholars have pointed out deficiencies in unemployment evidence and suggested that unemployment would need to have risen massively 'from zero to 50 per cent, or from 10 per cent to 55 per cent' in order to cancel out the benefits of the near doubling of real wages during the period 1820-1850.[12] In addition, because only small amounts of evidence relating to retail prices have survived, the 'price deflators' used in the calculation of real wages are mostly wholesale prices - not the prices people actually paid for their goods. Furthermore, the increasing availability of goods over long periods of time (to say nothing of changing tastes and fashions among consumers) may affect levels of consumption of certain goods in ways that do not reflect living standards. By the mid-nineteenth century, ordinary people had gained access to some products that had not been available in earlier times.

Secondly, regional diversity and sectoral growth are obscured by national real-wage indices. Changes in the economic geography of Britain resulted in wide differences in income and well-being.[9] Regions such as Lancashire and west Yorkshire, for example, underwent considerable industrial development whereas others remained predominantly agrarian: other districts (for example, the Weald of Kent) experienced 'de-industrialisation'. In addition, some industrial sectors grew faster than others: cotton textiles, in particular, outstripped all other sectors between 1780 and 1830.

Thirdly, real wage data largely refer to adult male incomes. They do not allow historians to examine directly the welfare of females, children or the elderly. These groups made a significant contribution to the labour force - both in and out of the home - and were also perhaps most vulnerable to the hardships facing the working class. Thus real wage data provide only a partial account of working class life.

Lastly, wage data do not address aspects of disease, environmental pollution, the health-effects of occupations, or the decision made by workers in response to such dangers. Miners, for example, were well-paid compared with other groups of manual workers but suffered higher rates of occupational mortality. Did workers make a conscious decision to risk a greater incidence of urban disease or occupational danger in return for a higher industrial wage?

During the 1980s, some of the inadequacies of wage-data were addressed in research by Peter Lindert and Jeffrey Williamson. They offered a revised view of living standards which examined a range of occupation groups and a greater variety of expenditure items than had been used hitherto and moved the debate from a discussion about absolute levels of deprivation to one of relative levels of well-being. Their findings seemed to offer hope to both optimists and pessimists. Lindert and Williamson confirmed that the real incomes of most occupation groups increased sharply after about 1820. However, they suggested that the greatest increase in incomes took place among 'white collar' commercial and managerial workers. Unskilled labourers - farm labourers in particular - were worst off, although the purchasing power of their wages did increase in real terms. It seems that whilst the rich and the middle-class became richer, the poor did not necessarily grow poorer. Nonetheless, the relative difference between rich and poor became greater after 1820 (See Table 1).

### Non-wage measures of living standards

One of the most distinctive aspects of the standard of living debate has been the steady increase in the complexity and variety of sources employed by historians. Studies of population structure, public health and nutrition, and the positions of hitherto under-represented groups have enriched the debate. A great deal of recent research has stressed the extent to which non-wage factors influence the standard of living. These are all the more interesting in that they sometimes challenge assumptions drawn from wage statistics. For example, whilst the working class in urban districts seem to have enjoyed higher wages, they also suffered higher rates

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**Table 1** Trends in real adult-male full-time earnings, 1755-1851.

<table>
<thead>
<tr>
<th>Year</th>
<th>Farm labourers</th>
<th>Artisans</th>
<th>White collar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1755</td>
<td>65.46</td>
<td>56.29</td>
<td>23.93</td>
</tr>
<tr>
<td>1781</td>
<td>61.12</td>
<td>48.30</td>
<td>22.24</td>
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<td>1797</td>
<td>74.50</td>
<td>46.73</td>
<td>23.45</td>
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<td>1805</td>
<td>74.51</td>
<td>42.55</td>
<td>20.82</td>
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<td>1810</td>
<td>67.21</td>
<td>42.73</td>
<td>19.97</td>
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<td>1815</td>
<td>75.51</td>
<td>52.18</td>
<td>25.49</td>
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<td>73.52</td>
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<td>91.67</td>
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<td>66.52</td>
</tr>
<tr>
<td>1851</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: [12, p.13]
of disease and mortality.

There can be no doubt that the substantial increase in population after 1750 affected poverty levels during the industrial revolution. Much of the 'hidden' rural poverty of the period, for example, resulted from rapid population growth coupled with declining employment opportunities. The proportion of children (aged 0-14) in society also increased from 31.8 per cent in 1731 to 39.6 per cent in 1831.[16] Thus, even if the income of a breadwinner rose, if the number of household members dependent upon that income increased at a faster rate, its real value would fall. Contemporaries feared that an increase in the working-class birth-rate might lead to a subsistence crisis similar to that predicted by TR. Malthus in his Essay on the Principle of Population (1798). Such a crisis, however, failed to develop: though the period 1780 to 1850 saw unprecedented rates of population growth, it also witnessed comparable increases in the consumption of food. The labour productivity of the British agricultural sector increased and food supply became more abundant in the early nineteenth century. (See Table 2) Much of the non-wage evidence examined since the 1970s has tended to support an optimistic view of living standards in the post-Napoleonic War period. However, recent studies of the changing heights of people in history, and of the 'micro-economy' of the household, have provided grounds for a revised pessimism.

Modern biologists have demonstrated that the nature of people reflects important aspects of their well-being. This is because height is thought to reflect nutritional status, an aggregate measure of the effects of food intake, environment and disease. Floud, Wachter and Gregory have applied these principles in their study of armed forces recruitment records.[4] They argue that, although there was a secular increase in average heights over the past two centuries, the stature of people born between 1825 and 1860 declined. This decline has been attributed chiefly to an increase in urban dwelling. If average height can be taken as an index of human well-being, therefore, the evidence suggests a decline during a period in which real wages rose. Rural dwellers were the tallest occupation group during the nineteenth century, in spite of their being the most poorly paid.

Recent research by Sara Horrell and Jane Humphries has attempted to illuminate the experiences of women and children during the industrial revolution by analysing income and expenditure at the level of the household.[8] Their work has confirmed the rise in real wages from employed males, but they also suggest that, first, the distribution of benefits within families was not equitable (i.e. that females and children received a smaller share of benefits compared with males) and, secondly, that the earnings and employment potential of women and children declined significantly during 1840s as domestic industry declined and families became increasingly dependent upon male breadwinners.

Research into household budgets has escaped the narrowness of real wage studies and has offered the possibility of analysing welfare at the level of the individual but such work has been hampered by the scarcity and poor quality of the surviving evidence.

### Conclusion

The standard of living debate, perhaps more than any other issue ill economic and social history, demonstrates the difficulties encountered in generalising from complex and diverse forms of evidence. Recent research suggests that findings which initially appear contradictory, serve merely to highlight the diversity of experiences during the industrial revolution and reinforce the view that there is no single, measurable, 'standard of living' in history.

### Reference and further reading


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*Table 2 Average annual population growth compared with growth in the consumption of food.*

<table>
<thead>
<tr>
<th>1760-1800</th>
<th>1801-31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population growth</td>
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</tr>
<tr>
<td>Food consumption</td>
<td>0.5</td>
</tr>
</tbody>
</table>