English Agriculture and Rural Labour Markets at the End of the Industrial Revolution

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Abstract

The British Industrial Revolution is unique. It was not only the world's first industrialisation, but also achieved without massive siphoning off of labour from agriculture (Pollard 1978: 142; Allen 2004: 104-6). It is surprising that while English agriculture had already been 'capitalist' on the eve of the Industrial Revolution in terms of its labour use, the nascent modern industries failed to exploit rural wage labourers.

The labour market in the eighteenth century was not composed of labourers who were fully wage-dependent. 'Many workers were part-time, and had their own plots or domestic industry to fall back on' (Pollard 1978: 143). Employers were those with larger farms who needed more hands than family labour afforded, and employees were those with smaller plots who were short of money income. It was risky for them to rely solely upon wage income, because even product markets were not stable. In fact, a variety of resources were available for eighteenth-century farm workers: his own plot, rural industries, common rights, and in the worst case, poor relief.

These alternatives were seriously curtailed in the course of the eighteenth century. Parliamentary enclosure, which accelerated in the second half of the century, eroded the accessibility of these part-time wage earners to the alternatives and aggravated their wage dependence. Opportunities of wage earning were also lost. Growing factory production in northern industrial towns swept away southern rural industries. All of these appear to indicate the emergence of a single national labour market that consists of full-time wage earners in the nineteenth century, but, in reality, as Sydney Pollard maintained in his 1978 article, 'there was nothing like a single national labour market at the beginning of the period, nor was such a market operating very smoothly even at the end' (Pollard 1978: 103).

Such an account may remind the reader of a kind of labour abundance, a situation which Arthur Lewis referred to as a phase of 'unlimited supply of labour' (Lewis 1954). His thesis invited a number of attempts of model building for developing economies of the late twentieth century. However, as his subsequent paper with the title 'Unlimited Labour: Further Notes' indicates, he did

see situations in most nineteenth-century European countries fit in with his theory. According to a periodisation in the second paper on labour abundance, England was in that phase until c. 1875 (Lewis 1958: 28). On the face of it, it sounds not very different from what Pollard said, and may cajole an econometrics-oriented historian to test if such labour abundance was a hindrance to the formation of a well-functioning labour market, which could in turn have led to an under-performance of the national economy. It is not surprising to find that Jeffrey Williamson, having done this exercise with a two-sector model, confirmed that 'Labor market failure around 1831 may have cost England about 3 percent of GNP, a significant amount for an economy whose per capita income was growing at only about 0.5 percent per annum. … Wage gaps between city and countryside starved industry for labor and glutted the countryside. As a result, agricultural labor force in 1831 may have been too big by 39 percent (Williamson 1987: 671).'

This dissertation investigates the nature of rural labour markets at the end of the Industrial Revolution. It will confirm what Pollard suggested three decades ago, namely:

(1) that the English countryside remained geographically divided in the mid nineteenth century.

However, the dissertation goes beyond the methodology Pollard adopted while its conclusion differs from the Lewisian assumption for economic behaviour of both employers and labourers of the day. Instead of surveying contemporary accounts, such as those in the Parliamentary Papers, as well as numerous research findings by later-day historians, I make efforts to quantify some of the key elements in this kind of exercise. The estimated indicators include wages in both money and kind, male, female and family incomes, and unemployment rates. I also make intensive use of a couple of micro-datasets to uncover the intraregional structure of an actual labour market. All this will reveal:

(2) that the regional labour market was dual-layered. It consisted of a market for 'core' workers and market for 'casual' workers;
(3) that the balance between the two differed from region to region; and
(4) that the ways in which non-pecuniary benefits such as drink allowances were combined with money payments—and, hence, the nature of employer-worker relations—also differed from region to region.

With these fresh findings, the dissertation will argue that complexity of socio-economic events must be decoded and decomposed into components explained by the market mechanism and those caused by non-economic factors. Agricultural labourers in southern England remained unemployed there not only because the ruling class so wanted but also the wage level was relatively higher than in the industrial north. While 'core' workers had to accept such wage as the landowner chose to give, the labour market for 'casual' workers was closer to a perfectly competitive market. This kind of effort is, I believe, necessary for the better understanding of labour markets in the Industrial Revolution.

In Chapter 1, a general view of agriculture is outlined with the 1831 Census Report. Even at the end of our period, the economy of England was still agricultural, but highly commercialised in its labour use. Labour-hiring farmers accounted for 60 per cent, and employed more than five labourers on an average. The importance of agriculture and the extent to which it was commercialised varied from one county to another. Southern counties were characterised by its agricultural nature as well as labour-employing practice. Northern and western counties were less agricultural, and especially Lancashire was a county of small family farmers relied almost solely upon family labour.

Chapter 2 attempts to quantify the food/drink allowances in monetary terms. The results show that in-kind provision declined between 1795 and 1832. However, to some extent drink allowance survived in the south while counties in the north experienced significant decline in food/drink provision. This has an important implication. Revision of regional male real wage estimates with the inclusion of in-kind income revealed that the traditional 'high-wage north and low-wage south' pattern would disappear.

This probably explains much of the observed regional unemployment contrast derived from analyses in Chapter 3. Unemployed labourers in the South East may well have stayed there, because the level of real wage in the region, if in-kind provisions were counted in, was high enough to reduce their incentive to emigrate. This labour pool was, in part, a necessity for arable farming in which the labour requirement in harvest was huge. At the same time, corn-producing farmers are very likely to have felt some responsibility to maintain these jobless labourers during winter. In the eighteenth century, common rights and rural industries had supported their makeshifts. By the 1830s, most of these alternatives were significantly curtailed, and in the worst case, malpractice of the poor law administration provoked social disturbance. The Swing Riots may have resulted in a rise of male wages in some parishes, but such higher wages are likely to have aggravated unemployment. The consequence was polarisation of rural farm workers: one had regular employment at modest wages, and the other was surplus labour.

A case study based upon micro data in Chapters 4 and 5 shows some attributes of those polarised rural workers. The Trentham home farm employed two kinds of labourers: while core workers were employed throughout the year and enjoyed higher wages, casual workers' annual working days accounted for less than 10 per cent of the total labour input. Regular workers, who were more like retainers of the landowner, had no choice but accepted wage reduction in 1851. On the other hand, the wage level of casual workers was, more or less, reflected market prices. Instead, at the influx of Irish migrant labourers, whose wages were much lower and probably determined by non-economic prejudice, they were replaced by the cheaper labour. The working pattern of female labourers at Trentham was more casual than men, but steadier than previous studies on female workers have suggested. This is in part because some of them were wives and daughters of core workers. A regression analysis suggests that the more her husband earned, the more she worked. It is very likely that family members of the core workers were implicitly expected to work at the farm if necessary.

What Trentham experienced may have been the case everywhere in the south. A surveyor in South Wales, summoned by the Select Committee on Agriculture in 1833, explained the reason why wages did not fall even when the competition for jobs was keen and many people were out of employment. ‘It is only the best workmen that get employment; farmers will not employ idle, lazy and bad labourers at any price, and these fellows come upon the parishes for relief, owing to their not being able to get work’ (BPP 1833, vol. v: 55). This probably resulted in fewer regular workers and a lot more jobless paupers. To some extent, the former should have accepted their employers’ political influence instead of steadier employment. In contrast, the latter might have faced harsh market forces if he had (or had been) refused poor relief.

Then what were labour markets situations in the North? This question is beyond the scope of this dissertation, but small family farms in Lancashire might have a clue to consider this. As we see in Chapter 1, the average farm size in Lancashire was markedly smaller, and family farms were dominant in the county. Winstanley (1996) maintained the rationality of small farms in Lancashire. Because of the proximity to industrial towns, most farms were specialised in dairy farming. ‘Dairy farmers were tied to a morning and an evening milking, but had little or no field work outside hay harvest’ (Overton 1996: 18). Therefore, they did not have to rely much upon hired labour. Even if the labour requirement is more than the family members could afford, they were more likely to depend upon resident kin rather than farm servants. A farm of 60 to 70 acres was helped by 1.33 resident kin, but employed only 0.51 farm labourer on an average (Winstanley 1996: 186). Yet, this does not necessarily mean that they were not market-oriented. By contraries, ‘they were not subsistence polyculturists whose relationship with the market was primarily concerned with the disposal of produce which was surplus to household requirement’ (Winstanley 1996: 193-4). They produced milk, butter, cheese, potatoes, and other perishables almost exclusively for the market. They used family labour or resident kin only, simply because hired labour cost more.

The profit-maximizing behaviour of Lancashire farmers implies that the economically rational way of labour exchange is not achieved only through a competitive labour market. It is probably true that the existence of labour abundance in c. 1830 did actually ‘cost England about 3 percent of GNP’ (Williamson 1987: 671), but it should not be taken to imply that it was because employers and labourers were ‘irrational’. In the introductory part of the dissertation, I described family farms as ‘traditional’: the word implicitly assumes some irrationality. This kind of blanket perception must be avoided. We need closer look at components of socio-economic events. If all those components be taken into account, we may conclude that the economic behaviour of both farmers and agricultural labourers were rational within the micro-sphere of agriculture in early nineteenth-century England.

What remains to be seen is how and when the labour pool in the south disappeared. Initially they were absorbed by railway and urban building construction. After the opening of Stockton and Darlington Railways in 1825 and the commercial success of Liverpool and Manchester Railways in 1830, railway network in England expanded rapidly. By the 1850s, most of the present mainlines were laid and the network reached nearly 10,000 km. Railway construction faced a variety of new challenges in civil engineering. While Liverpool and Manchester Railways was only 56 km, a number of obstacles such as the famous crossing of Chat Moss and a tunnel and a cutting through Edge Hill had to be overcome. These alterations of land surface were achieved solely by human power. A navvy carried more than 20 tonnes of earth per day. Construction workers were required not only in railways but also in urban building. The 1840s also saw rapid urbanisation. In 1800, less than one third of English population lived in cities and towns. A half century later, the percentage exceeded 50 per cent. The number of male building and construction workers was 376,000 in 1841, 496,000 in 1851, and 593,000 in 1861, and reached 712,000 in 1871, which surpassed the number of male textile workers by 128,000 (Mitchell and Deane 1962: 60). On the other hand, the number of male agricultural population started to decline after 1851. As described in Chapter 1, the male adults engaged in agriculture were 980,050 in 1831. It increased to 1,434,000 in 1841 and 1,788,000 in 1851 (horticulture and forestry are included). Then it began to decline to 1,779,000 in 1861 and 1,634,000 in 1871 (not surprisingly, the decline becomes more articulated if measured in relative shares: 28.2 % in 1841, 27.3% in 1851, 24.5% in 1861, and 19.9% in 1871) (Mitchell and Deane 1962: 60). This trend may be partly explained by the harsher practice of the new Poor Law, which, in principle, abolished outdoor relief, but it is worth noting that agriculture finally started to release labour force in the period.

It also should be noted that the decline of agricultural population in absolute terms was coincided with the acceleration of economic growth. Even the gradualists have admitted that the economic growth was accelerated after the 1830s. Crafts (1985) shows that the annual growth rate of per capita national income was 0.52 per cent in the period of 1800-30, but 1.98 per cent between 1830 and 1870. TFP also grew increasingly. The annual growth rate of 0.35 per cent in 1800-30 jumped to 1.0 per cent in 1831-60 (Crafts and Harley 1992: 718; Crafts 1985: 81). Thus the agricultural labour force in 1830, which is said to have been 'too big by 39 percent' (Williamson 1987, 671), started to decline. The absorption of rural workers into railway construction and urban building, on the one hand, and push effects of harsher practise under the new Poor Law, on the other, led to smoother, better functioning labour markets after the 1830s.

Agricultural job opportunities were reduced, and rural workers were affected not by predictable seasonal unemployment, but more and more by volatile economic boom and slack. Applying for poor relief under the New Poor Law was so stigmatic that they sought alternatives such as friendly societies and, after the passing of Trade Union Act in 1871, labour unions. The subscriptions were not cheap, but the increase of their annual income seems to have made it affordable.

After about 1850, the rural economy started to shrink in absolute terms, which made manufacturing foregrounded in the nation's labour market scene at last. However, it does not necessarily mean that there emerged a single, national market for labour. Huberman (1986) has found that Lancashire mill owners in the middle of the nineteenth century refrained from piece-rate cutting and offered lengthy employment and honour seniority. Even at the major depression in 1825, the piece rate paid for 40s remained almost unchanged. The average tenure at McConnel and Kennedy, a leading fine-cotton-spinning enterprise, was seven years, although oral commitments between firms and workers of the day rarely lasted longer than three months. The ratio of younger workers (below 25 years old) to older workers (over 45 years of age) in Manchester was only 1.51 in 1861. 'Firms of diverse sizes and in all towns [in Lancashire], even metropolitan Manchester, offered workers lengthy tenure because they all shared the common need to discover whether workers were good and to retain those who were (Huberman 1986: 997).' A worker who worked longer in the same firm had more firm-specific knowledge and was more skilled. The firm acquired more information about him. In addition, older workers played an important role in supervisory and recruiting tasks, even though their productivity may have been lower than that of younger workers. Once the workers recognised the firm's strategy of offering lengthy tenure to keep better workers, they even accepted piece-rate cuttings. On the other hand, young new comers were paid less and laid off first in a recession.

This arrangement is similar to that at the Trentham Home Farm where core workers accepted wage reduction in 1851, or the behaviour of southern farmers who kept labour reservoir. Although the incentive behind the scenes was not paternalism, the two-layered labour market was perpetuated in a different context even in the latter half of the nineteenth century.

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