

Why Some Economists Dislike Shorter Working Time

by Tom Walker (draft: June 15, 2005)

The regulation of working time has been a controversial topic since at least the second decade of the nineteenth century when the Ten Hours Movement was active in Great Britain. How the hours of work are determined in the absence of explicit regulation is also controversial, with neoclassical economists arguing that the individual supply of labor time is based on workers' choices between income and leisure while Marxists and institutionalists maintain that political power, institutional structures and class conflict are decisive (Philp et al. 2005). Further complicating the debate, Sir Sydney Chapman's major theoretical contribution to the marginalist analysis of the hours of labor has largely been neglected by neoclassical economists in the post-World War II era, thus hindering a potentially fruitful reconciliation between the contending explanations (Nyland 1989).

The stakes in the controversy extend beyond the number of hours worked in a day, a week or a year. Ultimately, the hours of work and the method or methods by which they are determined crucially affect aggregate income and its distribution, employment, and social welfare. Given this strategic role with regard to income distribution and standard of living issues, it is not surprising that polemic and demagoguery have played a part in shaping the debate over the hours of work and their determination. Gerhard Bosch has characterized that debate as frequently resembling "quasi-religious exchanges of articles of faith between opponents and advocates" (2000, 178). For example, in *Capital*, Karl Marx ridiculed Nassau Senior's 1836 contention that the recently passed Factory Act would be ruinous to industry because, "the whole net profit [from an 11 1/2 hour day] is derived from the last hour" (1887, 215). Similarly, John Rae (1894) was motivated to refute the implausible pronouncement by eight-hour day advocate George Gunton that adoption of the system in the United States would have the "direct and immediate effect" of creating over three and a half times as many new jobs as there currently were unemployed.

Over the course of the twentieth century, a particular polemic has become ensconced in the discourse of mainstream economics. That is the claim that policies aimed at creating employment through limiting the hours of work are based on an erroneous belief in a fixed amount of work. Economists call this allegedly widespread delusion the "lump-of-labor fallacy." Those who make the fallacy claim neglect to offer specific evidence of the supposed belief in a fixed amount of work. Curiously, they fail to engage arguments by economists – including such eminent figures as John Maynard Keynes, Luigi Pasinetti and John R. Commons – who have offered shorter hours as one approach for curtailing unemployment. There are also grave inconsistencies in their various explanations of why reducing the hours of work cannot alleviate unemployment. Rote repetition of the fallacy claim is thus a distraction that obstructs constructive dialogue about how the hours of work are determined and the social, political and economic appropriateness of policy interventions (Walker, 2000).

Recent eruptions of the lump-of-labor fallacy claim

In the wake of concern about stagnating employment growth in Europe, particularly in France, the lump-of-labor fallacy claim has been resurrected to justify rolling back reduced working time policies on the grounds that such policies impede economic growth and are ineffectual or even counterproductive in the fight against unemployment. For example, in a report to the French Ministry of Finance, Michel Camdessus, former managing director of the International Monetary

Fund, attributed the original rationale for the French 35-hour workweek to the supposed belief in a fixed amount of work, "*La logique de partage repose sur l'hypothèse qu'il existe, dans l'économie, une quantité d'emplois déterminée et fixe*" (2004, 40).

A pair of articles appearing in the *Journal of Economic Perspectives* also attributed French working time policies to belief in the alleged fallacy. Gilles Saint-Paul (2004) claimed that the lump-of-labor fallacy was "repeatedly put forward" in the debate over working-time reduction and "has led to many misguided policies, such as pre-retirement to 'make room' for the young, or working time reduction" (58). He further asserted that such policies are likely to have harmed employment growth in France and other European countries. Saint-Paul's conclusion that working-time reduction has harmed employment was based on his selective embrace of one econometric study by Bruno Crépon and Francis Kramarz of the 1982 law that reduced the hours of work in France from 40 to 39 and his sweeping dismissal of "a large number of macroeconomic studies" on the grounds that those findings were based on "short-run Keynesian models that were unsuitable for dealing with these kinds of issues, given their very crude approach to wage formation and aggregate supply"(60).

Olivier Blanchard (2004) was less judgmental regarding the impact of policies allegedly based on a lump of labor fallacy. He developed a tentative hypothesis that growth of productivity has been inhibited because firms have been under considerable pressure to avoid layoffs and plant closings. This pressure has come from government policies aimed at "job rich growth." Such policies Blanchard described as "a direct descendant of the lump-of-labor fallacy" (17).

In a report whose approach was endorsed in a foreword by UK Prime Minister Tony Blair, Jaap de Koning et al. (2004) deplored the lump-of-labor fallacy, attributing this "profound error" to anyone who doubted that increasing the supply of labor is the sole effective way to reduce unemployment. Their analysis echoed an earlier claim by Tito Boeri et al. (2000) that pessimism about welfare-to-work policies was an expression of belief in a lump-of-labor fallacy. The Boeri report was presented jointly to the Council of European Premiers in 2000 by Blair and Italian premier Massimo D'Alema.

The authors of an OECD Policy Brief (2004) cited evidence from OECD countries "that would seem to bear out arguments that reductions in working time can increase employment and help to cure high unemployment." In spite of such evidence, however, they claimed that "this argument relies on the idea that there is a fixed volume of work which can be shared more or less broadly across the adult population – the so-called 'lump of labour fallacy'..."(2004, 3; see also OECD 2004a, 28).

In an article devoted to exorcising the demon of the lump-of-labor fallacy, Timothy Taylor (2004) cited the fallacy as the source of fears that US employment would continue to stagnate – as it had for the previous three years – and for "the recurrence of the true believers' favorite fix: a shorter workweek or an earlier age of retirement" (82). Taylor concluded with a plea: "The appropriate mix of these labor policies is a matter for debate. But the lump-of-labor fallacy has been impeding and confusing the legitimate arguments about jobs for more than a century now, and it's time to give it a rest" (87). Taylor's concern to remove impediments and confusion from the debate is welcome, but it needs to be asked whether it is the lump-of-labor fallacy *per se* or dubious claims about the role of such an alleged fallacy that is primarily responsible for the confusion.

True believers and left-wing kooks

A conspicuous rhetorical feature of the lump-of labor fallacy claim, especially in the mass media, is to suggest that not only are reduced work time policies based on a fallacious assumption but that the fallacy is so blatant that no self-respecting economist would fall for it – only cranks, left-wing kooks or trade union hacks. “It’s hard work being a left-wing kook these days,” wrote Bruce Bartlett (2003). “The socialists [in France] figured that there was only so much work to do, so if people were only allowed to work 35 hours per week, rather than 40 hours, then this meant that eight workers would be needed to do the work that seven workers did previously.... Economists call this the “lump of labor” fallacy....”

In a letter to the poet, T.S. Eliot, dated April 5, 1945, Keynes designated shorter hours of work as one of three “ingredients of a cure” for unemployment (1980, 383-84). The other two ingredients were investment and more consumption. Keynes regarded investment as “first aid,” while he called working less the “ultimate solution.” This specification of reduced work time as one of three strategic choices for maintaining employment echoes a comment in a letter written three years earlier regarding a Treasury memorandum on purchasing power and consumers’ goods in the post-war period. A more thorough and formal presentation of his view appeared in a note Keynes prepared in May 1943 on “The Long-Term Problem of Full Employment.” In that note, Keynes projected three phases of post-war economic performance. During the third phase, estimated to commence some ten to fifteen years after the end of the war, “It becomes necessary to encourage wise consumption and discourage saving, –and to absorb some part of the unwanted surplus by increased leisure, more holidays (which are a wonderfully good way of getting rid of money) and shorter hours” (323).

In chapter 5 of *Structural Change and Economic Growth*, Pasinetti (1981) also addressed full employment as a goal of economic policy. He concluded the consequence of technical progress was that effective demand “inevitably manifests a tendency to become *under-satisfied*, i.e. to generate unemployment, as time goes on” (89). Pasinetti identified two ways to offset this tendency, by adding new commodities or “by a decrease either in the proportion of active to total population or of the length of the working week or of both” (90). He protested that this was not the same as saying that technical progress gives society a choice between more goods or more leisure.” Rather, Pasinetti claimed, it reveals “the fixed framework within which the choice has to be made” (90). It is thus not simply a choice but a *necessity to choose* confronting society if it is to avoid technological unemployment.

What Keynes and Pasinetti have in common besides the view that the reduction of working time is one way to bolster employment is that their analyses have not been rebutted by any of the authors who allege that such views are based on a fallacious belief in a fixed amount of work. Nor have any of those authors specifically criticized Commons’ suggestion in *Industrial Goodwill* for varying the hours of work to flexibly distribute a fluctuating total amount of work (1969, 67-72). Commons summed up his proposition as follows,

Elasticity has to be provided somewhere to meet these fluctuations [in demand for labor]. The elasticity may be provided by laying off a part of the force in hard times and taking them back in good times, or by reducing hours all around in hard times and increasing them in good times. The one method is the method of unemployment for some, the other the method of distributing unemployment and regularizing employment for all (71).

Did Keynes, Pasinetti or Commons assume a fixed amount of work to be done? Keynes’ stated assumption was of discrepancies between savings and inducements for investment. Pasinetti’s

was of a structural tendency toward technological unemployment. Commons assumed a business cycle fluctuation in the demand for labor. The three assumptions are not even necessarily compatible with each other. For example, Keynes spoke of a shorter work time as a cure for unemployment while Pasinetti suggests that unemployment may be a consequence of a failure to reduce working time. Both Keynes and Pasinetti addressed structural unemployment while Commons was concerned with cyclical unemployment. But to be sure, all three treat reducing working time not merely as something that would be “pleasant, if we could afford it” or even as an attractive luxury that is within the means of an affluent society but precisely as a strategy for creating or preserving employment. If those economists’ underlying assumptions translate into a lump-of-labor fallacy, it is perplexing that no critic of reduced working time has seen fit to point it out.

Origin of the fallacy claim

Authors who employ the charge of a lump-of-labor fallacy as a trump card against reduced work time policies consistently fail to cite a source for the supposedly unimpeachable tidbit of economic reasoning (Walker, 2000). However, when one investigates the murky pedigree of the claim, the reason for such a scholarly lapse becomes plain. There is no authoritative source for the claim. In place of an acknowledged authority there is only a pastiche of superficially linked but fundamentally contradictory fragments. Thanks to the availability of full-text searching on journal articles ranging back to the nineteenth century, an early and apparently founding mention of the “Theory of the Lump of Labour” can be found in an article on piece-work by David F. Schloss (1891). In that article, Schloss employed the phrase to condemn the restriction of work effort and output, not the reduction of working time.

Debates about the intensification of labor through piece-work, its postulated effects on employment and workers’ retaliatory tactics of restricting output go back at least to the mid-1840s when the *Trade Union Magazine* published a condemnation of piece-work (Brown 1977). However, workers’ objections to piece-work encompassed far more than fears, justified or not, about the loss of jobs. In “Why Working-Men Dislike Piece-Work,” Schloss discussed those substantive objections at length before mentioning that “noteworthy fallacy to which I desire to direct attention” (324). The context of Schloss’s complaint about the lump of labor is instructive. Not only did he spend the bulk of his article sympathizing with workers’ substantive complaints against piece-work but he also concluded by endorsing the eight-hour day as highly desirable on both social and economic grounds and stressing the urgency that workers should receive a larger share of the national income. His objection to the lump-of-labor fallacy was solely with regard to the withholding of work effort during the time worked and not to reducing hours of work.

Ironically, it was another supporter of the eight-hour day, John Rae (1894), who denounced the supposed belief in a fixed amount of work by fellow eight-hour day proponents who, unlike Rae, expected shorter hours to help solve unemployment. Rae was reacting to extravagant claims such as those by George Gunton in the United States, about the direct and immediate job-creating potential of shorter hours. Rae’s statement that redistributing the hours of work was “not a simple sum in arithmetic” would have been above reproach had he not gone on to insist that the case *against* job creation was cut and dried.

Charles Beardsley (1895) soon refuted Rae’s overextended argument, pointing out that Rae relied on a variation of the same fallacy that he attributed to others. The case for employment gains from shorter hours is neither as direct nor immediate as George Gunton claimed nor as untenable as John Rae insisted. Although few modern proponents of shorter work time would

make the extravagant claims that Gunton did, many economists mistakenly believe that the utter futility of work sharing has been conclusively established. It hasn't.

Neither Schloss nor Rae saw the eight-hour day as a measure aimed exclusively at restriction of output. On the contrary, Rae expected the eight-hour day to result in a higher hourly output and possibly increased total output, which was why he dismissed the possibility that it would reduce unemployment. He assumed that since an equal or greater output per worker would occur in the shorter day, there would be no need for new hiring to take up the slack.

This view of higher productivity during the shorter day was in harmony with the growing body of evidence accumulated from industry over the course of the nineteenth century. Philip Sargent Florence (1924) later summed up that evidence as indicating that the reduction of working time from 12 hours to 10 hours increased daily output per worker. Furthermore, daily output remained at its peak during an eight-hour day. Moreover, for days of less than eight hours, average hourly output would continue to increase although total daily output may decline.

Chapman (1909) also relied on the same body of evidence when he developed his theory of the hours of labor. Chapman argued persuasively that the hours of labor determined under competitive conditions would tend to be longer than would be optimal from the perspective both of total output and the long-term welfare of the worker. Although economists like Rae, Florence or Chapman didn't directly draw such conclusions, their premise regarding the increased productivity of shorter hours could form the basis for an "efficiency week" hypothesis for reduced work time such as suggested by Robert LaJeunesse (1999).

Puffing up the fallacy claim

It was not late Victorian writers on economics but anti-union employers' associations and their spokesmen who transformed the fallacy charge into a weapon targeted at the eight-hour day itself. In so doing they pointedly ignored the crucial distinction between shorter hours of work and restriction of output and instead fused the two, claiming that reducing the hours of work was no more than a tactic employed by the unions to restrict output.

The employers' propaganda campaign commenced in England during a lockout of engineers that began in 1897 (Brown 1977). The precipitating incident for that lockout was the engineers' demand for an eight-hour day but the underlying dispute concerned a struggle about control over the introduction of new machinery. The defining moment for the anti-union campaign came in a 1901 *London Times* series by Edwin Pratt titled "The Crisis in British Industry." William Collison, the publicist for a strike-breaking organization called the National Free Labour Association, claimed the series was based on material supplied by him (Brown 1977). Collison's organization had served as the principal agency for recruiting replacement workers during the engineers' lockout and had been active in propaganda activities against the unions.

The *Times* series described the rationale for the eight-hour day as being the absorption of all the unemployed by "obtaining employment for a larger number of persons on such work as there was already" instead of by the "laudable and much-to-be-desired means of increasing the volume of trade..." (1901, 10). Pratt found this strategy objectionable because, without the disciplining factor of unemployment, "the workers would have the employers entirely at their mercy." This objection mirrors ironically the view put forward by J.-C.-L. Simonde de Sismondi (1819) and Marx (1889) that the threat of unemployment puts workers at the mercy of employers. Like Schloss or Rae, the *Times* series contrasted its own stance of economic realism with its opponents' supposed primitive belief in a fixed amount of work. But nowhere was there a hint

that the eight-hour day was socially or economically desirable, that a larger share of the national income should go to workers or, indeed, that total output in an eight-hour day might match or exceed that in the longer day.

In the United States, the National Association of Manufacturers (1904) embraced the same portrayal of a nefarious motive behind the eight-hour movement. In a 115-page pamphlet directed against the eight-hour bill in Congress, the manufacturers' association blamed restriction of output by unions as "surely one of the chief causes of the industrial decline of England" (19). As for the shorter working day, the pamphlet declared that the movement for shorter hours was part of the general union strategy of restriction of output aimed at subordinating employers to the will of the unionists.

Coincidentally, at approximately the same the time that the *London Times* and the National Association of Manufacturers were demonizing the eight-hour day and its advocates, an Industrial Commission (1902) established by the United States Congress was coming to a more sanguine estimation. According to the Commission's final report, the shorter day represented "the most substantial and permanent gain which labor can secure" (773). The report argued that reduction of the hours of work was advantageous for the community because of its salutary effects on health, character, family life and citizenship. It declared that the case for an eight-hour day needed little qualification even from the standpoint of employers.

Although the report's section on the hours of work is not signed, it appears likely that Commons drafted it. He is identified at the front of the volume as the Commission's principal investigator on labor questions and was one of eight experts singled out for special acknowledgement in the letter of transmittal by the Commission chair, Albert Clarke. In addition, Commons testified before the Industrial Commission (1901) regarding the hours of work and his testimony stresses several of the same points made in the Commission's final report.

How "fixed" is a fixed amount of work?

The meaning of a "fixed amount of work" may seem self-evident at first glance but, as Daniel Kinderman (2001) has pointed out, this fixedness could refer to at least two different things. It could refer to an *upper limit* on the demand for labor and thus be contrasted with the long term historical record of employment growth. Or, it could refer to a *constant demand* for labor, unaffected by changes in the cost of labor. Thus, the fixed amount of work could represent either a ceiling or a floor. The various explanations of the fallacy offered by economists are steeped in that ambiguity.

For some economists, the fallacy committed by advocates of shorter working time dwells in the failure to subscribe wholeheartedly to the dictum, derived perhaps from a fundamentalist reading of *Say's Law*, that job losses from new technology are temporary and local because any increase in supply *automatically* stimulates a compensatory increase in demand. For others, the fallacy consists of not noticing that the increased costs per employee associated with a reduction in working time must *inevitably* lead to a fall in demand for labor. Yet others are eager to go in both directions at once, contrasting the presumably automatic growth of employment over the long term with the deplorable decline in demand for labor that would result from an arbitrary restriction of the hours of work.

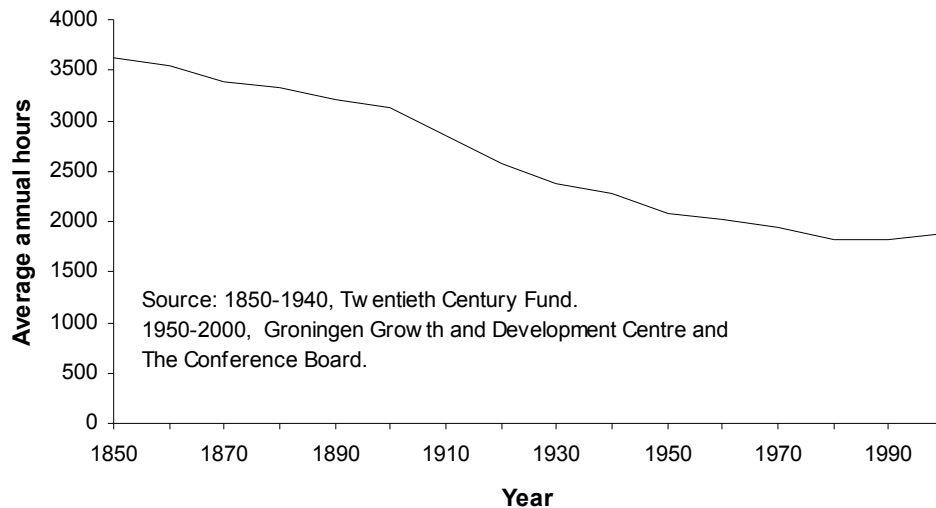
Those economists might be surprised to learn that in drawing attention to fixedness they are following the rhetorical precedent of Karl Marx's 1865 address to the General Council of the First International on *Wages, Prices and Profit* (1970). Marx derided John Weston's argument against demands for higher wages with characteristic polemical panache:

If our friend Weston's fixed idea of a fixed amount of wages, a fixed amount of production, a fixed degree of the productive power of labor, a fixed and permanent will of the capitalists, and all his other fixedness and finality were correct, Professor Senior's woeful forebodings [regarding his "last hour"] would have been right... (14).

But if the critics' rhetoric superficially resembles Marx's, their logic more fundamentally echoes Weston's (and, by implication, Senior's). To paraphrase Marx: if *before* a reduction in working time the total demand for labor was *variable*, and not *fixed*, it will continue to be variable and not fixed *after* the reduction in working time. Which is to say that a fall in demand for the presumably more costly labor is no more automatic than is an increase in employment from the shorter hours. There are several variables at play beside the hourly wage rate that economists single out for attention, a fact that Beardsley had stressed long ago in his rebuttal of Rae.

Similarly, to suggest that the past record of employment growth demonstrates that a job creation strategy based on reduced working time is unnecessary sidesteps the relevant fact that job growth since the middle of the nineteenth century has indeed been accompanied by a substantial reduction in the hours of work. Although the historical record does not itself establish that reductions in working time directly caused the employment growth that did occur, it does draw attention to an implicit and rather dubious assumption underlying this version of the lump-of-labor fallacy claim: that an equal or greater amount of employment growth would have occurred even if the hours of work had remained unchanged since 1850. Chart 1 shows that work hours in the US fell from an average of more than 3,500 per worker a year in 1850 to fewer than 2,000 today.

Chart 1: Average annual hours per worker in the US, 1850-2000



According to Bosch (2000), "the reduction of working time over the past 100 years has not only constituted a form of redistribution, but has also, through its effects on work organization and operating hours, provided much of the impetus behind productivity growth and economic growth" (177). It is indeed hard to imagine how much of modern technology could have been introduced were it not for previous reductions in working time. Summarizing research studies of working time reductions, Bosch concluded that most work time reductions show positive employment effects ranging from 25 percent to 70 percent of the "arithmetically possible effect"

(180). Only a few find no positive effects. As Bosch cautioned, though, the gains are "not just a question of 'whether' but also of 'how' the reductions are implemented" (177).

The ideals of life v. the GDP

The reduction of working time is an issue that affects aspects of life beyond the numbers of jobs and the price of labor. From the perspective of workers and of society as a whole, the chief prospective benefit is an increase in disposable time. The question that needs to be asked, then, is not merely how many jobs would result from a given reduction of working time but also whether more disposable time or higher incomes will better contribute to people's well-being -- that is, to things like health, learning, family life, self-reliance and citizenship. It is a question that can't be answered with a mathematical equation. Nor can comparing rates of change in the gross domestic product provide the answer. Richard Layard (2003) has commented on the inappropriateness of that practice, arguing that even though taxation may reduce both work effort and GDP, "we should be equally clear that this does not matter, because GDP is a faulty measure of well-being" (11). Yet critics of reduced working time policies -- including Layard himself (Layard et al. 1991, Boeri et al. 2000, de Koning et al. 2004) -- do point precisely to slower growth of GDP as a defect of such policies.

That lack of correspondence between GDP and well-being may provide a clue to anxieties underlying the preemptive use of the lump-of-labor claim. If there is indeed a possibility that reduced working time could represent "an advantage to the entire community," as the report of the US Industrial Commission argued over a century ago, then economists would have to grapple with the fact that such an advance registers as a decline in GDP. Similarly, a loss of free time registers as an increase in GDP, even if the loss demonstrably exceeds any compensating gain from market activity. Furthermore for some values of the duration of working time, an increment in the hours worked can produce a loss of both income *and* leisure, a condition that Chapman showed is not only possible but even likely under competition. None of this makes for convenient mathematical model-building along established neoclassical lines.

In his presidential address to the Economics and Statistics Section of the British Academy for the Advancement of Science, Chapman (1909) expressed doubt that fallacious ideas about the mechanics of distribution played any significant role in motivating workers to seek shorter hours. Instead he attributed the drive to "ideals of life, formed half instinctively" (365). In the conclusion to his paper, Chapman worried, "lest the growing importance of leisure generally, and of a proper use of leisure, should not be fully realised." That danger arose, Chapman suggested, because "some of us who have an economic bent of mind get into the way... of thinking too much of the quantity of external wealth produced and too little of the balance between internal and external wealth" (373).

The theory of the hours of labor Chapman articulated came to be generally regarded as authoritative in marginalist analysis. It has never been refuted, only displaced by a simplifying assumption and a collective dose of amnesia. The simplifying assumption -- that the given hours of work be assumed to be optimal -- was introduced by John Hicks in 1932 with the caveat that any calculations resulting from that abstraction needed to be thought back to a more realistic form. Hicks' caveat, like Chapman's theory has simply been ignored (Nyland 1989). Meanwhile, the red herring of the lump-of-labor fallacy has gained unwarranted currency at the summit of the policy food chain, poisoning the prospects for dialogue between different analytical traditions in economics and for progressive policy innovations centred on the reduction of working time.

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