Why Economists Dislike a Lump of Labor

by the Sandwichman

> *One of the best-known fallacies in economics is the notion that there is a fixed amount of work to be done – a lump of labour – which can be shared out in different ways to create fewer or more jobs* (Bishop 2004, 159).

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 direct government 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). Over the course of the twentieth century, an odd polemic has become a commonplace in the discourse of mainstream economics. That polemic is based on the claim that policies aimed at creating employment through limiting the hours of work stem from the mistaken belief that there is a fixed amount of work to be done. Economists call this allegedly widespread delusion the 'lump-of-labor fallacy.' Recently, denunciations of the lump-of-labor fallacy have surfaced in debates about attempts by European governments to combat joblessness through policies that reduce working time, such as the 35-hour workweek introduced in France in the late 1990s. This article catalogs some of those recent flare-ups and examines the substance, history and possible consequences for policy deliberation of the claim.

It is true that there is not a simple trade-off between hours of work and numbers of workers, as some unsophisticated proponents of shorter work time might assume. Nor is reducing the hours of work certain to create jobs under any and all circumstances. However, when critics of reduced working time make sweeping claims about the inescapable futility of such policies, they commit errors no less glaring than those of naïve proponents. The claim that proponents of shorter working time necessarily commit a lump-of-labor fallacy relies on contradictory, ad hoc explanations that themselves employ questionable fixed assumptions.

Behind those explanatory discrepancies is a murky history in which the current form of the lump-of-labor fallacy claim emerged not from a single authoritative analysis but rather as a pastiche of disparate journalistic, propaganda and pedagogical fragments. At the height of agitation for an eight-hour day in the late nineteenth century, a 'sensible' advocate, John Rae (1894) was moved 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 actually were unemployed. Although Rae himself didn't use the characteristic 'lump-of-labor' phrase, the argument he used to refute Gunton became the model for rejecting the job creating potential of reduced working time. Later, elements of Rae's argument were adapted, out of context, by employers' groups hostile to the eight-hour day itself, to the motives of trade unions and to government regulation of working conditions in general.

Today, a similar range of attitudes from skepticism to hostility can be observed among economists, journalists and politicians who oppose reduced working time policies. Yet, even as they focus their scorn on presumed believers in a lump of labor, opponents rarely engage more nuanced arguments from credible proponents, such as Gilbert Cette (2000), who helped to design

the 35-hour legislation in France. Contrary to the suggestion that only artless amateurs advocate shorter work time policies, such eminent economists as John Maynard Keynes (1980), Luigi Pasinetti (1981) and John R. Commons (1969) have highlighted such policies as key strategies for combating unemployment. Significant theoretical support for shorter working time policies comes from Sir Sydney Chapman's analysis of the hours of labor (1909) that has inexcusably been disregarded by neoclassical economists in the post-World War II era, thus thwarting a potentially fruitful reconciliation between contending explanations of how the hours of work are determined (Nyland 1989, 32-34). This paper argues that Chapman's theory offers a surprising validation of the job creating potential of reduced working time – one that turns the tables on the lump-of-labor critics.

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 social well-being and income distribution as well as employment and aggregate income. Rote repetition of the fallacy claim has served to impede analysis and dialogue about how the hours of work are to be determined and what may be the likely social, political and economic consequences of policy interventions to establish reasonable hours of work.

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 reprised to justify rolling back legislative restrictions on the hours of work on the grounds that such policies are ineffectual in creating jobs or impede economic growth and are thus actually destructive of jobs. In a report to the French Ministry of Finance in 2004, 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 that appeared in the *Journal of Economic Perspectives* also attributed the 35-hour workweek policy 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. Although more sympathetic to the aims and methods of the 35-hour workweek, Olivier Blanchard (2004) also described government policies aimed at "job rich growth" as "a direct descendant of the lump-of-labor fallacy" (17).

In a report whose approach was lauded 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 was 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 evidence of belief in a lump-of-labor fallacy. The Boeri report was presented jointly to the Council of European Premiers by Blair and Italian premier Massimo D'Alema.

The authors of an OECD Policy Brief 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" (2004a, 3; see also OECD 2004b, 28). Discounting 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'..."

In a background paper for the ILO World Employment Report 2004-05, Oliver Landsmann (2004) castigated shorter work time policies as versions of an "end-of-work story" that "ignores Say's law by assuming (in one way or another) that there is a fixed amount of work to be done and that, therefore, increased productivity means less jobs. In the labour market literature this is referred to as the 'lump of labour' fallacy" (6). Landsmann further insisted on the inevitable failure of, "any policy aiming at a better balance of supply and demand by reducing the effective volume of labour supplied," (9) because, he asserted, such policies are based on the false assumption of a constant number of hours of work.

Finally, in an article devoted expressly 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).

Fallacy or paradox: how “fixed” is a fixed amount of work?

The lump-of-labor fallacy claim presents the reader with a paradox. Few would admit to believing that there literally is an unchanging amount of work. But at the same time there *is* unemployment and governments *do* intervene regularly with fiscal and monetary policies, ostensively for the purpose of creating jobs. To accept the strong form of the lump-of-labor fallacy claim would seem to reject the case for any form of government intervention for the purpose of job creation. But with few exceptions, mainstream economists who invoke the lump-of-labor fallacy do indeed advocate or at least accept other kinds of policy intervention.

The difficulty of replying to such an equivocal claim is compounded by the odd usages employed in the phrase and by commanding finality of the fallacy label. The term ‘labor’ in the phrase ‘lump of labor’ refers to the demand for labor, contrary to the usual usage of the term to refer to labor supply. Confusion also arises – and sometimes is rhetorically urged – from the fact that what is at stake is paid employment only although colloquially ‘work’ could refer to anything that needs to be done, whether or not it is compensated. Finally, the usage of the label ‘fallacy’ is misleading. Strictly speaking, only the extreme position – insisting on a direct, arithmetically-exact trade-off between hours and jobs – can be shown to be based on the assumption of a fixed amount of work. But usage has been first, to tar all advocates of reduced working time with what could be called fallacy-by-association and then to attempt an explanation of why such advocates do indeed ‘implicitly’ assume a fixed amount of work regardless of their stated arguments and stipulations.

The meaning of a ‘fixed amount of work’ may seem self-evident at first glance but, as Daniel Kinderman (2001) has pointed out, that fixedness could refer to either one or both of two different things. It could refer to a *constant demand* for labor, unaffected by (presumed) increases in the cost of labor. Or, 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 as well as with the argument of Say’s Law that any increase in the supply of labor generates an equivalent demand for labor. Thus, the fixed amount of work could represent either a ceiling or a floor.

Swaim (2005) has explained the lump-of-labor fallacy as “an illustration of a type of logical error that represents a constant danger when analyzing economic issues… (In more technical jargon, treating an ‘endogenous’ variable as if it were ‘exogenous’.)” Such errors plague economists in that they, “cannot escape assuming that many potentially relevant variable[s] are fixed. It is simply impossible to think about everything varying at the same time.” This explanation suggests a pedagogical function for the lump-of-labor fallacy claim as a striking practical illustration of the principle that economists need to be vigilant against the constant danger of being led astray by their simplifications and fixed assumptions. Earlier, it was mentioned that critics of reduced working time policies err when they try to generalize the lump-of-labor claim as applying to all such policies. It may be further specified that such sweeping claims rely, ironically, on what could be called, following Swaim, a “lump-of-labor *type”* of logical error, for example, that workers’ preferences for income and leisure are formed exogenously, that the given hours of work are optimal, that the costs of employer-paid benefits are *entirely* independent of output or the number of hours worked, or that arrangements regarding the hours of work are exogenous to long run employment and productivity growth.

Origins 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 (Walker, 2000). Investigation of the history of the claim reveals why. There is no single authoritative source. In place of an acknowledged authority there is only a pastiche of circumstantially related but often contradictory (in some cases, self-contradictory) fragments. An early and possibly the founding mention of a "Theory of the Lump of Labour" can be found in "Why Working-Men Dislike Piece-Work," an article on piece work by David F. Schloss (1891). Schloss, however, employed the phrase to condemn the restriction of work effort and output but explicitly *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, whether justified or not, about the loss of jobs. Schloss discussed those substantive objections at length before arriving at 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.

It was another supporter of the eight-hour day, John Rae, 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 (1894). 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. Gunton claimed that the establishment of the eight-hour day in the US would generate a quantity of jobs three-and-one-half times the number of unemployed and thus would necessitate the importation of workers from England and Europe. Rae replied, reasonably enough, that redistributing the hours of work was not "a simple sum in arithmetic" (179). That answer would have been above reproach had Rae not then gone on to try to show that the case *against* job creation was cut and dried. Charles Beardsley (1895) refuted Rae's overextended argument, pointing out that Rae relied on a variation of the same fallacy – namely, the by then widely disavowed wages-fund doctrine of classical political economy – that he attributed to others.

The ridiculing of an assumption of a "fixed amount of work" almost certainly originated as a broadside aimed at the same wages-fund doctrine that Beardsley detected in Rae. In 1871, John Wilson criticized a "Unionist reading of the Wages-fund theory" that sanctioned the dividing up of the "work to be done" (1871, 243). But even before that, in 1865, when the wages-fund doctrine still held sway among orthodox political economists, Karl Marx unleashed a polemical barrage against the fixed assumptions underlying John Weston's argument against higher wages:

> 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[1] would have been right and Robert Owen, who already in 1816 proclaimed a general limitation of the working day the first preparatory step to the emancipation of the working class… would have been wrong. (1970, 14).

In contrast to Senior's "woeful forebodings," neither Schloss nor Rae saw the eight-hour day as a measure that would diminish output. Instead, Rae expected the eight-hour day to result in higher hourly productivity, even increased total output. Rae dismissed the possibility that an eight-hour day would reduce unemployment on the grounds 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 that higher productivity would occur during the shorter day was in harmony with the growing body of evidence accumulated from industry over the course of the nineteenth century. Philip Sargant Florence (1924) later summed up that evidence as follows:

> Reduction from a 12-hour to a 10 hour basis results in increased daily output; further reduction to an 8-hour basis results in at least maintaining this increased daily output; but further reduction while increasing the hourly rate of output, seems to decrease the total daily output (229).

However, Rae's argument that such increased productivity would preclude job creation runs counter to a claim that has become almost an article of faith for economists: that the productivity gained from improved technology "creates more jobs than it destroys." Rae offered no explanation for this anomaly in his argument. Presumably it was simply an oversight.

[1] Marx was here alluding to what in Capital he called "Senior's 'Last Hour'" – the claim by Nassau Senior that "the whole net profit is derived from the last hour" in a cotton mill working "12 hours for 5 days in the week, and nine on Saturday" (1887, 215). Consequently, Senior argued, if the hours were reduced as urged by the Ten-hours agitation, the profits of the manufacturers would be destroyed.

Puffing up the fallacy claim

It was not late Victorian writers on economics but anti-union employers' associations and their allies in the press 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. Instead, they fused the two, claiming that reducing the hours of work was no more than a tactic of 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 was about control over the introduction of new machinery. The defining moment for the anti-union campaign came in a 1901 *London Times* series, "The Crisis in British Industry." 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). The author of the article found this strategy objectionable because, without the disciplining factor of unemployment, "the workers would have the employers entirely at their mercy."

Following the same convention as Rae and Schloss, the author of the *Times* series attributed the union strategy to a supposed primitive belief in a fixed amount of work. But unlike Schloss or Rae, the article offered no concession 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) painted a similar portrait, possibly influenced by the *Times* article, of the eight-hour movement's supposedly reprehensible motivation. 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 estimate. 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.

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 that 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....”

Over at least the past dozen years, *The Economist* has made something of a *bête noir* of reduced working time policies and the people who advocate them, fingering the lump-of-labor fallacy in no fewer than 17 articles between 1993 and 2005. All but five of those articles targeted shorter working time and many of them attacked the French 35-hour policy. “There is a common fallacy at the bottom of both explanations and cures. It is that the output of an economy, and hence the amount of work available, is fixed. Both history and common sense show that it is not” (1995). “It is depressing that supposedly responsible governments continue to pretend to be unaware of the old ‘lump of labour’ fallacy...” (1997). “...most economists pronounced the law's motivation – that if each employee works fewer hours, there will be more hours to share around – to be nonsensical” (2002). “As many pointed out at the time, these measures made little sense” (2004).

Gilbert Cette is Professor of Economics at the University of Aix-Marseille II and Director of macroeconomic analysis and forecasting at the Bank of France. He is considered one of the ‘architects’ of the 35-hour workweek on the basis of his macroeconomic analysis and his having

helped with the drafting of the Aubry legislation. Far from "pretending to be unaware of the old 'lump of labour' fallacy," Cette has explicitly responded to criticisms of what in France is referred to as 'malthusianisme', arguing that even if national income is not increased by the work-sharing effect of reduced working time, collective welfare can still be improved because already employed workers can be compensated for wage moderation by increased leisure while the previously unemployed are obviously better off with employment (2000, 4). Cette's colleague, Dominique Taddei has also taken issue with "*l'accusation fréquente de malthusianisme*" (1997, 18), arguing that such characterizations apply only to transitory, defensive strategies and are only of interest if they are accompanied by a better alternative solution.

Where Cette, Taddei and other proponents of the 35-hour law differ from critics is that they see the short-term, work-sharing contribution as itself worthwhile. They also envision the possibility of a long-term improvement in the equilibrium rate of unemployment and thus a gain in employment provided that the per-unit labor costs can be decreased through a combination of productivity gains, wage moderation and reductions in social overhead costs. Cette is clear that this possibility can only be realized if workers value the increased leisure time more than they would an increase in income. (2000, 13). Moreover, according to Cette, the 35-hour workweek was not conceived as a panacea for unemployment in France. Rather, it was seen as a way to maximize the job creating potential of more conventional measures aimed at stimulating economic growth (2001).

In the course of his denunciation of (unspecified) interest groups who supposedly "repeatedly put forward" the lump-of-labor fallacy in support of the 35-hour law, Saint-Paul (2004, 60) cited, in passing, an article by Cette (2000) and a book by Cette and Taddei (1998). Inexplicably,

however, Saint Paul did not discuss the contribution of those economists to the debate, even to differentiate them from the lump-of-labor view thus leaving the impression that the debate – and indeed the intent of the legislation – was dominated by the lump-of-labor view.

In a letter to the poet, T.S. Eliot, dated April 5, 1945, John Maynard Keynes identified 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 full employment echoes a comment in a letter written three years earlier. Keynes was responding to 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,* Luigi Pasinetti (1981) also addressed full employment as a goal of economic policy. In his analysis of a multi-sector, dynamic model of an economy, he noted that even when starting from a condition of full employment, the uncompensated effects of technical progress would be to generate technological unemployment because demand cannot be expected to increase *at the same rate* and *in the same proportions* in which technical improvements reduce the requirement for labor. Pasinetti’s argument is thus not simply about an amount of work to be done but about its exact composition. There are different

rates of technical progress in different sectors, labor is not perfectly mobile between sectors and demand for any given commodity will inevitably reach a saturation point. However, two factors operate to offset that tendency toward technological unemployment. One results from technical progress itself: the introduction of new goods. The second would be the reduction of working time, “a decrease either in the proportion of active to total population or of the length of the working week or of both” (90). Those two counter-balancing factors are not incompatible. They are complementary to each other and can be brought in together in various proportions. Pasinetti stressed that his analysis does not “boil down to the commonsense proposition that technical progress gives society a choice between *more* (or *new*) goods or more leisure.” (90). Instead, it reveals “the fixed framework within which the choice has to be made” and, furthermore, the necessity of making such a choice if technological unemployment is to be avoided.

Another eminent economist to suggest reduced working time to counteract unemployment was John R. Commons, who offered the novel proposal in *Industrial Goodwill* of varying the hours of work throughout the business cycle 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).

What Commons, Keynes and Pasinetti have in common, besides their views that the reduction of working time is one way to combat unemployment, is that their analyses are not mentioned by

any of the authors who allege that reduced working time policies are based on a fallacious belief in a fixed amount of work.

No discussion of the economics of working time would be complete without attention to the theoretical contribution made by Sydney Chapman (1909). Chapman did not propose the reduction of working time as a job creation measure. Instead, his argument was that the value of leisure must rise along with technological progress and that therefore the optimal length of the working day must progressively decline. As a result, he envisioned that “agitation for shorter hours will be constantly breaking out anew. [Therefore] ...it is important to understand fully the forces at work at each resettlement of the length of the working day” (358). Chapman’s analysis of those forces led him to a novel theoretical conclusion: under conditions of free competition, the hours of work sought by both workers and employers would tend to be longer than would best serve the long-term welfare of the workers and might even be longer than would maximize total output. Although that conclusion may seem counter-intuitive, it nicely explained the accumulated empirical evidence from the late nineteenth century in which reductions in the hours of work were often followed by increases not only in hourly productivity but in total output per worker in the industries concerned. Chapman’s theory came to be regarded as the “classical statement of the theory of ‘hours’ in a free market” (Hicks 1932, 102n.). Superficially, it might seem that Chapman’s argument would undermine the case for reduced working time as an employment creation policy. After all, if the same number of workers were producing more output in fewer hours wouldn’t that reduce the need for workers? That, as it happens, had been Rae’s conclusion on the basis of his empirical investigation of the same issue. But such would be the case *only* if one assumed that there was a “fixed amount of work to be done” that wouldn’t be augmented by increases in demand facilitated by lower prices. Thus Chapman’s theory turns the

lump-of-labor fallacy claim on its head by placing the reduction of working time at the heart of technological progress rather than treating it as a ameliorative response to such progress. Although Chapman himself didn't directly draw such a conclusion, his premise regarding the increased productivity of shorter hours forms the basis for an "efficiency week" hypothesis for shorter work time, such as suggested by Robert LaJeunesse (1999; see also Walker 2000, 204-208).

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 can 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).

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 trust, health, learning, family life, self-reliance and citizenship. It is a question that can't be answered with a mathematical equation. Nor can comparing GDP growth or unemployment rates provide a definitive answer. Richard Layard 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” (2003, 11). Similarly, unemployment has very different impact on the well-being of individuals across different countries. A recent international research project on labor market statistics concluded that the unemployment rate “is no longer an adequate measure of labor market capacity, economic performance, or social well-being” (Bluestone and Sharpe, 2004, 3). Based on estimates for 16 OECD countries of a proposed “Index of Labour Market Well Being” (ILMW), that includes income, human capital accumulation, wage inequality and job insecurity, Osberg and Sharpe found “virtually no relationship between the unemployment rate and the ILMW...” (2004, 4). Yet critics of reduced working time policies rely extensively on raw comparisons between European and American GDP growth and unemployment rates as self-evident proof of the supposed failure of such policies.

The lack of correspondence between measured GDP and well-being may offer a clue to anxieties underlying the preemptive use of the lump-of-labor claim. If there is indeed a likelihood that shorter 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 could register as a decline in GDP. Conversely, a loss of free time might register as an increase in GDP, even if that loss of free time demonstrably exceeded any compensating gain from market activity and even if an increasing proportion of output consisted of goods whose sole utility was repairing some of the social damage that resulted from the stress of overwork, inequality and job insecurity. Furthermore for some values of the length of the working day, an increase in the hours worked could produce a loss of both income *and* leisure or a reduction in working time could raise output, conditions that Chapman showed are

not only theoretically possible but not even surprising under competition. Changes in output cannot be assumed to be proportional to changes in working time and even the direction of change is uncertain. None of this radical indeterminacy makes for convenient mathematical model-building along established neoclassical lines. If the reduction of working time is, as Rae cautioned, “not a simple sum in arithmetic,” neither is the well-being of a nation.

In his presidential address to the Economics and Statistics Section of the British Academy for the Advancement of Science, Chapman 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” (1909 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).

Chapman’s warning, along with his theory, goes largely unheeded even as the red herring of the lump-of-labor fallacy has gained unwarranted currency at the pinnacle of the policy food chain, impeding dialogue between different analytical traditions in economics and, as a consequence, darkening the prospects for progressive policy innovations centered on the reduction of working time. It is not, as Timothy Taylor complained, the lump-of-labor fallacy that has been “impeding and confusing legitimate arguments about jobs for more than a century” but contradictory, unsubstantiated and spurious claims about the inherent fallacy of reduced working time policies. It is time to give those distortions a rest.

References

Bartlett, B. (2003) “Unemployment and the 35-Hour Work Week,” National Center for Policy Analysis. http://www.ncpa.org/edo/bb/2003/bb100803.html.

Beardsley, C. (1895) “The Effect of an Eight Hours' Day on Wages and the Unemployed,” Quarterly Journal of Economics 9, (4): 450-459.

Bishop, M. (2004) *Essential economics,* London: *Economist* in Association with Profile Books.

Blanchard, O. J. (2004) “The Economic Future of Europe,” Journal of Economic Perspectives 18 (4): 3-26.

Bluestone, B. and Sharpe, A. (2004) “Construction of a New Architecture for Labour Market Statistics,” Paper presented at the annual meeting of the American Economic Association, January 3-5, 2004.

Boeri, T., Layard, R. and Nickell, S. (2000) “Welfare-To-Work and the Fight against Long-Term Unemployment,” Department for Education and Employment, Research Report, no. 206.

Bosch, G. (2000) "Working Time Reductions, Employment Consequences and Lessons from Europe: Defusing a Quasi-religious Controversy,” in L. Golden and D. M. Figart, (eds.) *Working Time: International Trends, Theory and Policy Perspectives,* New York and London: Routledge.

Brown, G. (1977) *Sabotage: a Study in Industrial Conflict,* Nottingham: Spokesman Books.

Camdessus, M. (2004) “Le Sursaut: Vers une Nouvelle Croissance pour la France,” Paris: La Documentation française.

Cette, G. (2000) “Employment, Unemployment and Reducing Working Time: The General Framework and the Case of France,” Conseil d’Analyse Economique. N° 02-2000.

——. (2000) “Les Trente-Cinq Heures: Quels Effets et Quels Risques,” in J. Pisani-Ferry, (ed.) *Plein Emploi*, Paris:

——. (2001) “Reform and Reduction of Working Hours,” Embassy of France in the United States: http://www.amba

Cette, G. and Taddei, D. (1998) *Reduire la Duree du Travail: les Trente-Cinq Heures,* Paris: Le Livre de Poche.

Chapman, S. J. (1909) “Hours of Labour,” The Economic Journal 19(75): 353-373.

Commons, J. R.(1969) *Industrial Goodwill,* New York: Arno Press.

de Koning, J., Layard, R., Nickell, S. and Westergaard-Nielsen, N. (2004) “Policies for Full Employment,” UK Department for Work and Pensions.

Economist. (1995) "One Lump or Two?" November 25: 67.

——. (1997) "One Lump or Two?" October 25: 17.

——. (2002) "Labours Lost,” June 15: 78.

——. (2004)"Thirty-Five Hours of Misery,” July 17: 13.

Florence, P. S. (1924) *Economics of Fatigue and Unrest and the Efficiency of Labour in English and American Industry,* New York: H. Holt & Co.

Hicks, J. (1932) *The Theory of Wages,* London: Macmillan.

Keynes, J. M. (1980) *The Collected Writings of John Maynard Keynes.* Vol. 27, *Activities 1940-1946: Employment and Commodities: Shaping the Post-War World,* D. Moggridge (ed.). London: MacMillan; New York: Cambridge University Press.

Kinderman, D. (2001) “The Janus-Faced Nature of Working Time Reduction: Between Rationalization Whip and Instrument for Social Justice,” Progressive Economics Forum Student Essay Contest,

LaJeunesse, R. (1999) “Toward an Efficiency Week,” Challenge 42(1): 92-109.

Landsmann, O. (2004) “Employment, Productivity and Output Growth,” ILO Employment Strategy Paper no. 17.

Layard, R. (2003) “Income and Happiness: Rethinking Economic Policy," Lionel Robbins Memorial Lectures.

London Times. (1901) “The Crisis in British Industry,” November 18: 10.

Marx, K. (1887) *Capital,* Vol. 1. Reprinted Moscow: Progress Publishers, n.d.

——. (1865, 1970) *Wages, Price, and Profit,* Reprinted Peking: Foreign Languages Press.

National Association of Manufacturers. (1904) *Eight Hours by Act of Congress: Arbitrary, Needless, Destructive, Dangerous,* New York: National Association of Manufacturers.

Nyland, C. (1989) *Reduced Worktime and the Management of Production,* Cambridge: Cambridge University Press.

OECD. (2004a) *Policy Brief: Clocking In and Clocking Out: Recent Trends in Working Hours*, Paris: OECD.

——. (2004b) *OECD Employment Outlook 2004*, Paris: OECD.

Osberg, L. and Sharpe, A. (2004) "An Index of Labour Market Well-being for OECD Countries," Paper presented at the annual meeting of the American Economic Association, January 3-5, 2004, San Diego, California.

Pasinetti, L. (1981) *Structural Change and Economic Growth,* Cambridge: Cambridge University Press.

Philp, B., Slater, G. and Harvie, D. (2005) "Preferences, Power, and the Determination of Working Hours," Journal of Economic Issues 39(1): 75-90.

Rae, J.(1894) *Eight Hours for Work,* London: Macmillan.

Saint-Paul, G. (2004) "Why are European Countries Diverging in their Unemployment Experience?" Journal of Economic Perspectives 18(4): 49-68.

Schloss, D. F. (1891) "Why Working-Men Dislike Piece-Work," The Economic Review 1(3): 312-326.

Swaim, P. (2005) Personal communication with author.

Taddei, D. (1997) "La Reduction du Temps de Travail," Paris: La Documentation française.

Taylor, T. (2004) "Dept. of Misunderstandings," Milken Institute Review. Third Quarter: 82-87.

US Industrial Commission. (1902) *Final Report of the Industrial Commission,* Vol. 19. Washington, DC: Government Printing Office.

Walker, T. (2000) "The 'Lump-of-Labor' Case Against Work-Sharing: Populist Fallacy or Marginalist Throwback?" in L. Golden and D. M. Figart, (eds.) *Working Time: International Trends, Theory and Policy Perspectives,* New York and London: Routledge.

Wilson, J. (1871) "Economic Fallacies and Labour Utopias," Quarterly Review 131(261): 229-263.