

Working time regulation in France from 1996 to 2012

Philippe Askenazy*

France, which is often seen as an unusual country with a rigid 35-hour working week, has experienced massive changes in its regulation of working time in recent decades, including a progressive removal of 35-hour working week laws. These changes have affected and continue to affect workplace organisation, working conditions, job creation, productivity and wages. The 35-hour working week policy represents a reduction in working time as well as a complex package that restructured French labour law and that opened up a great deal of space for social bargaining. This paper provides a comprehensive analysis of the evolution of working time regulation and its political roots. It discusses the studies evaluating the 35-hour working week and examines some of the basic consequences of reversing this policy since 2002. It also highlights unexplored lines of research on this topic.

Key words: France, 35-hour week, working time, bargaining
JEL classifications: J20, J30, J51, L23

1. Introduction

Analysts are often perplexed by the 35-hour working week, which was introduced by the French government nearly 15 years ago. The regulation of full-time working hours in France has been and remains characterised by major, complex reforms. The 35-hour working week policy was not only a reduction in working time, but also an original package that restructured French labour law and that provided a great deal of space for bargaining inside firms. These changes affected and continue to affect job creation, productivity, labour relations and working conditions, possibly more than the average hours worked. This paper aims to provide an accurate understanding and stimulate extensive international research on the French experience by providing basic information about the 35-hour working week, recent policy changes and the first waves of research evaluating these policies. It also highlights unexplored lines of research on this topic.

The paper is organised into two parts. The first provides a comprehensive history of recent reforms in France, their political sources and the key roles of the actors involved

Manuscript received 27 May 2008; final version received 29 June 2011.

Address for correspondence: CNRS-Paris School of Economics, 48 bd Jourdan, 75014 Paris, France; email: philippe.askenazy@ens.fr

* CNRS-Paris School of Economics and IZA. The author is much indebted to one of the editors of this journal and two anonymous reviewers for their constructive suggestions.

© The Author 2013. Published by Oxford University Press on behalf of the Cambridge Political Economy Society. All rights reserved.

(including politicians, unions, employers and economists). The second reviews case studies and evaluations of the impacts of these changes. Most of these assessments are reports written in French and are generally unknown outside of France. The 35-hour working week policy appears as an exchange of more leisure for a more flexible and intensive organisation of work in the context of *ex ante* frozen bargaining between employers and workers' representatives on these issues. Overall, the implementation of the 35-hour working week and the subsequent counter-reforms seem to have had a small macroeconomic impact, including limited job creation and a moderate reduction in working time, consistent with most international work sharing experiences. However, they also seem to have significant microeconomic consequences, including increasing inequalities in working conditions and compensation.

2. The evolution of the regulation of working hours in France

2.1 Historical conditions from 1981 to 1996¹

Following the United Left's electoral victory in 1981, the government aimed to expand employment by making the reduction of working time ('RTT', *réduction du temps de travail*) a priority of labour policy. This aim revived a principle inherited from the Popular Front of 1936: the issue then was a 40-hour working week and the introduction of two weeks of paid vacation time.

The objective in 1981 was a stepwise reduction in the legal weekly working limit to 35 hours by 1985 (Table 1). When negotiations between unions and employers stalled, a law was passed that reduced the working week to 39 hours.² A fifth week of paid vacation was granted. Hours worked in excess of 39 hours per week would be paid at overtime rates. This reduction was to be just a first step in working time reform. After 1982–83, however, facing a rapid depreciation of the franc and deep deficits, the government changed its general economic policy. Additional working time reductions and the goal of a 35-hour working week were abandoned.

At the same time, negotiations between unions and employers, sometimes pushed along by governments, led to a reduction in full-time working hours for approximately half of the work force in countries such as Germany and the Netherlands (Bosch and Lehdorff, 2001). France did not follow this trend. From 1983 to 1996, the only significant factor that reduced working time was a composition effect: increasing part-time labour that was stimulated by specific state incentives.

By the 1990s, the idea of RTT returned as a means to address persistent mass unemployment, which was well above 10%. RTT became the key demand of the *Confédération française démocratique du travail* (CFDT), the main reformist union in the private sector. Employer organisations judged RTT acceptable only if it was implemented on a voluntary basis. Despite no evidence that shorter working hours had created jobs in Germany or the Netherlands and a strong debate among French economists, the French planning commissariat reached a consensus in 1993 that RTT could be cautiously reimplemented in France.

¹ For a longer term view on working time in France, see Fridenson and Reynaud (2004).

² Five major labour confederations with widely varying orientations compete with each other in France.

Table 1. *Main laws concerning full-time work in France from 1982 to 2012*

Year	Regulation	Details
1982	A 39-hour week and a fifth week of paid vacation	Overtime is paid with at least a 25% bonus. Up to 130 overtime hours are allowed per year. There is the limited possibility of flexible work schedules.
1996	Robien law	Huge subsidies for significant reductions in working time associated with proportional job creation.
1998	Aubry I ^a	Announcement of the 35-hour working week for large firms in 2000 and for small firms (<20 workers) in 2002. Financial incentives for immediate reductions in hours worked and some job creation. Reductions in days worked for managers (except for top managers). Simplified implementation of time schedule flexibility according to agreements between employers and workers' representatives.
2000	Aubry II	Confirms the 35-hour working week reference. Permanent social tax cuts, concentrated near the minimum wage for firms applying a 35-hour working week agreement. Reductions can be achieved through a partial redefinition of hours worked (e.g. breaks). 'Annualisation' of work time: full-time work is 1,600 hours per year for non-managers and 217 days for managers. Maximum contingent of 130 overtime hours paid with a 10% or 25% bonus. A transition period for small firms.
2003–04	Fillon adjustments	Permanent social tax cuts for all firms. Contingent of overtime hours is expanded to 220.
2007	Sarkozy's 'work more to earn more' (Travail, Emploi et Pouvoir d'Achat, TEPA law)	25% bonus for overtime hours (>1,607 hours per year). Exemption of income tax and workers' social contributions on overtime pay and cuts in employer's social contributions.
2012	Corrected budget 2012	Abrogation of exemption on overtime pay and of cuts in social contributions (except for firm with 19 or less workers).

^aNamed after Martine Aubry, Minister of Labour.

The conservative government initiated these changes with the 'Robien' law in June of 1996. This law aimed to encourage 10% or 15% voluntary reductions in hours worked and the creation of jobs proportional to these reductions through massive government incentives to companies: a state-financed cut in social insurance contributions over the course of seven years. The process met with some success.³

2.2 *The surprising 1997 election validated the 35-hour working week*

After President Chirac unexpectedly dissolved Parliament in the spring of 1997, legislative elections brought the Socialists back into power at the head of a coalition with the Green Party and the Communists. The coalition needed to prepare a programme quickly to reduce the unemployment rate, which had reached a record level of 12.5%.

³ Approximately 1% of the workforce was concerned; see [Fiolo and Roger \(2002\)](#) for a complete description.

The project focused on youth unemployment and the idea of a 35-hour working week (to fulfil the promise of 1981). The 35-hour working week project was supported by a coalition of social groups. The first groups were the unions, especially the CFDT (Askenazy et al., 2004). They considered that a reduction in working time was a way to share labour and constituted social progress; yet, the limited success of the Robien law proved the inability of employers to launch large bargaining processes. The Green Party believed that decreasing working hours would help to reduce the pressure of industry on the environment. Lastly, and more surprisingly, the right wing of the Socialist Party was the key engine driving the 35-hour working week project; around Strauss-Kahn, who was Minister of Economics and Finance, numerous economists claimed that a ‘rational’ RTT could be implemented.

Despite this domination of experts, private employers and conservatives denounced the proposals. However, their arguments to defend the ‘working society’ *versus* the ‘leisure society’ were undermined by their support of the Robien law. In addition, in early 1997, economic forecasts were pessimistic, indicating slow growth and poor job creation. These forecasts, however, were erroneous: most developed economies, including France, actually benefited from steady growth at the end of the century. The gap between forecasts and reality would significantly alter the process of work sharing.

2.3 A careful ‘neo-classical’ design to maximise job creation

Work sharing is largely criticised by ‘orthodox’ economists. The key theoretical arguments were formalised during the 1980s and the early 1990s.⁴ The first major principle of the Socialist 35-hour working week was ‘rationality’. Experts who advised the Socialist Party were well aware of the caveats of work sharing. They addressed each of these caveats as follows.

2.3.1 Differences between the skills of the unemployed and those of the employed.

If the unemployed are unskilled and the employed are skilled and both labour forces are complements of each other, a general reduction in work time may decrease the demand for unskilled labour and output. This phenomenon was observed in 1936 in French mining, facing a lack of skilled engineers, just after the implementation of the 40-hour working week. According to Freeman (1998), heterogeneity is the main reason for the limited impact of work sharing.

However, in 1997 this mechanism seemed not to be particularly relevant. In the mid-1980s, France initiated educational democratisation, with a huge increase in students at the *baccalauréat* level (i.e. completing secondary education) and at the tertiary level. Thus, new cohorts of young people were much better educated than previous cohorts. To counter absolutely the problems of heterogeneity, the Socialist project included a specific work-time status for managerial employees that limited the actual reduction in hours worked (see section 2.5).

2.3.2 Inflationary pressure.

Layard et al. (1991, ch. 10) denounce the ‘lump-of-output fallacy’. They argue that if work sharing has a transitory positive impact on unemployment, then this impact

⁴ The reading of the debates in the French national assembly in 1936 for the 40-hour working week reveals that most arguments were discussed long before they were described with equations.

should vanish in the long term: an initial reduction of unemployment leads to a rise in inflation that pushes the government to allow unemployment to rise in order to control for this inflation. They conclude that the ‘net result of shorter working time is then no reduction in unemployment, but a reduction in output’ (p. 503). In France, in 1997 the unemployment rate was so high that the risks of inflationary pressure were believed to be minimal. In addition, the French government has significant control over private wages of low-skilled workers through the minimum wage.

2.3.3 *Rise in unit labour costs.*

This is the main argument of standard WS-PS models: if unit labour costs increase after RTT, then the subsequent negative impact on job offers may offset the positive effect of work sharing. The conclusions of this theoretical literature are unclear.

Calmfors’ formalisations are sufficient to understand the core of the mechanisms. Calmfors and Hoel (1998) first examine cost-minimising firms facing RTT while holding output as fixed. The firms can hire workers or use overtime hours. Two polar cases emerge. If the firm initially paid overtime hours, then RTT increases the price of an additional worker relative to overtime pay. In this case, RTT leads to an increase in overtime paid and thus a reduction in the number of job offers. Most empirical evidence shows that reductions in standard hours lead to reductions in the actual hours worked (Hunt, 1999, in Germany; Jacobson and Ohlsson, 2000, in Sweden). In France, the actual hours worked by full-time workers also dropped by approximately one hour with the 39-hour working week in 1982. In addition, the number of paid overtime hours in France was low, an average of up to one hour per week for full-time private workers. Consequently, the actual working world acts in a way that is consistent with the hypothetical world of Calmfors and Hoel: the optimal situation for a firm is to set working time at a standard level. Following RTT, employment will rise. However, this optimistic conclusion is challenged when Calmfors and Hoel assume that firms also choose output-maximising profits. Now, the key variable is unit labour costs. Consequently, both the theoretical and empirical literature focus on the wage change during the work-sharing process. Following the seminal Calmfors article (1985), the theoretical literature reached no consensus on the magnitude of the rise in unit labour costs. This increase depends on both technological parameters, including hourly productivity gains or losses associated with the RTT, and bargaining parameters that determine hourly wages.

The empirical literature is more conclusive. In Sweden, the Netherlands and Canada (see Holmlund and Pencavel, 1988; Friesen, 2000), a reduction in working time was associated with a significant increase in the hourly wage. Using the German socio-economic panel, Hunt (1999) studied the reduction of working time achieved by unions in the second part of the 1980s. She found that the decrease in earnings following a drop in actual hours worked was fully compensated through a proportional rise in hourly wages, and she found no positive impact on unemployment of this process. The full compensation of monthly wages associated with the 39-hour working week in France is suspected to have destroyed jobs (Crépon and Kramarz, 1999 (French version), 2002 (English version)).⁵ Using aggregated data for 16 OECD countries, Kapteyn

⁵ According to French national accounts, hourly productivity experienced an exceptional increase in 1982 that is quasi-proportional to the reduction in working time. With an unaltered productivity and wage per worker, the 39-hour working week probably had no significant impact on unemployment or the competitiveness of firms.

et al. (2004) conclude that the reduction in working hours generally has small and insignificant impacts on employment because of its lifting effects on wages.

In 1997, for the economic advisors of the Socialist Party and then of the left-wing government, the work-sharing process would be a success if the reform left unit labour costs unchanged. They proposed a careful design for the reform, following a precise equation:

- (i) A reduction in working time from 40 to 35 hours per week with full wage compensation and no productivity gains increases unit labour costs by 11.4%.
- (ii) Hourly productivity gains are expected to reach one-third elasticity. Allowing new workplace arrangements (e.g. variability of work schedules) through a decentralised bargaining process would ensure such gains that are consistent with past time-series estimations. Therefore, the unit labour costs were expected to increase by 7.6%. The idea was to replicate the successful European experiences of shorter working times for which an associated modernisation of work organisation appeared as a key condition (Bosch and Lehndorff, 2001). Because productivity gains are more difficult to extract in small firms, the latter should benefit a transition period before the full implementation of the RTT.
- (iii) Social tax cuts should reduce labour costs by an average of 3%, leaving the remaining labour cost rise at only 4.6%.
- (iv) Lastly, because the monthly gross minimum wage for firms in a 35-hour working week is planned to decline progressively, the wages of newly hired workers are approximately 80% of average wages, and unions are inclined to accept some wage freezes, the global impact on unitary labour costs is virtually negligible.

In conclusion, the initial 35-hour working week design was directly inspired by ‘neo-classical’ approaches of the labour market to maximise job creation. The sole deviation from standard theories was the potential control of employers on productivity gains by introducing bargained overtime arrangements. Askenazy (2004) shows theoretically that in such a case, the bargaining process can induce significant productivity gains that help to maintain both productivity per head and monthly wages; consequently, a shorter working time can be associated with an intensification of work and poor job creation. This mechanism was not mentioned during the debate over the 35-hour working week reform.

2.4 From the first 35-hour law to the eve of the second law: a bargaining process

The second main principle of the 35-hour working week was the pre-eminence of bargaining. As in 1982, the Socialists encouraged a negotiated RTT, pledging later ratification of agreements by law. The government sought to negotiate the law’s formulation with all interested parties through a national conference on employment, wages and working time in October 1997. The avowed aim was a 35-hour working week law by the end of 1998. Small companies would be granted special dispensation (an extra two years to reach the goal) and financial incentives would be provided to companies that negotiated a reduction in working time on their own. The 1997 conference, however, did not achieve a consensus. The main employers’ organisation began active opposition to the proposed law. The employers, who soon reorganised as the *Mouvement des Entreprises de France* (MEDEF), argued that, unlike the Robien law, the ‘35 hours’ law made changes obligatory for all companies.

Two Aubry laws were eventually passed that only concerned the private sector. They aimed to link the legal reduction of working time to the active encouragement of negotiations. This connection would enable trade unions and employers' organisations to shape the content and implementation of the law. This approach was ambitious because numerous firms in large French industries are not unionised: France has the lowest rate of private union membership (5%) among OECD countries; this rate has remained stable over the last decade.

The first law was passed in June 1998. Aubry I had two parts. First, it set the legal limit of the working week in the private sector at 35 hours, to begin on 1 January 2000, for companies with more than 20 employees (two years later for smaller companies). Overtime would be paid at a higher rate (25%). Aubry I delayed the details of important matters, including the definition of working time, overtime hours, working time of managers and part-time issues. These details were to come in a second law, which would be enacted after observing the outcomes of decentralised bargaining processes. Consequently, Aubry I did not impose a 35-hour working week immediately, but envisioned a two-stage process whose success depended ultimately on agreements that were to be negotiated relatively quickly. To stimulate bargaining, the law encouraged companies to reduce working hours by 10% and increase the number of employees by 6% in advance of legal deadlines, by granting financial incentives to alleviate labour costs, especially close to the minimum wage: they reduced labour costs by approximately 8% for workers who are paid close to the minimum wage.

The concentration of social contribution cuts at the minimum wage level aimed to compensate for the initial increase of nominal low hourly wages. Full-time workers who were formerly paid at the hourly minimum wage (the SMIC) did not experience a drop in their nominal monthly remuneration, despite the reduction of working time; they received a bonus equal to four paid hours. Contrary to the standard SMIC, which is indexed on inflation, this bonus declined in real terms. Therefore, the Aubry law generated a variety of minimum wages (called 'les SMICs') depending on the date of the application of the 35-hour working week agreement. Theoretically, these different SMICs would asymptotically converge to a unique value. However, a recommendation of the *Conseil d'Etat* (France's supreme administrative court) accelerated the convergence.

These measures sought to legitimise the 35-hour working week and were hoped to give new impetus to collective bargaining. The reduced working week was also presented as a way for companies to improve their performance by making working time more flexible.

It would have been easiest for employers to negotiate this kind of reorganisation at the most decentralised level, i.e. that of the company or establishment, but the weakness of French unions hindered this reorganisation. Most small companies have no union delegations. Consequently, the law sought to modify the rules of labour representation. Companies with less than 50 employees could receive financial incentives by directly applying an RTT agreement that was signed at the industry level. This direct application was conducted by one out of five companies that adopted the 35-hour working week to receive subsidies provided by the Aubry I law. Another provision provided that an employee 'mandated' by a union organisation could negotiate and sign an agreement.

The two-stage method of implementing RTT under the Aubry laws gave negotiations a pivotal role in defining new norms of work time in conjunction with its reduction. The MEDEF, backed by major corporations, counted on the failure of the

incentive phase of Aubry I to undermine the entire project. If most companies did not begin negotiations, the MEDEF believed initially that the government would be forced to abandon or weaken the second phase. However, the MEDEF soon saw the many benefits of industries' negotiating in influencing the formulation of the second Aubry law. Several industrial organisations negotiated accords by July 1998, but many of these accords contained provisions limiting the effectiveness of RTT. At that time, 120 private sectors, covering nearly 10 million out of a total of 17 million private employees, had signed RTT agreements that fixed a global scheme for firms that decided to implement the 35-hour working week. In the meantime, the main trade unions were divided on many matters in negotiations and on basic strategy. The trade-off between jobs and wages was easier to observe at a more decentralised level. Consequently, compromises with unions were easier in individual companies. On the eve of the passage of Aubry II, 30,000 companies, employing two million workers, had adopted the 35-hour working week.

By this time, the economic environment had changed. France's economy had resumed a cycle of rapid growth, nearly 4% annually, in late 1997. Unemployment decreased as the country experienced three of its four best years for job creation in the twentieth century. Most policy makers went from pessimism to euphoria, which was reflected in the *Plein Emploi (Full Employment)* report of the Prime Minister's Council of Economic Analysis in 2000 (Pisani-Ferry, 2000). Strict application of the 35-hour laws lost a great deal of political relevance.

2.5 The second law: new definitions of working time

In these circumstances, some employers' organisations and company heads began to focus on the definition of working time in their negotiations (Bloch-London, 2000). They wanted to exclude 'unproductive' breaks, extra holidays and training periods. Therefore, it would be possible to reach 35 hours of working time per week with RTT substantially lower than 10%. Aubry II tried to foreclose this issue by defining actual working time as 'time during which the worker is at the employer's disposal and must conform to his/her orders without being able to take care of personal matters'. Yet this still allowed industries or firms considerable leeway to circumvent the law's aims.

Various industries (e.g. bakeries and road transport) ratified a system of 'equivalent hours', which took into account the time spent waiting for customers. Therefore, 38 or even 43 hours of work could become 'equivalent' to 35 hours worked; overtime hours are counted above this threshold. According to the ACEMO survey (see Table 2), in March 2012, 9% of salaried workers in firms with 10 or more employees still have a collective full-time working week above 39 hours.

A second illustration is the change in the status of breaks. For example, supermarkets excluded the three-minute breaks per hour for cashiers from calculations of paid time worked. The working time of a cashier in food retailing was officially reduced by four hours per week to reach 35 hours, when the actual reduction was only of 2.25 hours ($4 - [3 \text{ minutes} \times 35 = 1.75]$); for cashiers who are paid at the minimum wage, this mechanism also reduced labour costs and remuneration. Such changes are not visible in standard administrative series from employers' logs, which report paid hours. This has caused inconsistencies between figures from employers and workers. The noise in the datasets is an important problem for quantitative evaluation of the impact of the laws (see Section 3).

Table 2. Main microdatasets on working time in France

Private employer surveys	
ACEMO	This quarterly survey provides data on standard, collective working time and overtime. Collective working time includes 'structural' overtime and unpaid 'equivalent' hours (see Section 1.5).
ECMOSS	This yearly survey provides detailed data on remuneration and a priori hours worked (basic hours and overtime). It includes the Eurostat module ECMO.
DADS (Déclarations annuelles de données sociales)	This exhaustive administrative form contains varied information on individual, salaried workers (e.g. hours paid, wages, occupation, age, gender and diplomas) in private firms.
Modalités de passage aux 35 heures en 2000	Conducted by the French Ministry of Labour, this survey provides very detailed information on the RTT process and associated changes for 1,200 firms.
Employee surveys	
Enquête emploi	The French part of the European Labour Force Survey (including wages, working time and occupation). Data are available at www.insee.fr . The Survey was overhauled in 2003.
Additional questionnaires to Labour Force Survey are collected every 5 or 7 years for approximately 20,000 workers	The 'time schedule' questionnaire provides very detailed information on work schedules and the organization of private lives. The 'working conditions' surveys include a large variety of indicators of workplace organization and working conditions (including safety and mental strain); the last two surveys were conducted in 1998 and 2005. A new wave will be dispatched in 2012.
RTT et mode de vie	A specific survey conducted for the Ministry of Labour in 2000 and 2001 of 1,600 workers providing information on 'lifestyles' and work schedules.
Employer–employee survey	
REPONSE	This survey collected for the Ministry of Labour has three parts. Approximately 2,800 employers are interviewed face-to-face about labour relations, workplace organisation and technological uses. If present, a union representative is also interviewed face-to-face on the same topics. An additional questionnaire is collected from a random sample of workers in the associated establishments and gives information such as hours worked, wages and union membership. The last two available surveys were conducted in 1998 (at the very beginning of the RTT process) and in 2005; they include a panel of 600 establishments. A new wave is dispatched in 2013.
Robien and Aubry agreement databases	The Ministry of Labour has gathered the RTT agreements of all firms that have demanded state subsidies associated with the RTT. The main characteristics of the agreement are coded. The collection ended when the financial subsidies were generalized in 2003.

Employers' representatives have also sought to limit the number of managerial employees covered by RTT. The law allowed for agreements by collective bargaining that calculated the number of days worked (rather than hours). This limit was set at

217 days for managers and professionals with ‘genuine autonomy’ in their work; the wages are based on days and so there is no overtime hour but a potential overtime day. Theoretically, such employees can work more than 2,800 hours per year and officially be working 35 hours per week.⁶ Approximately 12% of private sector employees are covered by this special regime.

Aubry II also instituted 1,600 annual work hours as a legal norm. In companies adopting yearly measurements (‘annualisation’), the employer could ask workers to work fewer hours in some weeks (e.g. 25 or even 0 hours) and more in other weeks (e.g. 45 hours). If the total equals 1,600 annually, then workers would receive no overtime pay. This system has been particularly interesting for companies with seasonal variations in sales. While Aubry II incorporated the main results of negotiations, it also deleted provisions that imposed stringent conditions on companies for job creation and actual RTT. Incentive subsidies were replaced by permanent subsidies, conditioned only on the shift to the annual 1,600 hours and agreements ratified by a ballot of employees or unions. Again, there was no required counting of hours as before 1997. Finally, small firms benefited from a progressive application of the law and overtime was paid with only a 10% bonus. Initially, the law was to be fully applied in 2005 (Table 3).

2.6 *A variety of situations in the public sector*

The Aubry laws concerned only private employers. However, the RTT has been implemented by each governmental or local administration. The result is an astonishing heterogeneity. Five ‘typical’ examples exist as follows:

- (i) An ‘exception’ involving one-quarter of public employees, or 4% of the French workforce. Teachers from primary schools to universities are not affected: holidays and the number of class/course hours are unchanged.
- (ii) Researchers at the main public establishments were officially working 39 hours per week. They have benefited from 35 hours per week since 2002. The director of each unit can choose among a continuous menu of RTT arrangements. In most research units there is no control of working time. The new ‘rules’ (still unknown by most researchers) do not affect the actual time devoted to research.
- (iii) A ‘delayed’ example. Judges have also officially worked 35 hours per week since 2002. However, because it is impossible to measure their working time, the application of the 35-hour working week is just a benefit: eight days of RTT that is automatically saved in a time account. After several years, a judge can use his/her saved days for a sabbatical period. In each period the actual working time is unchanged. However, difficulties would emerge if numerous judges decide in the future to use their sabbatical rights.
- (iv) This problem was already acute in public hospitals. Approximately 3% of the French workforce (20% of public employees) was concerned. The 35-hour working week was introduced without proportional job creation. Because productivity gains are difficult to extract, the state has progressively accumulated a considerable debt to its workers. Approximately 3.5 million days were saved in time accounts by the

⁶ The minimum legal rest time is 11 hours per day. Therefore, a manager may work 13 hours per day for 217 days, i.e. 2821 hours. Such long working time is indeed, for example, observed in the retail trade (Askenazy et al., 2008).

Table 3. Main types of private firms in January 2002

	35-hour agreement		No 35-hour agreement
≥ 20 workers	Extended possibilities of schedule flexibility Permanent additional social tax cuts (concentrated on low wages)	Maximum overtime = 130 hours per year Minimum bonus for overtime = 25%	Limited schedule flexibility
< 20 workers (transition period)		Full-time reference for workers without 'genuine autonomy' = 35 hours per week or 1,600 hours per year	
		Maximum overtime = 180 hours per year. Minimum bonus for overtime = 0% for the first 3 weekly hours; 10% for subsequent hours	

end of 2007; the state has also delayed the payment of 23 million overtime hours. In 2008, the government decided to progressively pay these days and the overtime.

- (v) The RTT is not systematically ineffective for civil servants. In most central administrations, the 35 hours per week are fully applied. At the Ministry of Finance, numerous agents have up to 12 paid weeks of vacation per year and they generally take this benefit.

2.7 2002–12: the progressive removal of the Aubry laws

While, the 35-hour working week in the public sector has not been significantly dismembered since 2002 (if it has existed at all), the situation began to change for the private sector after the defeat of the Socialists in 2002. Because of the transition period for small firms, the Aubry laws were never fully applied in France. The new conservative government blamed the Aubry laws for France’s economic slowdown since 2001. The ‘Fillon adjustments’ (*assouplissements*) passed in 2003 and 2004 maintained the legal limit of 35 hours per week but abolished the incentive mechanism of the Aubry laws. Cuts in social contributions by firms were no longer linked to a reduction in working time. Companies that had already moved to a 35-hour working week were ‘punished’, receiving lower state subsidies (approximately €1 billion), whereas competitors that had stayed at 39 hours per week had their social insurance contributions partially financed by the state (approximately €5 billion).

The statutory number of overtime hours increased to 220. In short, a small company could stay at a 39-hour working week (35 hours + four hours overtime) at no massive extra cost (social tax cuts compensated overtime bonuses). In 2005 an unpaid ‘solidarity day’ (to finance policy for senior citizens) was introduced, raising the annual working time to 1,607 hours.

Nonetheless, no evidence suggests that companies that had already adopted the 35-hour working week have gone back significantly on their agreements (except for a few cases that have received extensive media coverage). Most employers do not want to question the arrangements that guaranteed them more flexibility in their work organisation. The Aubry laws thus seem to have hysteretic effects on large firms.

After the presidential election in 2007, the conservative government further undid the 35-hour working week with an original arrangement: employees no longer supported income taxes on overtime pay and employers in practice pay low social insurance contributions on overtime. Employers can also pay untaxed days that are saved in a time account. The sole simplification is the homogenisation of regulation for small and large firms, notably by increasing the standard bonus for overtime hours in small firms (see Table 4).

Theoretically, this new overtime regulation is an invitation to commit fraud (Artus et al., 2007). It makes overtime hours less costly to employers, while it yields more to workers after taxes than regular hours do. Employers and employees share an interest in reducing the basic hourly pay and in declaring the largest possible number of false overtime hours. However, trade unions have not denounced significant fraud. But, while employers had consistently underdeclared overtime, they have been pushed to declare them to benefit from social contribution cuts. In addition, firms have paid some days that were worked during previous years but were ‘saved’ in time accounts. The collateral damage of these reforms again comes in the form of inconsistent statistics from employers.

The focus on Sarkozy’s ‘work more to earn more’ message also impelled unions to claim for the payment of all working time—e.g. following a national strike, the large food retailers considered the 3-minute breaks of cashiers per hour as worked and paid time. Consequently, the evidence of the recent evolution of working time must rely on workers’ claims, e.g. labour force surveys.

At the same time, French legislation has been challenged by the judiciary. For the professionals or managers on ‘flat-rates’ (*au forfait*), the working time reference is the number of days worked. In February 2011, the European Committee of Social Rights noted that this rule is inconsistent with the European Social Charter ratified by France: working time should be ‘reasonable’. But there have been no sanctions. And the *Cour de Cassation* (France’s supreme civil court), which should follow this interpretation, took an opposite position in June 2011, arguing that there is no limit for hours worked if the collective agreement includes actions to preserve the health and safety of *au forfait* workers.

Judges are not the sole actors favouring the status quo. In 2008, the conservative government launched a general examination with unions and employer organisations on working time. This process was unsuccessful, but the initial work-sharing idea of the Aubry laws was clearly dead. Employers advocate the stabilisation of the legal environment. Most private and public workers still do not believe that work sharing occurs significantly or is welfare improving; but they fear that additional reforms will translate into keeping only the welfare-degrading aspects of French regulation. The unions are also conservative. They now focus on employees’ real disposable income (or ‘purchasing power’ as is often said in France); working conditions are dealt with as stress at work, rather than through working time. Despite regular debates, both the conservative majority and the Socialist Party (headed by Martine Aubry) are now reluctant to launch new significant reforms concerning working time. The election of a Socialist President François Hollande was followed in June 2012 by a large ‘social conference’—with no round table on the issue of working time.

However, because of financial constraints, the new Socialist government has decided to kill the costly (about €5 billion per year) exemptions of income and social taxes on overtime (except for the employer’s social contributions in small firms).

Table 4. Main types of private firms from January 2008 to July 2012

	35-hour agreement		No 35-hour agreement
≥ 20 workers	Extended possibilities of schedule flexibility	Maximum overtime = 220 hours per year Minimum bonus for overtime = 25% No income tax on overtimes	Limited schedule flexibility
< 20 workers		Full-time reference for workers without 'genuine autonomy' = 35 hours per week or 1,607 hours per year Permanent social contribution cuts for low wages + specific social tax cuts on overtime	

3. Evaluating the 35-hour working week process and its removal

The process of implementing and then removing the 35-hour working week has led to a labyrinth of legislative and regulatory systems. However, this process also produces variance that helps to design short-term evaluations. Conversely, the maelstrom of reforms makes it impossible to conduct long-term estimations: the final consequences of the Aubry laws will never be known.

Research into this issue suggests that these laws produced neither a miracle (as their proponents hoped) nor an apocalypse (as their foes warned), at least in the short term. Various dimensions are explored: the magnitude of RTT, job creation, wages, working conditions and leisure. However, no empirical research proposes a complete welfare analysis of the 35-hour working week or its progressive removal.

3.1 A limited reduction in working hours followed by a potential increase

In 2003, on the eve of the disentangling of the 35-hour working week, nearly 60% of private sector workers were in companies with a 35-hour working week. According to the French Ministry of Labour, 85% of workers in companies with more than 200 employees were covered by the laws, but this was true for only approximately 50% of workers in companies with 20–50 employees and only 25% in those with 20 or fewer employees. Several data sources can be exploited for measuring the recent evolution of working time in France (see Table 2). Most are available upon request from the DARES, the statistical body of French Ministry of Labour.

According to employer surveys (Table 5), the overall reduction in working time due to the Aubry laws has been marked for full-time workers: ranging from 8% (ACEMO) to 12% (ECMO). These percentages are close to the official reduction of four hours per week.

The magnitude of the RTT depends on the starting date of the process at the firm level and current regulations. This issue has been studied by numerous investigations that used case studies and systematic exploitations of agreement surveys (Passeron, 2000; Ulrich, 2001; Bunel et al., 2002; Pham, 2002; Gubian et al., 2004). The reduction under the Robien and Aubry I laws (before 2000 for large firms and 2002 for smaller firms) has been close to the theoretical decrease of four hours: this process has benefited approximately five million salaried workers. For firms that decided to implement the 35-hour working week under the Aubry II law, the actual decline is estimated

Table 5. *Evolution of hours worked in France as a percentage change from 1996 to 2004 (according to various sources)*

Private employers' claims	%
ACEMO, collective weekly working time, firms with 10 or more workers	-8.3
ACEMO, collective annual working time, firms with 10 or more workers	-8.9
ACEMO-TPE, collective weekly working time, firms with less than 10 workers ^a	-6.3
ECMO, full-time employees	-11.8
ECMO, part-time employees	-10.7
Employees' claims. European Labour Force Survey. Main occupation^b	
Normal weekly working time, full-time employees	-5.0 to -2.3
Effective weekly full-time	-7.2 to -4.3
Effective weekly part-time	-1.7 to +0.9
Effective weekly working time	-7.1 to -4.5
International series. National accounts	
OECD, annual working time, all dependent workers	-5.9
OECD, annual working time, all workers	-6.0
EU-KLEMS, annual working time, all employees	-5.6
EU-KLEMS, annual working time, all workers	-6.0
EU-KLEMS, annual working time, all employees, business sector	-5.7
EU-KLEMS, annual working time, all workers, business sector	-6.3

Notes:

^aFrom 1999 to 2004.

^bMajor changes in the survey design for France in 2003 require providing ranges of evolution.

at 6%–8%. Lastly, for firms (mostly small firms) that are still not covered by a 35-hour working week agreement, the working time has not been significantly affected.

Thus, using a constant method of calculation, the average effective RTT in the private sector has only amounted to 5%–6% (approximately two hours a week) instead of the expected 11% (Gubian et al., 2004). Because at least 25% of the public workforce (teachers, researchers, etc.) have experienced no reduction in working time, the actual RTT is also reduced in the public sector.

The 35-hour working week has also tended to reduce the share of part-time workers. For example, a large number of women who work four days per week (i.e. women who do not work Wednesdays, when there is no school for young children) can more easily supply 35 hours of full-time work than 39 hours of full-time work. This issue has not been studied in depth. However, Oliviera and Ulrich (2002) found that the RTT seems to be associated with a higher frequency in the transition from a 'long' part-time week (20–29 hours) to a full-time week. Such mechanisms suggest that assessing the macroimpact of the 35-hour working week should draw on statistics for all salaried workers and not only for full-time workers.

According to national accounts data, the annual working time of employees declined by approximately 7% from 1995 to 2003 (two years of flat economic growth) compared with 3% in the European Union and 7% in Germany (Figure 1). This macrostatistic is consistent with microestimations. Annual working time seems to have increased again after 2003, along with the end of the Aubry laws. Consequently, between 1995 and 2007, the reduction of annual working time in France was still real but reached only 5%, compared with 3% in the USA or the UK and 7% in Germany.

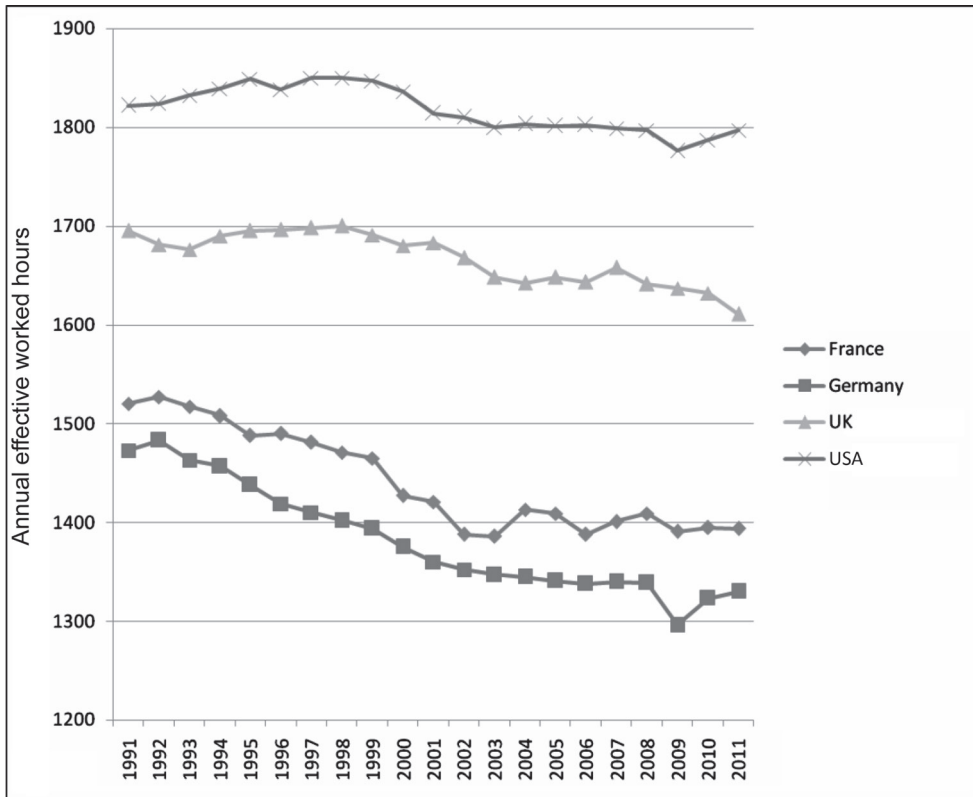


Figure 1. Annual effective working time of dependent workers (hours), 1991–2011: selected countries

Source: OECD.

The evolution during the 2008–09 crises is intriguing. While working hours dropped in most OECD countries, they remained flat in France according to both national accounts and the Labour Force Survey. Does the Sarkozy's policy explain this phenomenon? Employer surveys suggest that the number of overtime hours has significantly increased since 2007. Cahuc and Carcillo (2011) try to determine the impact of the exemption on the income tax and social contributions for overtime by exploiting the Labour Force Survey. Their identification strategy relies on comparing workers in regions adjoining French borders and cross-border workers (e.g. people living in France but working in Germany and Luxembourg). They argue that cross-border workers are a good control group: first, their employers are not concerned by the reform; and second, the French tax administration only indicated in January 2010 that cross-border workers also benefit from the income tax exemption for overtime hours. In 2008 and 2009, the number of overtime hours declared by workers in France increased by the same magnitude as the overtime hours worked by cross-border workers. Cahuc and Carcillo (2011) therefore conclude that social contribution and income exemptions are not effective. However, cross-border workers are not an ideal control group. They are generally well informed about European tax rules; thus, they should have known that the income tax exemption also applied to their overtime pay, even

if the French administration did not explicitly provide this information. In addition, cross-border workers are usually much better paid than in France, so the marginal rate of their income tax is higher than the rate for workers in France; the income tax exemption is therefore more attractive for them.

Basic statistics by gender suggest that Sarkozy's policy was not neutral. By reducing the costs of overtime pay, it theoretically pushes employers to substitute the hours worked by (female) part-time workers with the hours worked by full-time workers. The same mechanism should hold within a household: the additional working time of the full-time husband is tax-free, while the hours worked by the wife as a part-time worker are fully taxed. In France, a married couple (or a civil union) pays a joint income tax based on the sum of all incomes. Logs from the European Labour Force Survey seem to be consistent with these predictions. Between 2007 and 2010, the actual worked hours by female part-time workers declined by 1.3% in France, compared with a stable level in the EU15 and increases of 1.1% in the UK and Germany. At the same time, the hours worked by full-time employees increased 1.1% in France, while they declined in the EU15 (-0.5%), including the UK (-0.7%) and Germany (-1.1%).

3.2 *Some job creation and productivity gains*

Statistical *ex post* evaluation of the impact of the RTT on employment is extremely difficult. In particular, companies that chose to use incentive measures to reduce working time have specific characteristics (e.g. size and sector). Such characteristics are not necessarily independent of the way in which these firms seek to manage changes in their workforces.

Crépon et al. (2004), Bunel (2004A) and Gubian et al. (2004) provide evidence of a relative consensus concerning the rate of job creation caused by the various measures for reducing working time when selection phenomena are controlled for successfully. These studies use propensity scores, matching methods or structural models to encompass major selection problems. They try to construct control groups carefully and to exploit discontinuities in the regulation.

These studies conclude that there were net positive and significant effects of 6%–9% on job creation from the Aubry I measures. In contrast, the net effects on employment were likely to have been much weaker (approximately 3%) for companies that reduced working time without financial incentives or as part of the Aubry II measures. In these cases it is difficult to identify the respective roles of the cut in working time (which was less important in practice than for Aubry I) and the absence of specific financial incentives.

Crépon et al. (2004) extend these results by studying the impact of the reduction in working time on firm productivity. The authors show that companies that adopted the 35-hour working week experienced strong job growth after the cut in working time and insignificant losses in output per capita (consistent with Askenazy's model of bargaining over work organisation; Askenazy, 2004). They suggest that the effectiveness in the decrease in the working week by companies drawing on the incentives provided by Aubry I may have resulted mainly from a policy of cutting unit costs. It should be noted that the positive impact on hourly labour productivity due to the RTT, which may be observed for Aubry I firms, cannot be generalised to all companies. In particular, it is difficult to disentangle real productivity gains and artefacts due to the redefinition of working time in Aubry II firms.

These results from microdata can be generalised at a macroeconomic level to estimate the number of jobs created. Estimates are obtained by applying the rate of net jobs estimated to have been created under each measure, by firms switching to the 35-hour working week. Hiring lags in applying the reduction in working time are taken into account. Using this methodology, [Gubian et al. \(2004\)](#) conclude that between 300,000 and 350,000 jobs were created by the 35-hour working week between 1998 and 2002. Again, jobs were largely created under Aubry I, i.e. the law that required a genuine reduction in working hours with job creation. Consequently, one of the principal aims of the first law was probably achieved, because it combined a significant reduction in working hours with job creation.

However, [Estevão and Sa \(2006\)](#) reach a very different conclusion using the French labour force survey: they find that the 35-hour working week had no aggregate effect on net job creation. However, this result is obtained with a strong assumption concerning the identification strategy: they assume that in 2000 the 35-hour working week was applied in all large firms and not to small firms, while in fact the figures were mixed. The authors also claim that worker transitions from large firms to small firms increased as a result of the 35-hour working week, because workers in large firms are constrained in terms of their working hours. In this case, [Estevão and Sa \(2006\)](#) have interpreted the 35-hour working week as a maximum number of hours worked, while this is a threshold for accounting for overtime work. In any case, they must correct for the shift of business cycles according to firm size.

[Chemin and Wasmer \(2009\)](#) propose an original methodology to tackle these caveats. The idea is to use Alsace-Moselle's local law (*droit local*) to build a difference-in-difference estimation. This part of France has particular labour laws inherited from the German presence between 1871 and 1918. Workers in this region have two additional public holidays. However, between the beginning of the 35-hour working week process in France and 2003, firms that decided to reduce working time to 35 hours in this region included these two days in the calculation of non-worked time. Therefore, the RTT was smaller than in the rest of France. Exploiting this fact with the Labour Force Survey, [Chemin and Wasmer \(2009\)](#) found that working time declined less in this region, especially in large firms. But, there is no significant difference in employment changes between this region and the rest of France, according to firm size. This finding suggests a neutrality of the RTT on job creation. However, the authors do not seem to endorse this conclusion, because they stress that a difference of two days may be too small to yield a statistical effect. In addition, Alsace has specific characteristics. It is strongly linked to the German economy and business cycle: here again, numerous French people cross the border to find jobs in Germany and numerous firms are subcontractors of German companies.

While economists generally agree on net figures, they disagree on the events that occurred ([Artus et al., 2007](#)). It is unclear whether the new jobs were due to the reduction in working time and, as such, to a reduction of labour costs near the minimum wage, or due to increased flexibility. A first response is to claim that this consideration is not relevant to policy. Without state subsidies, companies would not have reduced working hours in advance of the law; if working hours had not been reduced, then workers would not have accepted increased flexibility.

However, further research could help disentangle the different effects. Papers have found significant differences between firms that reduced working time according to whether or not they benefited from early government subsidies. However, the

selection bias may be too important to allow conclusions to be reached and the RTT was more profound among first movers. For [Artus et al. \(2007\)](#), there are strong hints that the reduction in labour costs is the main driver of job creation. If the job effect of the Aubry subsidies is extrapolated from the estimations of the impact of general social security tax cuts at the minimum wage level conducted in 1996, then the job gains may be close to 200,000 or 300,000. However, the 35-hour working week firms are mostly large firms with a far lower proportion of workers paid at the minimum wage level than in small firms, which mainly remained at 39 hours per week. Therefore, the extrapolation is fragile. There may be two potential ways to improve the diagnosis:

- (i) To determine what types of jobs have been created in firms that applied the 35-hour working week. If they are not low-wage jobs in companies with relatively high wages, it is possible to believe that there is a serious possibility for a pure RTT effect on job creation.
- (ii) To evaluate the effect of the Fillon adjustment. If the social security tax cuts do explain job creation, it would be expected, from a symmetrical point of view, that the generalisation of cuts in social security contributions for all firms would increase employment in firms that still work 39 hours and slightly reduce employment in firms that apply the 35-hour working week.

To the best of my knowledge, the first issue has not been investigated seriously. However, very recent studies offer microevaluations of Fillon adjustments. A study for the French Ministry of Labour, finding no significant effects of this policy, has never been published. An independent analysis by [Bunel et al. \(2010\)](#) identified some impacts of the Fillon policy: job creation in firms working 39 hours and job destruction in firms working 35 hours; in both cases the elasticity of job creation/destruction to labour costs are far lower than expected. These findings are consistent with aggregate statistics by firm size, suggesting that the generalisation of social security tax cuts has not had a significant impact on employment shares across firms.

A related, stimulating theme concerns ‘partial unemployment’ or short-term compensation. This is an original procedure in French labour regulation. Firms facing a short-term decrease in activity can demand the French Ministry of Labour to place a proportion of their workers in a situation between employment and unemployment. For some weeks, workers are not dismissed, but they do not work (or only work part-time). They are not salaried by the firm and receive a sort of unemployment benefit that is partly financed by the state. This was an important tool that was used by employers to obtain flexibility and protect jobs. For example, in 1996, 35,000 establishments used this tool, covering a total of six million effective working days. In 2005 (a year with low economic growth, similar to that of 1996), only 5,000 establishments were concerned for less than one million days. [Calavrezo et al. \(2009\)](#) tried to test econometrically the relationship between the RTT and partial unemployment. Using microdatasets, they find a clear negative correlation between the two tools. In this case, it is difficult to argue that social security tax cuts are important. This finding suggests that by the eve of the deep recession of 2008, the flexibility offered by the 35-hour working week agreements substituted for partial unemployment (see also [Charpentier et al., 2004](#), for case studies).

3.3 Flexibility

The application of RTT provided many companies with the opportunity to introduce more 'flexible' working arrangements, allowing schedules to be adapted to activity rates and permitting companies to avoid paying overtime and to avoid periods of unproductive underactivity. Such policies had existed since 1982 but were generally infrequently used (Estrade and Ulrich, 2002). However, their recent implementation seems to have been a key bargaining chip used by employers in exchange for accepting the 35-hour working week. Bunel et al. (2002) show that more than half of all salaried employees were affected by such flexibility policies, following the introduction of the RTT.

The introduction of greater flexibility in companies that reduced working time has been an important aspect of the 35-hour working week. Again, this factor was considered by the left-wing government as a key component of the success of the 35-hour working week, even before the first law was voted. The latter even explicitly presented modulating hours as a way for companies to 'benefit from the reduction in working time'.

The question of flexibility, however, goes beyond a simple optimisation of working time. Several monographs on the subject illustrate this idea. Using studies on pioneer companies, Pelisse (2000) shows how the 35-hour working week was accompanied by a shift to calculating hours on an annual basis. The introduction of modulating hours so that they fit periods of high and low work intensity better, leads to overall cuts in the hours worked by all employees. Alternatively, companies may attribute 'RTT days' collectively according to firms' activity levels, which constitutes another form of modulation. Jacquot and Setti (2002) show how RTT, when viewed as a means of organisational change, allowed companies to introduce new types of work organisation, raising internal flexibility via new forms of multitasking.

Studies conducted using survey data confirm these results. On the basis of a survey carried out in early 1999, of nearly 3,000 firms, including 10% that pioneered the RTT (REPONSE survey, see Table 2), Askenazy (2003) shows that changes in organisational practices, such as just-in-time management, were adopted in the wake of cuts in the working week.

Conducted by the French Minister of Labor, the *Passages* survey of 1,000 employers concerning their projects, attitudes, strategies and agreements linked to the generalisation of the 35-hour work week provides additional evidence. Coutrot and Guignon (2002) identify four classes or strategies by companies that introduced the RTT. First, certain companies limit themselves to cutting working time, albeit weakly. Second, others, especially the Aubry I firms that implemented important organisational changes (mainly via the modulation of hours), also created jobs, given a strong implementation of the RTT. Third, other firms, mainly Aubry II companies, are different from the second group because their job creation was decreased. The last group of firms use flexibility in hours less often but have achieved greater internal and external flexibility via the introduction of new teams, the development of multitasking, cuts in the length and frequency of meetings, the development of ongoing vocational training and the use of temporary labour. If the flexibility of labour introduced in many cases along with the cut in the working week is taken into account, then the Aubry laws may be interpreted as a means for adapting the organisational forms of (large) French companies to productive flexibility, which is required within a context of technological change and competition.

3.4 *An apparently huge budget cost*

The Aubry laws were designed with the aim of not increasing unit labour costs, thanks to social contribution cuts. On average, the 35-hour working week has been a financially neutral proposition for most companies.

It is more difficult to assess the net cost of the laws for public finances. If the effort to attain a 35-hour working week had been carried out fully, then state subsidies to companies would have amounted to €16 billion in 2006, or 1% of GDP, for probably far less than 600,000 jobs created, which is approximately €30,000 annually for each job created. Estimating the net costs of the 35-hour working week requires the calculation of tax and social security receipts linked to the jobs created, as well as losses stemming from wage moderation. Such calculations involve major uncertainties: even if we consider that 350,000 jobs were created, the characteristics of these jobs are unknown. Tax and social security receipts vary substantially depending on whether the jobs created are paid at the minimum wage or whether they match the distribution of jobs across occupations. The net gain also depends on the characteristics of the beneficiaries of the created jobs. The Ministries of Labour and Finance have attempted to indicate broad outlines of the impact of the 35-hour working week to Parliament (Ollier-Novelli, 2004). Thus, in 2002 the net cost of the 35-hour working week was estimated at between €200 million and €1.5 billion, equivalent to just 0.1% of GDP, which was shared between the central government and social security funds. However, this method might underestimate the overall cost to the state. In particular, it does not take into account the cost to the central government and local authorities as employers.

3.5 *Working conditions*

While the 35-hour working week has not necessarily had a major impact on employment and the total length of time worked, its implementation has allowed many companies to modify working hours and introduce more ‘flexible’ forms of organisation.

The spirit of the Aubry laws and the RTT clearly aimed at improving the working conditions and lives of salaried employees. The new constraints that are linked to a more flexible work organisation (e.g. fluctuating and staggered hours, which are not always predictable in advance, or long days) are meant to be compensated for by shorter working times. However, it is difficult to know from a theoretical point of view whether work is less ‘hard’ (Askenazy, 2004). Empirical studies of employees’ work confirm that it is difficult to obtain a single answer to such questions. Afsa and Biscourp (2004) illustrate this phenomenon. By matching the Labour Force Surveys of 1995 and 2001, along with the database on agreements reached, they show that the effects of the RTT are highly diverse and depend on the category of employees in question and the characteristics of their companies.

Using a survey of 1,600 employees conducted at the end of 2000, Estrade et al. (2001) provide a quantitative appreciation by employees of the impact of the RTT on working conditions. Their assessment concerning working conditions is mixed.

The large epidemiological survey SUMER 2002–03, which included face-to-face interviews of 50,000 workers by occupational physicians, confirms these findings (Coutrot, 2006). In 2002 and 2003, employees who benefited from a cut in working hours also had to work far more flexible hours than other employees. Their work was organised in a more constrained manner, but they suffered less time pressure.

Furthermore, these employees obtained more support from their colleagues. These more favourable working conditions do not necessarily stem from cuts in the working week. Certain better conditions existed prior to the decrease in working time. Half of all employees questioned believed that the decrease in working time had improved their personal situation, one-third believed that nothing had changed and one-seventh felt that conditions had worsened.

This contrasting assessment hides significant heterogeneities and contributes to greater inequalities. This development came with an increase in inequality among wage earners, according to their professional category, social status and age, as well as between companies and economic sectors. Where workers and office employees in particular have had to accept flexible working hours, they have tended to experience deterioration in working conditions. Conversely, the autonomy of the work of managers and most technicians has been preserved and they have reaped the benefits of extra vacation time, known as supplementary RTT days. This time is especially valued by female managers.

RTT has led to greater irregularity and unpredictability in the pace of work experienced by employees, even though they were already subject to such constraints and previously had little ability to set their own hours and vacations. In contrast, employees who previously benefited from regular hours seem to have retained them (Estrade and Ulrich, 2002). While work intensity is perceived to be greater by a large majority of employees, because the greater work load is associated with the demands of multitasking, managers accept these conditions more easily. In contrast, unskilled female workers feel that they are under much more pressure.

Lastly, the perceived intensification of work is even greater when the jobs created due to the RTT are not attributed to the departments or units in which existing staff work. The impact of reorganising work and the entire productive process in general have had a strong influence on the way employees judge the implementation of the RTT. Monographic studies are consistent with this claim. The degree to which employees can control the organisation of their work, its regularity and the predictability of the time gained due to the RTT are more important in the perceived benefits than the actual reduction in hours worked (Pelisse, 2002; Lurol and Pelisse, 2002; Jacquot and Setti, 2002).

3.6 *Wage restraint*

The shift to a 35-hour working week was accompanied by a wage restraint. Most agreements contained clauses providing for this restraint. Estimates of basic pay show that the monthly wage bill in companies applying the law grew by one percentage point less than in similar companies of identical size and working in the same sector (Passeron, 2002). Before 2007, the annual calculation of working time allowed companies to avoid overtime, which used to be lucrative for employees in periods of high activity rates: some employees may have lost as much as 30% of their monthly pay as a result.

Fillon's reforms merely froze inequalities in the time and organisation of work. However, the abolition of pay guarantees automatically implied that a minimum-wage worker in a company that had adopted the 35-hour working week might earn 11% less than someone working 39 hours per week. Generally, wage restraint has created a gap between employees working 35 hours per week and those working 39 hours per week. Most of the former have lost financially from the RTT. Moreover, the actual decrease in their working time was significantly less than four hours per week, given the flexibility

that was imposed on them. Because the RTT has not been universally applied, these inequalities have reinforced the notion that working more could increase pay packets, which is why some employees who were initially supportive of RTT have grown hostile to it. However, Sarkozy's 'work more to earn more' idea is deceptive: the increase in overtime and the tax exemption are not sufficient to provide massive additional income.

3.7 Leisure activities and coordination within households

Two specific surveys help to measure some of the impacts of the 35-hour working week on leisure activities. At the end of 2000, a survey on RTT and lifestyles (*RTT et mode de vie*) asked a representative sample of approximately 1,600 workers with 35-hour working weeks how they used the additional time for leisure activities. Conducted in June 2002 and run by the Credoc, another survey (*conditions de vie et aspirations des Français*) asked similar questions to a smaller sample of 500 workers. Approximately half of the workers simply rested more; this finding is consistent with some intensification of work. Both surveys highlight that they also increase their time devoted to children. According to *RTT and mode de vie*, approximately 40% of the 35-hour workers reduced their use of external childcare. However, because of the increased flexibility of work schedules, approximately one-third increased their demand for external help. A small minority of workers report increases in their consumption of leisure, including restaurants or the cinema. The impact on the entertainment and childcare industries is probably limited.

Tourism does not seem to benefit significantly from the 35-hour working week. Because of RTT days, the timing of vacations, especially on weekends, has been affected. But the average number of vacation days per year has remained flat. Less than 20% of the 35-hour workers declared that they spend more time on vacation. The proportion is higher among managers, who have more frequent RTT days and higher real disposable income.

The limited impact on tourism is also consistent with the lack of time coordination within households. Approximately half of the workers were concerned by a reduction in working time. Less than one-third of the active couples experienced an RTT for both members. In addition, using the Labour Force Survey for various years, [Goux et al. \(2011\)](#) found that the wives of men who were affected by the shorter working week do not seem to adjust their working time at either the intensive or extensive margins.⁷ The husbands of wives affected tend to respond with a reduction in their working time, but the magnitude of the response is low, approximately half an hour.

The sole activities that seem to benefit from the 35-hour working week are semi-leisure activities: home improvement and gardening. Approximately half of the 35-hour workers declare that they spend more time on these activities. These findings are consistent with the rapid development in the past decade of DIY and gardening stores.

4. Further research

The intensive research that has been mainly conducted in French institutions draws a contrasted picture of the impact of the massive reforms of working time regulation

⁷ Using the same data but for a shorter period, [Bunel \(2004B\)](#) found some positive impacts on the extensive margin.

in France. Even if this specific question has not been investigated *per se*, the macro-economic impact is globally small: slight reduction of working time, poor job creation, unclear wage dynamics and limited stimulation of tourism. In contrast, workplace organisation was overhauled by the 35-hour working week agreements, mostly in medium and large firms. The consequences for workers have been significant. They depend on employees' relative bargaining power. The RTT has been welfare improving for most office managers in large firms and civil servants in central administrations, who gain additional holidays without wage cuts. Low-skilled, part-time women in medium and large firms often experience an imposed flexibility of work schedules without gains in other dimensions of work. However, several issues have not been covered, while detailed microdatabases are available.

The main line of research is to determine the global welfare impact of the 35-hour working week package: has it improved the welfare of most workers and at the same time preserved firm performance and competitiveness? What has been the magnitude of gender differences? Does a national policy help to coordinate people at a better equilibrium?

A second line of research may be to improve the diagnosis on consequences for the labour markets. For example, what types of jobs have been created or destroyed? Does it reduce part-time work, especially part-time work imposed on employees? Does work sharing really work? Is it costly? Is the labour market more segmented according to firm size?

A third line of research may be devoted to analysing the role of unions and complex bargaining processes concerning various parameters of human resource management simultaneously (e.g. wages, work schedules, work organisation and hiring). The 35-hour working week experience may reveal the preferences and trade-offs of actors and their bargaining power, according to the competitive environment and globalisation exposure, or it may structurally change labour relations. The quasi-exhaustive base describing firm RTT agreements is clearly underexploited.

A last line of research is still largely unexplored: the impact of the progressive removal of the 35-hour working week. Is the 35-hour working week a hysteretic policy? Is it possible to keep firm flexibility when working time increases again? Is such inverted work sharing negative for employment or employee welfare?

The 35-hour working week and its removal offer a rich series of natural experiments that may provide interesting information about labour markets and labour relations.

Bibliography

- Afsa, C. and Biscourp, P. 2004. L'évolution des rythmes de travail entre 1995 et 2001: quel impact des 35 heures? *Economie et Statistique*, nos 376–7, 173–213
- Artus, P., Cahuc, P. and Zylberberg, A. 2007. *Temps de travail, revenu et emploi*, report of the CAE no. 68, Paris, La Documentation Française
- Askenazy, P. 2003. La dynamique de l'organisation du travail lors de la réduction du temps de travail, *Économie et Prévision*, no. 158, 27–46
- Askenazy, P. 2004. Shorter work time, flexibility and intensification, *Eastern Economic Journal*, vol. 30, no. 4, 603–14
- Askenazy, P., Berry, J.-B. and Prunier-Poulmaire, S. 2008. Working hard in large French retailers, in Caroli, E. and Gautié, J. (eds), *Low-Wage Work in France*, New York, Russell Sage Foundation, 209–53

- Askenazy, P., Bloch-London, C. and Roger, M. 2004. De la construction au bilan de la loi Aubry, *Economie et Statistique*, nos 376–7, 153–71
- Bloch-London, C. 2000. Les normes du temps de travail à l'épreuve de la négociation: le cas des lois Aubry de réduction du temps de travail, *Travail et Emploi*, no. 83, 27–45
- Bosch, G. and Lehndorff, S. 2001, Working-time reduction and employment: experiences in Europe and economic policy recommendations, *Cambridge Journal of Economics*, vol. 25, 209–43
- Bunel, M. 2004A. Aides incitatives et déterminants des embauches des établissements passés à 35 heures, *Économie et Statistique*, nos 376–7, 91–115
- Bunel, M. 2004B. Les conjoints des salariés passés à 35 heures travaillent—ils davantage? Une analyse de l'offre de travail familiale sur données françaises, *Economie et prévision*, nos 164–5, 165–83
- Bunel, M., Coutrot, T. and Zilberman, S. 2002. Le passage à 35 heures vu par les employeurs, *Premières Synthèses*, no. 17.2
- Bunel, M., Gilles, F. and L'Horty, Y. 2010. Les effets des allègements de cotisations sociales sur l'emploi et les salaires: une évaluation de la réforme de 2003, *Economie et Statistique*, nos 429–30, 77–105
- Cahuc, P. and Carrillo, S. 2011. 'The Detaxation of Overtime Hours: Lessons from the French Experiment', IZA Discussion Paper no. 5439
- Calmfors, L. 1985. Worksharing, employment and wages, *European Economic Review*, vol. 27, 293–309
- Calmfors, L. and Hoel, M. 1988. Worksharing and overtime, *Scandinavian Journal of Economics*, vol. 90, 45–62
- Calavrezo, O., Duhautois, R. and Walkowiak, E. 2009. The substitution of worksharing and short-time compensation in France: a difference-in-differences approach, *Economics Bulletin*, vol. 29, no. 2, 820–33
- Charpentier, P., Huyghues Despointes, H., Lallement, M., Lefresne, F., Loos-Baroin, J. and Turpin-Hyard, N. 2004. Gestion des temps et régulations sociales: quelles incidences de la loi Aubry II sur l'organisation des entreprises et les conditions de travail des salariés? *Revue de l'IREES*, no. 44, 3–41
- Chemin, M. and Wasmer, E. 2009. Using Alsace-Moselle local laws to build a difference-in-differences estimation strategy of the employment effects of the 35-hour workweek regulation in France, *Journal of Labor Economics*, vol. 27, no. 4, 487–524
- Coutrot, T. 2006. Les conditions de travail des salariés après la réduction de leur temps de travail, *Premières Synthèses*, no. 06.3
- Coutrot, T. and Guignon, N. 2002. Négociations sociales et performances économiques: le cas des 35 heures, *Travail et Emploi*, no. 92, 95–114
- Crépon, B. and Kramarz, F. 1999. Réduction du temps de travail et emploi: quelques leçons du passage aux 39 heures de 1982, *Revue Française d'Economie*, vol. 14, no. 1, 3–26
- Crépon, B. and Kramarz, F. 2002. Employed 40 hours or not-employed 39: lessons from the 1982 mandatory reduction of the workweek, *Journal of Political Economy*, vol. 110, no. 6, 1355–89
- Crépon, B., Leclair, M. and Roux, S. 2004. RTT, productivité et emploi: nouvelles estimations sur données d'entreprises, *Économie et Statistique*, nos 376–7, 55–89
- Estevão, M. and Sa, F. 2006. 'Are the French Happy with the 35-Hour Workweek?' IZA Discussion Paper no. 2459
- Estrade, M.-A., Méda, D. and Orain, R. 2001. Les effets de la réduction du temps de travail sur les modes de vie: qu'en pensent les salariés un an après?, *Premières Synthèses*, no. 21.1
- Estrade, M.-A. and Ulrich, V. 2002. La réorganisation des temps travaillés avec les 35 heures: un facteur de segmentation de la main-d'oeuvre?, *Travail et Emploi*, no. 92, 71–94
- Fiore, M. and Roger, M. 2002. Les effets sur l'emploi de la loi du 11 juin 1996 sur la réduction du temps de travail, *Economie et Statistique*, nos 357–8, 3–22
- Freeman, R. 1998. Work-sharing to full employment: serious option or populist fallacy? pp. 195–222 in Freeman, R. and Gottschalk, P. (eds), *Generating Jobs: How to Increase Demand for Less-Skilled Workers*, New York, Russell Sage Foundation
- Fridenson, P. and Reynaud, B. 2004. *La France et le temps de travail (1814–2004)*, Paris, Odile Jacob

- Friesen, J. 2000. Overtime pay regulation and weekly hours of work in Canada, *Labour Economics*, vol. 8, 691–720
- Goux, D., Maurin, E. and Petrongolo, B. 2011. ‘Worktime Regulations and Spousal Labour Supply’, IZA Discussion Paper no. 5639
- Gubian, A., Jugnot, S., Lerais, F. and Passeron, V. 2004. Les effets de la RTT sur l’emploi: des simulations *ex ante* aux évaluations *ex post*, *Économie et Statistique*, nos 376–7
- Holmlund, B. and Pencavel, J. 1988. The determination of wages, employment and work-hours in an economy with centralised wage-setting: Sweden, 1950–83, *Economic Journal*, vol. 98, 1105–26
- Hunt, J. 1999. Has work-sharing worked in Germany? *Quarterly Journal of Economics*, vol. 114, 117–48
- Jacobson, T. and Ohlsson, H. 2000. Working time, employment, and work sharing: evidence from Sweden, *Empirical Economics*, vol. 25, no. 1, 169–87
- Jacquot, L. and Setti, N. 2002. Réduction du temps de travail et pratique de gestion des ressources humaines, *Travail et Emploi*, no. 92, 115–32
- Kapteyn, A., Kalwij, A. and Zaidi, A. 2004. The myth of worksharing, *Labour Economics*, vol. 11, 293–313
- Layard, R., Nickell, S. and Jackman, R. 1991. *Unemployment: Macroeconomic Performance and the Labour Market*, Oxford, Oxford University Press
- Luro, M. and Pélisse, J. 2002. Les 35 heures des hommes et des femmes, *Travail, Genre et Sociétés*, no. 8, 169–92
- Oliveira, A. and Ulrich, V. 2002. L’incidence des 35 heures sur le temps partiel, *Premières Informations*, no. 07.1
- Ollier, P. and Novelli, H. 2004. *Évaluation des conséquences économiques et sociales de la législation sur le temps de travail*, report of the Assemblée Nationale, Paris
- Passeron, V. 2000. Les 35 heures, l’emploi et les salaires, *Premières Synthèses*, no. 50.2
- Passeron, V. 2002. 35 heures: 3 ans de mise en œuvre du dispositif Aubry I, *Premières Synthèses*, no. 07.1
- Pélisse, J. 2000. Le temps des négociations, douze accords de réduction du temps de travail, *Travail et Emploi*, no. 82, 7–23
- Pélisse, J. 2002. À la recherche du temps gagné: les 35 heures entre perceptions, régulations et intégrations professionnelles, *Travail et Emploi*, no. 90, 7–21
- Pham, H. 2002. Les modalités de passage à 35 heures, *Premières Synthèses*, no. 06.3
- Pisani-Ferry, J. 2000. *Plein Emploi*, report of the CAE no. 30, Paris, La Documentation française
- Ulrich, V. 2001. Le temps partiel subi diminue depuis 1998, *Premières Synthèses*, no. 42.2