INSTITUTO CULTURAL MINERVA

INSTITUTE OF BRAZILIAN ISSUES AND PUBLIC MANAGEMENT ISSUES – IBI

THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

Layoffs in the U.S.:

Overviewing the American Experience

By Patrícia Lino Costa

Minerva Program, Spring 1999

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* The author is very grateful to Professor Donald O. Parsons, for his comments on a draft of the paper and for the lectures on Labor Economics.

I – Introduction

Since the beginning of this century, in most countries, labor relations have been marked by intense state regulation, by the existence of a large number of legislation protecting workers interest and by the presence of labor unions during the main bargaining between capital and labor.

However, this scenario has been changing throughout the 80s and 90s. As trade increased between countries, with new technologies being added for information exchange and with the mobility of stock capital, companies were led to search for other ways to raise their productivity and become more competitive. They are looking to move their production to countries where the cost of labor force is lower, specialized labor is more available and where state and labor union intervention in labor relations is not very significant.

In addition, companies are introducing new forms of work organization and production processes, trying to achieve lower cost and high efficiency, in order to increase their productivity and their competitiveness. Consequently, as the production process becomes more flexible and adjustable to demand, the cost of labor needs also to become correspondingly less expensive and more flexible.

The concept of flexible production collides, however, with the rigid scenario of labor relations whose numerous regulations followed by the unions presence, hardly allowed the companies to respond quickly to variations on demand and changing on market expectations. As a result, countries, in different ways, are deregulating and making their labor relations more flexible.

In Brazil, the openness of the economy to international trade in 1990, brought to light the non-competitiveness capacity of its industry and the need for changing the labor legislation. Things get worst in 1994, with the "Real Plan", where importation and foreign competition were used as a tool to stop inflation and to force national producers to decrease their prices. As a result, the government has started to implement new measures in order to make Brazilian legislation more flexible:

1. In December of 1994, the provisional measure 794 implemented "Profit Sharing", through which companies were able to make their labor cost vary according to the results of their production. This means that if companies declared profits and good results during a certain period, they were obliged to share part of the

profit with their workers. On the other hand, in periods of low demand, the cost was reduced since they do not have to pay anything. In consequence, companies could more easily adapt to market fluctuations.

2. In 1996, the government elaborated a project of law proposing the decrease of the fine in case of dismissal for economics or technologic reasons.
3. In 1998, other relevant laws and measures were mandated. Among them, Law 9601, which implemented temporary hiring. The aim was to reduce the labor cost and the social responsibility for hiring a worker. The government also extended the time for compensation for overtime, from 1 week to 120 days.
4. At the end of 1998, the government, through provisional measure 1.709, mandated the existence of part time work, defining the weekly hours of 25 hours as partial and guaranteeing the workers the right to receive their wages and holidays proportionally.
5. At the same time, through provisional measure 1.726, the government established the possibility of a temporary layoff, for at least five months. During this layoff period the company was expected to provide professional education to the employee. In case of dismissal, the employer was obligated to pay all the worker's rights under the law and a fee, that should be established by collective bargaining.

Regarding the measure related to a temporary layoff, the goal of the government was to offer an alternative to dismissal, allowing the worker to be retrained and to return back to his functions without ending his/her contract.

Few agreements between workers and firms are now being made in Brazil, based on the idea of a temporary layoff. Information about the experience of other countries, such as how a temporary layoff is being bargained over time, its impact on the labor market and the sort of workers that are being laid off, may assist analysis of the impact of this legislation in Brazil.

In the U.S., layoffs are a common procedure between firms and workers, mainly between sectors where workers are unionized and where formal agreements are signed, in order to guarantee workers' rights. Besides, there is no federal legislation or even state law regulating layoffs. Basically, when a firm temporarily lays off its workers, the recall may occur or may not occur.

This paper is expected to provide some information about the American experience with layoffs by presenting information about layoffs in the U.S. and its impact on the labor market. It also intends to specify the relation between layoffs and the unemployment compensation insurance and the use of work sharing as an alternative to this form of unemployment.

This paper is divided into the following sections: The first section presents a formal definition of layoffs, the main problems with this concept and finally, the theoretical approach to the analysis of the existence of a formal attachment between firms and workers (labor contract theory). The second section analyzes the impact of layoffs in a nonunion sector and in a union sector, presenting how layoffs are being negotiated under collective agreements. In the third section, after an introduction of the main features of the American unemployment insurance system, this paper intends to discuss the impact of Unemployment Insurance under layoffs. The fourth section brings some empirical data on layoffs, giving special attention to the manufacturing sector. Finally, some conclusions are drawn from the American experience with layoffs.

II - Layoffs

All economies have business cycles. Most of the time, the rising of GDP – Gross Domestic Product - is linked with a fall in unemployment, leading to an expansion. On the other hand, during a recession, declining GDP tends to increase the rate of unemployment. During a period of recession, firms generally have to reduce their production because of the fall of demand. As a result, if the firm could preview that this downturn is temporary, the employer could either dismiss their employee temporarily or reduce the number of working hours, which is known as work sharing. In the first case, or in temporary layoff, the workers are classified as unemployed and in the second case, they are considered as "partially unemployed". Depending on each country's labor legislation, workers, who have been laid off or are working less than normal hours, have the right to claim unemployment insurance, or short time compensation or other funds to provide benefits to them.

At first sight, it is possible to believe that the negative consequences of unemployment are avoided with these two kind of measures and workers are protected. So governments tend to stimulate each of these measures. The main idea is that, despite the recession, the volume of work is decreasing and dismissal is being avoided. However, in the case of some countries where temporary layoffs are more common, the non-existence of legislation or a formal agreement between companies and their employment can not assure the recall.

Though the aim of this paper is to study layoffs in the U.S., it is necessary to define the concept of the temporary layoff and the some theoretical assumptions that support this concept.

A - Definition of a Layoff

According to OECD, a person who is laid off is "*a person whose contract of employment has been suspended for a specified or unspecified period at the end of which the person concerned has a recognized right to recover his employment*"(OECD, 1983:13). It seems to be implicit in this definition that there is a link between employer and employee, a legal link or an informal one.

National Commission for Employment Policy (1991) defines layoffs as a reduction of workers in a firm, lasting weeks, a few days, months or being permanent, in case the firm decides to close down any sector or even an entire production line. In addition, this commission also defines the worker who has been permanently laid off or has no expectation to be recalled to work as a dislocated worker. The difference between the two concepts is the idea of being recalled or not to the work after some time.

These two definitions show, at first sight, the problem of the concept of the term "layoff". In fact, it seems that a layoff can be understood as a temporary employer-initiated discharge and as an employer-initiated discharge without the prejudice to the worker. By mentioning this problem, Haltiwanger (1987) suggests that the controversy on the term has been aggravated because of the data collected by Bureau of Labor Statistics in the United States. According to the author, in two different surveys (The Establishment Survey and Current Population Survey), two different meanings to layoff are applied. In the survey of firms, there is no distinction between temporary and permanent layoffs. On the other hand, in the households' survey, the questionnaire distinguishes between a permanent layoff and a temporary one. Despite this confusion, this article holds the assumption that any kind of temporary unemployment, in which the recall is expected, might be classified as a layoff.

B - Theoretical approach to Layoffs

Feldstein (1976) claims that Keynes, shaped by the experience of the Great Depression, introduced the idea that an unemployed worker who lost his job due to a fall in the aggregate demand, would only find a new job when the economy recovers and when the aggregate demand increases sufficiently. Theories of job search behavior pointed out that a worker who lost his/her job will accept a new job when the salary exceeds his optimal reservation wage. In other words, the decision to layoff was involuntary while timing the return to work is the choice of the individual.

On the other hand, Feldstein (1976) stressed the importance of temporary layoffs. "*Most workers remain with a single firm for a very substantial period even though they may experience frequent spells of temporary unemployment. Most of those who are laid off know that they will soon return to their employer...*"(Feldstein, 1976:938). In consequence, workers tend to be attached to a single firm during several downturns in the economy. Based on this assumption, he believes that in contrast to job search theory, it is the employers who determine the duration of these individual spells of unemployment.

Many studies relating to the attachment of a single firm and its workers started to be developed in the 70s and in the 80s. This new line of research, named as labor contract theory, brings a microeconomic approach to the bear on problems like unemployment and employment fluctuations, as pointed out by Rosen (1885) The main view is that, based on a market wage rate, firms take decisions *ex ante* to hire labor, based among other things, on projections of demand. On the other hand, workers offer their services to these firms, taking into account the wage and their preference between leisure and labor. In between workers and firms exists the contract, a bilateral negotiation between partners, specifying precisely the amount of labor to be utilized and the wages to be paid, both conditioned on information observed by both parties. In Rosen's words, "*wage payments in a contract reflect both allocative production decisions and risk-sharing and income transfer decisions jointly determined by both parties*". (Rosen, 1985:1145)

Further, labor contract theory emphasizes the long-term attachments that are commonly observed in the labor market. These long-term attachments are motivated by firm-specific human capital accumulation, risk shifting between firms and workers and other factors promoting worker-firm immobility. According to Haltiwanger (1987), the traditional labor market theory presents the view of the labor market at full employment. In contrast, the labor contract theory focuses on the importance of the attachment between workers and firms, so the fact of being attached to a firm without being employed does not necessarily represent a failure of the labor market. From this perspective, temporary layoffs may be seen as a part of the implicit contractual relationship between workers and firms. In that manner, both parties can recognize that in some periods demand will fall, making the value of marginal product lower than the opportunity cost of worker's time, but the discounted value of the attachment is still positive. The better solution during these periods, in the author's opinion, is the temporary layoff.

However, these attachments depend upon some factors such as the existence of the same level of information across workers and firms (symmetric information), the level of enforcement of the implicit contract arrangements and also the existence of perfect competition in the market for attachments. As an example, the following model was extracted from Haltiwanger (1984) and presented the main assumptions and the results derived from an implicit contract between a firm and its employees assuming the existence of layoffs.

Assuming a perfect competition market, the existence of symmetric information across workers and firms and no problems of enforcement, the long-term contract will consider the mobility cost, which includes the cost of hiring, training, turnover and searching for a new job. Besides, these contract also take into account some considerations of risk shifting.

Basically, considering this one period implicit contract model and assuming that first:

- A firm is price taker facing an uncertain product demand for the next period,
- Workers and firm immobility is characterized by the assumption that a firm can hire as many workers as it desires *ex ante*, but *ex post* can only employ the same employee that it hired *ex ante*. In the same way, workers can choose the firm that they want *ex ante*, but can only be employed by the same employer *ex post*.

During the decision of which firm to choose, workers will consider not only the wage offered but also the probability of being temporarily laid off. Besides, when hiring a new employee, a firm will have to offer a contract that is, at least, at the same level as that others firms. In addition, the model will demonstrate that a firm with a high probability of layoff, will have to offer an extra compensation to their workers or even paying higher wages than the average paid by others firms. These compensations tend to be higher the more workers are risk averse.

Considering the intertemporal model, Haltiwanger (1987) highlights that a firm can choose between laying off temporarily their workers or changing its inventory, in order to absorb temporary fluctuation in demand. In addition, under a multiperiod analysis, the positive relation between temporary layoffs and firm human capital accumulation tend to increase through time.

Parsons (1986) claims that large investments in human capital will diminish the probability of separation between firms and workers. Much of the investment in human capital is done by firms such as hiring, training, and on-the-job learning. These investments tend to reduce the mobility of workers, just because they are specialized in one kind of job, specific to a single firm. So, laying off skilled workers tends to be more costly due to difficulties in hiring qualified workers when the demand increases again.

The author mentions that Mincer and Jovanovic, in a study made in 1981 using data from the National Longitudinal Surveys, have reached the result that the separation rates declined sharply with the length of job tenure. According to the data, the main reason for this behavior is the tenure dependence of separations and not the age effect influencing the dynamics of layoffs and quits. Also this study points out that unemployment and turnover are concentrated among the inexperienced and poorly educated.

III - Layoffs Under Non Unionized and Unionized Sectors

Employment at will is the common contract that rules labor relations in the United States. This contract was developed in the nineteenth century based on the idea that an employer can discharge or retain employees at will for good cause or for no cause and in the same way, employees can choose to work or not for a certain firm. It is implicit that the idea of discharge by any reason, if this act benefits the employer and also, a employee can quit, if this is his will.

During the New Deal Era, a period marked by intense regulation, the federal government enacted, among other acts, the National Labor Relations Act (NLRA), which set the basic rules for union involvement in agreements between employers and employees. The main goal of this act was to guarantee employees the right to organize themselves or to form or assist labor organizations and to bargain collectively through their representatives.

Other regulations were implemented through time. Hellman et al (1981) suggests that two major types of regulation were implemented. The first one, named "substantive" regulation, is related to state-imposed constraints upon the final product or the outcome of the employment relationship, such as the minimum wage, hours of working, working conditions and some obligations derived of the contractual arrangements. The second one, called "procedural" regulation consists in guiding the employment-relationship, in which the two parties attain the status of employer and employee. The NLRA is included in this second category.

The base of collective bargaining was set by NLRA and this is the most common way that unionized workers deal with employee job security and limit the employer’s discretion. Some clauses have been negotiated by unions and employers according to seniority provisions, unfair dismissals, supplemental benefits, and due process, which permit the worker to confront his/her accuser in a discipline proceeding, in the presence of an arbiter. In contrast, workers who are not covered by any collective bargain are lead to employment at will contract, which means dismissal by any cause. This fact has been the major concern of law making, not only for the reduction of the number of workers affiliated with unions, but also because it leaves employees vulnerable to exploitation and coercion.

Regarding the existence of two kind of employees, the ones who belong to a unionized sector and the ones whose contract depend upon the doctrine of employment at will, this article intends to discuss layoffs under these two major sectors in this section.

A - Non unionized sector

The number of workers under this sector has been increasing during the last decades. Also, labor legislation has been changing through time, avoiding unfair dismissals. This transformation at the law in state level or even at federal level does not mean changes in the idea of employment at will, but creates the mechanism that limits the general rule in which an employee can be dismissed any time. Many of these laws are related to discrimination against workers, as shown by Redeker (1989): The Labor Management Relations Act or the Taft-Hartley Act prohibits discharges or discipline for participating in concerted activities. Title VII of the Civil Rights Act of 1964 prohibits discipline or discharges based upon an employee’s race, color, religion, sex, or national origin. Also, the number of cases in which former employees supported by their lawyers claim their rights against their employers increased based upon the idea of wrongful discharge litigation accepted in some states. As a result, a large number of employees resolve their labor conflicts by litigation in court.

Regarding layoffs, the U.S. legislation does not provide any specific legislation against either temporary or permanent layoffs. The closest legislation is The Worker Adjustment and Retraining Notification Act (WARN Act) which provides that, with some exceptions, employers of 100 or more workers must give 60 days advance notice of mass layoffs or plant closing to affected workers or representatives. In addition the employers should provide notification to the State Dislocated Worker Unit and the appropriate local government. The intention of this Act was to provide protection to employees and their families against unexpected loss of employment, allowing them time to search for another job or to engage in a retraining program.

B- Unionized Sector

The feature of the American unionized sector has been suffering some transformations. While public sector unionism has grown since the 1960s, there has been a decline in most traditional sectors, such as auto, clothing and textile sectors. According to Bureau of Labor Statistics (1998), in 1998, 9.5% of the total employed private wage and salary workers are members of unions and the sectors that presented more unionized workers are transportation and public utilities (25.8% of the total employed in this sector) and construction (17.8% of the total in this sector). Among government workers, 37.5% of the total employed are union members.

Gould (1996) pointed out that one of the main causes for union weakness is the unwillingness or inability to use the strike weapon and failure to devise credible substitutes for strikes. Also unions fail to organize new workplaces, where young people are more likely to be employed. In addition, the composition of the labor force is changing and the unions do not seem to be prepared for that. Once, the common worker who was affiliated with the unions used to be men working in the industry sector. Nowadays, women and immigrants (illegal most of them), working not only in the industry, are also integrating the labor force, the trade unionist, in consequence, are not able to recruit these workers.

Layoffs under Collective Agreements

The allocation of workers, given the fluctuations of demand and the reductions of job positions have been a great concern of unions. Layoff agreements are common in almost all union contracts. Common features are: first, new hiring is prohibited when layoffs are imminent, avoiding the substitution of workers. Secondly, temporary workers or workers with more longevity are dropped last, before the full-employed workers or older ones. Moreover, there is a great concern about subcontracting as a form to reduce labor cost in order to prohibit the substitution of older workers. Finally, unions negotiate a full week of work for persons who are scheduled for work during a given week, even if the employer want to dismiss or layoff these employees in the middle of the week.

Slichter et al (1960) stresses the importance of distinguishing between a temporary layoff, considered as a period between a few hours and two weeks and the extended layoff in the collective agreements. In the first case, a temporary layoff, normally due to some emergency, does not make any impact on the employee. He believes that most unions recognize that management needs more flexibility in effecting layoffs, so under this exceptions or emergencies, the provisions such as seniority can be suspended. This distinction is important since employers may need to introduce layoffs temporarily, as an emergency. Because of the provisions (seniority, bumping) associated to the layoff, the cost of implementation can be too high. On the other hand, if the layoff that was supposed to be temporary is extended beyond the given period, the union must be prepared to deal with the rights of dislocated workers.

According to research developed by the Bureau of National Affairs (BNA), in 1995, among the 400 unions agreements, 376 contain clauses related to layoffs. Usually, these clauses related layoffs to some other factor, such as seniority and job skills. Seniority means an employment service credit and is related to the time of attachment to a firm. In 88% of the agreements examined by BNA, seniority is a factor of selecting employees for last fired. Concerning the industries, 96% of manufacturing presents agreements relating layoffs with seniority and 75% in non-manufacturing.

In 43% of the agreements, seniority is the sole consideration for layoffs and in 29% these provisions call for retention of the senior employees if they are qualified for the available jobs. In 15% of contracts, seniority is the secondary factor. Further, exceptions from seniority rules in layoffs are found in 50% of the contracts, and three-fourths of these exceptions gives employees who are linked to unions (union stewards and local office) superseniority provisions, in the way that they are the last employee to be laid off. Among the contracts that include superseniority, 30% stipulate that the representative must be qualified for the available job to be exempt from being laid off. Another exception, computed in 26% of the contracts, is related to the fact that the especially skilled worker will be the last employee to be laid off.

Regarding the temporary layoff, as mentioned by Slichter et al (1960), only 29% of the contracts state that seniority may be waived during a period, mainly two weeks. Moreover, unions present a concern about receiving notice of layoff, since 49% of the contracts present this clause, mainly the notification can be done only to the employee (36%) or only to the unions (47%) or to both employee and union (43%).

Another procedure related to layoffs is call bumping, where employees' scheduled for being laid off are permitted to displace less senior employees in other jobs. This procedure can be observed in 63% of the agreements, mainly in manufacturing (77%). However, 68% of these clauses also state that employees must be qualified to perform the job they desire to bump into. Some contracts (7%), mandate that employees present service requirements ranging from 1 to 16 years to apply for the job they want and 26% of contracts stipulate a break-in period for employees who demonstrate their ability to perform the job.

Finally, clauses related to recall after layoffs can be found in 85% of the agreements, in which 40% mandate that employers should recall their workers in reverse order and 52% to recall in reverse order, only if they are qualified to perform available jobs. Besides, 32% of contracts indicate that laid off workers are preferable over new workers.

Work sharing, which will be discussed in the next section as an alternative to slayoff, is found in only 17% of the contracts, in which 39% mandate that it last a limited time and 40% state that the company must consult with the union before work sharing be implemented.

Sometimes companies create private funds to support employees during the layoffs. These funds are called Supplemental Benefits Funds (SUB) and basically consist of two different plans:

a. Pooled fund system - a company agrees to pay a certain amount of money per employee and deposit it into a fund. The payment continues until the maximum funding is reached. Mainly, employees were eligible for these funds if they were laid off, so they should receive the difference between the amount paid by the unemployment compensation and their weekly earnings.
b. Individual Trust Account – a company provides an individual account and sometimes stipulates a maximum per account and per withdraw. Workers have a vested right of this account and in case of termination of the contract, they can withdraw the full amount.

Slichter et al (1960) noted that the difference between the two plans is that in the second one, the money belongs to each employee and becomes his/her savings, while with the pooled trust fund, no personal identification exists. In addition, the individual account can be used as an income security against illness and injury as well as unemployment, while the pooled trust fund is typically limited to unemployment benefits. According to BNA (1995), only 57 of the 400 contracts examined in the research makes reference to clauses relating SUB.

The following table provides an overview of the layoff provisions under the main industries, according to seniority and exceptions from seniority, recall, bumping and advanced notice of layoffs. Also, work sharing is included, showing the prevalence of labor reduction under this alternative.

Layoff Provisions - Frequency expressed as a Percentage of Industry Contracts

	Seniority Applied in Layoff	Exceptions from Seniority allowed	Advanced Notice of Layoff Required	Recall After Layoff Specified	Bumping Permitted	Work sharing Provided
All Industries	**88**	**50**	**49**	**85**	**63**	**17**
Manufacturing	**96**	**62**	**53**	**95**	**77**	**22**
Apparel	56	33	33	78	22	67
Chemicals	100	69	69	94	75	19
Electrical Machinery	100	95	90	100	95	20
Fabricated Metals	100	79	63	95	89	21
Foods	95	29	38	95	71	10
Furniture	100	67	33	100	83	33
Leather	100	50	-	100	100	-
Lumber	100	43	14	100	71	-
Machinery	100	92	69	96	96	38

Paper	100	36	50	93	64	-
Petroleum	100	-	29	86	71	-
Primary Metals	96	72	52	100	88	24
Printing	100	38	63	75	38	13
Rubber	67	33	83	100	67	50
Stone-Clay-Glasses	100	38	31	100	54	31
Textiles	100	70	20	100	90	20
Transportation Equipment	91	76	59	94	76	18
Non-Manufacturing	**75**	**30**	**41**	**69**	**41**	**8**
Communications	100	30	100	100	60	30
Construction	3	38	28	3	-	3
Insurance & Finance	71	43	29	57	57	-
Maritime	50	-	-	50	-	-
Mining	92	58	58	83	83	17
Retail	100	48	33	100	37	15
Services	93	30	44	85	48	7
Transportation	96	8	48	80	68	-
Utilities	90	-	30	80	40	10

Source: Translated from Bureau of National Affairs (1995:70)

IV - The U.S. Unemployment Compensation System

The U.S. social insurance program is divided into Old Age, Survivors and Disability Insurance, Unemployment Insurance and Worker's Compensation.

This section will present a brief introduction of how insurance programs have been implemented; the main characteristics of the Unemployment Insurance System and how the laid off workers can apply for this program; the discussion of how the actual structure of financing unemployment systems tends to increase layoffs and, finally, the analysis of how an alternative insurance program - short time compensation- can reduce layoffs.

A- Social Insurance Program – a brief introduction

In the U.S., the social insurance program began with workers compensation. In 1908, the national government enacted a law covering the Federal Government's civilian employees engaged in hazardous jobs. A few years later the first state compensation law was enacted. However, only a few states adopted this law, which was related to worker's compensation in case of injuries or death in connection with their jobs.

At this time, workers counted only on their own savings or charity to finance old age, death and disability. Due to the severe depression in 1930, the need for a federal security program was evident, since the unemployed workers had to count on private charity, state and local communities to cope with their needs.

So, in 1935, U.S. federal law about old age benefits and unemployment assistance came with the Social Security Act. The first insurance program consisted of a federal system of old age benefits for retired workers who had been employed in commerce and industry. The second was a federal state system of unemployment insurance. According to the Social Security Bulletin (1993), the reason for covering old age and unemployment was related to the Great Depression, which wiped out much of the lifetime savings of the aged workers and reduced the opportunities for gainful employment.

As time passed, the program was amended. For example, in 1939, among other revisions, was extended protection to a worker's spouse and children. In 1956, the government mandated the addition of the Disability Insurance Program, which provides benefits for severely disabled workers aged 50-64 and for adults disabled before the age of 18 who were children of deceased or retired workers. In 1960, the age limitation was lifted.

B - Unemployment Insurance

The Unemployment Insurance (hereafter UI) program was designed "*to provide benefits to regularly employed members of the labor force who become involuntarily unemployed and who are able and willing to accept suitable employment*"(Social Security Bulletin, 1993:19)

The state program that served as a forerunner for the UI program was established in 1932 in Wisconsin. Based on this scheme, the federal government mandated national guidelines in order to standardize the programs, although each state was free to devise its own system of UI. As a result, states have had the major responsibility for the contents and development of their unemployment insurance laws, deciding not only the amount and the duration of benefits, but also, the contribution rates and in general, the eligibility requirements and disqualification provisions. Besides, states also have administered the program by collecting contributions, taking claims, determining eligibility and paying benefits to the unemployment workers.

The Social Security Act provided an inducement to states to enact the unemployment insurance law. According to the Social Security Bulletin:

"A *uniform national tax was imposed on the payrolls of industrial and commercial employers who employed 8 or more workers in 20 or more weeks in a calendar year. Employers who paid a tax to a State with an approved unemployment insurance law could credit (offset) up to 90 percent of the State tax against the national tax*"(Social Security Bulletin, 1993:19, parenthesis in the original)

Therefore, in states where unemployment insurance program was not implemented, employers were still subjected to the Federal payroll tax. Consequently, they were not able to compete with similar businesses in the states with the unemployment programs. Furthermore, their employees were not eligible for benefits. The federal government, in addition, granted extra money to states to cover the cost of administering the unemployment program. These arguments above explain why in 1937, 48 states plus the territories of Alaska and Hawaii and the District of Columbia had passed unemployment insurance law.

Labor Department is in charge of the national administrative organization of the unemployment insurance program and the state programs are administered by state unemployment security agencies.

The federal government collects its share of the payroll tax directly and requires states deposits their shares to an unemployment trust fund in the Department of the Treasury. Each state has its own account where its deposits and interest rate are credited. The state can only withdraw this money to pay benefits. It is interesting to highlight that in the case of the UI, no private plan can substitute for the state one. The situation differs in other states' insurance programs, i.e. worker's compensation and temporary disability insurance laws, in which states may permit firm to hire private insurance companies to cover their workers against injuries, death or accident.

Since 1935, some modifications have been introduced into the UI program in order to deal with the unemployment problem. For example, in 1946, an amendment was enacted allowing states whose employers made contributions to this system, to use part of this contribution for the payment of temporary disability insurance benefits.

In 1974, the Trade Act provided payment to workers who lost their jobs due to an increase in imports. If foreign competition affected the labor market, the workers who have lost their jobs could apply for this benefit. Benefits could be payable for 52 weeks, with an additional 26 weeks for workers aged 60 and over, and an additional 26 weeks to enable an individual to complete training. Furthermore, these benefits were entirely financed by federal government.

In addition, in 1974, The Emergency Unemployment Compensation Act was signed as a federal-state permanent program to provide a 13-week extension of the period of payment of UI (Federal Supplementary Benefits). In 1975, a new amendment was enacted to extend the 13 weeks to 26 weeks. It is necessary to highlight that for a state to trigger Extended Benefits, some conditions for eligibility to this extension are required. The rate of unemployment among the insured workers in a state must reach 5% or more over a 13-week period and also be at least 20% higher than the rate for the same period in the 2 preceding years. Regarding the criteria for workers to apply for these benefits, each state presents its own law, but Federal government requires that the claimant should have had 20 weeks in full-time employment (or the equivalent in insured wages) and must meet special work requirements.

This program, with all its requirements, does not permit many states to claim for this extended benefit. For this reason, in 1991, during the recession of the American economy, a new Program called The Emergency Unemployment Compensation Act was enacted and renewed 5 times during the period 1991-1993, in order to satisfy more generously the workers' needs during the downturn. The number of weeks of benefits payable was a combination of the states' adjusted insured unemployment rate, the exhaustion rate and the state's total unemployment rate for the past 6 months. In addition, the duration of benefit could vary due to the combination of the three rates mentioned above. As a result, a state could apply for a 6, 13 or 20 weeks of extended benefits.

C - Unemployment Insurance Scheme

Considering the decentralized scheme of the UI and the different rules applied by different states, it would be almost impossible to describe all particularities of each state program. However, there are many common features in the various legislation, such as coverage, eligibility requirements, source of financing and amount of benefits.

The coverage of the insurance used to be private employees of industry and commerce and employees from nonprofit organizations with four or more employees. Since 1978, this insurance was extended to state and local government workers, agricultural and domestic service workers. According to OECD (1983), 97% of all jobs are covered by this insurance. Some agricultural employees, employees of religious organizations, casual employees, family labor, self-employees, federal employees and ex-service persons are excluded from this program.

The claimant of this kind of benefit must satisfy two types of requirement:

1. The qualifying requirements – Most states require a minimum number of week's work, that range normally from 20 to 30 weeks, but can be more, for example, in Florida, the minimum required is 52 weeks during some qualifying period. Another qualifying requirement is that the claimant must have a minimum income level during a base period, though this period differs from state to state.
2. The eligibility requirements – To claim this benefit, the workers must have had an involuntary dismissal. In other words, dismissal for bad behavior or misconduct and voluntary quits are not eligible to apply for this program. Also, the unemployed must be actively seeking for work. In case he is not searching, whether because he is discouraged, whether because he has an offer and is waiting to start working, he cannot apply to the unemployment insurance program. Besides the claimant must be able to work (physically and mentally) and also be available to any kind of job.

According to the Social Security Bulletin (1993), the major reasons for disqualification from benefit eligibility are: voluntary separation from work without good cause, discharge of misconduct connected with work, refusal to accept a suitable work and unemployment due to a labor dispute.

Although the amount of benefits varies with the workers within certain limits, in most states, benefits are about 50 percent of his own wage, up to a prescribed ceiling, which is adjusted to the average wage trend for insured workers. It is important to mention that in certain states the rates of benefits are regressive, so the lower wage earners are paid relatively more than those higher wages. Besides, some states pay an extra amount of money for dependants.

Most states have a waiting period of one week to start payments of the insurance and the average maximum period for the payment benefits is 26 weeks. However, in some states the period for payment benefits can vary with the former earnings of the claimant.

The unemployment scheme is financed by employers' taxes (Federal Unemployment Tax - FUTA) that are, most commonly 6.2% on the wage of each employee, up to a ceiling of US$ 7.000 per worker. Wages above this amount are not subject to federal taxes. 0.8% of the Federal Unemployment Tax is retained by the federal government, 0.2% to temporary surcharge and 0.6% to cover administrative cost and other expenses related to this issue. The remaining 5.4% is credited on the state account. Each state, under supervision of the federal government, collects the tax from the employers, which is deposited in its account on the Department of the Treasury. Most states used a system called experience rating.

Experience rating is a system that an employer is charged for his/her record of employment stability. So, employers who have laid off more of their employees in the past, have their firm's tax raised, while employers, who have laid off fewer workers are assigned more favorable rates. There are, however, minimum and maximum tax rates (fix rate). The minimum rate is applied to firms that rarely use the fund and the maximum rate is applied to firms that had used a great amount of the benefit's fund.

Hamermesh (1990) highlighted problems in the American experience ratings: some states government have decided that the so-called *noncharged benefits* – those who paid to voluntary quitters and selected other categories of recipients – will not be financed by taxes on the employer from whose company the worker was separated. Also, he pointed out the absence of credit of interests on employers with positive balance and of interest charges on those with negative balances. As result, the sum of these arguments, plus the combination of limits on taxes rates imply that some UI benefits are not experience rated, so the experience rating is said to be incomplete. In other words, a firm's annual tax liability only partly reflects the actuarial present value of the benefits paid to its employees. This will be one of the major criticism of the American system of UI, and is discussed further below.

Formally, workers who are on temporary layoff and are waiting for recall can apply for unemployment benefit in the same way as permanent laid off workers. Moreover, there is no formal link between the company and the laid off worker, so while the worker is waiting for recall, he can apply to receive the public benefit and even search for another job. The date of recall may or may not be specified (indefinite period). In fact, Topel (1983) reveals that, during 1976, 75% of all temporary layoff and 70% of all permanent unemployed were either receiving UI benefits or have an application to receive them.

D – Impacts of Unemployment Insurance on layoffs

Since the development of studies related to the job search and the labor contract theory, unemployment insurance have attracted the attention of many economists, and many econometrics studies have been revealed that the design of the insurance program can increase the spell of unemployment. Briefly, this idea is based on the job search theory. This theory holds that an unemployed worker is searching for a job in a way that maximizes the present value of expected income. The existence of benefits tends to reduce the opportunity cost of this search, since the worker can postpone the acceptance of jobs, in which earnings are smaller than he used to receive. In other words, the search for a new job may be longer and workers usually hold out for better offers. Another consequence of Mortensen's model is that when benefits are exhausting, workers are encourage to accept lower job offers, both because they no longer have benefits and because they can only re-qualify for UI by working.

Other studies were developed showing that UI tends to increase temporary layoffs. Feldstein (1976), assuming that workers are permanently attached to a single firm, builds a model that when a worker joins a firm, the employer offers an expected income and employment package that includes a known layoff probability. When the demand falls, layoffs become necessary and during this period, the author assumes that workers will receive UI benefits. He concludes that the preference for layoffs is due to the existence of this insurance: "*The current analysis shows that the unemployment insurance subsidy has a potentially very large impact on the rate of unemployment, causing layoffs when they would not otherwise happen and substantially magnifying the size of the layoffs that do occur*" (Feldstein, 1976:956).

The author also suggests that the benefit, in the way that is charged, constitutes an incentive to firms to layoff workers. If full experience rating exists, where employers are charged according to the amount of benefits used, than the temporary layoff would be much reduced.

Topel (1983) expands Feldstein's arguments claiming that the current method of financing UI raises temporary layoff because normally the system of "experience rating" is incomplete in the sense that in almost all the cases the value that firms paid are smaller than benefits received by its employee. As a result, most employers are only partially liable for the benefits that their workers receive. By examining the structure of state financing law, he shows that even experienced rates firms often face unemployment subsidies and a great part of employment are not subject to experience rating. Using an econometric model, the author claims the impact of unemployment subsidy on layoff unemployment is great. These conclusions tend to reinforce the idea suggested by Feldstein, in which the forms of financing the UI can stimulate temporary spells of unemployment.

Hamermesh(1990) presents the conclusion of ten different studies relating incomplete experience rating to employment fluctuations. Despite the differences between methods, type, data and structuring the problem, two main conclusions can be made. The first one is that increasing the maximum tax rate, layoffs and the seasonal unemployment are reduced. The second one is that raising the tax base (the minimum set by federal government is US$ 7.000,00) relative to taxable wages diminishes layoffs.

FitzRoy and Hart (1985) explain why American workers rely on layoff (temporary and indefinite) more than European workers. In Europe, reducing the number of hours per week tends to be more common than laying off workers temporarily. Authors suggested that one reason is the payroll system for funding American UI. In the U.S., only employers are taxed and the contributions are mainly payroll taxes on employee earnings below a given ceiling limit. In the authors' opinion, *"the ceiling is set so low in the United States that unemployment insurance represents essentially a fixed worker cost."*(FitzRoy and Hart, 1985: 702). On the other hand, in European countries these benefits are mainly financed by employers and workers and the ceiling limit is higher than the average wages. Other national differences in layoff/work sharing behaviors can be attributed to institutional factors, such as laws and legislation.

To sum up, in the U.S., layoffs are the most common way that firms adjust their production to demand contractions. This idea, as shown above, is supported by the structure that UI is financed.

E - Short time compensation as an alternative to layoffs

Many programs can be presented as an alternative to layoffs, including retraining programs, flexible pay arrangements, outsourcing and temporary workers. However one that has received considerable attention from economists and politicians is the short time compensation (hereafter STC). These benefits are more common in Europe than in the U.S., as noted above. Despite the fact that unemployment benefits, financed as they are today in the U.S., tend to stimulate layoffs, STC have been tried by many states. In this part, the intention is to briefly overview the implementation of this program and to discuss some of its implications.

In 1982, The Tax Equity and the Fiscal Responsibility Act authorized the implementation of STC programs at a state level and it is a state-administrated program because it is authorized under UI statutes.

Some states have started offering short time compensation as a way to allow production to be more flexible, while avoiding layoffs. In 1996, seventeen states had STC programs. This program, also called work sharing, is based on reducing hours of work. Workers receive regular pay for the days they work and a pro rata share of their weekly UI compensation. As a result, workers that had their hours reduced by 20% receive 80% of the workweek wages and 20% of their regular weekly benefit amount, as part of STC. According to Hamermesh (1990), the financial arrangements under STC differ among the states. Six states charged surtaxes to negative balanced companies (companies whose workers received more benefits than the companies paid in taxes) whose workers receive STC. In other states, STC is treated in the same way as UI.

Studies developed in the mid-1980s, offer some ideas about the STC. The National Commission for Employment Policy (1991) believes that STC costs less for a firm, since there is no net impact on labor cost (hiring, dismiss, training). In addition, STC is useful in maintaining the attachments of skill workers, since while on layoff, another firm can hire these workers, though the cost of fringe benefits under STC is higher, since a firm is still providing private benefits such as pension and health insurance. Moreover, taxes may rise in the future, since this firm is using money derived from unemployment benefits funds. Employees would tend to prefer STC, not only because they avoid the psychological distress of being unemployed, but also because affected workers maintain eligibility for UI benefits. The reason for that is because employees continue to receive accumulated earnings, so that should they be laid off in the future, they will be eligible for the same amount of benefit.

Kerachsky et al (1986) made an evaluation of all aspects of STC in Arizona, California and Oregon, based on a comparison of employers that used STC and otherwise similar employers that did not. The authors observed that firms in these states tend to choose layoffs more frequently than work sharing and less than 1% of the benefits claims were for STC. In addition, in all of the States, firms that used STC experienced some net addition to total hours of compensated unemployment, considering both UI and STC. Another observation was the increase in administrative cost per hour compensated under STC, although authors emphasize that this may decline over time with the experience accumulation gained with the diffusion of the program. Finally, in their opinion, in the three States analyzed, layoffs tend to decrease with the implementation of STC, but not proportionally.

The structure of American UI seems to be the major determinant factor for layoff being the most common instrument of adjustment in the labor cost, while the demand for output falls. Implementation of STC would require not only an extra source of financing for this program, but the acceptance by unions and workers of this kind of program. In fact, unionized workers tend to prefer layoff rather than work sharing, as showed by Flanagan. The main reason noted by the author is the existence of seniority clause in the collective bargaining, meaning that older workers are the last ones to be laid off. Since employment arrangements are determined by vote and median union worker is older, this may explain the preference for layoffs. Another point suggested by the author is that union leaders believed that wage income of workers are higher under layoffs, because of unemployment benefits.

The scarcity of any specific law or legislation that protects against layoffs or that encourages work sharing and other similar mechanisms, can explain why layoffs are more popular than STC in the U.S. than in Europe.

V - An Empirical Approach to Layoffs – The American Labor Market

A - Main concepts

Before attempting to analyze the impact on layoffs to the American labor market, it is necessary to define some concepts used to measure and to analyze the labor market.

The main data is The Current Population Survey (CPS) conducted by the Bureau of Census for the Bureau of Labor Statistics (BLS).

The main concepts adopted by the CPS are the following:

1. Civilian Labor Force – all civilians in the non- institutional population, 16 years over, who are classified as employed or unemployed.
2. Not in the Labor Force – all other civilians, 16 years and older.
3. Employed – all civilians who, during the reference week, did any kind of work for pay or profit (minimum of an hour's work) or worked 15 hours or more as unpaid workers in a family enterprise. Also included all workers who were not working but had jobs or business from which they were temporarily absent for noneconomic reasons (illness, weather conditions, vacation, labor-management, dispute, etc) whether they were paid for the time off or were seeking another job.
4. Unemployed – all civilians who had no employment during the reference week, who made specific efforts to find a job within the previous 4 weeks and who were available for work during that week, except for temporary illness. Temporary laid off workers who are expecting recall are classified as unemployed.

The reasons for unemployment are divided into five major groups:

1. Job losers – can be sub-divided into:

- persons on temporary layoff, who were given a date to return to work or who expect to return within 6 months (laid off persons need not be looking for work to be classified as unemployed),
- permanent job losers, whose employment ended involuntarily and who began looking for work;

1. Job leavers - persons who quit or otherwise terminated their employment voluntarily and immediately began looking for work,
2. Persons who completed temporary jobs and began looking for work after the jobs ended;
3. Reentrants - persons who previously worked but were out of the labor force prior to beginning their job search;
4. New entrants - persons who never worked but were searching for work.

Also the main rates used to analyze the labor market are the following:

- Unemployment rate- represents the percentage of the civilian labor force that is unemployed.
- Participation rate - This represents the percentage of the population that is in the labor force.
- Employment-population ratio - this represents the percentage of the population that is employed.

B - Temporary layoffs in the labor market

The American economy has been experiencing growth since the last recession in 1992. Preliminary estimations pointed out that GPD grew 6.1% in the last quarter of 1998 and the forecast for 1998 of the annual increase of GDP is 3.9% over 1997. What's more, the unemployment rate for 1998 was 4.5%, the lowest one since 1969 (3.9%). In addition, the employment –population ratio, expresses how fast jobs are being created in the economy through population growth, increased 0.3 point percentage in comparison to 1997 and is now 64.1%. Despite being one of the lowest rates in the U.S, the 1998 rate of unemployment will be the starting point of the analysis for the American layoff. Two approaches can be used to characterize layoffs. The analysis will first focus on the duration of unemployment and then on the reasons why workers are not working.

Table 1 – Job losers and on temporary layoff by duration of unemployment		
Annual Average – 1998		
	Total unemployed	On temporary layoff
Less than 5 weeks	42.2%	58.3%
5-10 weeks	22.1%	21.1%
11-14 weeks	9.3%	7.4%
15-26 weeks	12.3%	8.8%
27-51 weeks	6.1%	2.8%
52 + weeks	8.0%	1.7%

Source: Bureau of Labor Statistics. Current Population Survey, 1998.

Table 1 presents the percentage of job losers and workers on layoff by duration. Most unemployed workers find a job within 5 weeks (42.2%) and 64.3% are hired within 10 weeks. These rates certainly reflect the level of growth of the American economy in 1998. In addition, during this year, the average duration of unemployment was 6.7 weeks. According to Martin (1970), while in recession, the average duration rises to 17 weeks.

Most temporarily laid off workers (58.3%) are recalled or find a new job within 5 weeks and 21.1% are employed among 5 and 10 weeks.

Table 2 -Unemployed as a percent of the civilian force – Annual Average - 1998

	Total - %
Job losers and persons who completed	2.1

temporary layoff	
Job leavers	0.5
Reentrants	1.5
New entrants	0

Source: Bureau of Labor Statistics. Current Population Survey, 1998.

Table 2 shows the unemployed as a percent of the civilian force. Unemployment is divided according to the reasons mentioned above in the first part of this section. As a percentage of the civilian force, job losers and people who experienced temporary layoff (2.1%) are the most largest category, followed by reentrants (1.5%).

Table 3 -Percent distribution of Unemployed persons by reason for unemployment

Annual Average – 1998

Reason for Unemployment	Total - %
Job losers and persons who completed temporary layoff	45.50
On temporary lay off	13.95
Not on temporary layoff	31.55
Job leavers	11.80
Reentrants	34.30
New entrants	8.40

Source: Bureau of Labor Statistics. Current Population Survey, 1998.

Table 3 shows the percent distribution of the reasons under the total unemployment. Job losers and persons who on temporary layoff represent almost half of the unemployed persons (45.5%). Reentrants are 34.3%, followed by job leavers (11.8%) and new entrants (8.4%).

Regarding layoffs, table 3 shows that the persons who are expecting recall from their previous job within 6 months represent only 13. 95% of job losers. On the other hand, 31.55% are permanent job losers, either because their temporary layoff finished and they were not recalled to their job or because their dismissal was due to permanent staff reductions or their employers have gone out of business or any other reason.

Nevertheless, the impact of layoffs on unemployment was not always so small. As for table 4, during the 70’s and the 80’s layoff unemployment was more prevalent than today. In 1975, those laid off were 23.88% of unemployment; in 1980, 22.29%. However, after 1985 this rate decreased.

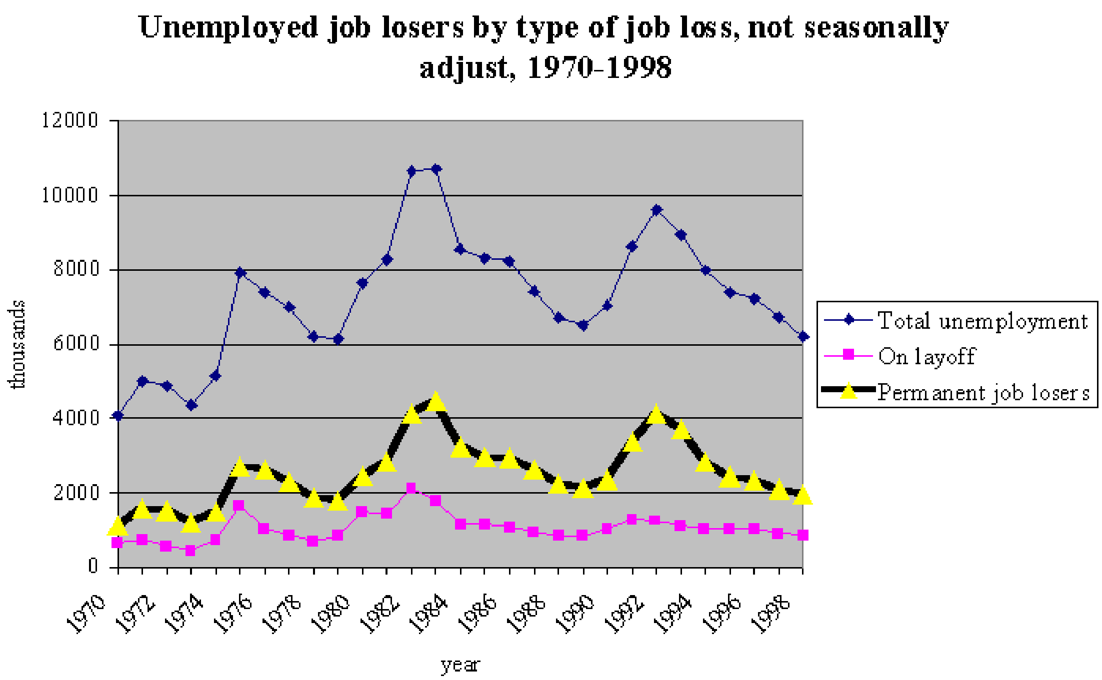
Table 4 -Percentage of layoffs on total unemployment – selected years

			(thousands)
Year	Total unemployment	On layoff	% of layoff on unemployment
1970	3583	672	18.76%
1975	7013	1675	23.88%
1980	6596	1470	22.29%
1985	7271	1156	15.90%
1990	6356	1028	16.17%

1994	7996	1030	12.88%
1996	7236	1021	14.11%
1998	6210	866	13.95%

Source: Bureau of Labor Statistics, Current Population Survey.

The graphic below shows a time series of the total unemployment, the persons who are laid off and the permanent job losers, during the last three decades. Layoff unemployment as a share of total unemployment is decreasing over time. During the 70s and the 80s, the percentage increased with the increase on unemployment. However, during the recession of 1991 and 1992, temporary layoffs remain steady, while permanent job losers were grew as in the more severe 1973-75 and 1981-82 downturns. In other words, a large share of the workers joining the ranks of the unemployment during the recent recession had no expectation of being called back to their former jobs.



Another way to indicate how layoffs are decreasing their participation on the total unemployment, during the recession is by examining the following table:

Table 5 - Percent increase in job losers in last five recessions

	Job losers		
Recession	Total	On layoff	Other
Dec 1969 to Nov 1970	107	105	108
Nov 1973 to Mar 1975	150	247	109
Jan 1980 to July 1980	44	69	31
July 1981 to Nov 1982	87	96	83
July 1990 to June 1992[1]	79	37	98
1- Some economic indicators suggest that the recession ended in the spring			
of 1991, many labor market measures evidenced continued deterioration into 1992.			
Souce: Translated from Issues in labor statistics : July,1992			

According to U.S. Department of Labor (1992), between the beginning of the recession in July 1990 and June 1992, the number of permanent job losers increased about 98%; in contrast, the job losers on temporary layoffs rose only 40%. This number is also very small, if compared with the previous downturns, as in 1981-82 and in 1973-75, during which layoffs increased by nearly 100% and 250% respectively.

The main reason for this change is that in the 70s and 80s, demand declines occurred in sectors typically seasonal, such as manufacturing and constructing, and as a result, layoffs were a perfect instrument for reducing this employment. However, in the 90s, industries have been undergoing long term structural transformation. The search for competitiveness, trying to reduce their labor cost, leads industries to a staff reduction.

Regarding layoffs and the main industries, table 6 gives an overview of the historical distribution of layoffs.

Table 6 –Percent distribution of laid off persons by detailed industries								
Annual Average								
	1970	**1975**	**1980**	**1985**	**1990**	**1994**	**1996**	**1998**
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Nonagricultural industries	**98.37%**	**98.73%**	**98.44%**	**96.53%**	**96.40%**	**93.95%**	**92.35%**	**91.92%**
Private Wage and salary workers	97.28%	96.03%	95.58%	93.98%	93.43%	88.11%	88.20%	86.56%
Government workers	2.27%	3.00%	3.52%	4.58%	4.34%	8.51%	8.93%	9.05%
Self-employed workers	0.45%	0.98%	0.90%	1.44%	2.22%	3.38%	2.87%	4.40%
Agriculture	**1.63%**	**1.27%**	**1.56%**	**3.47%**	**3.60%**	**6.05%**	**7.65%**	**8.08%**

Source: Bureau of Labor Statistics, Current Population Survey.

Layoffs mainly occur in the nonagricultural industries, although small increases have occurred in agriculture. In 1970, 1.63% of layoffs were agriculture workers; in 1998, the rate is 8.08%.

Also, most workers who are laid off are private wage and salary workers, even with the smooth decrease of their participation - in 1970, 97.28% of total laid off workers receive private wages, whereas in 1998, the rate was 86.56%. In contrast, the rate of participation of government workers is rising in the 90s. In 1996, 9.05% of laid off workers belonged to the public sector.

Decomposing the nonagricutural industry after excluding the public sector and the self employed, as shown in table 7, it is possible to present distribution of layoffs in various sectors. Manufacturing used to be the sector where layoffs were common. In the 70s, 61.96% of workers who were laid off are linked to this sector, by for 1998, this decreased to 21.48%.

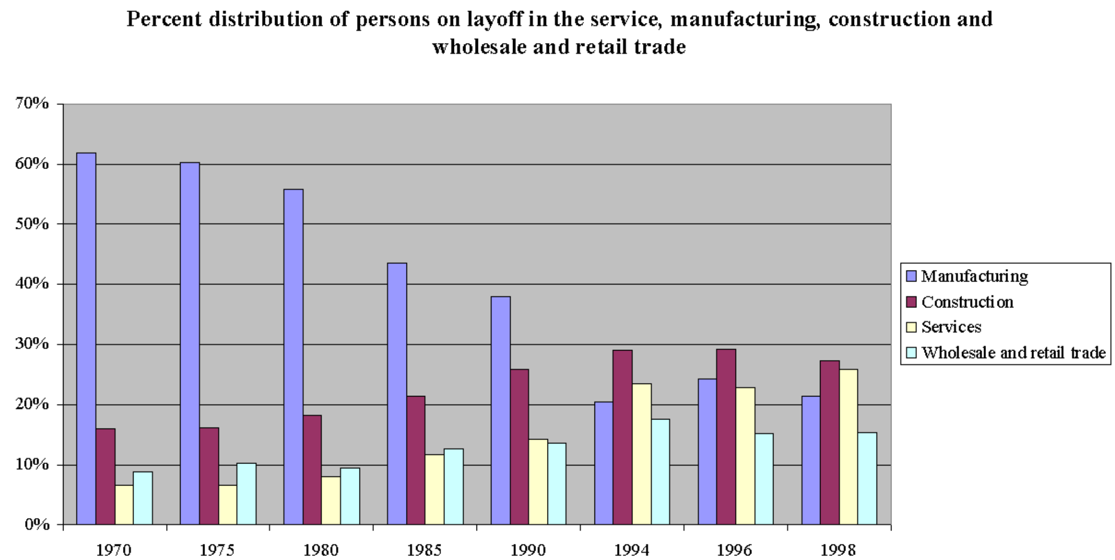
In contrast, laid off workers in the service industries, including health, business and other services, increased as a share of all laid off workers from 6.68% in 1970 to 25.83% in 1998. Together with services, wholesale and retail trade sector increased their share of workers on layoff. The share of all laid off workers in construction, from 15.99% in the 1970 to 27.29% in 1998.

Table 7 – Percent Distribution of laid off persons by private wages and salary workers								
Annual Average								
	1970	**1975**	**1980**	**1985**	**1990**	**1994**	**1996**	**1998**
Private Wage and salary workers	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*	*100.00%*
	0.63%	0.64%	1.72%	2.06%	1.30%	0.87%	0.96%	1.03%

Mining	0.62%	0.64%	1.73%	3.06%	1.30%	0.87%	0.96%	1.02%
Construction	15.99%	16.17%	18.21%	21.41%	25.84%	29.08%	29.28%	27.29%
Manufacturing	61.96%	60.22%	55.78%	43.50%	37.95%	20.42%	24.34%	21.48%
Transportation, communications and other public activities	5.12%	5.09%	5.71%	6.41%	5.41%	6.56%	6.02%	6.97%
Wholesale and retail trade	8.85%	10.25%	9.54%	12.62%	13.51%	17.57%	15.18%	15.38%
Finance, insurance and real state	0.78%	1.02%	0.94%	1.24%	1.73%	1.98%	1.33%	2.03%
Services	6.68%	6.62%	8.09%	11.76%	14.27%	23.51%	22.89%	25.83%

Source: Bureau of Labor Statistics, Current Population Survey

As a result, layoffs during the 90’s are more well distributed among the various sectors. Some of these changes over time can be visualized in the graphic below:



Analyzing these changes in the composition of layoffs requires additional information. First of all, according to U.S. Department of Labor (1994), the number of jobs in goods-producing sector, that includes mining, construction and manufacturing have declined as a share of total nonfarm employment, despite the number of jobs remain almost the same during the decades of the 70s, 80s and 90s. The jobs in these sectors follow cyclical changes in the economy, during the recession, these sectors tend to compress the number of job positions, while in the expansion the number increases. The service-producing industries, including transportation and public utilities, wholesale trade, retail trade, services, government), this group have tended to maintain the growth of job position, sometimes even in the recessionary period during the last three decades.

In addition, service industries, which includes business, health and other general services, "*grew faster than any major industry and has accounted for nearly half of the job growth over the past quarter century*"(U.S. Department of Labor, 1994:10). As a result, services must have been absorbing workers from other industries that lost their job due to technological changes in the goods producing industries. In fact, 14% of employment shift is from the goods sector to the service-producing sector.

Before analyzing layoffs in the manufacturing sector, another aspect can be focused on. Layoffs tend to be more usual in blue collar workers than in white collars ones, as shown in table 8.

Layoffs among blue and white collars workers –

Selected years			
			(thousands)
	1970	1975	1980
White collars workers	94	240	210
Blue collars workers	535	1303	1154
Proportion	5.69	5.43	5.50

Source: Bureau of Labor Statistics, Current Population Survey

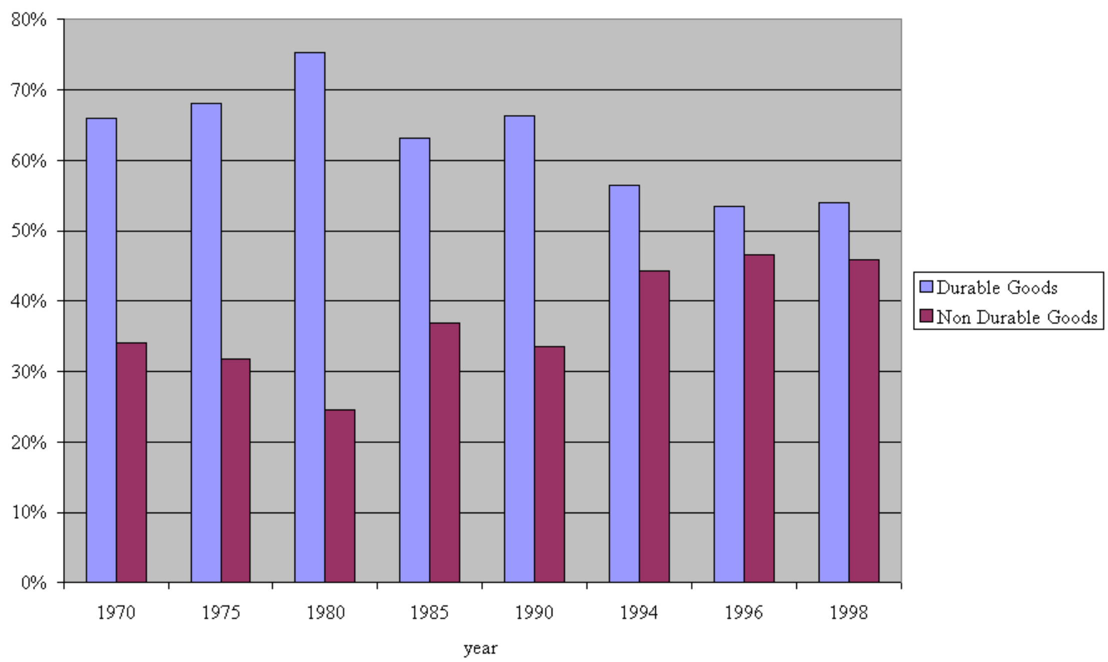
Layoffs were almost 5.5 times higher among blue collars workers than white collars ones, during the 70s.This fact probably reflected the high proportion of laid off workers in manufacturing. However, this proportionality was not the same in the unemployment rate, since unemployment among blue collar workers is 1,7 higher than white collars workers, for the same period.

C - Layoffs in the manufacturing sector

According to U.S. Department of Labor (1994), manufacturing lost about 2 million jobs during the last three decades. Due to plants that closed down and to structural changes in the production process such as modernization and introduction of new technologies, job was reduced and the productivity was raised. After each recession, the level of job never grew to the point before the downturn.

The graphic below shows how layoffs occurred among the non-durable goods and durable goods.

Percent distribution of persons on layoff in the manufacturing



Historically layoffs were used mainly by industries producing durable goods. In 1970, 66% of workers who were laid off belong the durable goods industries. This rate fell to 54% in 1998, while in the non-durable goods, the rate increased from 34% in 1970 to 46% in 1998.

According to Martin (1983), most manufacturing layoffs were relatively short; almost less than 2 months and workers were recalled to their old wages or even earned more wages. In addition, most workers have 50% of their wages replaced by UI and also, some of them have supplemental benefits, due to bargaining agreed between labor unions and the companies. Also, some part of the labor force retained medical insurance benefits during layoffs.

Lilien (1980) estimated the rate of layoffs for the U.S. manufacturing sector between 1965 and 1976, based on data from the Bureau of Labor Statistic establishment turnover data. He built a model that allowed him to know the percentage of each month's layoffs that ended in rehire and the average duration of unemployment before rehire. However, the author adopted a different concept of layoffs from the one currently used by BLS. While BLS considered a layoff of all workers who have a subjective probability of recall in layoff, Lilien considered only the one who counted themselves as having a job or in other words, workers who have certainty to be recalled. All other layoffs, being an involuntary separation without losses are included in other job loser categories.

The author concludes among other things, that the average of rehiring during 1965 and 1975 varied in a range between 63% (1969) to 78% (1975) and the average duration of the layoffs was estimated at 1.6 months.

Besides, Lilien claims that workers tend to be attached to one firm through several spells of unemployment. "*Firm specific human capital, as well as efficient risk shifting, makes labor turnover relatively unprofitable for both workers and firms when demand reductions are thought to be temporary*."(Lilien, 1980:31). As a result, manufacturing workers are very stable, only 30% of laid off workers changed jobs.

VI- Final Considerations

Layoffs, defined as a temporary dismissal in which workers attempt to be recalled, is a typical instrument for industries to adapt their costs to demand fluctuations. So companies have enough flexibility to adjust their production costs to economic cycles. Theoretically, the concept of layoffs is linked to the idea of long term attachments between firms and workers, in a way that employers decide the duration of the layoff and their decision takes into account the amount invested in human capital and the level of skills among their workers. On the other hand, theoretical models of layoffs show that workers, who apply for jobs in a firm with a high probability of layoffs, demand extra compensation.

In the United States, layoff has been a common procedure in the unionized sectors, such as manufacturing, since the 1930s. Mainly, the collective agreements include clauses of layoffs related to seniority provisions (last hired-first fired) and the existence of skilled workers. In addition, agreements require an advance notification in case of layoff, the possibility of recall and the possibility that senior workers can choose a new job position, instead of being laid off (bumping). Some agreements also forecast the payments of supplemental benefits. In non unionized sectors, because of the non existence of collective agreements and legislation relating to layoffs, workers are left without any special protection in case of suspension of their contract of employment.

The difference among the unionized and nonunionized sector is that unions, through the collective bargaining, guarantee to their members in case of layoffs, seniority rights and other benefits. In other words, collective agreements specify some job protections and additional benefits that the workers who belong to the nonunionized sector will not be able to negotiate.

It is important to highlight that despite being a common procedure, layoffs do not necessarily imply later recall. Sometimes, a temporary layoff can be converted into a permanent one, due to changes in the economic conditions. Despite that, workers tend to expect that, if the economy recovers from the downturn, employers will rehire their old employees. Thus, the recall may or may not occur and the agreement of return to work is sustained by a commitment between company owners and their employees.

While European countries have been experiencing work sharing with a greater frequency, in the United States the practice of layoffs is more popular. The reasons for this are many: First, the way that unemployment insurance is financed tends to encourage layoffs, because the system of "experience rate" adopted by some states are incomplete. So employers usually pay less to the state fund than the amount received in support for their workers. Secondly, since this procedure is common in unionized sectors where the median voter is a senior worker, they may prefer layoffs because it is related to seniority provisions instead of work sharing. In addition, the absence of government regulation of either layoff or work sharing tends to stimulate layoffs.

The data on the American labor market shows that layoffs are falling over time. In the 70s and 80s, temporary layoffs used to increase during recessions, together with the unemployment rate. However, during the 1991 and 1992 American recession, this tendency changed and temporary layoffs decreased while unemployment increased, revealing that maybe, structural changes such as reduction of job position, occurred in the labor market. Besides layoffs are no longer a feature of some sectors such as manufacturing and construction. In fact data show that layoffs are more common among others sectors such as services, wholesale and trade and public sector.

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