Chapter 2

The Evolution of Compensation in a Changing Economy

Over the course of the 20th century, American workers have witnessed an evolution in compensation. Through the century, the changes in the methods of pay have usually been stimulated by some form of imbalance caused by a crisis or demographic shift. For the 20th century American worker, no greater crisis was experienced than the Great Depression, a watershed in how employers paid their workers. But growth in unionization and the increase in the number of working women, among other shifts, have also contributed to changes in pay practices.

Payment for labor services has evolved from simple piecework pay to sophisticated contractual compensation packages. At the turn of the 20th century in America, few workers would have received anything more than wages as compensation for their labor services. But by the close of the century, a typical worker received more than 25 percent compensation in the form of benefits. These benefits, which were termed fringe benefits for most of the century, consisted of employer-paid items such as health, life and unemployment insurance; retirement and savings; and holiday and vacation leave. Today, benefit components making up the compensation package continue to evolve, with variable pay plans—such as profit-sharing and stock options—growing in importance. Additionally, emerging benefits, such as family care, are becoming widely available.

Structural change and American labor

For the first third of the 20th century, compensation for industrial workers was composed mainly of wages that were based on a worker's production performance, typically a piece rate paid on each unit produced. (This chapter focuses on compensation of industrial workers. Agricultural and domestic workers are excluded, as a substantial number received a significant portion of their compensation in kind. In kind pay, such as room and meals, is not captured in most compensation surveys.)

The setting of piece rates for unit production was rarely prescribed by any formal managerial or industrial standards but was typically at the discretion of the individual shop foreman. Since wage standards would not come until later—through legislation and union activity—many workers were at the mercy of

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current business conditions in their individual industries.

Also, at this time, a structural shift in employment, driven by technological advances and product demand, had little impact on the way workers were paid. That is not to say that real wages were stagnant; however. Weekly earnings of workers in manufacturing moderately increased for most quinquenniums, with substantial increases coming during the World War I years, when labor markets were constrained.[1] (See box on p. 5)

With no modern-day benefits, workers and their families bore the economic risks that were associated with sickness, unemployment, and old age. Household savings provided the main source of security, with charitable organizations sometimes helping. At this time, labor unions were actually reluctant to take up the cause for economic insurance benefits, as unions were adverse to employers—or the government—mingling in such worker affairs. American labor unions and their members espoused freedom and independence, favoring a pro-labor capitalistic approach.

Labor's stance was traceable to the many in the labor movement who had an agrarian heritage of self-sufficiency and independence that provided little ideological rationale for bargaining for security benefits. The sentiment of the time could be heard in the words of Samuel Gompers, president of the American Federation of Labor from 1886 to 1924, who argued in 1917 that compulsory benefits, "…weakens independence of spirit, delegates to outside authorities some of the powers and opportunities that rightfully belong to wage earners, and breaks down industrial freedom by exercising control over workers through a central bureaucracy."[2] Labor's attitude towards self-sufficiency and independence would not weaken until some 15 years later under the devastation of the Great Depression.

The influence of Social Security legislation

The burden of the Great Depression would prove too great for households and charitable organizations to bear. At no time in modern America's history had such a large proportion of workers been without jobs; estimates of annual average unemployment reached a rate approaching 25 percent. The depth of the Depression would ultimately provide the catalyst for change in labor's attitude about self-sufficiency that would, in turn, give way to changes in how American workers were paid.

President Roosevelt's New Deal legislation provided sweeping change. In 1935, with so many with so little, the Federal Government passed, with the approval of labor, the Social Security Act (SSA). The passage of this legislation provided a nationwide system of social insurance that today still protects workers from loss of wages stemming from unemployment and old age. The 1935 SSA was the first thread of a public social security net that would limit the economic hardship of workers and their families.

When first enacted, the SSA provided coverage for fewer than fewer 60 percent of the workforce; but following several amendments, coverage soon expanded to more than 90 percent. Aside from increasing the numbers covered, amendments extended benefits to dependents and survivors and to the disabled in 1939 and 1956, respectively. The Act was broadened in scope, in 1965, to provide medical coverage to the elderly retired.

Social Security was the first nationwide *legally required* benefit. Although some States beforehand had enacted legislation requiring employers to provide workers' compensation benefits, no State had a program that protected workers' incomes through economic cycles or old age. The passage of the SSA and the hardships experienced during the Great Depression would pave the way for a series of changes in the composition of pay; but the *drafting* of this seminal act purposefully maintained, at least in part, the spirit of self-sufficiency. From its inception, the economic protections afforded under the SSA have been treated as social insurance in which participation was a right acquired by working, and the premiums shared equally by employer and employee through payroll taxes.

The right to bargain collectively

In the wake of the Great Depression, important pro-labor legislation was passed, but none was more fundamental than the National Labor Relations Act of 1935 (Wagner Act). The Wagner act guaranteed the twin rights of workers to join labor unions and to bargain collectively. This act turned the tide for union labor that had too often encountered court defeats in cases of management and union entanglements. The immediate impact of the Wagner Act can be seen in the increase in union membership. Unions swelled more than

two-fold between 1935 and 1940, rising from 3.8 million to 9 million—a stark change of events from the declines experienced just a few years earlier. This quinquennium growth would be matched by no other period in the history of American labor.

The rapid growth in strength of unions, numerically and financially, continued through the World War II years. After the war, unions—with their newfound strength—pressed hard for higher wages, and when not met, orchestrated widespread strikes that would, in the end, raise the public's ire. Although the Wagner Act had prohibited unfair labor practices by management, there were no prohibitions on union's behavior. Similar to the cries heard at the turn of the century for trust busting, the public demanded that Congress enact legislation that would restrict and control union behavior. As an amendment to the Wagner Act, in 1947, Congress passed the Labor Management Relations (Taft-Hartley) Act, which specifically prohibited unfair union practices, such as jurisdictional and sympathy strikes and featherbedding. The Taft-Hartley Act also placed restrictions on union administration, contract contents, and health and safety strikes. After the passage of the Taft-Hartley Act reeled in union power, however, two court cases came on its heels that would expand unions' bargaining scope to employer-provided benefits.

Economic constraints and accompanying inflationary pressures of World War II forged changes in compensation practices of many employers. The War Labor Board, charged with maintaining price stability, placed restrictions on cash-wage increases employers could offer. With a short supply of labor to produce a growing demand for war products,[3] employers began offering nonwage benefits, which included insurance, pension plans, and holiday and vacation leave, as a means to attract and retain workers. The War Labor Board encouraged these offerings, considering them as fringe benefits with little inflationary potential.

However, once these benefits made their way into practice, workers began to regard them as mainstay components of compensation. The cry 30 years earlier by Gompers' that mandating benefits "weakens independence of spirit" had dissipated. In the post-war years, unions would not only fight for wage increases but also benefits. The courts would prove instrumental in this fight. In the 1948 case of *Inland Steel v. NLRB*, the court interpreted the right to bargain for working conditions, protected under the Wagner Act, to include the right to bargain for retirement benefits. In the 1949 case of *W. W. Cross and Co. v. NLRB*, the court came to the same conclusion for health insurance. These benefits would become mainstay compensation components of union contracts and would slowly emerged as part of nonunion compensation as well. (The growth of employer provided benefits is described later in this section.)

Setting standards

Other important labor legislation was also passed in the wake of the Great Depression. The Davis-Bacon Act of 1931 and the Walsh-Healey Act of 1936, to name two, established wage standards for workers employed by contractors or subcontractors on public construction or in the provision of materials and supplies to the Federal Government. (Before these laws, formal wage standards of any kind had been uncommon.)

The passage of the Fair Labor Standards Act (FLSA) of 1938, which remains today one of the most significant acts regarding labor standards, set working-condition requirement for most workers engaged in or producing goods for interstate commerce. The FSLA set minimum wages, maximum hours, and overtime stand-ards that employers had to follow. Additionally, this act set national rules for child labor, at a critical time in history. (Child labor legislation had been evolving for some time in State houses, but falling real wages during the Great Depression precipitated a national restriction on the use of child labor.)

The FSLA had a direct effect on compensation, as it not only set minimum wage standards, but also established provisions for overtime hours and pay that would become part of wage benefits for all nonexempt workers. In conjunction with the SSA, the FSLA wove an additional thread into the national social security net by legislatively setting a living wage and decent hours for American workers.

In 1949, the FLSA was amended to directly prohibit child labor; in 1958, the Welfare and Pension Disclosure Act was passed, setting reporting requirements for administrators of health insurance, pensions, and supplementary plans; and, in 1959, the Labor-Management Reporting Act was passed, providing additional protection for the rights of union members.

During the 1960s and 1970s, laws protecting against discrimination and laws protecting the health and safety of workers were passed. Still other labor-related legislation dealt with taxation and standards for administering pension plans. Throughout these years, families were undergoing significant economic changes. Women, particularly married women with children, were a growing presence in the workforce. Between 1960 and 1995, the number of married working mothers grew from 6.6 million to 18 million. The number of single working mothers also took on its own presence, growing from 0.6 million in 1980 to 2.1 million in 1995.[4]

While these changes in families' work choices were occurring, industries were shifting from goods-producing to service-producing, which led to a disproportional growth in white-collar occupations—occupations where unionization was not very common. As a result, changes in pay methods and working conditions would not be ushered in by unions, as they were at mid-century. Instead, legislative initiatives provided the framework for new workplace and compensation practices.

The compositional change in families brought a desire for flexibility: flexibility in leave for family care and flexibility in the assortment of benefits employers provided. For the former, legislation helped with the passage of the Pregnancy Discrimination Act in 1978 and the Family and Medical Leave Act of 1993. For the latter, employers have begun to offer flexible benefit plans, in an attempt to tailor benefits offered to employees.

With a rising number of two-earner families, conflicts in benefits received by families began to emerge. Perhaps the most important was double health insurance coverage. In terms of hourly costs, health insurance is the most expensive voluntary benefit employers offer. Thus, it is economically prudent not to have employer expenditures dispersed on double coverage. This—among other motivations—brought about *flexible benefit* packages, or *cafeteria plans*, that first emerged in the 1970s. Flexible benefit plans are arrangements in which employees are given an allotment of benefit costs to tailor individual benefit packages, by selecting only those benefits that are most valuable to specific needs. Although flexible benefit plans still are quite limited, they are growing in popularity. In 1986, only 2 percent of workers employed in medium and large private establishments were eligible to participate in a flexible benefit plan; but, by 1997, it had grown to 13 percent.

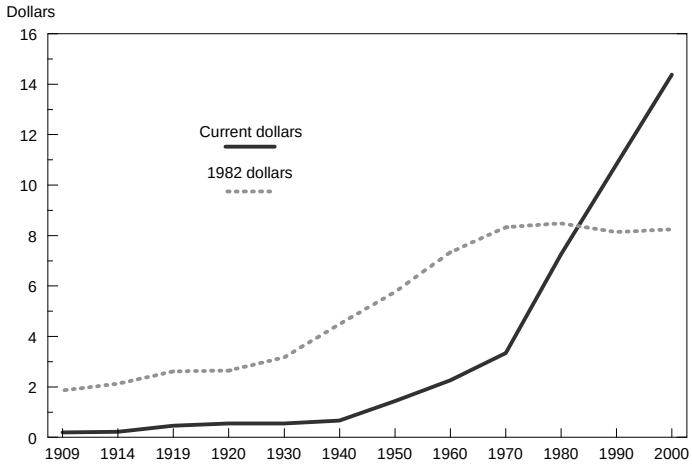
Measuring Real Earnings over the Long Term

The evolution of the average hourly earnings of production workers in manufacturing—adjusted to reflect changes in the purchasing power of the dollar—might tempt one to announce that the *real wage of factory workers* quadrupled between 1909 and 1999.

There are, however, significant statistical issues that undermine confidence in that statement. First, the equivalence of the concepts of *earnings*, *wages*, and *compensation* has eroded tremendously, as this chapter documents in some detail. Second, there have been changes in the sheer technical quality of estimates of both earnings and prices, as this section documents briefly. Third, and most significantly, there exists great difficulty in making valid comparisons over long spans of time of the cost of living or its inverse—the purchasing power of cash earnings.

The average hourly earnings of production workers in manufacturing is one of the longest running series in the Bureau of Labor Statistics (BLS) repertoire. Data on earnings of factory workers were first published regularly starting in the January 1916 edition of the *Monthly Labor Review*. Additionally, similar data are available from BLS as far back as 1909 in less regular form, and economic historians have constructed estimates for years prior to that.

Chart 2-1. **Average hourly earnings of production workers in manufacturing, 1909-2000**



Naturally, there have been numerous efforts to improve the quality of the payroll survey estimates over the years. For example, BLS Bulletin 610, *Revised Indexes of Factory Employment and Pay Rolls 1919 to 1933*, was the Bureau's first essay at benchmarking survey estimates to adjust for any pronounced bias when compared with trends in censuses of employment.

In the late forties, BLS addressed some methodological problems, including making the estimates of average weekly earnings and average hourly earnings consistent with each other, using the *link relative* technique to eliminate inconsistencies due to changing samples, and using aggregate hours—instead of employment—as the weight for aggregation of average hourly earnings to higher levels of industry aggregation.

In the early 1960s, all industries became classified on the Standard Industrial Classification (SIC) basis, when nonmanufacturing was converted to the SIC system from the Social Security Board classifications. In 1961, work began to design comprehensively a sample stratified by *size* of establishment, instead of sampling only establishments with employment over a certain industry-specific number. And in 1966, the *link and taper* method became routinely used for the monthly calculation of hours and earnings.

In 1970, for the first time, the Current Employment Statistics (CES) program began publishing seasonally adjusted estimates of average hourly earnings, using the *BLS Seasonal Factor Method.* Seasonal factoring, or adjustment, permits the more accurate interpretation of intra-year trends in economic time series by *smoothing* regular month-to-month fluctuations caused by weather, holidays, and other factors. In the 1980s, the CES program continued to expand the survey sample and made additional changes in seasonal adjustment procedures and industry coding, as well as other technical changes. The number of establishments surveyed in the service sector doubled between 1979 and1989, although sampling as a percent of the service-producing universe remained unchanged.

Starting in 1995, changes in sampling techniques were developed to achieve a genuinely random sample. Besides creating a new sampling design, the CES program made modifications in the formulas for estimation. For hourly earnings, the link technique was kept, but weights were assigned to each sampled unit. (The use of weights replaced the use of size-based strata.) By the end of the decade, however, the new sample and new formulas were in use only in the wholesale trade division; changes are to extend to the remaining divisions over the next few years.

As a result of these and other program improvements, the degree to which Current Employment Statistics estimates needed to be adjusted to benchmarks was reduced substantially. Bulletin 610, published in 1934, reported a cumulative bias of about 11 percent between 1923 and 1929. Today's status is outlined in the monthly Employment Situation news release: "Over the past decade, the benchmark revision for total nonfarm employment has averaged 0.3 percent, ranging from zero to 0.7 percent."

Calculating real, inflation-adjusted, earnings requires a price index to deflate current dollars to a constant level of buying power. The most commonly used index for this purpose is the Consumer Price Index (CPI). Like the measure of unadjusted, or *nominal*, earnings, the CPI has a long history of development and improvement.

Cost-of-living and retail price statistics are mentioned as early in the Bureau's history as 1891, and the first weighted retail price index was published in 1903. Since those early days, there is virtually no aspect of price index statistics that has not been improved. The number of monthly prices collected has grown from about 5,000 for the *30 principal items of food* in the 1903 publication to about 70,000 that are grouped into 305 categories called *entry level items*. Additionally, the number of outlets sampled has grown from 800 for the earliest years of the index to about 30,000 retail and service establishments; and about 27,000 landlords and tenants provide data on housing units. Also, the number of localities for which data are collected has risen from 32 to 87.

Perhaps the most consistent element of the consumer price program's scope has been its framework of a family's living costs. The definition of the index family for the CPI used in the calculation of real wages, the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) has been fairly stable. In the earliest reports, the family was composed of two or more persons with a chief earner—either a wage earner or an earner working at a relatively low salary. The restriction to wage-earner families continues; but, in 1964, single-person families were introduced for the first time.

Another consistent characteristic of the Consumer Price Index program has been technical improvement. Starting in 1940, the Bureau of Labor Statistics conducted a full-scale revision of the Consumer Price Index, to take into account new population patterns, changes in the composition of consumer expenditures, and improvements in survey concepts and methods. Five subsequent revisions have ensued, with the latest one introduced in 1998. It is important, however, to recognize that many improvements in the CPI have been implemented outside the formal revision process. Some of the most important of these inter-revision changes were the adoption, in 1967, of the quality adjustment concept in handling automobile model changeovers; the shift in 1985 (1983 for the CPI for All Urban Consumers, or CPI-U) to a flow-of-services model for pricing owner-occupied housing; and the implementation of hedonic or regression-based quality adjustments, starting with apparel prices in 1991. Perhaps most significant of the more modern improvements has been the adoption of a new functional form, the geometric mean, to calculate the average of prices of items within most CPI product categories. One effect of using geometric means is that the formula now adjusts to some degree for changes in consumption that one might assume would result from changes in the relative prices of items in the CPI market basket.

As a result of this and the other improvements, the CPI-W today is a better measure of living costs than previously, and is the best statistic to use to deflate one month's or one year's earnings' estimates into dollars comparable with the dollars of adjacent (or at least close-by) months or years. But even with nearly perfect earnings' estimates and price indexes, is it legitimate to make a comparison of the real earnings of 1909 with real earnings of 1999?

Simply doing the arithmetic results in real earnings of $2.03 constant 1982 dollars in 1909 and $8.26 constant 1982 dollars in 1999. A more complex question is whether or not we can meaningfully compare—over a span of nearly a century—the standard of living purchased by even the most precisely measured nominal dollar deflated by even the most carefully constructed price index. The main issue is the vastly different character of actual consumption between widely separated points in time. For example, purchasing an Internet connection, at any price, would have been impossible, in 1909; and something like a buggy whip has gone from a common tradesman's tool to an item of esoteric taste.

To combine the changing definition of the average consumption bundle, with changing notions of an adequate budget, with a changing level and composition of compensation means that there has been a increase in the measured real cost of a *moderate* standard of living. One avenue to explore toward an explanation is the possibility of using labor hours as the metric, rather than real dollars.

Doing that arithmetic shows that a *fair* level of living for a typical cotton mill worker could be earned in 1909, with about 3,750 hours of labor; and that a median family budget for 1998 could be obtained in exchange for about 2,625 hours of work. Thus, if one can assume that the "fair" level of living in 1909 is no better than the median family budget of 1998, then one could conclude that workers in 1998 were better off. While this may show some improvement across the 90-year span, most of the old questions about comparability remain; and, in fact, new ones are raised. For one thing, the nature of work has changed, and increasing incomes have led to an increased taste for leisure time.

In the end, it is generally true that price indexes and measures of purchasing power are accurate only over short time horizons within which tastes, technologies, and economic structures are relatively homogeneous. Comparisons over longer periods, the interest they generate notwithstanding, will always be subject to noncomparability and misinterpretation, because the assumptions that underlie these comparisons—constancy of tastes and technology are violated.

Year	Type of family budget	Level of living	Budget amount	
			Current $	2000 dollars[1]
1908-09	Cotton mill worker[2] (5 person)	Fair	$ 713	$ 12,402[3]
1919	DC federal worker[2] (5 person)	Health and decency	2,142	21,321
1947	BLS family budget[4] (5 person)	Modest but adequate	3,329	25,706
1947	BLS family budget[4] (4 person)	Modest but adequate	2,904	22,425
1951	BLS family budget[5] "	Modest but adequate	3,750	24,837
1959	BLS family budget[5] "	Modest but adequate	5,180	30,653
1966	BLS family budget[5] "	Moderate/Intermediate	7,329	38,952
1973	BLS family budget[6] "	Intermediate	9,761	37,857
1979	BLS family budget[7] "	Intermediate	15,353	36,416
1979	Revised Watts budget[7] "	Median (PFS)	16,129	38,256
1981	BLS family budget[8] "	Intermediate	18,240	34,554
1984	Revised budget[9] "	Median (PFS)	20,531	34,027
1989	Revised budget[10] "	Median (PFS)	27,143	37,694
1994	Revised budget[10] "	Median (PFS)	31,817	36,970
1998	Revised budget[10] "	Median (PFS)	36,528	38,590

[1] Adjusted using the Consumer Price Index for All Urban Consumers (CPI-U), 1982-84 =100.

[2] Adjusted using Consumer Price Index for All Urban Consumers for 1913 and budget data for 1908-09.

[3] Bureau of Labor Statistics, *How American Buying Habits Change* (1959).

[4] Bureau of Labor Statistics, *Workers' Budgets in the United States: City Families and Single Persons*, Bulletin 927 (1947); 4-person budget for median city (St. Louis); 5-person budget calculated using equivalence scale.

[5] U.S. Department of Labor, Bureau of Labor Statistics, *City Worker's Family Budget for a Moderate Living Standard*, Bulletin 1570-1 (1966).

[6] Brackett, Jean, "Urban family budgets updated to autumn 1973," *Monthly Labor Review*, August 1974.

[7] Expert Committee on Family Budget Revisions "New American Family Budget Standards," IRP working paper (1980).

[8] "Family Budgets," *Monthly Labor Review*, July 1981.

[9] Rogers, J. "Estimating Family Budget Standards," unpublished BLS manuscript, 1987.

[10] Calculations using 1989, 1994, and 1998 Consumer Expenditure Survey data and share of total budget spent on family consumption items.

Source: Johnson, David S., John M. Rogers, and Lucilla Tan, "A century of family budgets in the United States," *Monthly Labor Review,* May 2001.

Composition of pay

In early 2000, the average hourly cost of compensation for employers was $21.16, of which 82 percent consisted of wage payments that included paid leave and supplemental pay.[5] The remaining 18 percent comprised hourly costs for non-wage supplements, such as health and life insurance, retirement and savings, and other legally required benefits. As presented earlier, few workers at the turn of the 20th century received any form of nonwage benefits; and, in fact, these nonwage supplements to compensation were coined fringe benefits for most of the century. The word *fringe* connoted that these components of pay were of little substance to the overall pay structure of workers. With nonwage benefits now accounting for nearly one-fifth of average compensation, they are anything but *fringe*.

Measuring changes in components of pay across the 20th century is made difficult by the lack of a comprehensive and consistent series of compensation data. Compensation studies undertaken through most of the century have measured components of pay through the years targeted specific workers, such as mill and manufacturing workers, or worker categories, such as union or white-collar workers. Each of these compensation studies had specific purposes, frequently responding to labor issues of the day.

However, the National Income and Product Accounts (NIPA) of the Bureau of Economic Analysis provided a consistent source of compensation data for the economy as a whole for the better part of the century. The NIPA provides aggregate estimates of both wages and salaries, as well as supplements to wages and salaries. These supplements, in large part, are measures of non-wage benefits, including employer contributions for legally required benefits—such as Social Security and unemployment insurance—and voluntary benefits, such as health and life insurance, private pension plans, and profit-sharing plans. Supplements increased sharply through most of the decades of the 20th century, increasing from 1.4 percent in 1929 (the earliest year in which these data are available) to 17.5 percent by the close of the century.[6]

The remaining sections of this chapter discuss the major economic, political, and demographic influences on compensation during the 20th century. These sections track the growth of new forms and types of compensation. Additionally, these sections track the changes in the Bureau of Labor Statistics compensation studies and the reasons for these changes. The final section explores *future* trends in employee compensation and the data collection challenges these trends might pose.

Pre-World War I reform and economic volatility

At the turn of the 20th century, the United States was about to enter a new era. Most areas of the country had become populated, the frontier had disappeared, and the country was about to become a world power. The United States had survived civil and foreign wars, suffered through recessions and panics, and had seen the formation of a business economy that would eventually produce the highest standard of living on Earth.

A significant feature of the early 1900s was growth in the average size of establishments.[7] This size increase was made possible by, among other factors, the heightened availability of electricity and growth in the size of markets for goods. Larger establishment size tended to provide economies of scale and reduce competition.

Another notable feature of the early 1900s was volatility in business conditions. There were recessions or depressions in 1902-04, 1907-08, and 1910-12, due, in part, to the absence of a mechanism to limit the effect of runs on banks or to control the money supply.[8]

The Federal Government played a pivotal role during this period, helping to usher in a period of reform. The watch words of the day were elimination of corporate abuse, trustbusting, tariff reduction, banking reform, protection of natural resources, creating new sources of government revenues, and improving workers' living and working conditions. Several new laws were enacted: The Hepburn Act of 1906 provided the Interstate Commerce Commission authority to regulate railroads; a pure-food law in 1906 forbade the use of "deleterious drug, chemical or preservative"; the 16th Amendment to the Constitution (1913) authorized the Federal income tax; and the Clayton Antitrust Act of 1914 limited the use of injunctions in labor disputes and provided that picketing and certain other union activities were not to be considered unlawful.

Although some improvements had been made, working conditions were harsh at the beginning of the 20th century. During these early years of the century, pay was low, workweeks were long, business conditions were volatile, competition for jobs (due, in part, to immigration) was intense, and employees were unquestionably subject to the doctrine of employment-at-will.[9] Also, there was little compensation beyond the paycheck. For example, retirement income depended almost exclusively on what one saved during one's working life,[10] and there was no government or employer aid if workers suffered job-related injuries or lost their jobs. The first major social insurance program in the United States—workers' compensation, which compensates workers for injury on the job through exclusive State insurance funds—was adopted first in Washington and Ohio in 1911.[11]

Job insecurity, low pay, and poor working conditions led to labor unrest, as indicated by the growth in union membership and by several major strikes. Trade union membership in the United States[12] rose in the following manner in the early 20th century:

Year	Total membership (thousands)
1900	791
1905	1,918
1909	2,116
1915	2,560

In 1902, miners conducted a 5-month strike against anthracite coal mine operators. Other noteworthy strikes during this period occurred in the textile, iron, railroad, clothing, and mining industries.

Increased Role of the Bureau of Labor (predecessor of the Bureau of Labor Statistics). In such an atmosphere, there was increased demand for "regular and adequate statistical data relating to wages." Around 1890, the Commissioner of the Federal Bureau of Labor (later the Commissioner of the Bureau of Labor Statistics) began to supervise the collection of average rates of pay by occupation, industry, and region and for selected occupations, by city and State. These data were presented in an annual report or in the Labor Bureau's bimonthly bulletin.

During the winter of 1900-01, the Bureau expanded its data-collecting program, launching a study of occupational wages by industry, collecting the average hourly earnings in major occupations in the leading manufacturing and mechanical (such as construction) industries. Published in 1905, as the Commissioner's *Nineteenth Annual Report,* the volume provided data for 1890 to 1903, covering 519 important and distinctive occupations in 3,475 establishments in 67 manufacturing and mechanical industries. These data included actual and relative wages and hours by occupation, relative wages by industry, and relative wages and hours for all industries covered. The report described in detail how data were collected and tabulated. It expressed confidence in the quality of the data, because "…all the field work for this report was carefully done by experienced agents of the Bureau.[13]

After 1907, there was a 4-year lull in the Labor Bureau's wage survey program, due to pressure of other work, such as a special study of wages and working conditions of women and children. A 1912 wage study of cotton goods manufacturing and finishing industries added job descriptions to help ensure that identical occupations were surveyed over time. Also in 1912, the Labor Bureau began studies of union wage scales and hours of work in construction, newspaper printing, and several other industries, with data carried back to 1907.

In 1911-12, the Labor Bureau published a four-volume study of the "condition of employment" in the iron and steel industry, at the request of the U.S. Senate. Agents of the Bureau of Labor visited more than 100 plants throughout the United States, to survey the wages and working conditions in the industry. In 1911, the Labor Bureau published average hourly earnings for *productive* occupations, such as laborers, melters, hammermen, heaters, cinder men, and steel pourers. In 1912, the Labor Bureau reported on the trend of wages from 1900-10 for all classes of laborers working in blast furnaces, Bessemer converters, open-hearth furnaces, blooming mills, bar mills, and rod mills; the data provided the percent of workers in various wage rate ranges at each of these six type of facilities. The report also included hourly rates for common laborers.

Meanwhile, because of the "marked growth

in the application of insurance," the *Twenty Third Annual Report of the Commissioner of Labor* (1908) was devoted to a benefit study, "Workmen's Insurance and Benefit Funds in the United States." This study reported on current workmen's insurance, which protected workers against sickness, accident, death, old age, and other adversity. It involved three general types of insurance funds: Those maintained by or as adjuncts to labor organizations; those found in a common place of employment (usually limited to the employees of a particular establishment); and those maintained by industrial benefit societies, without regard to common employment or affiliation with any particular labor organization. The study analyzed local labor organization benefit funds, railroad relief funds, establishment benefit funds, hospital funds, miscellaneous funds, industrial benefit societies, and State and savings banks' insurance:

> The investigation discloses that nearly all of these funds attempt to accomplish no more than to relieve immediate necessities. The two principal classes of benefits are for death and for temporary disability. The benefit paid on the death of a member usually is no more than enough to pay funeral expenses, although some few societies provide a much more substantial sum.
>
> The temporary disability benefits are generally designed to cover partially the loss of earnings occasioned by an illness of ordinary length or by an accident. In no case is it the purpose to pay a benefit greater than the wages lost. Generally a benefit is not paid for an illness of less than one week; but for loss occasioned by accident, especially if occurring while on duty, benefit is usually paid from the date of injury. Temporary benefits…are limited to a definite period, varying from a few weeks to several months.[14]

World War I and prosperity

The first major attempt at government control of the economy occurred during World War I, as the Nation quickly shifted more than 20 percent of national production to wartime needs.[15] During these hostilities, the War Industries Board determined industrial priorities, fixed prices, and converted plants to meet Federal Government needs. Many government functions that would be taken for granted a half-century later had their origins at this time.[16]

The War Labor Board, established to settle industrial disputes, became the model for a national system of labor-management relations in the 1930s. For the emergency period during the War, union representatives on that board won the right of workers to join unions and not be discharged for union activity.[17] The U.S. Housing Corporation built housing for defense personnel, beginning the Federal involvement in the Nation's housing market. The U.S. Railroad Commission took control of the Nation's railroads. The Food Administration and Fuel Administration coordinated food and fuel distributions, respectively.[18]

Trade union membership almost doubled from 1915 to 1920—years of war and postwar economic boom. During this time, the Federal Government, for the first time, treated the labor movement as a legitimate representative group.[19] From a high point of 5 million members in 1920, however, there was an almost continual decline in union membership until the bottom was reached in 1933.[20] After major strikes in 1921-23 (including an unsuccessful attempt to organize the steel industry), trade unions were unable to exercise direct pressure on employers for almost a decade, until the passage of the Wagner Act in 1935, which promoted unionization and collective bargaining.[21]

As had been the case earlier, the compensation studies conducted by the Bureau of Labor Statistics during World War I were authorized by Congress, to address specific needs. The War Industries Board had been created to increase production, mobilize the labor force, maintain peaceful labor-management relations, and stabilize prices and wages. At this time, the Bureau worked closely with the War Board's Central Bureau of Planning and Statistics.[22] In addition, wartime demands from various other agencies for information on wages and hours, strikes and lockouts, and labor placed additional requirements on the Bureau.

Not until the war was nearly over in late 1918, however, was funding allocated for the Bureau to undertake wage surveys for use in the solution of labor problems in a number of industries and to provide a record of industrial conditions at the height of the war effort.[23]

Continuing to use procedures begun in 1913, agents specialized in certain industries and became "…more familiar with the nature of the work in the various occupations."[24] The Bureau's regular, pre-war program had included only 10 industries surveyed at 2-year intervals. In May 1920, results of wages and hours surveys during 1918 and 1919 were published for fully 780 occupations in 28 industries.[25]

In what today might be called a vision statement, the work of the BLS was outlined in 1927: "Primarily the Bureau of Labor Statistics is a fact-finding agency. Its duty as set forth in the act creating it is to 'collect information upon the subject of labor * * * and the means of promoting the material, social, intellectual, and moral prosperity' of the wage earners of this country. The function of the bureau is thus somewhat broader than is what is commonly understood by the word *statistics*. Its field of work not only covers purely statistical data, but also includes other subjects of vital human welfare, such as accident prevention, housing, labor legislation, and social insurance in all its phases."[26]

The 1920s were not always favorable for this vision, as public attitudes and policies encouraged business interests.[27] The Bureau found little opportunity to expand or improve its work during this period,[28] although it did expand coverage of industry wage studies into 20th century manufacturing industries and expanded into newly emerging compensation practices, such as bonus systems and pay for overtime, Sunday, and holidays.[29] Although surveys were confined to manual jobs and largely selected jobs in the manufacturing sector, these surveys provided a reasonably consistent body of data on both the structure and trend of wages for industrial workers.[30]

During this retrenchment period, the Bureau was able to continue one of its oldest programs, union scales of wages and hours of labor, which dated back to the late nineteenth century. Data were collected for occupations in five industries—bakeries, building trades, marble and stone trades, metal trades, and printing—for localities throughout the country. As an example, wages and hours from 1913 to 1925 in Chicago for several trades are summarized in table 1.[31]

The Bureau also undertook various studies of workmen's compensation, legal aid, and social insurance programs, often in reaction to changes in the law. For example, following the passage of amendments to the Federal retirement system in 1926, the Bureau conducted a survey of 46 State and municipal pension plans, publishing the results by 1929, along with information on public retirement systems in Canada and Europe.[32] The cost of benefits, however, was still a very small part of a worker's compensation package, accounting for less than three percent of the employer's cost for employee compensation.[33]

An early example of one of the Bureau's studies of retirement systems was data published on a retirement plan for employees of the State of New Jersey. This retirement system for these employees was created in March 1921, with contributions starting in January 1922 and pensions first being paid in July 1922. Membership was optional for current employees but mandatory for all new employees. Contributions from the State and employees were "sufficient to secure upon retirement at age 60 an annuity amounting to 1/140 of their final average compensation for each year of service rendered." For example, an employee retiring after 35 years of service would be entitled to an annuity valued at one-quarter (35 X 1/140) of the final average compensation. Retirement was optional at age 60 and compulsory at 70.

In 1926, the Bureau conducted a comprehensive study of workers' compensation. At that time, all but five States had enacted workers' compensation laws to protect workers from losses resulting from injuries on the job. Nearly all these States had passed their initial legislation by 1919 and had subsequently expanded the scope of the acts, increased the amount of benefits, and reduced the amount of time before receiving benefits.[34] Benefits in these States[35] covered fatal—as well as nonfatal—injuries and medical and surgical benefits. In most States, compensation benefits were based on a percentage of average wages, ranging from one-half of average wages in 16 States to two-thirds of average earnings in 12 States. Maximum payments ranged from $3,000 to $7,800 for death and from $3,000 to $10,000 for permanent total disability.[36]

The Bureau also conducted another survey in 1926,[37] following up on an earlier survey of the existence of "industrial establishments offering insurance to their employees under the

group plan."[37] "After 1916, the amounts of group insurance being written increased very rapidly … In the earlier study only 32 of the companies had inaugurated a group insurance plan, while in the present study 186 companies with 672,468 employees were found to have such a plan in effect."[38] "The earlier group life insurance policies provided for payment of a lump sum in case of death, the amount of the insurance usually ranging from $200 to $1,000 and frequently increasing with each year of service." In 1922-3, group accident and sickness policies were first written as added features of many group life-insurance policies and the "…contributory features became even more marked. In many establishments the employer arranged for combination group life, sickness and accident insurance, part of the premium to be paid for by the worker, while in other cases the employer paid for the life insurance and the employee paid for the sickness and accident insurance."[39] The usual minimum life insurance benefit was $500, with many plans varying by an employee's annual salary and length of service.[410] Sickness and accident insurance provided benefits for non-occupational injuries, usually "for periods of 13 weeks, 26 weeks, or occasionally 52 weeks," with benefits being paid according to salary class.[41]

The Great Depression and the Federal role in the economy

The Great Depression, a long and severe period of economic decline, affected the United States and the entire industrialized world. The American stock market declined by nearly 90 percent from 1929 to 1932, ruining individual investors and financial institutions. Many banks and other businesses were forced into insolvency. The resultant sharp declines in consumer demand and capital investment led to greatly reduced levels of spending, production, and gross national product (GNP).

From an estimated annual rate of 3.3 percent during 1923-29, the unemployment rate rose to a peak of about 25 percent in 1933. The economy reached its trough in 1933; but although unemployment had reached its peak, economic recovery was slow, hesitant, and far from complete. As shown below, the unemployment rate was still nearly 15 percent in 1940: [43]

Year	*Unemployment rate*
1923-29	3.3
1930	8.9
1931	15.9
1932	23.6
1933	24.9
1934	21.7
1935	20.1
1936	17.0
1937	14.3
1938	19.0
1939	17.2
1940	14.6
1941	9.9
1942	4.7

In March 1933, Franklin D. Roosevelt was inaugurated President and initiated a series of aggressive measures, collectively known as the New Deal, in an attempt to revive the economy from the Depression. New Deal legislation brought unprecedented Federal Government involvement to the economy.

The Great Depression also resulted in the unprecedented involvement of the Federal Government in labor-management relations. The passage of the National Labor Relations Act (Wagner Act) of 1935 guaranteed the rights of workers to join labor unions and to bargain collectively with their employers. The impact of unionization on the wages and benefits of blue-collar workers in important manufacturing industries also spilled over into non-union workerplaces and industries. Union membership rates, which had been about 1 in 8 workers in the early 1930s, doubled to more than 1 in 4 workers in 1940:

Year	*Union membership rate*[44]
1930	2.3
1935	13.8
1940	27.6

Industrial workers in the mass-production industries–steel, automobiles, rubber, and electrical equipment–were organized during this time. In 1935, eight industrial unions formed the Committee for Industrial Organization within the American Federation of Labor (AFL), which was dominated by the craft unions. Three years later the CIO split completely from the AFL and became a separate entity, the Congress of Industrial Organizations (CIO).

In addition to becoming involved in labor-management relations, the Federal Government became involved in establishing wage standards at this time. For example, the passage of the Davis-Bacon Act of 1931 created the establishment of wage standards for worker employed by contractors or subcontractors employed on construction projects financed by the Federal Government. A second piece of legislation, the Walsh-Healey Act of 1936, established a prevailing wage for workers employed by firms providing materials and supplies to the Federal Government. Finally, the Fair Labor Standards Act of 1938 established a minimum wage ($.25 per hour)[46] for most workers involved in producing goods for interstate commerce.

The Great Depression also brought a different approach to viewing economic security. Americans became aware that individuals were not always able to provide for their own security in a modern industrial society. Before 1934, workers' compensation was typically the only help available to workers.[47] Workers had no protection against loss of income for any cause other than industrial accident, except their own savings, organized charity, and local relief agencies.[48] Surprisingly, there was little support for social insurance programs other than workers' compensation before 1930. In 1931, for instance, a national AFL convention refused to endorse unemployment insurance legislation.[49]

The roots of the New Deal had been planted during early debates about compulsory State insurance and workers' compensation.[50] But it wasn't until the devastating economic disaster of the 1930s that most Americans became convinced of the necessity of a permanent national plan for coping with severe losses in income.[51] Subsequently, Congress passed the Social Security Act of 1935, which provided two social insurance programs–a Federal system of old-age benefits for retired workers and a Federal-State system of unemployment insurance. The Social Security Act also established a series of Federal grants to the States for additional old-age assistance, aid to the blind, and aid to dependent children.[52]

In addition to providing compensation for lost income, the passage of the Social Security Act and the Wagner Act in 1935 signaled the beginning of the concept of compensation as more than just traditional straight-time pay for time worked. Unions began to deviate significantly beyond the traditional scope of collective bargaining–wages, hours, and working conditions–and began to negotiate compensation packages that would give workers more and better welfare plans than were provided by legally required plans.[53] Consequently, supplements to wage and salaries, including legally required benefits and private health and welfare plans, although still accounting for less than that 4 percent of compensation costs in 1939, had more than doubled in value in the previous 10 years.

Between 1932 and the end of the decade, the Bureau's wage survey activity was primarily geared to the information needs of the new Federal agencies created by the New Deal; and the Bureau expanded, with a doubling of staff and budget between 1934 and 1941.[55] In place of the periodic study of major industries, the Bureau studies of minimum wage and maximum hour provisions were needed for industries to meet the "codes of fair competition" required by the National Industrial Recovery Act (NIRA) of 1933. Major comprehensive studies, including information on working conditions—as well as wages—covered a diverse set of industries and occupations.[56] Several studies were also undertaken in cooperation with the Works Progress Administration (WPA), as well as surveys done in connection with the Walsh-Healey Act that covered work performed by Federal government contractors.[57]

Because of the need for data for minimum wage determinations under the Fair Labor Stanards Act of 1938, which initially provided for a minimum wage by industry, the Bureau conducted about 45 industry wage surveys during 1938 and 1939.[58] Most of these studies provided data on the distribution of workers in low-wage industries by straight-time hourly earnings, without occupational detail.[59]

One example of the studies conducted by BLS for the NIRA was the survey in March 1935 of the manufacture of cigarettes and tobacco products industry.[60] This survey covered approximately 38,000 workers in 48 plants. A summary of the article concerning the survey found, "Most of the plants used both piece- and time-rate methods of wage payments. A noteworthy improvement in weekly hours and payment of higher rates for overtime was found in 1935, as compared with the situation existing prior to the National

Industrial Recovery Act."[61] Paid holidays and vacations were generally limited to salaried workers, and pay for lost time due to sickness was rarely provided by a formal plan. Insurance benefits were limited. "A number of the companies, especially the large ones, had welfare programs covering one or more of such measures as medical care, group insurance of various kinds, thrift clubs, and lunch rooms. Approximately half of the employees were, by such programs, provided access to medical services beyond first-aid attention."[62]

Another example is a survey conducted with the WPA of the building construction industry in the fall of 1936 for information on prevailing wage rates. Information was gathered from over 6,000 contractors involved in more than 13,000 projects in 105 cities across the country.[63] Average earnings for the 186,145 workers were $.918 per hour. Earnings for electricians, bricklayers, and structural ironworkers averaged more than $1.30 per hour. Laborers earned $.516 per hour. Earnings for union workers were significantly higher in comparable trades than for their nonunion counterparts. For example, union electricians earned nearly 60 percent more per hour than their nonunion counterparts.[64]

One of the rapidly growing benefits during the 1930s was paid vacations to employees. In 1937, a BLS survey of 90,000 firms found that approximately 95 percent of the 700,000 salaried workers received annual vacations with pay, compared with 36.7 percent of the 9.5 million wage earners.[65]

For salaried workers, most paid vacation plans were initiated between 1920 and 1930. Vacations were practically all for either a 1- or 2-week period, with 2 weeks reported for 57 percent and 1-week plans for 37 percent of salaried workers.[66] The usual length of service to be eligible for a vacation was 1 year, reported for 80 percent of the plans. For graduated plans, the 1-week minimum and 2-week maximum vacation was almost universal.[67]

For wage earners, survey results indicated approximately 70 percent of plants with a paid vacation plan for wage earners said they initiated it during the 1930-37 period; and about 40 percent gave vacations for the first time in 1937.[68] Wage earners were typically eligible for a vacation after 1 year of service, although 40 percent required 2 years'; and 20 percent required 5 years' or more service.[69]

World War II and the transition to a peacetime economy

Following the bombing of Pearl Harbor in December 1941 and the ensuing entry of the United States into World War II, the Federal Government mobilized its resources and the country's industrial might. On January 6, 1942, President Roosevelt announced ambitious wartime production goals. In response, all the country's economic sectors came under new or increased Government controls.

The Federal Government created a number of agencies, such as the War Production Board (1942), the Office of War Mobilization (1943), and the Office of Price Administration (1942), to increase total production, reallocate production to military uses, and control wages and prices. Increases in military output were obtained, in part, by diverting resources from current uses, particularly for the production of consumer goods. Manufacture of consumer items—such as automobiles, refrigerators, and housing materials—was forbidden.

Controlling output proved easier than controlling wages. Inflationary pressures were created by the shortages of both goods and labor that developed during World War II; subsequently, the Consumer Price Index (CPI) increased by more than 35 percent at this time. Several attempts were made to create an effective organization to control wages and limit work stoppages. In 1941, President Roosevelt created, by executive order, the National Defense Mediation Board. The Board had jurisdiction over cases referred to it by the Secretary of Labor and was given authority to settle disputes by conciliation, voluntary arbitration, and public recommendations. However, the Board ceased to be useful when the CIO members withdrew in November 1941.

The National War Labor Board was created by President Roosevelt, by executive order on January 12, 1942. The Board was established to determine procedures for settling disputes that might affect war production. The Board had the options of offering mediation, voluntary arbitration, and compulsory arbitration to try to resolve controversies but had no power to enforce its decisions. It was also authorized to approve all wage increases, where the total annual remuneration was below $5,000. The Board quickly adopted the so-called *Little Steel* formula for wartime wage changes, i.e., based on a 15-percent rise in living costs from

January 1, 1941, to May 1, 1942. In September 1942, the President was given the authority to stabilize wages and salaries, based on September 15, 1942 levels.

As a result of wage restrictions, employ-ers who needed to attract labor resorted to providing a growing range of fringe benefits, such as pensions, medical insurance, and paid holidays and vacations. These benefits were considered non-inflationary, as they were *not* paid in cash and, thus, did not violate the wage ceiling. Additionally, payments for overtime afforded extra income to workers, without violating the limits on hourly wage payments. During the late 1940s, fringe benefits became more common as part of settlements reached in collective bargaining.

On June 25, 1943, Congress passed the War Labor Disputes (Smith-Connally) Act that authorized the President to take over plants needed for the war effort or in which war production had ceased because of a labor dispute. These sanctions were effective against management but were not as effective against labor. Although strikes were prohibited during the War, they did occur.

Year	Number of		
	Work stoppages	Days of idleness (thousands)	Union members (thousands)
1940	2,508	6,700	8,717
1941	4,288	23,000	10,201
1942	2,968	4,180	10,380
1943	3,752	13,500	10,213
1944	4,956	8,720	14,146
1945	4,750	38,000	14,322
1946	4,985	16,000	14,395
1947	3,695	34,600	14,787
1948	3,419	34,100	14,319
1949	3,606	50,500	14,282

Despite efforts of the National War Labor Board, the shortage of labor during World War II caused sharp increases in wages. Average hourly earnings of production and nonsupervisory workers in manufacturing more the doubled between 1940 and 1949, with the largest increases during the war years, 1940-44. Hours worked also rose during the War, with average weekly hours for production and nonsupervisory workers rising from 38.1 in 1940 to a high of 45.2 in 1944. After the War, hours worked declined to 39.1 in 1949, slightly above the average for 1940.

After World War II, the Federal Government continued to directly affect the welfare and economic conditions of the American workforce. In 1946, Congress passed the Employment Act, which committed the Federal government to take all practical measures to promote maximum employment, production, and purchasing power. In 1949, Congress amended the Fair Labor Standards Act of 1938 to directly prohibit child labor for the first time. Additionally, two Supreme Court cases (*Inland Steel v. United Steelworkers of America* and *W.W. Cross* & *Co. v. N.L.R.B.*) issued after the war, in effect, required employers to bargain over retirement and health insurance plans.

Meanwhile, the transition to a peacetime economy was complicated by a number of problems, including providing economic opportunity for both returning servicemen and the current workforce. One priority was to assist returning servicemen in getting housing and education; thus, the GI Bill, for example, guaranteed loans for housing and education assistance. Another priority was to maintain industrial peace while transitioning from a wartime economy to a peacetime economy. This was difficult; labor unrest ensued, because of pent up frustration and job losses.

During the immediate postwar period, consumer goods, which were not available during the War, became in great demand. People had worked steadily during the war, often at overtime rates, and had money to spend. Demand for consumer items such as automobiles was high, so manufacturers had trouble filling orders. At the same time, union members, whose wages had been restrained during the war, demanded increases in the immediate postwar period. The result was a wave of strikes precisely when the public was anxious to see more consumer goods in stores and showrooms.

Congress reacted to the wave of strikes in 1946-47 by passing, the Labor-Management Relations (Taft-Hartley) Act in 1947. This act was seen by its sponsors as a way to redress the balance between labor and management that had been altered by the Wagner Act. Among its major provisions, the Taft-Hartley Act authorized Presidential injunctions against strikes, if the national interest was involved; banned secondary boycotts and the closed shop; and allowed States to pass *right-to-work* laws.

The coming of World War II changed the statistical needs of government, and BLS responded by changing the focus of its programs.[70] A cut in funding in 1947 also forced the Bureau to reexamine its wage program.

Prior to the War, the primary use of industry wage surveys was to monitor low-wage industries. Data from these surveys were used to determine minimum and prevailing wages required by such laws as the National Industrial Recovery Act of 1933, the Walsh-Healy Act of 1936, and the Fair Labor Standards Act of 1938. After the beginning of World War II, the needs of Federal Government statistical users had shifted to the settlement of labor disputes and stabilization of pay rates. The types of industries surveyed shifted from low-wage consumer goods industries to heavy manufacturing industries vital to the War effort. Among the industries surveyed during this period were shipbuilding; aircraft; rubber; nonelectrical machinery; and the mining, smelting, and refining of nonferrous metals. The National War Labor Board became the most important user of wage surveys. The Bureau provided data on wage rates and straight-time earnings by occupation, industry, and area, as well as a general wage rate index, to measure the effectiveness of the wage stabilization program. The Board used these data for decisions on claims for wage increases on inequity grounds and for the settlement of disputes.

Because of the importance of organized labor in the national economy, the Bureau, in 1948, first published its monthly *Current Wage Developments* (*CWD*) reports, and its wage chronology series.[71] The *CWD* reported on the wage adjustments that occurred in collective bargaining situations. Besides identifying the company, union, and location of the bargaining unit, the report listed the amount of the adjustment; the effective date of the adjustment; the number of workers covered by the adjustment; and other related terms, such as information on vacations, paid holidays, and company payments to health and welfare funds. Wage chronologies were a series of reports on the negotiated changes in wages and benefits for individual, key bargaining situations, such as General Motors, United States Steel, The Boeing Company, and the bituminous coal mine operators. Although a wage chronology for any one bargaining situation was published only periodically, it would summarize the bargaining history between the company and the union, detailing the wage and benefit changes coming from the parties' various rounds of negotiations.

The Korean War to beyond the Great Society

The 1950s and 1960s saw the Korean War, the Cold War, the race for space between the United States and the Soviet Union, the Vietnam War, the New Frontier, and the Great Society. Television became a mainstay of family entertainment, there was a movement to the suburbs, college education and home ownership became common, and the civil rights' and women's rights' movements became powerful forces in society.

The decades of the 1950s and 1960s were generally periods of relative economic prosperity, with growth in employment and real wages, although three recessions occurred (1954, 1958, and 1961). This period saw many shifts in the economy, as the service sector grew relative to manufacturing; and employment shifted among occupations, as a result of the shifts among industries. The percentage of the total number of employed persons who worked in white-collar and service occupations increased during the period, while the percentage employed in manual occupations and as farm workers declined.

Another shift was that women became a more important factor in the workforce than during the postwar years. Women represented about 29 percent of individuals in the labor force in 1950 but had grown to more than 36 percent by 1969.

Married women, in particular, remained in the labor force in record numbers. By 1969, almost 40 percent were in the labor force, up from less than 25 percent 20 years earlier. While these rates were lower than for single women, the difference in labor force participation rates for married and single woman narrowed during this period.

Unemployment was relatively stable during the 1950s and 1960s, usually between 3 and 4.5 percent. The rate did exceed 5 percent during the recession years 1954, 1958, and 1961 and during the years of recovery immediately following the downturns. Conversely, unemployment was particularly low between 1951-53 and 1966-69. These periods coincided with undeclared wars in Korea and

Vietnam and saw large increases in defense spending and significant segments of the civilian labor force drawn into military service.

During this time, Federal legislation continued to shape the American workplace: the Social Security Act was amended to include Medicare in 1965 and the FLSA was amended in 1961 and 1966 to extended coverage to millions of additional workers. In addition, the Welfare and Pension Plans Disclosure Act of 1958, the Labor-Management Reporting and Disclosure (Landrum-Griffin) Act of 1959, the Manpower Development and Training Act of 1962, the Equal Employment Act of 1963, the Civil Rights Act of 1964, and the Age Discrimination Act of 1968 were passed by Congress. (See box on labor-related legislation.)

More than 20 years of internecine labor strife ended in 1955, with the merger of the American Federation of Labor and the Congress of Industrial Organizations to become the AFL-CIO. Unions in this merged organization agreed to honor the existing agreement of other member unions and to refrain from stealing members from one another. The new organization claimed about 15 million members.

In the 1950s and 1960s, the Bureau of Labor Statistics continued to gear its compensation surveys to the informational needs of the Federal Government, including the administration of prevailing wage and minimum wage laws. There also developed during this time period, an interest in comparing Federal and non-Federal compensation. This administrative need for data would shape many of the Bureau's compensation programs throughout the remainder of the 20th century. In conjunction with the need for data to administer Federal pay programs, the Bureau began to expand its compensation studies to include fringe or supplementary benefits. These new surveys would lay the groundwork for the Bureau's future benefit studies.[72]

The Bureau continued to publish its wage chronologies and *Current Wage Developments*. As an outgrowth of the wage development program, beginning in 1954, BLS published quarterly and annual summaries of newly negotiated wage rate changes—medians and means, for the first year and over the life, of contracts for production workers in manufacturing and non-supervisory workers in service industries.

By the mid-1960s, the Bureau developed procedures for costing supplementary benefits. This enabled the publication of data for the total change in compensation for units of 10,000 workers or more; and, in 1966, the publication of such data on settlements covering 5,000 or more workers. In 1968, the Bureau developed its *effective series*—wage changes in effect from settlements, cost-of-living adjustments, and deferred wage increases.

In the early 1950s, the Bureau also began publishing salary trends for selected groups of government employees. The first report was for white-collar workers for 1939-50, followed by city public school teachers for 1925-49 and firemen and policemen for 1924-50. These studies would provide BLS with the experience and foundation for conducting future, more comprehensive white-collar pay studies.

Also in the early 1950s, the Wage Stabilization Board (WSB) once again sought to control wage increases during the Korean War. WSB budgetary support allowed BLS to conduct a large number of labor market community wage studies for use in the Board's decisions, with occupational coverage extended to jobs particular to major industries in each area surveyed. Coupled with other BLS data, these studies provided the basis for a series of analyses of inter-area differences in wage levels, occupational wage differentials, fringe benefits, union density, and wage structure.

By the end of the 1950s, in response to demands for a cross-industry survey, BLS began to expand the community wage surveys to 80 metropolitan statistical areas that had been selected to represent all such labor markets. This program expansion would allow the Bureau to make estimates of the level and distribution of wages for a large number of white-collar and manual jobs in all metropolitan areas. It also provided the basis for national estimates of scheduled hours of work, holiday and vacation provisions, the incidence of private pension and insurance plans, and collective bargaining coverage. One reason for this expansion was the Federal Government's need for national data on white-collar salaries in private industry to implement a comparative pay policy for Federal white-collar and postal employees.

In response to the enactment of the Service Contract Act (SCA) in 1965, area wage surveys were expanded in 1967 to include areas requested by the Employment Standards Administration (ESA) for their administration of

the act. (The SCA requires employers to pay prevailing wages and benefits to employees performing work on Federal service contracts.)

BLS also continued to produce occupational wage studies on an industry basis but shifted the emphasis away from industry-wide surveys to surveys of major areas of industrial concentration. These annual studies covered wages and related benefits in 25 manufacturing and non-manufacturing industries.

During the 1950s, BLS conducted several wage surveys for ESA for use in the agency's appraisal of minimum wage action under the Fair Labor Standards Act, and for a basis of decisions on minimum wage policy. The studies continued into the 1960s, with minimum wage coverage being extended to several new industries, including retail trade and service industries.

The major changes in the composition of compensation that began in the 1940s forced BLS to collect and analyze supplementary wage benefits to make Bureau compensation data more meaningful. After limited studies in the early and mid-1950s, BLS began a program to measure these benefits. In 1951, for the first time, BLS captured the costs of supplementary wage benefits in a wage study in the basic iron and steel industry. Data included direct benefits, such as pay for overtime and work on holidays and late shift, pay for holidays not worked and vacation, sick leave, severance pay, and non-production bonuses; and indirect benefits, including legally required ones and voluntary insurance and retirement pension plans. Survey results were for production workers only and were expressed in terms of cents-per-man-hour.

In 1953, BLS conducted a feasibility study of collecting employer expenditures on selected supplementary employee remuneration in the manufacturing industries. The Bureau collected data on seven items—paid vacations; paid holidays; paid sick leave; premium pay for overtime; pension plans; insurance, health, and welfare plans; and legally required payments. Three basic measures of employee expenditures were used—percent of payroll, cents per hour, and cents per hour worked.

In 1955, BLS began regularly publishing two new reports—the "Digest of Selected Pension Plans" and the "Digest of Selected Health and Insurance Plans." Some of the plan features discussed in the pension plan digest included benefit formulas, normal retirement requirements, early retirement requirement and reductions, and disability benefits. Some of the plan features in the health digest included life insurance, accidental death, and dismemberment benefits, sick leave, hospital benefits, maternity benefits, surgical and medical benefits, and major medical benefits.

In 1959, BLS published the *Employer Expenditure for Selected Supplementary Remuneration Practices for Production Workers in Manufacturing Industries, 1959*. This publication ushered in a full scale, continuous program of compensation studies. Expenditures for production workers in manufacturing were published for a select list of items—including some new or growing practices, such as supplementary unemployment benefits and civic and personal leave—and were measured as cents-per-hour paid for and per plant man-hour, as well as one new measure—straight-time payroll. In 1960, a similar study was conducted in the mining industry; in 1961, finance, insurance, and real estate were surveyed; and in 1962, there was a study in manufacturing.

In 1963, another expansion of the program came, when a special study was conducted at the behest of the Federal government on supplementary remuneration in private industry for Federal white-collar and postal employees' pay comparability purposes. The survey marked a broadening of industry coverage to include manufacturing; transportation and utilities; trade; finance, real estate, and insurance; and a limited number of service industries. Employee coverage was limited to clerical, professional, administrative, and technical employees.

Sparked by Federal pay comparability questions, BLS conducted an initial survey of compensation expenditures for the entire private nonfarm economy in 1966. This was the first of surveys designed to study the entire private nonfarm sector, selecting manufacturing and non-manufacturing industries in alternate years. Surveys for the entire private nonfarm economy were produced in 1968, 1970, 1972, 1974, and 1977. This program was dropped after 1977, when the Bureau began collecting benefit cost data in the Employment Cost Index.

Inflation, recession, and high unemployment

For many, the 1970s was a decade of pessimism. It opened with of a recession in 1970 and the painful ending of the Vietnam War.

Memories of the Great Depression made policy makers unwilling to use restrictive monetary and fiscal policy to contain inflation, because it was felt that the associated increase in unemployment would be unacceptable.[73] Instead, wage and price controls were introduced in August 1971.[74] An oil embargo, in 1973, brought on by the Organization of the Petroleum Exporting Countries (OPEC), led to rapid inflation and a recession; and there was another round of disruptions to the oil supply in 1979.

Both the civilian unemployment rate and the rate of change in consumer prices deteriorated in the second half of the decade. Between 1970-74, the average annual unemployment rate was 5.4 percent, while the average annual change in the Consumer Price Index (CPI) was 6.6 percent. From 1974-79, the figures edged up to 7.9 percent for unemployment and 8.1 percent for the CPI.

This decade was also marked by a number of large, highly publicized labor disputes. For example, in 1970, almost 210,000 postal employees walked off their jobs—the first mass work stoppage in the history of the U.S. Postal Service. In the same year, four railroad unions conducted a 1-day nationwide railroad strike. In 1971, two longshore strikes closed all major ports on the East, Gulf, and West Coasts; West Coast longshore workers resumed their strike after an emergency dispute injunction temporarily halted the walkout. In 1975, 80,000 employees of Pennsylvania conducted the first legal strike by State workers. In 1977-78, miners conducted one of the longest strikes in the coal industry. The decade ended with a 10-day nationwide strike by 219,400 over-the-road and local truckers in April 1979.

Compensation component	1966	1970	1977	1986
Total compensation	100.0	100.0	100.0	100.0
Wages and salaries	80.4	79.8	74.8	73.0
Total benefits	19.6	20.2	25.2	27.0
Paid leve	5.9	6.2	6.9	8.0
Supplement pay	3.8	3.1	3.1	2.3
Insurance	2.0	2.6	4.0	5.5
Retirement and saving	5.2	5.0	4.3	3.8
Legally required	2.6	3.3	4.3	6.4
Other benefits	0.1	-	-	0.1

NOTE: Data for 1966-77 were obtained from the Employers Expenditures for Employee Compensation survey and related to the average for the entire year. Data for the other years are from the Employer Costs for Employee Compensation survey and relate to March. While the data from the two surveys are not entirely comparable, they are similar.

Through the tumult, there was a continued change in the relative importance of benefit costs as a percent of compensation, rising from about a fifth of total compensation in 1970 to more than a quarter in 1986. Every measured benefit—the relatively small "supplemental pay''excepted—increased as a share of the compensation package.

During the 1970s, there were some important legislative and legal changes affecting compensation and workplace issues. Among the most important were the Employee Retirement Income Security Act of 1974 (ERISA) and the Revenue Act of 1978. ERISA regulated private pensions and imposed financial and accounting controls where pensions existed. ERISA also established the Pension Benefit Guaranty Corporation, to ensure that workers would be paid their vested pension benefits, if their pension plans were terminated. The Revenue Act encouraged flexible benefit plans, and created the 401(k) defined contribution retirement savings plan. It also allowed employees to make elective pre-tax contributions to a variety of savings vehicles, such as saving, profit sharing, and employee stock ownership plans. In retrospect, these laws were extremely important, as they contributed to the change in the share of compensation accounted for by pensions and other retirement benefits.

Other important legislation that affected active and retired workers without necessarily affecting compensation directly included the Occupational Safety and Health Act of 1970, which authorized the Secretary of Labor to establish occupational safety and health standards in the workplace; the Comprehensive Employment Training Act of 1973, which consolidated and decentralized Federal employment programs and provided funds to State and local governments who sponsored employment services; and the 1974 amendment to the Social Security Act, which provides automatic cost-of-living adjustments, based on the Bureau's Consumer Price Index.

Implementation of wage and price controls showed a need for a comprehensive measure of labor cost changes that was not affected by factors such as changes in overtime hours or shifts in employment among industries and occupations.[75] As a result, the Employment Cost Index (ECI) was born. The ECI was designed to:

- Be a timely and comprehensive measure covering all elements of employee compensation (wages, salaries, and benefit costs) and all employees in the U.S. civilian economy.

- Be a fixed-weight index free from the influence of employment shifts among occupations, industries, and establishments with different wage and compensation levels.

- Include internally consistent subseries (for example, occupational and industry groups) that describe the forces contributing to aggregate wage and compensation change.

The ECI, first published for the period September-December 1975, initially covered wage and salary changes for the private nonfarm economy. Changes for broad occupational and industrial groups, as well as changes by union status, geographic region, and area size were also presented. Although only a few new ECI series were added in the latter half of the 1970s, work was done to make possible publication of indexes for benefit costs and total compensation and to include State and local government workers.

In 1973, the General Accounting Office (GAO) had issued a report on the Bureau's white-collar pay survey—the Professional, Administrative, Technical, and Clerical survey (PATC)—emphasizing the need to expand the coverage of the survey. In the mid-1970s, the Bureau took action on GAO recommendations to improve the PATC survey, by expanding occupational coverage from 72 occupational work levels in 1975 to 100 in 1982. During the 1970s, BLS also developed a comprehensive training program, instituted a new quality measurement program, and conducted additional research to review and improve occupational definitions used in the survey.

In the late 1970s, at the request of the U.S. Civil Service Commission (now the Office of Personnel Management), the Bureau began gathering data on employee benefit plan provisions. The program, first called the Level of Benefits survey (LOB) and then the Employee Benefits Survey (EBS), was designed to provide information necessary for the Federal pay comparability process established by the Federal Reform Act of 1962 and later by the Federal Pay Comparability Act of 1970. Combining the LOB data with white-collar pay data was designed to help the Office of Personal Management compare compensation of Federal and private sector employees.

In 1979, a test survey was conducted in conjunction with the Bureau's collection of white-collar salary data that had the same industry and size-of-establishment restrictions. The test collected data for full-time workers on plan provisions and participation for six paid leave items, including sick, holiday, and vacation pay; health, life, and disability insurance; and pension plans.

During the 1970s, the Bureau continued to enhance its Industry Wage (IWS), Area Wage (AWS), and Service Contract Act (SCA) surveys—the latter to help ESA administer the SCA. The Bureau produced about 50 manufacturing and 20 nonmanufacturing industry wage surveys on a regularly recurring basic, and, in 1972, improved its AWS surveys by publishing indexes that used matched establishments. The SCA surveys, essentially the same as AWS surveys—except they were funded by the Employment Standards Administration (ESA) to fulfill its responsibilities under the Service Contract Act—were expanded from 65 in 1974 to 150 in 1977.

During the mid- to late-1970s, the Bureau also conducted surveys of industries and occupations that were exempt from FLSA minimum wage and overtime coverage. The ESA used survey results as part of a process to determine whether or not to continue these exemptions.

Reflecting a need for programmatic improvements in its major collective bargaining settlements program, the Bureau made a number of changes in the data elements it collected and published for that program series. BLS began publishing a separate series for the construction industry, covering settlements for 1,000 workers or more. This new series provided two types of data on wage-benefit changes. One showed the annual rates of scheduled increases over the life of the agreement; the other showed the first-year increase. Another enhancement in the program came in 1974, with publication of quarterly effective wage adjustments. Additionally, in 1979, a biannual series showing changes in the cost of bargaining settlements covering 5,000 workers or more in State and local governments was introduced.

An economy in transition

The 1980s began on an uncertain note, with worries about the country's ability to compete

in world markets and fears that high inflation rates would never end.[76] From 1980-82, the unemployment rate jumped from 7.1 to 9.7 percent but then dropped from year to year, to 5.3 percent in 1989. The 1982-83 recession, however, did seem to curb inflation, as the Consumer Price Index dropped from an annual change of 13.3 percent in 1979 to 3.8 percent in 1982. By 1984, the economy had rebounded, and there ensued a long period of sustained growth. Millions of new jobs were created, and there was a resurgence of American confidence.

During this decade, a number of forces worked to limit the influence of labor unions. Foreign competition grew in industries where unionism historically has been strong—especially the automobile and steel industries.[77] Additionally, employment growth had occurred in sectors—such as in services—where unions had typically not been dominant. As a result of these and other factors, trade union membership in the United States declined sharply as a share of employment:

Year	*Total membership (thousands)*	*Union density*
1980	22,377	24.7
1985	16,996	18.0
1990	16,740	16.1

The trend toward benefits accounting for a higher proportion of compensation costs continued, though at a slower pace than earlier. The slowdown in the growth of benefits as a proportion of compensation can be attributed primarily to health insurance and employers retirement costs. Over-the-year increases in health costs peaked at 23.5 percent in March 1983, dropped to 3.5 percent in June 1985, then rose to about 13 percent in 1989. Employers introduced a number of cost containment arrangements, including shifting more of health insurance cost to their employees.

The decline in the relative importance of retirement costs reflects the shift from defined benefit to defined contribution plans and a rising stock market that enabled employers to meet their defined benefit obligations with smaller outlays than before.

The Bureau's compensation program was influenced by these changes occurring in compensations plans, particularly the growing depth and breath of, and public interest in, data relating to benefit plans. Additionally, budget cuts in the late 1970s and early 1980s led to tough decisions regarding which BLS programs had to be scaled back or eliminated. The criterion increasingly used by Congress during this time when deciding what surveys to fund was whether the survey was of broad national interest.

BLS already had extensive experience in surveying and publishing wage data; but, by 1975, the Bureau realized that it also needed to capture and publish benefit information, particularly benefit costs, to produce total compensation cost measures. This initiative presented the Bureau with the challenges of identifying, measuring, and publishing benefit cost data every quarter, while continuing to publish timely, high-quality wage data.

To realize its objectives, BLS enhanced the ECI program. In 1980, rates of change in benefits costs were published for the first time for the private nonfarm economy and for a selected number of subseries. In 1981, wage and benefit indexes for State and local governments were added, as well as indexes for the combined private nonfarm and State and local government workforces.

In the mid-1980s, for example, Congress provided the Bureau additional funds to expand the ECI sample of establishments, in order to increase the number of series published, particularly in the service sector. As a result of this initiative, a new series was published for health services, including hospitals, that reflected the growing national interest in information about health care costs and their potential inflationary effects. At the same time, however, major cuts were made in the IWS and AWS programs, with the surviving surveys targeting major metropolitan areas and industries of special interest, such as temporary help supply companies.

Partly as a result of the ECI sample expansion, it was determined in 1987 that it was possible to begin publishing estimates of compensation cost levels—the employer cost per hour worked for employee compensation and its components—from data collected for the ECI.[78] This new data source, called Employer Costs for Employee Compensation (ECEC), replaced the Employer Expenditures for Employee Compensation that was abolished after its 1977 survey.

The 1990s and the New Economy

During the 1990s, the resurgence in American confidence begun in the 1980s continued. Except for a mild recession in 1990-91, the economy expanded continuously through the 1990s. By the end of the decade, there were large budget surpluses. Over this decade, employment in the private sector grew by more than 20 million, to about 110 million. The largest employment gains occurred in retail trade (especially eating and drinking places) and the service industry (especially business and health services).

The unemployment rate declined steadily after 1992; but, surprisingly, there was no resurgence of inflation, as had occurred in other periods of sustained growth. The unemployment was at a 30-year low in 1999. Despite this growing tightness in the labor market, the inflation rate, too, declined, from 6.1 percent in 1990 to 1.6 percent in 1998. The CPI increased 3.4 percent in 2000, the highest since 1990, but still low given the unemployment rate.

One of the explanations given for the low rate of price increases was moderation in wage gains. Production workers' average hourly earnings increased 3.5 percent in 1990 and only 2.1 percent in 1992. Wage increases were in the 2.6- to 2.9-percent range during 1993-95 and in the 3.8- to 4.2-percent range during 1996-2000. Despite the relatively low rate of wage increases during the 1990s, *real* average earnings rose slightly, because prices increased even less.

During the first half of the decade, benefit costs rose faster than wages and salaries, but in the second half that relationship was reversed. This pattern largely reflected what was happening to employer costs for health insurance. The net effect of these changes was to return the structure of compensation in 2000 to about what it was in 1990. Dominant features of compensation in the 1990s were pay for performance and other forms of flexibility in what workers were paid.[79] At this time, pay reflected stock options, profit sharing, choices among benefits, and individual awards.

The decade saw several changes in the Bureau's core compensation programs to meet a broad set of administrative and programmatic needs, to capture changes in compensation practices, and to adjust to resource constraints. Most importantly, during this time, the Bureau began planning and implementing the development of a comprehensive, integrated compensation program, the National Compensation Survey.

A major change in the Bureau's wage survey program came with passage by Congress of the Federal Employees Pay Comparability Act of 1990 (FEPCA), which changed the pay-comparability process by creating a combination of national and local pay adjustments[80]

The FEPCA provided that Federal white-collar worker pay include a national adjustment (based on the ECI) and a locality adjustment. The latter required creation of a locality-based system to replace the single General Schedule that largely disregarded locality pay differences found in the private sector. The President's Pay Agent[81] was given primary responsibility for administering FEPCA, and FEPCA named the Bureau of Labor Statistics as the agency to conduct surveys for use in determining locality pay levels.

In the early 1990s, the Bureau combined its existing occupational wage surveys by area and industry—AWS, PATC, IWS, and SCA—into a single survey, the Occupational Compensation Survey (OCS), to fulfill its part in implementing FEPCA.[82] Given the tight budgetary environment and various needs of users of these existing surveys, it was decided to pursue three goals: Provide data required by FEPCA, continue to provide as much of the traditional data as possible, and streamline and cut back on the overall cost of collecting occupational wage data. The end result was development of a single survey that retained as many of the features of existing programs as possible.

After several years of collecting locality pay data in OCS, it became clear that, to gain maximum efficiencies, BLS would have to further coordinate the collection and processing of compensation data—that is, combine the OCS and ECI, ECEC, and EBS surveys. What were the driving forces that led the Bureau to adopt this umbrella approach to compensation? In effect, changing Federal pay requirements already had resulted in the integration of the AWS and PATC estimates for white-collar occupations and work levels. Also, health reform initiatives in 1993 pointed to the need for further integration of the Bureau's compensation program. While BLS produced substantial data on employers' health care costs and employees' health care costs, these data

could not be combined, and plan costs could not be compared to plan provisions. This led the Bureau to re-examine its compensation programs and resulted in the formulation of the National Compensation Survey (NCS). The OCS was the first program included in the NCS, in 1997. The ECI, ECEC, and EBS[83] surveys are now being incorporated into the NCS.

The NCS is designed to meet a broad set of administrative and programmatic needs. It is a flexible, integrated, comprehensive effort that retains the best features of the previous surveys and does so in an efficient way, by minimizing the burden on establishments to provide wage and benefits data and by reducing duplication in data processing. The NCS's flexible design allows BLS to adjust the survey to changing administrative and programmatic needs and to capture changes in compensation practices that the survey must reflect.

The survey sample provides wage distributions and information on wages by occupation and work level, by area. The wage distributions show, for example, average earnings in the bottom and top quartiles as well as the mean and median. Work levels show earnings for different types of job requirements within each occupation, based on a factor evaluation system that makes use of nine factors, such as knowledge, supervision required, and complexity. Because these factors are also used in the factor evaluation system to grade Federal General Schedule workers, this information can be used to derive grade level equivalents for Federal workers, as well.

In addition to wage data, the NCS provides information on employer costs of benefits, as well as benefit incidence and provisions. This information will enable analysts to evaluate the cost of particular benefits, in addition to tradeoffs of wages for benefits. The large sample size for this wages and benefits portion of the NCS will permit the publication of new measures, such as compensation indexes for major metropolitan areas, as well as publication of more detailed industry and occupational series at the national level.

Developments in Compensation Packages—Wages, Time-off, and Reimbursement Accounts: Health Care and Life Insurance Benefits and Retirement and Savings Plans

Over the 20th century, the composition of employee compensation packages has changed from wages only to a wide range of time-off, insurance, retirement benefits, and more, in addition to wages. The availability of voluntarily provided benefits (such as life insurance and pension plans) and legally required benefits (such as Sociality Security benefits) essentially began as either isolated benefits in the 1920s—or social tinkering in the 1930s—and began to escalate in the late 1940s, when health and welfare benefits became more common. As an illustration, employer costs for employee benefits as a percent of compensation increased from 3 percent in 1929 to 17 percent in 1955 and 27 percent in 1999.

	1900	1925	1950	1975	2000
Wages, time-off and re-imbursment account	Wages	Wages	Wages	Wages and annual bonuses	Wages, and supplements that tie pay to performance
		Paid holidays	Paid holidays and vacation	Paid holidays, vacations, and personal leave	Consolidated leave plan giving employee choice of days off
					Unpaid family leave

Developments in Compensation Packages—Wages, Time-off, and Reimbursement Accounts: Health Care and Life Insurance Benefits and Retirement and Savings Plans—Continued

	1900	1925	1950	1975	2000
					Reimbursement account for child care expenses
Health care and life insurance benefits		Company doctor	Basic medical plan through Blue Cross-Blue Shield	Basic medical plan plus major medical through commercial insurer	Choice of medical plans including Health Maintenance Organizations (HMOs)
				Dental plan	Choice of dental, vision, and prescripation drug plans
				Medicare	Medicare and retiree health insurance
		Benevolent association death and disability benefits	Fixed amount life insurance and weekly disability benefit	Life insurance varying with earnings; paid sick	Choice of life insurance amounts; paid sick leave
Retirement and savings plans			Social Security benefits available at age 65	Social Security benefits available at age 65, with reduced benefits at age 62	Social Security full benefits available at age 67, with reduced benefits at age 62, for workers born in 1960 or later
				Defined benefit pension	Combination of pensions and 401(K) savings plans

Future trends in employee compensation

"Truth in our ideas means their power to work."
— William James

How will employee compensation programs evolve during the 21st century? Predicting developments in this field is difficult for many of the same reasons that making economic predictions is difficult. We live in a vibrant economy that routinely outpaces our ability to understand it fully and in a world where outside factors often change a system before we can model it precisely.

Like the economy as a whole, the compensation field is affected by forces working in opposite directions. Employers seek to curb labor costs to remain competitive in supplying goods and services, but at the same time may need to upgrade compensation programs to attract and retain skilled workers. Additionally, an aging population, by placing increased demands on employer health care and retirement plans, may prompt employers to adopt cost containment measures. At the same time, however, a small supply of young workers may prompt employers to enhance compensation packages to compete for qualified staff.

These opposing forces will challenge efforts to maintain correct and relevant statistics on compensation in this new century. The voluntary nature of most data collection relies on the cooperation of employers and especially human resource professionals. As these individuals face the difficult task of developing competitive compensation packages while limiting costs, their ability to comply with requests for detailed data may be strained.

Three major trends characterized employee compensation in the last years of the 20th century, and these trends will probably shape employee compensation in the early years of the new century. As with the last century, however, it is unlikely that the ways employees are compensated will evolve along a straight path. Companies and governments will try many alternative programs; some will work and become the paradigms of the 21st century; others will not and will be discarded or will be adopted in only a few workplaces.

Aligning pay to organizational goals. The first of these three major compensation trends is aligning pay to organizational goals. As our Nation's economy becomes increasingly tied to world economic conditions, competitive pressures will prompt employers to seek ways to efficiently use their workforces. Employee compensation, in this environment, will increasingly be viewed as a tool for promoting increased productivity and innovation among workers. Compensation programs are, thus, likely to be geared to employee performance or desired characteristics such as skills or knowledge. Examples of these compensation programs include variable pay schemes that tie pay to individual or group performance and salary plans that reflect the possession or acquisition of knowledge or skills deemed critical to the success of the organization. Compensation in the 21st century is also likely to evolve in ways that tie employee pay and benefits to corporate performance. Examples include stock options and profit-sharing plans.

Tailoring compensation to employee needs. The second major trend is tailoring compensation to employee needs. This is a way of efficiently delivering compensation to employees by giving them a choice in what they want or need, rather than providing a universal program that meets the needs of the average employee. Examples include choices among health care and within retirement savings plans, flexible work schedules and telecommuting arrangements, and reimbursement accounts. Implicit in this flexibility is the increase of employee responsibility in making prudent choices. On the other hand, this flexibility may be constrained, particularly if significant numbers of employees make poor choices. Social-policy concerns about the consequences of unwise choices, however, are less likely to stymie—than to shape—the evolution of this flexibility.

Reconfiguring employee benefit plans. The third major trend is reconfiguring employee benefit plans to provide for a defined level of employer contributions, rather than a defined level of ultimate benefit. This has been the trend in retirement plans over the 1980s and 1990s and may spread to other types of employee benefits plans. Examples include defined contribution employee health insurance plans, defined contribution retiree health insurance plans, and employer-funded reimbursement accounts. These arrangements give employers greater control over costs than in the past and greater ability to predict costs. On the other hand, employees are required to

absorb more risks associated with insuring against future events than formerly. Coupled with the trend to charge employees with more responsibility for retirement savings and other benefits, the move towards defined contribution insurance arrangements may spur countermeasures to insulate employees from these risks. For example, a defined contribution health insurance plan might be required to include a core set of benefits that guards employees against catastrophic expenses.

In the 1990s these three major compensation trends were seen as helping to meet the needs of a mobile workforce. With the expected labor shortages of the early years of the new century, however, these trends are likely to be tempered in ways thought to increase employee incentives for remaining with the organization. Employer drives to increase efficiency and curb costs may have to be balanced with one of the traditional goals of compensation programs–to acquire and maintain an adequate supply of skilled labor.

Capturing and reporting data that adequately illuminate these major trends will be a challenge for the Bureau of Labor Statistics and others. The movement toward compensation that is based more on individualperformance—and, thus, less standard—will require more data collection and innovative means of reporting results. No longer can pay be captured and reported as an hourly rate; all manner of pay such as individual bonuses, group bonuses, gainsharing, and stock options might need to be included in the new concept of pay.

The trend toward greater employee choice in compensation has already posed data collection and tabulation challenges; expansion of such choices will only compound the challenges. For example, where once employers offered only one health insurance plan, the often present choice of several plans means more data must be collected. And employee choice to substitute one benefit for another makes it more difficult to identify how much of a benefit cost is paid by the employer versus the employee. Additionally, flexibility in work hours (called flextime or flexitime) and work location (telecommuting or sometimes *flexplace*) make the traditional concept of *compensation per hour* less meaningful than before. Just as the 20th century saw an evolution in compensation statistics to address changes in the law and the growth of benefits, it is likely that statistics at the close of the 21st century will little resemble data available today.

Sources of income for Women Aged 62 to 77 in 1999: Results from the National Longitudinal Survey of Women

Among women ages 62 to 77, sources of income differ by age, as shown by data from the 1999 round of interviews of the National Longitudinal Survey of Women. The most dramatic difference is the decreasing reliance of older women on wage income and the increasing number who draw income from Social Security. In the 12 months prior to the interview, 41 percent of women ages 62 to 64 received some income from their own wages, and 69 percent received income from Social Security.[1] For women older than age 65, the percentage that received income from their own wages was dramatically lower. Of women ages 65 to 69, 26 percent received wages, while 88 percent received income from Social Security. Of women ages 70 to 77, 14 percent received income from wages and 88 percent received Social Security benefits.

A long-held belief is that Social Security, pensions, and personal assets (savings, stocks, and bonds) are more likely to be sources of income for older persons as they age. While it is true that the percent of women who received Social Security benefits was greater for those older than age 65, the percent of women who received income from savings, stocks, or bonds was similar across the age categories for women ages 62 to 64, 65 to 69, and 70 to 77. Moreover, the receipt of pensions—either from a woman's own previous employers or those of a spouse—did not vary much by age.

While the receipt of income from pensions and assets does not vary much by age, it does vary by marital status. Not surprisingly, the household income of married women comes from different sources than that of women who are not married. Of women ages 62 to 64, 54 percent of married women received pension income, compared with 28 percent of unmarried women. Married women in this age group were also more likely than their unmarried counterparts to have received income from assets (57 versus 35 percent). These differences in income sources exist among women in older age groups, as well. Sixty-one percent of married women aged 65 to 69 received income from pensions, compared with 36 percent of same-aged unmarried women. Fifty-five percent of married women ages 70 to 77 received income from pensions, compared to 42 percent of same-aged unmarried women.

In addition to income from Social Security, pensions, and assets, many older women also receive transfers of income and gifts from their children or those children of a spouse. In the 12 months prior to the interview, 56 percent of women ages 62 to 77 received financial support or gifts worth more than $200 from children; this percentage varied little, regardless of the women's age or marital status.

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[1] Social Security benefits are permanently reduced based on the number of months benefits are received prior to age 65. For example, if one individual retires at age 62, benefits will be reduced 20 percent, whereas if that same individual retires at age 64, benefits will be reduced 6.7 percent. This may serve as an incentive to delay retirement.

Percent of older women ages 62 to 77 in 1999 who received income from various sources in the 12 months prior to interview, by age and marital status

Age and sources of income	Marital status		
	Total	Married	Non-married
Total, age 62 to 77			
Own wages, salaries, tips and commissions	23.1	22.2	24.3
Spouse wages	24.5	24.5	—
Social Security	84.1	87.6	79.8
Pensions	48.2	56.5	38.1
Savings, stocks, bonds, trusts, estates	47.4	52.5	41.2
Government assistance	15.1	12.6	18.1
Intrafamily transfers	56.0	57.0	54.7
Ages 62 to 64			
Own wages, salaries, tips and commissions,	40.6	36.3	47.6
Spouse wages	33.8	33.8	—
Social Security	69.1	76.7	56.3
Pensions	44.0	53.4	28.0
Savings, stocks, bonds, trusts, estates	49.0	57.0	35.2
Government assistance	18.8	16.9	22.1
Intrafamily transfers	57.0	57.6	55.9
Ages 65 to 69			
Own wages, salaries, tips and commissions	26.3	23.8	30.1
Spouse wages	27.2	27.2	—
Social Security	87.6	91.6	81.8
Pensions	51.1	60.6	36.1
Savings, stocks, bonds, trusts, estates	46.3	52.0	37.2
Government assistance	14.6	11.5	19.5
Intrafamily transfers	57.2	57.0	57.5
Ages 70 to 74			
Own wages, salaries, tips and commissions+B62	15.6	15.0	16.2
Spouse wages	19.2	19.2	—
Social Security	86.9	89.7	84.3
Pensions	48.2	55.4	41.3
Savings, stocks, bonds, trusts, estates	46.8	50.5	43.2
Government Assistance	14.5	12.0	16.9
Intrafamily Transfers	53.3	56.1	50.6
Ages 75 to 77			
Own wages, salaries, tips and commissions	11.2	9.6	12.5
Spouse wages	12.4	12.4	—
Social Security	89.9	91.0	88.9
Pensions	47.4	53.5	42.8
Savings, stocks, bonds, trusts, estates	49.0	50.4	47.9
Government assistance	12.7	9.1	15.3
Intrafamily transfers	58.5	57.9	58.9

Individuals living with a partner, as if married, are not included.

Table 2-1. **Union scales of wages and hours of specified occupations, Chicago, 1913-25**

Occupation	1913 Hours per week	1913 Earnings per hour	1920 Hours per week	1920 Earnings per hour	1925 Hours per week	1925 Earnings per year
Bricklayer	44	$.750	44	$1.250	44	$1,500
Painter	44	.650	44	1.250	44	1,500
Plumber	44	.750	44	1.250	44	1,205
Stonecutter	44	.625	44	1.250	44	1,375
Typesetter[1]	48	.500	48	.988	44	1,191

[1]In the newspaper industry.

Table 2-2. **Composition of compensation costs in selected years, private industry workers**

Compensation component	1977	1986	1990
Total compensation	100.0	100.0	100.0
Wages and salaries	74.8	73.0	72.4
Total benefits	25.2	27.0	27.6
Paid leave	6.9	7.0	6.9
Supplemental pay	3.1	2.3	2.5
Insurance	4.0	5.5	6.1
Retirement and savings	4.3	3.8	3.0
Legally required benefits	6.9	8.4	9.0
Other benefits	-	.1	-

NOTE: Data for 1977 were obtained from the Employers Expenditures for Employee Compensation survey and related to the average for the entire year. Data for the other years are from the Employer Costs for Employee Compensation Survey and relate to March. While the data from the two surveys are not entirely comparable, they are similar.

Table 2-3. **Percent changes in the Employment Cost Index for compensation and its components, December 1989-99**

December	Compensation costs	Wages and salaries	Benefit costs
1989-94	20.7	17.4	29.6
1994-99	7.1	18.8	12.9

Table 2-4. **Composition of compensation costs in selected years, private industry workers**

Compensation component	1990	1995	2000
Total compensation	100.0	100.0	100.0
Wages and salaries	72.4	71.6	73.0
Total benefits	27.6	28.4	27.0
Paid leave	6.9	6.4	6.4
Supplemental pay	2.5	2.8	3.0
Insurance	6.1	6.7	6.0
Retirement and savings	3.0	3.0	3.0
Legally required benefits	9.0	9.3	8.4
Other benefits	-	.2	.2

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Endnotes

[1] See John T. Dunlop and Walter Galenson, eds., *Labor in the Twentieth Century* (New York, Academic Press, 1978), table 1.26.

[2] "Some aspects of health insurance," *Monthly Labor Review*, May 1917, pp. 746-51.

[3] Unemployment had fallen 9.9 percent in 1941 to 1.2 percent in 1944. See *Historical Statistics of the United States, Colonial Times to 1957*, Series D46-47 (Bureau of the Census, 1960). See also Dunlop and Galenson, table 1.25.

[4] See *Statistical Abstract of the United States, 1998* (Washington, U.S. Department of Commerce, 1998), table 654.

[5] Hourly costs of compensation were obtained from "Employer Costs for Employee Compensation," USDL 00-186 (Bureau of Labor Statistics, June 29, 2000), available on the Internet at ***ftp://146.142.4.23/pub/news.news.release/History/ecec.292000.news*** (visited June 14, 2001).

[6] The NIPA measure of supplements to wages and salaries does not correspond exactly to the Bureau of Labor Statistics definition of benefits. For instance, the BLS Employer Costs for Employee Compensation series defines a broader scope of payments as benefits, including supplemental pay for overtime and shift differentials and paid leave for such items as holiday, sick, and vacation leave. These same payments are included among NIPA's wage and salary estimates.

[7] Martin L. Primack and James F. Willis, *An Economic History of the United States* (Menlo Park, CA, Benjamin/Cummings Publishing Company, 1980), pp. 298-300. (An establishment is a single physical plant location.)

[8] See Primack and Willis, p. 282.

[9] See George T. Milkovich and Jennifer Stevens, "Back to the Future: A Century of Compensation," Working Paper 99-08 (Ithaca, NY, Cornell University Center for Advanced Human Resource Studies, July 1999), p.6.

[10] There is some disagreement with the view that, during the early 20th century, males worked until they died (that is, they had no opportunity for voluntary leisure after years of remunerative labor). A study showed that more than a fifth of males employed at late middle age left employment before their death. See Susan B. Carter and Richard Sutch, "Myth of the Industrial Scrap Heap: A Revisionist View of Turn-of-the-Century American Retirement," Historical Paper 73 (Cambridge, MA, National Bureau of Economic Research, 1995), p. 1.

[11] See Price V. Fishback and Shawn Everett Kantor, "A Prelude to the Welfare State: Compulsory State Insurance and Workers' Compensation in Minnesota, Ohio, and Washington, 1911-1919," *NBER Working Paper Series on Historical Factors in Long-run Growth*, Historical Paper 64 (Cambridge, MA, National Bureau of Economic Research, 1994), pp. 2-23.

[12] See Dunlop and Galenson, p. 30.

[13] U.S. Bureau of Labor, *Nineteenth Annual Report of the Commissioner of Labor: Wages and Hours of Labor* (Washington, U.S. Government Printing Office, 1905), p. 18.

[14] U.S. Bureau of Labor, *Twenty-third Annual Report of the Commissioner of Labor: Workmen's Insurance and Benefit Funds in the United States* (Washington, U.S. Government Printing Office, 1909), pp. 17-19.

[15] See John M. Peterson and Ralph Gray, *Economic Development of the United States* (Homewood, IL, Richard D. Irwin, Inc., 1969), p. 357.

[16] See Robert B. Reich, *The Work of Nations* (New York, Vintage Books, 1992), p. 39.

[17] See Peterson and Gray, p. 358.

[18] See Reich, p. 40.

[19] See Dunlop and Galenson, p. 32.

[20] See Dunlop and Galenson, p. 29.

[21] See Dunlop and Galenson, p. 47.

[22] Joseph P. Goldberg and William T. Moye, *The First Hundred Years of the Bureau of Labor Statistics*, Bulletin 2235 (Bureau of Labor Statistics, September 1985), p. 71.

[23] H.M. Douty, "A century of wage statistics: the BLS contribution," *Monthly Labor Review*, November 1984, p. 20.

[24] See Goldberg and Moye, p. 71.

[25] See Goldberg and Moye, p. 107.

[26] "The Work of the United States Bureau of Labor Statistics," *Monthly Labor Review*, December 1927, p. 1.

[27] See Goldberg and Moye, p. 114.

[28] See Goldberg and Moye, p. 120.
[29] See Goldberg and Moye, p. 124.
[30] See Douty, p. 20.
[31] "Changes in Union Scale of Wages and Hours of Labor, 1913 to 1925," *Monthly Labor Review*, September 1925, pp. 54-76.
[32] See Goldberg and Moye, p. 133.
[33] *Employee Benefits* (Washington, U.S. Department of Commerce, 1997), p. 41.
[34] "Workmen's Compensation Legislation as of July 1, 1926," *Monthly Labor Review*, March 1927, p. 55.
[35] Fatal injuries were not covered in Oklahoma where a constitutional barrier of compensation for death was held to exist.
[36] See "Workmen's Compensation," p. 55.
[37] "Group Insurance Experience of Various Establishments," *Monthly Labor Review*, June 1927, pp. 76-86.
[38] A group insurance plan is a contract typically made with an employer and an insurance company to cover a group of employees. Premiums are typically based on the group's claim experience. Group insurance plans were first developed for life insurance and disability insurance.
[39] See "Group Insurance," p. 76.
[40] See "Group Insurance," pp. 78-79.
[41] Ibid., pp. 80-81.
[42] Ibid., p. 82.
[43] See Dunlop and Galenson, p. 27.
[44] See Peterson and Gray, p. 401.
[45] See Dunlop and Galenson, p. 31.
[46] See Dunlop and Galenson, p. 79.
[47] Workers' compensation laws were enacted in all but four States—Florida, South Carolina, Arkansas, and Mississippi. See Price V. Fishback and Shawn E. Kantor, "The Adoption of Workers' Compensation in the United States, 1900-1930," Working Paper 5840 (Cambridge, MA, National Bureau of Economic Research, November 1996), p. 49.
[48] Ross M. Robertson, *History of the American Economy* (New York, Harcourt Brace Jovanovich, Inc., 1973), p. 676.
[49] See Robertson, p. 677.
[50] See Fishback and Kantor, "A Prelude to the Welfare State," p. 32.
[51] See Robertson, p. 677.
[52] See "Historical Development," *Social Security Online* (Washington, U.S. Social Security Administration) on the Internet at ***www.ssa.gov/history/brief.html*** (visited June 24, 2001).
[53] Alvin Bauman, "Measuring employee compensation in U.S. industry," *Monthly Labor Review*, October 1970, p. 19.
[54] See Bauman, p. 19.
[55] See Goldberg and Moye, p. 170.
[56] See Goldberg and Moye, p. 160.
[57] See Douty, p. 20.
[58] See Goldberg and Moye, p. 160.
[59] See Douty, p. 20.
[60] Frances Jones, "Personnel Policies and Working Conditions in the Manufacture of Cigarettes and Tobacco," *Monthly Labor Review*, February 1937, pp. 319-40.
[61] See Jones, p. 319.
[62] See Jones, p. 320.
[63] Edward P. Sanford, "Wage rates and hours of labor in the building trades," *Monthly Labor Review*, August 1937, pp. 281-93.
[64] See Sanford, p. 284.
[65] Frances Jones and Dorothy Smith, "Extent of vacations with pay in industry, 1937," *Monthly Labor Review*, August 1938, pp. 269-74.
[66] Frances Jones and Dorothy Smith, "Characteristics of paid-vacation plans," *Monthly Labor Review*, December 1938, pp. 1225-38.
[67] See Jones and Smith, "Characteristics of paid-vacation plans," p. 1235.
[68] See Jones and Smith, "Characteristics of paid-vacation plans," p. 1274.
[69] See Jones and Smith, "Characteristics of paid-vacation plans," p. 1225.
[70] See Douty, pp. 16-28; and Bauman, pp. 17-24.
[71] Section 211 of the Taft-Hartley Act authorizes the Bureau to collect various collective bargaining data, including union contract data. The CWD is the predecessor to the *Compensation and Working Conditions* publication, which still exists today.
[72] See Douty, pp. 22-23; Bauman, pp. 17-24; and Allan P. Blostin, "An Overview of the EBS and the NCS," *Compensation and Working Conditions*, spring 1999, pp. 2-3.
[73] See J. Bradford De Long, "America's Only Peacetime Inflation: the 1970's" (Cambridge, MA, National Bureau of Economic Research and University of California at Berkeley, 1995).
[74] There were other parts to the economic package, including a 90-day freeze on wage and price increases and elimination of gold-dollar convertibility.
[75] Norman J. Samuels, "Developing a general wage index," *Monthly Labor Review*, March 1971, pp. 3-8.
[76] Floyd Norris, Christine Bockelmann, and Paul A. Vocker, *The New York Times Century*

of Business (New York, McGraw-Hill, 1999), p. 253.

[77] See, for example, Albert E. Schwenk, "Trends in the Differences Between Union and Nonunion Workers in Pay Using the Employment Cost Index," *Compensation and Working Conditions*, September 1996, pp. 27-33.

[78] Felicia Nathan, "Analyzing employers' costs for wages, salaries, and benefits," *Monthly Labor Review*, October 1987, pp. 3-11.

[79] See Milkovich and Stevens, p. 6.

[80] See Public Law 101-509, Nov. 5, 1990.

[81] The President's Pay Agent consists of the Secretary of Labor, the Director of the Office of Management and Budget, and the Director of the Office of Personnel Management.

[82] A more detailed description of OCS is provided in John Buckley and Elizabeth Dietz, "The Occupational Compensation Survey: A Retrospective," *Compensation and Working Conditions*, Fall 1997, pp. 40-46.

[83] Beginning in 1990, EBS, ECI, and ECEC data were collected from the same set of establishments using consistent definitions.

[84] Social Security benefits are permanently reduced based on the number of months that benefits are received prior to age 65. For example, if one individual retires at age 62, benefits will be reduced 20 percent, whereas if that same individual retires at age 64, benefits will be reduced 6-2/3 percent. This may serve as an incentive to delay retirement.