



# **Compensation trends into the 21st century**

Works, Richard and Mehareenna, Ruth

U.S. Bureau of Labor Statistics

22 March 2019

Online at <https://mpra.ub.uni-muenchen.de/92904/>  
MPRA Paper No. 92904, posted 31 Mar 2019 11:25 UTC

# Compensation trends into the 21st century

By Richard Works and Ruth Mehareenna

March 22, 2019

During the Second World War, the War Labor Board controlled increases in cash wages in order to limit inflationary pressures from competition in the labor force.<sup>1</sup> This encouraged employers to use employee benefits as a form of noninflationary compensation. After the war, tax incentives made offering employee benefits more appealing to employers. The shape of these benefits continued to evolve, however, with wages and salaries rising at a slower pace than employer costs for employee benefits.

In this Beyond the Numbers, we review the evolution of private industry health and retirement plans (with a focus on defined contributions and savings and thrift retirement plans) and provide an analysis using recent estimates from the National Compensation Survey (NCS).<sup>2</sup> Where applicable, we refer back to a 1990 article by George Stelluto and Deborah Klein in the Monthly Labor Review<sup>3</sup> in which they discussed historical trends in employee compensation from the 1930s through 1980s and offered information on future expectations for compensation developments.

## Health insurance

Between the 1980s and early 2000s, health insurance costs fluctuated.<sup>4</sup> Chart 1 shows that health benefit cost increases tended to outpace cost increases for total benefits. Stelluto and Klein predicted a rapid rise in healthcare costs. The increases in health costs trended more closely to changes in total benefit costs since 2011. In the last 2 years, health benefits cost increases are lower than total benefits, which hasn't occurred since the mid-1990s. The 12-month increase in private industry benefit costs was 1.9 percent–2.8 percent each quarter of 2017 and 2018, while the costs for health benefits experienced a 12-month increase from 1.1 percent–1.9 percent for the same time period.

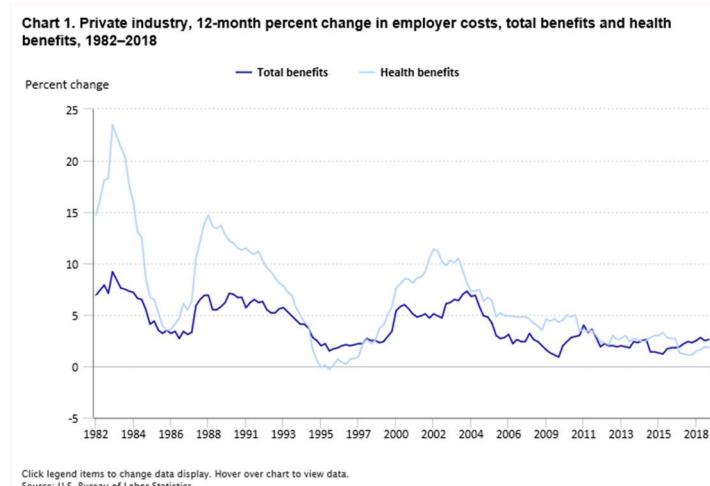
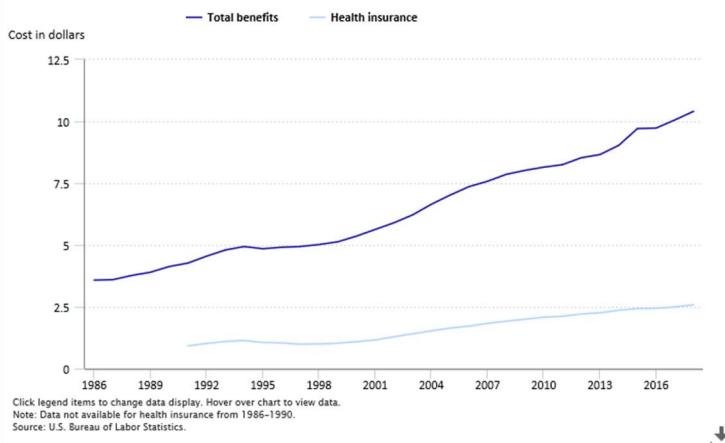


Chart 2 uses data from the Employer Costs for Employee Compensation (ECEC) series. The employer costs per employee hour worked in March 1991 for private industry for total benefits and health

insurance were \$4.27 and \$0.92, respectively. In March 2000, the costs were \$5.36 and \$1.09; and in March 2018 the costs for total benefits and health insurance were \$10.41 and \$2.58, respectively. Increases in costs for healthcare were also apparent in the Consumer Price Index:<sup>5</sup> In 59 of the 73 years from 1936 to 2008, including an unbroken period from 1981 to 2007, the inflation rate for medical care increased more than the rate for all items in that index.<sup>6</sup>

**Chart 2. Employer costs for employee compensation per hour worked in private industry, March 1986–2018**



As employers sought to control rising healthcare costs, Stelluto and Klein expected an increase in the use of core benefits for hospitalization and surgery with employer-financed accounts. These accounts would be offered and administered by employers and would provide a way for employees to set aside pretax dollars out of their paycheck to pay for a share of insurance premiums or medical expenses not covered by their health plan. With these types of accounts, the employer also may make contributions. This method of controlling healthcare costs is the defined contribution approach to healthcare, essentially analogous to defined contribution retirement plans, which were beginning to increase in use at this time.

Today, we know these accounts as health savings accounts (HSAs). An HSA is an account that allows employees to pay for future medical expenses with tax-exempt contributions. HSAs must be used in conjunction with employer-provided, high-deductible health plans with an annual maximum limit on out-of-pocket and deductible expenses. Other features of HSAs include the rollover of unused contributions, the portability of accounts, and tax-free interest earned on the funds in the account. Given Stelluto and Klein's expectation of an increase in the use of HSAs, how prevalent are employer-provided HSAs today?

Table 1 shows the percentage of workers with access to HSAs in private industry for March 2018. Data show that 28 percent of all workers had access to HSAs. The "all workers" category can be further broken down into occupational categories. Management, professional, and related occupations had the highest access to HSAs, and service occupations had the lowest access to HSAs. Likewise, full-time employees had a higher rate of access when compared to part-time employees. However, the difference between union and nonunion workers was not statistically significant. Workers with earnings

at the highest 25 percent had more access to HSAs than workers with earnings in the lowest 25 percent. Likewise, workers in establishments with 100 or more workers had more access to HSAs than those working in smaller establishments with fewer than 100 workers.

**Table 1. Percentage of workers with access to health savings accounts with standard errors, private industry, March 2018**

Worker characteristic	Access rate (standard error)
All workers	28 (0.9)
Management, professional, and related	44 (1.5)
Service	11 (1.2)
Sales and office	31 (1.3)
Natural resources, construction, and maintenance	19 (1.1)
Production, transportation, and material moving	23 (1.2)
Full-time	34 (1.0)
Part-time	10 (0.8)
Union	25 (1.8)
Nonunion	28 (1.0)
Average wage - Lowest 25 percent	11(0.9)
Average wage - Highest 25 percent	44(1.4)
Establishment characteristic - 1 to 99 workers	18(1.1)
Establishment characteristic - 100 workers or more	39(1.2)

Source: U.S. Bureau of Labor Statistics, Employee Benefits in the United States, Tables 41A and 41B.

## Retirement plans

With time, more retirement plans were defined contribution rather than defined benefits plans. Defined contribution retirement plans had a built-in portability that allowed for the transfer of retirement account balances from one establishment to another. Traditional defined benefit pension plans did not typically offer this feature. Stelluto and Klein had expected future designs of retirement plans to be more portable. In fact, they suggested that the future of these pension plans would depend upon their portability. However, transferability may not be an issue as one can take the cash value of a defined benefit plan and roll it into a 401(k), which is the same as one would do with a defined contribution plan when switching employers. To analyze retirement plans further, this section investigates the different types of retirement plans as well as highlights selected provisions.

Defined benefit plans are pension plans that provide guaranteed income during retirement, and they are often based on a formula that considers years of service and a percentage of a worker's salary. A defined contribution plan specifies the level of employer contributions and places those contributions into individual employee accounts (such as IRAs). The level of funds in the account at the time of retirement determines the retirement benefits received in defined contribution plans. Employers have offered defined benefit plans to their employees, but the high costs associated with these plans caused some employers to switch to offering defined contribution plans.<sup>7</sup>

Table 2 presents access and participation rates for retirement benefits in March 2018. Sixty-eight percent of all workers had access to a retirement plan and 51 percent of workers participated in a retirement plan. Across all workers, more had access to defined contribution plans than defined benefit plans. Union workers had higher access rates to defined benefit but lower access to defined contribution plans compared to nonunion workers. Defined contribution plans had higher rates of participation across the occupation groups. This has been the trend over the years as employers have

shifted away from traditional defined benefit pension plans towards portable defined contribution plans.<sup>8</sup>

**table 2. Retirement benefit access and participation with standard errors, private industry, March 2018**

Worker characteristic	All retirement plans		Defined benefit		Defined contribution	
	Access	Participation	Access	Participation	Access	Participation
All workers	68 (0.9)	51 (0.8)	17 (0.7)	13 (0.6)	64 (0.8)	47 (0.7)
Management, professional, and related	83 (1.2)	72 (1.2)	24 (1.2)	19 (1.1)	80 (1.3)	67 (1.2)
Service	44 (2.0)	24 (1.1)	6 (0.6)	5 (0.6)	41 (2.0)	22 (1.0)
Sales and office	71 (1.1)	52 (1.1)	14 (0.8)	10 (0.6)	68 (1.0)	49 (1.1)
Natural resources, construction, and maintenance	62 (1.8)	47 (1.8)	20 (1.4)	19 (1.4)	56 (1.7)	39 (1.5)
Production, transportation, and material moving	71 (1.7)	54 (1.3)	21 (1.2)	17 (1.1)	64 (1.7)	47 (1.2)
Full-time	77 (0.8)	61 (0.8)	20 (0.8)	16 (0.7)	74 (0.9)	56 (0.8)
Part-time	39 (1.9)	22 (1.1)	9 (0.8)	5 (0.5)	34 (1.7)	18 (0.9)
Union	92 (1.0)	82 (1.3)	68 (2.3)	61 (2.2)	58 (2.3)	46 (2.0)
Nonunion	65 (0.9)	48 (0.8)	12 (0.5)	8 (0.4)	64 (0.9)	47 (0.8)

Source: U.S. Bureau of Labor Statistics, Employee Benefits in the United States, Tables 2A and 2B.

Management, professional, and related occupations had the highest access and participation rates in defined contribution plans. Service occupations had the lowest access and participation rates for both defined benefit and defined contribution plans. Natural resources, construction, and maintenance occupations had the same level of participation in defined benefit plans as management, professional and related, even though they had 4 percentage points less access to defined benefit plans. The difference between production, transportation, and material moving occupations and the natural resources, construction, and maintenance occupations having access to defined benefit plans was not statistically significant; likewise, the difference in participation in defined benefit plans was also not statistically significant.

## Three alternative defined contribution plans

In savings and thrift plans, employees may contribute a predetermined portion of earnings to an account. Employers may match a fixed percentage of employee contributions or a percentage that varies by length of service, amount of employee contribution, or other factors. In a deferred profit-sharing plan, employee shares remain in a trust with other accrued benefits until the age of retirement in order to qualify for a lower income tax rate. With money-purchase pension plans, fixed employer contributions go to employee accounts. This is usually a percentage of employee earnings. Employers also make profit-sharing contributions to these plans at their discretion.

Table 3 shows the percentage of private industry workers participating in the different types of defined contribution plans for 2017. The data show that a larger percentage of all workers participated in a savings and thrift plan, compared with a deferred profit-sharing or money-purchase pension plan. Nonunion workers had a higher level of participation in savings and thrift plans than union workers.

**table 3. Percentage of workers participating in defined contribution plans with standard errors, private industry, 2017**

Worker characteristic	Savings and thrift	Deferred profit sharing	Money purchase pension
All workers	73 (1.7)	22 (1.6)	18 (1.2)
Management, professional, and related	71 (2.5)	22 (2.8)	23 (2.0)
Service	70 (6.3)	21 (5.3)	24 (4.9)
Sales and office	81 (1.6)	21 (2.0)	12 (1.5)
Natural resources, construction, and maintenance	64 (4.3)	13 (1.7)	19 (3.6)
Production, transportation, and material moving	74 (3.6)	26 (3.7)	11 (2.3)
Full-time	73 (1.6)	22 (1.6)	18 (1.2)
Part-time	74 (3.9)	19 (4.4)	12 (3.2)
Union	62 (5.3)	10 (2.0)	30 (4.9)
Nonunion	74 (1.9)	23 (1.7)	17 (1.2)

Source: U.S. Bureau of Labor Statistics, Retirement plan provisions in private industry, Tables 15A and 15B.

Natural resources, construction, and maintenance workers had the lowest participation rate in savings and thrift plans in 2017 at 64 percent, compared with sales and office workers who had the highest participation rate at 81 percent. Natural resources, construction, and maintenance workers also had the lowest participation rate in deferred profit sharing in 2017 at 13 percent, compared with production, transportation, and material moving workers at 26 percent participation. However, production, transportation, and material moving workers had the lowest participation rate in money-purchase pension plans in 2017 at 11 percent, compared with service occupations at 24 percent participation. Since savings and thrift plans are the defined contribution plans with the highest rates of participation, we'll investigate vesting and provisions for these types of plans. It is worth noting that Stelluto and Klein only expected defined contribution plans to increase and the use of pensions to decrease. However, we now have savings and thrift plans, and the authors did not make any projections about these plans. Therefore, they are absent from the next section. (See table 3.).

## Savings and thrift plans

Vesting provisions give employees a nonforfeitable right to retirement plan benefits funded by the employer's contribution when changing jobs or otherwise ending employment before becoming eligible for payout. When conditions for deferred full vesting (cliff vesting) are satisfied, all accrued benefits are receivable at a later age. Under graded vesting, an initial percentage of accrued benefits is first earned, and the vested percentage increases as additional service is credited. An employee is 100 percent vested immediately upon enrollment in an immediate full vesting plan. However, cliff vesting does not occur until an employee satisfies the service requirements for 100 percent vesting.

Table 4 presents the percent of private industry workers participating in various types of savings and thrift plans for 2017. Data show that cliff vesting plans were the least common across all workers. There was no significant difference for the all worker category between graded and immediate full vesting. Graded vesting ranged from 31 percent for sales and office workers to 44 percent for production, transportation, and material-moving workers. Immediate full vesting ranged from 24 percent for service occupations to 38 percent for both natural resources, construction, and maintenance workers as well as sales and office workers. Cliff vesting ranged from 19 percent for natural resources, construction, and maintenance workers to 37 percent for service workers. In addition to vesting, savings and thrift plans also have various provisions that employers may choose to offer their employees.

**table 4. Percentage of workers participating in plans with vesting provisions with standard errors, private industry, 2017.**

Worker characteristic	Graded vesting	Immediate full vesting	Cliff vesting
All workers	34 (2.0)	34 (1.9)	24 (1.6)
Management, professional, and related	33 (3.0)	35 (2.7)	22 (2.5)
Service	35 (7.4)	24 (6.8)	37 (7.4)
Sales and office	31 (2.4)	38 (3.1)	25 (2.6)
Natural resources, construction, and maintenance	34 (3.6)	38 (3.1)	19 (3.8)
Production, transportation, and material moving	44 (2.8)	28 (3.6)	22 (2.9)
Full-time	35 (2.1)	34 (2.0)	23 (1.6)
Part-time	31 (4.5)	30 (3.9)	33 (4.5)
Union	32 (5.3)	32 (5.2)	26 (5.7)
Nonunion	34 (2.1)	34 (1.9)	24 (1.7)

Source: U.S. Bureau of Labor Statistics, Retirement plan provisions in private industry, Tables 18A and 18B.

Automatic enrollment is a plan feature in which elective employee deferrals (money taken from employee's salary for their retirement plan) begin without requiring the employee to submit a request to join the plan. With automatic enrollment, employees who do not select a contribution amount have a predetermined percentage of their pay deferred as soon as they become eligible for the plan. Automatic escalation is a plan feature used to promote savings, as a participant's contribution to a plan increases at regular intervals (fixed dollar amount or percent of salary) until he or she reaches a predetermined contribution level or cap.

Table 5 presents various provisions for savings and thrift plans for 2017. Fifty-five percent of private sector workers participated in a plan that allowed post-tax contributions (all plans allow pretax contributions). Thirty-nine percent of all workers participated in a plan with an automatic enrollment provision and 18 percent participated in a plan with an automatic escalation feature. Ninety-one percent of private sector workers participated in a plan that allowed the employee to choose their investment fund and 88 percent of all workers participated in a plan that allowed the employee to choose the investment fund toward which the employer's contribution would go. Nonunion workers had a higher rate of workers that participated in a plan with an automatic escalation feature than did union workers. There was also a significant difference between the rate of workers that participated in plans where employees chose the investment of employee funds, versus plans for which employees chose the investment of employer funds. Union workers had a higher rate of workers that participated in plans with an automatic enrollment provision than did nonunion workers.<sup>9</sup>

**table 5. Percentage of workers participating in savings and thrift plans with standard errors, private industry, 2017**

Worker characteristic	Post-tax contribution	Automatic enrollment provision	Automatic escalation feature	Employee choice of investment for employee funds	Employee choice of investment for employer funds
All workers	55 (2.2)	39 (1.9)	18 (1.5)	91 (0.9)	88 (1.0)
Management, professional, and related	59 (3.5)	40 (2.5)	17 (1.7)	89 (1.7)	86 (1.8)
Service	51 (5.2)	20 (3.9)	-	95 (2.0)	93 (2.2)
Sales and office	53 (3.0)	40 (2.6)	23 (2.6)	95 (1.1)	90 (1.3)
Natural resources, construction, and maintenance	48 (4.3)	38 (4.3)	13 (2.9)	88 (2.6)	87 (2.6)
Production, transportation, and material moving	52 (4.3)	46 (5.2)	18 (3.0)	89 (1.5)	87 (1.7)
Full-time	55 (2.3)	40 (2.0)	18 (1.5)	91 (0.9)	88 (1.0)
Part-time	53 (4.3)	32 (4.1)	21 (3.0)	96 (1.7)	93 (2.2)
Union	55 (5.6)	47 (5.1)	11 (2.5)	86 (4.0)	85 (4.0)
Nonunion	55 (2.3)	38 (1.9)	18 (1.6)	92 (0.9)	88 (1.1)

Source: U.S. Bureau of Labor Statistics, Retirement plan provisions in private industry, Tables 16A and 16B.

## Summary

This article focused on employee compensation in the 21st century, with a concentration on employer-provided benefits. In their 1990 article, Stelluto and Klein projected changes in healthcare and retirement benefits. Much of what they projected came to fruition: healthcare costs increased, the use of HSAs became customary, and the use of transferable retirement accounts became more common. Based on the most recent data available, our analysis showed that increases in health costs have been moderate since the early 2000s. In addition, HSAs showed a prevalence in the current economy, with 28 percent of all workers having access to these plans.

Defined contribution plans are more prevalent among private sector workers than defined benefit plans, as employers favor them. Our analysis showed that the most common type of defined contribution plan is the savings and thrift plan. Notable features that are prominent with this type of plan include automatic enrollment and immediate-full and graded vesting. Currently, 40 percent of full-time workers and 32 percent of part-time workers participate in savings and thrift plans. With automatic enrollment, it is the favored option and in the future, further increases to automatic enrollment will also increase employee participation.

<sup>1</sup> The first iteration of the War Labor Board was during World War One. It was established to prevent labor disputes from hurting production for the war effort. It lasted from 1918 to 1919. The second iteration was during World War Two and served the same purpose as its predecessor. It lasted from 1942 to 1945.

[<sup>2</sup> The NCS provides comprehensive information on employer-provided health insurance and retirement benefits, including employer and employee costs, the extent of worker participation, and detailed provisions of the benefit plans. To the extent that employers contribute to any of these accounts, the cost is included in estimates of employer health insurance costs, including estimates of the quarterly change in those costs that is part of the Employment Cost Index \(ECI\). In addition, the NCS collects information on benefit plans through the employee benefits portion of the survey from which estimates for Employee Benefits in the United States are released.](https://www.history.com>this-day-in-history/roosevelt-recreates-the-national-war-labor-board</a></p>
</div>
<div data-bbox=)

<sup>3</sup> George Stelluto and Deborah Klein, "Compensation trends into the 21st century," Monthly Labor Review (U.S. Bureau of Labor Statistics, February 1990),

<https://www.bls.gov/opub/mlr/1990/02/art5full.pdf>

<sup>4</sup> Employment Cost Index for Health Benefits, March 1982 through September 2018, <https://www.bls.gov/web/eci/echealth.pdf>.

---

<sup>5</sup> This is the CPI-U, not the CPI-W or another version.

<sup>6</sup> Bureau of Labor Statistics, Spotlight on Statistics, Health Care, November 2009, [https://www.bls.gov/spotlight/2009/health\\_care/](https://www.bls.gov/spotlight/2009/health_care/)

<sup>7</sup> "Retirement costs for defined benefit plans higher than for defined contribution plans," Beyond the Numbers: Pay and Benefits (U.S. Bureau of Labor Statistics, December 2012), [www.bls.gov/opub\(btn/volume-1/pdf/retirement-costs-for-defined-benefit-plans-higher-than-for-defined-contribution-plans.pdf](http://www.bls.gov/opub(btn/volume-1/pdf/retirement-costs-for-defined-benefit-plans-higher-than-for-defined-contribution-plans.pdf):

<sup>8</sup> Ibid.

<sup>9</sup> The difference in the rate of participation between union and nonunion workers in plans that allowed a post-tax contribution was not significant.