

Employer Commitment to

Retirement Plans in the United States

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United States

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Executive Summary

The last decade has been a tumultuous one for employers. Against a backdrop of market bubbles and crashes, two recessions and rising health care expenses, companies have made changes to their retirement programs to mitigate risk and manage costs. Some have shifted risk to their workers by transitioning from defined benefit (DB) to defined contribution (DC) plans. Many have reduced the retirement benefits they provide.

With fewer employers offering DB plans, more employees are relying on DC plans as their primary source of retirement income. Although employers have made enhancements to their DC plans in recent years, companies that offer only a DC plan provide a lower level of retirement benefits, as measured by percentage of pay, than those that sponsor a DB plan. And even those companies that have maintained their DB plans have reduced the value of their retirement benefits, albeit from higher levels. If corporate America's commitment to workers' retirement plans continues to decline at the pace it has over the past decade, we could see retirement straits in the future that negatively affect employers and employees alike.

Key Findings

- Total retirement benefits, including DB, DC, retiree medical and retiree life insurance plans, provided to employees decreased from 7.8 percent of pay in 2002 to 6.9 percent of pay in 2008.
- In the same time period, companies that provided only a DC plan saw a small increase in overall benefit value, from 5.3 percent to 5.6 percent of pay. The value climbed because employers enhanced matching and/or nonmatching contributions for their DC plans.
- For companies that shifted from DB to DC-only coverage between 2002 and 2008, commitment to retirement fell substantially, from 8.7 percent of pay in 2002 to 5.5 percent of pay in 2008. Although these companies increased their DC benefit values by an average of 2.7 percentage points, this gain covered only approximately half of the DB value lost by closing or freezing their pension plans.
- For companies that have maintained DB plans throughout this period, the value of their overall retirement benefits declined from 9.4 percent to 8.6 percent of pay, mostly due to a significant cut in postretirement health benefits.

Introduction

We wanted to confirm or deny, with solid data, what we suspected strongly based on our consulting with large corporations: the significantly weaker commitment by medium and large private-sector U.S. employers to retirement plans in recent years.

The most straightforward way to assess commitment is by measuring employer contributions to DB, DC, and postretirement health and life insurance plans. It is important to disregard temporary or cyclical fluctuations induced by financial markets or the economy, such as suspensions of matches to 401(k) plans or extraordinary contributions required for DB plans after a stock market crash. To also parse long-term trends, active plans being offered to new employees are more relevant than closed or frozen legacy plans. The appropriate scale is also key; benefit cost as a percentage of pay is a reasonable metric. Indeed, the correct perspective and measurement are essential to derive the clearest sense of the ongoing level of commitment from employers.

Broad aggregate data from government sources, such as components of the National Income and Products Accounts, are not a good measure of employer commitment, as they include the costs of legacy plans and cyclical contributions or lack thereof. Rather, data are needed on the current steady-state costs — consistently measured under the best-informed view of long-term economic, social and demographic conditions — for a large representative sample of private-sector employers. Moreover, the estimated costs should reflect current and detailed information on the provisions of active retirement plans, as applied consistently to the demographics of a typical company workforce.

Fortunately, precisely such a data set and valuation tools are available in COMPARISON. For more than 15 years, COMPARISON has been collecting detailed information on active benefit plans for salaried employees of hundreds of medium and large employers, representing a broad cross-section of industry, geographic location and size.¹ In 2008, the median employer in the COMPARISON database had 4,423 employees. In addition, a software tool called QuikValue gives the current value of benefits as a percentage of pay, using standardized economic and actuarial assumptions across all employers, applied to a model demographic structure of workers.

Cost (Value) of Retirement Benefits

Values for DB plans are based on normal costs. We use the projected unit credit method to calculate annual plan cost, which is the present value of future benefits (including the effect of projected salary increases) accrued during the year for each DB plan. The value of cash balance pension plans depends on the interest crediting rates applied to participant balances (and therefore the assumed level of relevant interest rates) and reflects other plan provisions, such as the percentage of earnings credited to the workers' accounts. Plan value includes termination benefits, which are paid to workers who leave before early retirement but after vesting (being especially important for cash balance plans, in which benefits accrue earlier in workers' careers). We use the same assumptions in valuing all pension plans, thereby establishing a consistent basis of comparison.

Although COMPARISON has employed this approach for many years, methodological improvements and updates to assumptions over time reflect new as well as more comprehensive information. Therefore, to arrive at consistent long-range estimates of values, some actuarial adjustments were made to the values in various years calculated by QuikValue, as described more fully in the Methodology Appendix.

Valuation of DC plans is somewhat simpler, but it also requires consistent assumptions about participation and contribution rates, as well as withdrawal rates before vesting, reflecting our best judgment of average experience. This analysis considers only employer contributions.

We calculate the values for retiree health plans using a simulation model for estimating medical benefit charges and payments. To simulate payments, the model applies the provisions of each employer's early and Medicare-eligible retiree health plans, less Medicare payments, to a sample retiree population. These rates are then projected over the worker's retirement years (including surviving spouses, if covered). An annual accrual is calculated by discounting the benefits and dividing by each employee's projected service at retirement. The model then allocates this amount to employer commitment using plan premium-sharing provisions. The calculations employ the same assumptions used in the valuation of DB plans, along with some additional assumptions, such as marital and dependent rates, and — especially important — current and future medical inflation rates.

¹ All public employers, including public universities, are removed from this analysis, but nonprofit organizations are kept; indeed, there is somewhat of an over-representation of health care organizations in COMPARISON, and they are primarily nonprofit.

For the purpose of this analysis, we define “total retirement benefits” as the combined value of employer contributions for DB, DC, and postretirement health and life benefits.

Results of Empirical Analysis

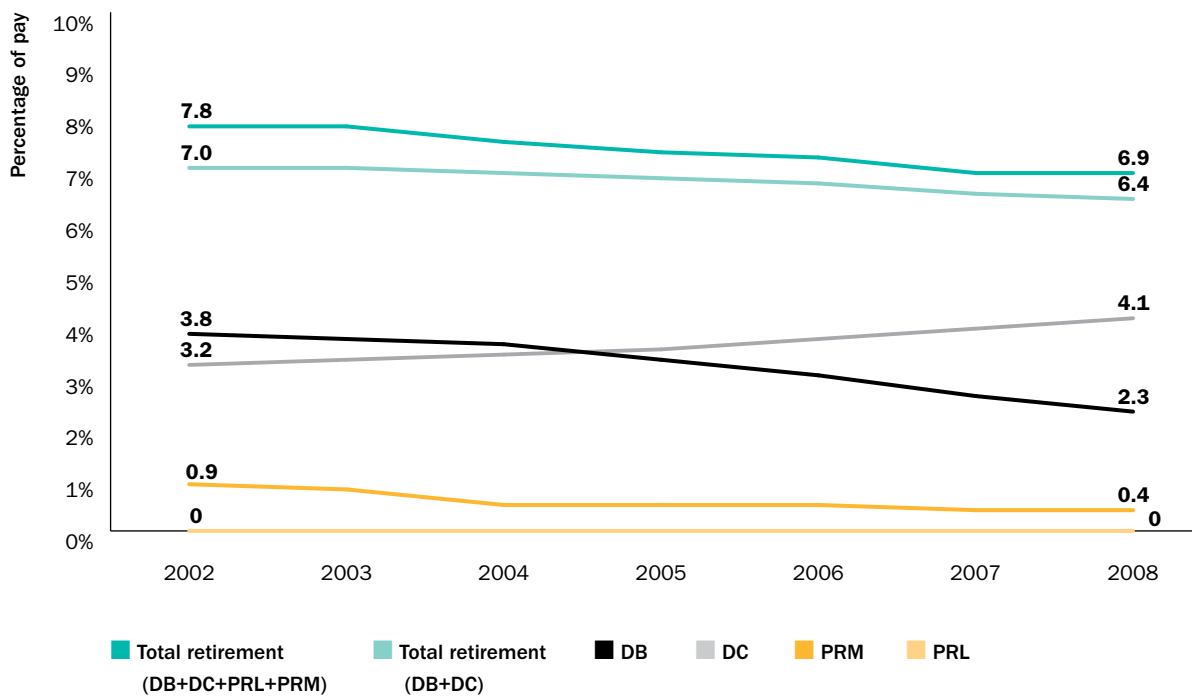
Consistent Sample

We first report on results from a sample of companies that remained constant over the analysis period. Because company participation in COMPARISON is fluid — and companies merge, go bankrupt and start up with some frequency — turnover in the COMPARISON database is fairly high. Therefore, to assure a robust consistent sample, we focus on a relatively short span of time for this part of the analysis: 2002 through 2008. Nonetheless, more than 180 companies are included. Moreover, this perspective probably most accurately measures

representative current employer commitment, as it is untainted by the movements into and out of the larger sample that we use later in the paper to investigate a longer time period.

Figure 1 shows the average percentage of pay devoted to all retirement benefits and component parts by the 183 employers in the constant sample. Total retirement benefits declined from 7.8 percent to 6.9 percent of pay over the period. About half of this decline can be explained by the effective disappearance of postretirement health plans (PRM in the figure; retiree life is negligible) among most private-sector companies (they remain more common among public employers).² The other half owes to the net loss in retirement income plans arising from the decline in DB normal cost plus the rise in DC plan contributions (see Total retirement, DB+DC line).

Figure 1. Total retirement and component benefit values as a percentage of pay in active plans offered to new employees, all companies in consistent sample



n=183

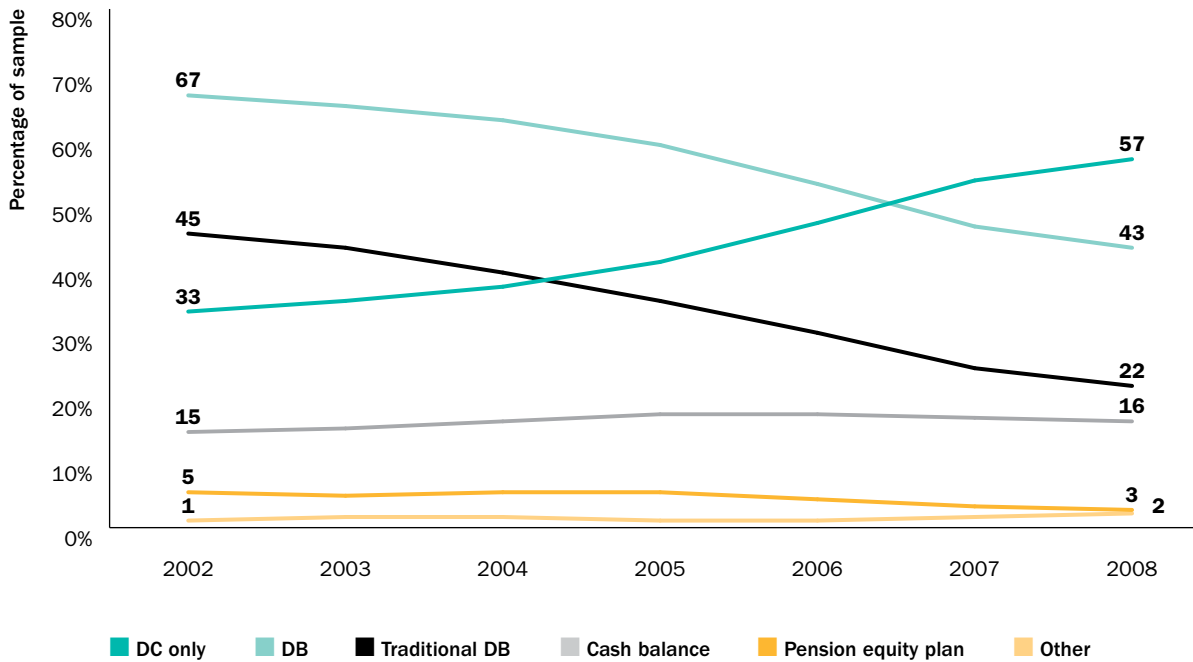
Note: PRL represents postretirement life insurance plans and PRM represents postretirement medical plans.

² Across annual COMPARISON broad databases, the prevalence of postretirement health plans fell from 62 percent in 1998 to 45 percent in 2008. More significantly, the richness of these benefit plans has eroded with many imposing per-participant dollar caps and larger cost-sharing provisions, including employee-pay-all.

The decline in benefit values may be due to lower coverage or lesser generosity. **Figure 2** shows the prevalence of retirement benefit plan types (excluding postretirement health and life) among this sample. Clearly, the prevalence of active DB plans dropped significantly — from 67 percent in 2002 to 43 percent in 2008. Traditional plans fell by half — from 45 percent to 22 percent — while hybrid plans essentially remained constant, with a slight uptick in cash balance

plans, a decline in pension equity plans and a small increase in “other” (for example, cash value) plans. Almost all of these companies also sponsor a DC plan, but the prevalence of DC-only benefits increased from 33 percent to 57 percent.

Figure 2. Prevalence of retirement plan types, percentage of all companies in consistent sample



n=183

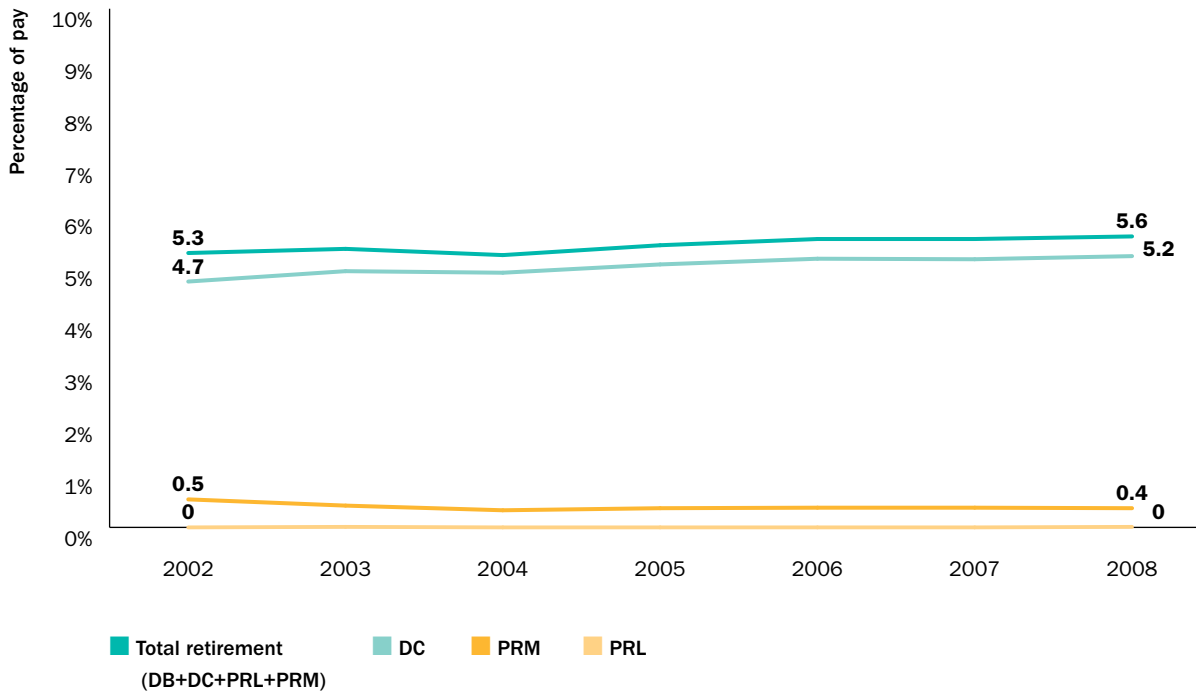
Note: Other consists of cash value, floor offset, etc.

“Almost all companies sponsor a DC plan, but the prevalence of DC-only benefits increased from 33 percent in 2002 to 57 percent in 2008.”

We next focus on companies in the consistent sample that provided only a DC plan to new employees throughout the analysis period. **Figure 3** shows the value of total retirement benefits and component parts as a percentage of pay. DC-only companies are less generous overall than the average across all companies in the consistent sample. In 2008, for example, DC-only employers paid 5.6 percent of pay for

all retirement benefits compared with 6.9 percent paid by all companies. Nonetheless, the value of DC plans increased slightly among the DC-only employers — from 4.7 percent to 5.2 percent — while the values of postretirement health plans dropped from 0.5 percent to 0.4 percent. The value of DC plans climbed because roughly one-fifth of these employers enhanced either or both matching and nonmatching provisions.

Figure 3. Total retirement and component benefit values as a percentage of pay, DC-only companies in consistent sample



n=61

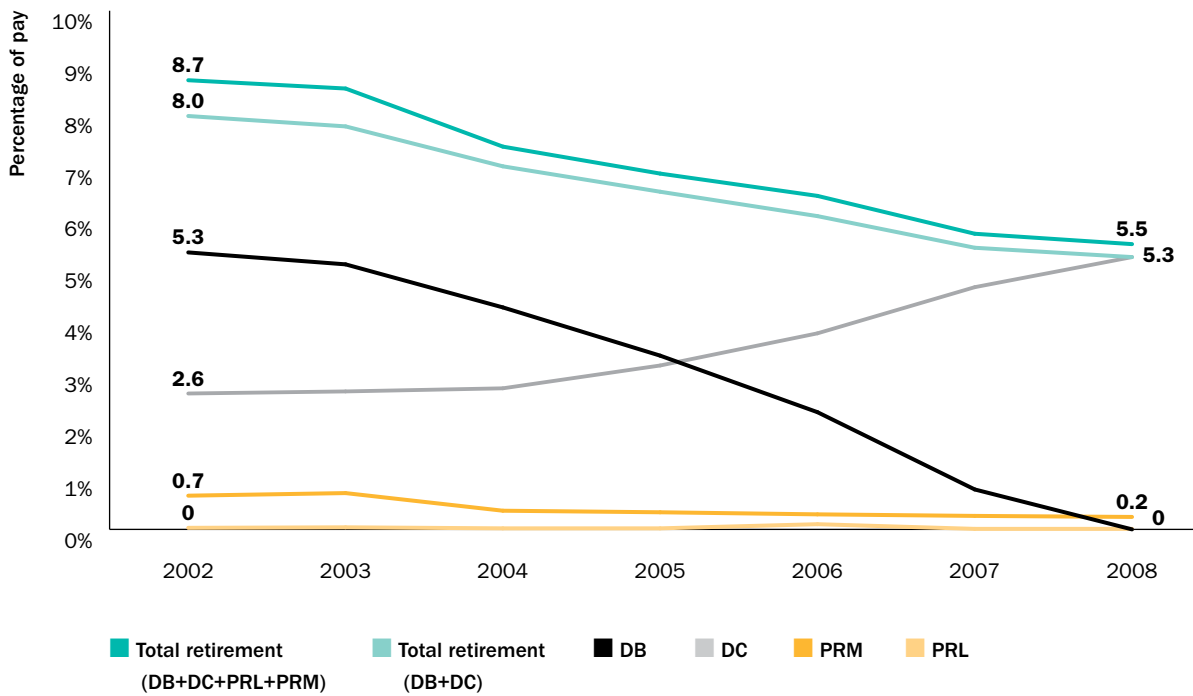
Note: PRL represents postretirement life insurance plans and PRM represents postretirement medical plans.

“DC-only companies are less generous overall than the average across all companies in the consistent sample. Nonetheless, the value of DC plans increased slightly among these employers.”

Figure 4 shows the value of total retirement and component benefits as a percentage of pay for companies that transitioned from DB to DC-only coverage over the analysis period. These 43 companies cut back substantially on their commitment to retirement plans — from 8 percent of pay in 2002 to 5.3 percent of pay in 2008. They also reduced what had been relatively generous average postretirement health benefits — from 0.7 percent of pay to 0.2

percent. Other studies have explained the motivation of these companies: to cut overall costs, often in response to rocky financial and business conditions. Over this period, these sponsors increased their DC benefit values by an average of 2.7 percentage points, but the enhancement covered only about half of the 2002 DB value later lost by closing or freezing pension plans.

Figure 4. Total retirement and component benefit values as a percentage of pay, DB to DC-only companies in consistent sample



n=43

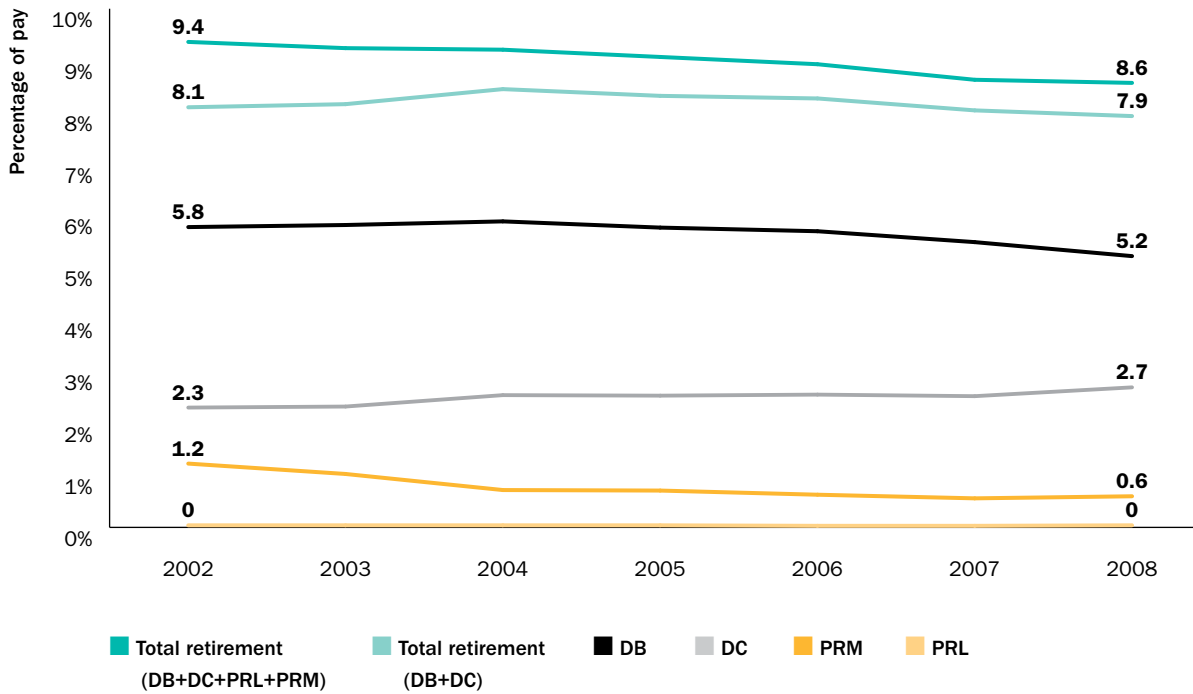
Note: PRL represents postretirement life insurance plans and PRM represents postretirement medical plans.

“Over this period, sponsors that transitioned from DB to DC-only coverage increased their DC benefit values by an average of 2.7 percentage points, but the enhancement covered only about half of the DB value lost by closing or freezing pension plans.”

Finally, **Figure 5** shows total retirement plan values as a percentage of pay for the 79 companies that have maintained DB plans throughout the analysis period. Here, too, employer commitment has fallen off, although from quite high levels — 9.4 percent of pay to 8.6 percent. Almost the entire net drop arises from a dramatic cut in postretirement health benefits — from 1.2 percent in 2002 to 0.6 percent in 2008. Still, there has been a substitution away from DB (5.8

percent to 5.2 percent) to DC value (2.3 percent to 2.7 percent), as 28 companies made their DB plans less generous, while many companies boosted their 401(k) matches. From 2002 to 2008, average DB value for these latter companies dropped from 6.7 percent of pay to 5.2 percent. Employers lowered values by converting to hybrid plans, reducing benefit accrual rates, trimming early retirement subsidies or eliminating supplemental benefits.

Figure 5. Total retirement and component benefit values as a percentage of pay, DB-always companies in consistent sample



n=79

Note: PRL represents postretirement life insurance plans and PRM represents postretirement medical plans.

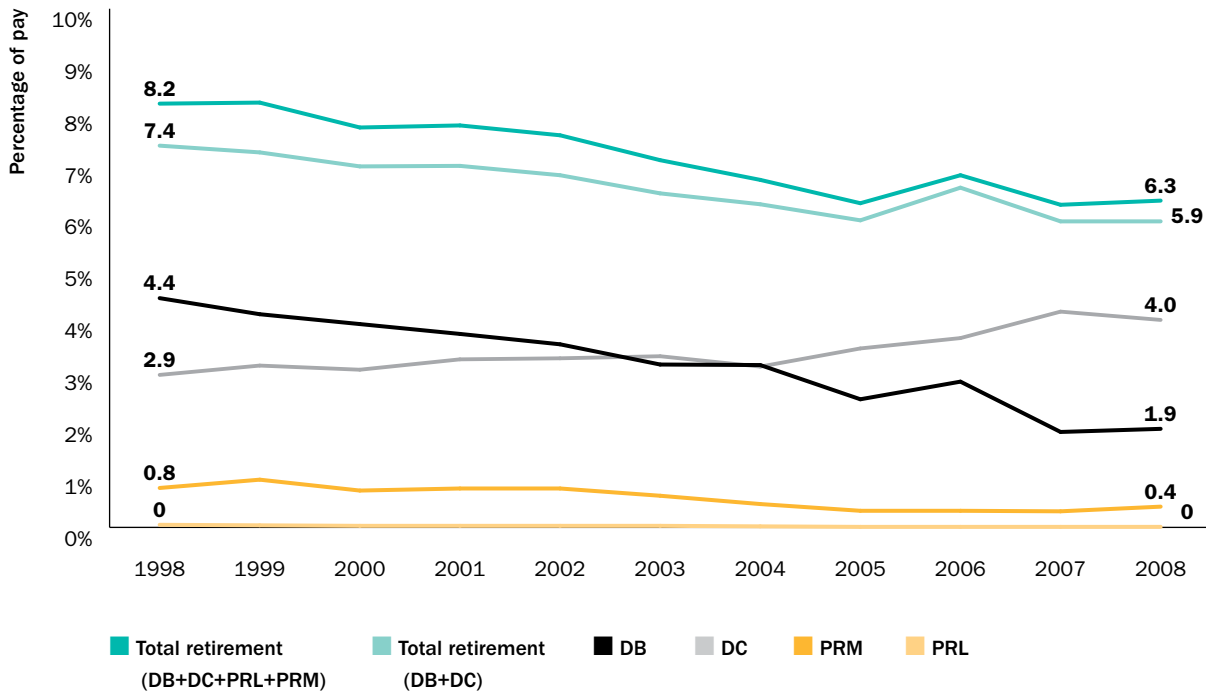
“DB plan sponsors’ commitment to retirement has fallen off, although from quite high levels. Almost the entire net drop arises from a dramatic cut in postretirement health benefits.”

Large Sample and Industry Analysis

We now report results on a much larger sample (ranging from about 600 to 850 companies) over a 10-year period. As explained above, there is considerable turnover in this sample, but it does include many large and well-known companies. Moreover, to control somewhat for the effects of turnover, we weight the observations by the number of employees in the companies to arrive at weighted averages.

Figure 6 shows total retirement plan values as a percentage of pay from 1998 through 2008.³ These results echo the trends shown above, perhaps somewhat more strongly. Between 1998 and 2008, total retirement values as a percentage of pay declined from 8.2 percent to 6.3 percent. Here, too, we see declines in the value of DB and postretirement health benefits, offset somewhat by higher DC values.

Figure 6. Total retirement and component benefit values as a percentage of pay, weighted by employer size, active plans offered to new employees, all companies in large sample



Note: PRL represents postretirement life insurance plans and PRM represents postretirement medical plans.

³The bump in 2006 is caused by the absence in that year of two very large DC-only employers.

The larger sample enables us to do some analysis by broad industrial categories. **Figure 7** shows total retirement benefits as a percentage of pay for 12 industry sectors. Declines are steeper in some industries than others: Retirement benefit values fell more than 30 percent in the manufacturing, transportation (which includes the airlines) and communications sectors over the 10-year period. Other industries, by contrast, experienced much smaller declines, such as the profitable chemical and drug industries — or even a tiny increase, such as the fast-growing health care sector (although health care started from a relatively low base of roughly 7 percent of pay).

The wide variations in the generosity of benefits are also interesting. Retirement benefits tend to be more substantial in industries with highly compensated employees, who need employer plans to supplement the relatively low benefits they will receive from Social Security, such as chemicals and drugs. Retirement benefits tend to be less generous in industries with low-paid employees, who generally get most of their retirement benefits from a progressively sloped Social Security program, such as retail, and in industries whose HR philosophy has traditionally been nonpaternalistic, such as high-tech.

Figure 7. Total retirement benefit values as a percentage of pay, weighted by employer size, active plans offered to new employees, all companies in large sample, by industrial categories

Industry sector	1998	2002	2005	2008	Percentage change from 1998 to 2008
Manufacturing	10.80	9.02	7.33	6.39	-40.83%
Retail and wholesale	4.82	6.09	4.48	3.97	-17.63%
Construction	6.66	5.32	6.14	4.82	-27.63%
Transportation	9.27	9.77	11.07	5.97	-35.60%
Professional services	5.18	3.01	3.93	4.18	-19.31%
Finance	9.08	8.01	8.40	7.54	-16.96%
Health care	6.92	5.64	5.60	6.94	0.29%
Chemicals, drugs and pharmaceuticals	12.53	13.59	10.80	12.41	-0.96%
Energy and natural resources	12.18	12.17	11.83	10.66	-12.48%
Gas, electric and water	13.35	12.64	11.28	10.28	-23.00%
Communications and telecom services	9.64	6.38	6.02	6.60	-31.49%
High-tech	8.00	7.15	6.35	6.09	-23.88%

Interpretation

Does this analysis yield an explanation for the waning of private U.S. employer commitment to retirement plans over a relatively short time? Although brief, this period was tumultuous with market bubbles and crashes, two recessions, inflation and deflation, and major political changes. This volatility no doubt prompted some employers to shift risk bearing from their own shoulders to workers' shoulders, which would explain the movement away from DB and postretirement health plans. Moreover, the costs of legacy plans rose and might have crowded out ongoing retirement plan values.

More significantly, inflation in health care benefits was considerable and unrelenting over this period. Even after imposing higher deductibles, copays or premium-sharing — or transitioning to consumer-driven health plans — employer health costs as a percentage of pay continued to climb. (There is evidence for this claim in the COMPARISON database.) This trend, too, would tend to crowd out retirement plan benefits. And there has been a slow but steady and continuing realization of later retirements, which alternately cuts somewhat the need for retirement plans or reflects the lack thereof.

Finally, employers could be anticipating future increases in their share of payroll taxes to finance imminent shortfalls in Social Security and Medicare. Reducing their commitment to retirement benefits now might represent an attempt to maintain stability in long-term benefit costs as a share of total compensation.

But still, in a competitive labor market, the costs of benefits could rise or fall and be paid for by accompanying changes to the growth rates of cash wages. So why are retirement plans seemingly bearing the burden of higher volatility and costs elsewhere? Perhaps it is because cash wages (and health plan features) are more transparent and represent immediate satisfaction to workers.⁴ Retirement, by contrast, is often far off and so seems lower priority, especially in tough times. But while retirement benefits might be the easiest to cut, the negative consequences to employers, workers and society are merely put off to another day, at which point the need will become urgent but options will be limited.

Methodology Appendix

Adjustments to DB Plan Values

We summarize below the adjustments made to the DB plan benefit values from the original COMPARISON QuikValues, in order to have all values on a similar basis for 1998 through 2008. The consistent assumptions used were those for 2008: The valuation interest rate is 6.5 percent, salaries increase by 4 percent annually, the 30-year Treasury bond yield (the interest crediting rate) is 5 percent, mortality is on a Pension Protection Act 2009 basis and turnover follows the U35 table. Assumptions for past years used by COMPARISON are available upon request.

Fourteen plans — seven traditional DB plans, six cash balance plans and one pension equity plan — were run through valuation software under various assumptions to measure the impact of changing assumptions. In addition, we set up a separate spreadsheet to determine the approximate effect of changing the valuation interest rate and annuity conversion rate, while holding constant the difference between the interest crediting rate and the valuation rate for cash balance plans. This is described under “Valuation Interest Rate” below.

We made no adjustments for the Social Security wage base or consumer price index because changes in those assumptions had very little impact.

Changing the assumptions affected traditional plans and cash balance plans differently. For this reason, we determined one factor for traditional plans and another for cash balance plans, with the final adjustment factor a weighting of these two. To determine the weighting, we first obtained the percentage of all plans that were cash balance plans each year. These percentages were obtained from the COMPARISON Statistical Summaries for 1997 through 2008 and then further adjusted to reflect the typically lower normal costs in cash balance plans compared with traditional plans. In the plans examined, average cash balance normal costs were about 75 percent less than average costs for traditional plans, so cash balance value-to-pay percentages were multiplied by 75 percent.

⁴ If health benefits were top priority, then wages would be squeezed. This could also lead to a worsening in the measured inequality of earnings, as health plan costs tend to be a fixed per-worker cost, unrelated to wage levels. See Watson Wyatt Insider, “The Effects of Rising Health Costs on Salaries and Income Inequality,” May 2008. Because of these considerations, Steve Nyce and Syl Schieber have called strongly for measures, public and private, that will slow the rate of increase in health care costs. See “Productivity Rewards and Pay Illusions Caused by Health and Retirement Benefit Cost Increases,” July 31, 2009.

Valuation Interest Rate (Discount Rate for Liabilities)

For the traditional DB plans in the sample, a 1 percent change in the interest rate made roughly a 22 percent change in liabilities. As this seemed reasonable, this rule of thumb was applied.

Cash balance plans were valued by converting lump sums to annuities and valuing the annuities, so the annuity conversion rate was considered in conjunction with the valuation interest rate. For 2004-2008, the conversion rate was equal to the valuation interest rate for cash balance plans with unrestricted lump sums, which appears to be the majority of cash balance plans. Prior to 2004, however, the conversion rate was tied to the interest crediting rate, so for those years, an adjustment was made to change the conversion rate from the interest crediting rate to the valuation interest rate. This significantly increased liabilities. A further adjustment was then made for changing the valuation interest rate. The difference between the valuation interest rate and the interest crediting rate was held constant when making this adjustment.

Factors that were developed for cash balance plans are as follows:

- For 1997 through 2001, an increase of 15 percent based on a blend of results for three different sample employees representing the average age and service of the three workforce data files for this period. The raw factor was divided by 9 percent, because all factors for years in which multiple data files were used were increased by 9 percent to account for multiple files (see below).
- For 2002, an increase of 35 percent and the same methodology as for 1997 through 2001.
- For 2003, an increase of 30 percent. We used the results for the sample employee with the average age and service of the older workforce data file because that was the only file used for 2003 and later years. The raw factor was divided by 9 percent.

Salary Scale

For traditional DB plans, a 4 percent decrease was applied to years before 2003 when the salary scale was 5.0 percent (it was 4.5 percent from 2003 to 2008).

For cash balance plans, a higher salary scale reduces the account balance because the past payouts are

calculated by applying the salary scale to past years, so a higher salary scale gives lower past payouts as well as higher future salaries. This would also be true for any career average plan. So the salary scale increase from 4.5 percent to 5.0 percent had a very small impact. For this reason, no adjustment was applied to the cash balance plans for salary scale.

An adjustment was made to account for the fact that about 8 percent of traditional plans use a career average rather than final pay formula.

Mortality

For traditional DB plans, an increase of 2 percent is applied for GATT mortality and an increase of 5 percent is applied for 1983 group annual mortality (GAM). The impact of the other mortality tables was negligible and thus was ignored.

For cash balance plans, the adjustment was smaller. Because there is no in-service mortality decrement and most cash balance plans pay a lump sum equal to the account balance upon termination or retirement, mortality theoretically would have no impact. The lump sums, however, are valued as annuities, meaning there was some impact of changing mortality. In fact, the lower mortality reduced cash balance liabilities. An adjustment of -4 percent was used for years when the 83 GAM mortality table was used.

Turnover

A lower turnover rate was used for 1997 through 1999, giving rise to higher liabilities in those years. Turnover had a bigger effect on traditional plans than cash balance plans, however, so a decrease of 5 percent was applied for traditional plans and 1 percent for cash balance plans.

Workforce Data Files

From 1997 through 2002, three different workforce data files were used for different companies. The data file used for 2003 through 2008 had the oldest, longest service, making liabilities based on this file higher than they would have been based on the other two. For this reason, a 9 percent increase was applied to 1997 through 2002 for the use of all three files during those years. By looking at each of the statistical summaries for 1997 through 2002, it was determined that roughly the same percentage of companies were using the same data files in all seven years. So the

impact of the different data files was determined and percentages applied based on the percentages of companies using each file over the seven years, thus arriving at the 9 percent adjustment factor.

Integrated Plans for 2006

An appropriate adjustment was made to correct an anomaly in the 2006 Social Security updates that caused values for 2006 plans integrated with Social Security to be overstated.

Defined Contribution Plans

Adjustments were made for all years to assume a constant 75 percent participation rate, in accordance with industry data sources. Otherwise, the assumptions in COMPARISON on contribution and employee turnover rates were used.

About Towers Watson

Towers Watson is a leading global professional services company that helps organizations improve performance through effective people, risk and financial management. With 14,000 associates around the world, we offer solutions in the areas of employee benefits, talent management, rewards, and risk and capital management.