Pensions and Other Post Retirement Benefits:
History, Characteristics, Accounting Methodology, Reform, and Future Impact

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Accounting

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In the past, the elderly generation suffered from economic deprivation as the result of inadequate incomes and eroded savings, leading them to be one of the largest poverty groups in the United States.  Today, the situation has greatly improved due to collective action taken over various decades in the development of private and public programs dealing with the economic problems associated with old age (Schulz 1).

Drastic changes occurred in the level of income for older people, especially from the establishment of public and private pensions.  The development of pensions was necessary because of the paradox of retirement policies in the United States.  People talk about and encourage older people to work, yet when it comes time to make employment decisions, companies and organizations are unwilling to accept older workers into their labor force.  Part of the motivation behind this decision is due to job obsolescence and changing performance capabilities.   In addition, changes in economic climate and employment opportunities generate increased competition for available jobs.  At the same time, many individuals over the age of 65 find it difficult to continue in the labor force as the result of health problems.  These combined factors forced older individuals not in the labor force to rely on their own resources or charity for survival.  Therefore, pensions were established as a reaction to the need for more rational support systems for the elderly who were unable to work and as a means to encourage older people to leave the workforce to create job opportunities for younger workers (Schulz 59-60).

However, the establishment of pensions is not entirely a new concept.  Former Chairman of the Social Security Advisory Board, Sylvester Schieber, noted that the earliest form of pensions in the United States can be traced back to the Revolutionary War, where the soldiers moved into the civilian workforce shortly after the Civil War when the American Express freight company established the first private pension plan in 1875 (Schieber, *Predictable Surprise* 24).

Compared to today's standards, American Express' plan was little more than a bookkeeping convenience, as a means to shift funds to pay workers who were injured or worn out due to difficult working conditions (Schieber, "The Evolution" 12). In 1900, Pennsylvania Railroad established a fund similar to a modern pension plan as a means to dismiss older employees who represented a safety liability, without incurring public scorn or interrupting business operations. Private pensions later spread to higher education institutions. For example, in 1906 Andrew Carnegie established a free pension system with $10 million dollars he endowed to the Carnegie University. In his opinion, professors were paid such a low wage that they were unable to provide for their retirement (Schieber, "The Evolution" 13).

Employees liked the idea of a pension system, because it provided them with a way to help save for retirement. A 1994 national survey found that 70% of individuals around the age of 50 had already begun saving for retirement (Schulz 99). Figure 1 provided below shows a table of possible sources for retirement income most relied upon by individuals when planning for their retirement.

**Figure 1: Options for Retirement Income**

| Private | | Public |
|---|---|---|
| Individual Provision | Collective Arrangements | Government Sponsored |
| Physical Assets | Family Gifts | Medicaid |
| Insurance Claims | Private Pensions | Social Security |
| Other Financial Claims | Group Savings Plans | State Property Tax Reductions |
| Financial Investment Claims | Charity Assistance | Veteran's Benefits |
| | Help from Local Community | Housing Programs |
| | | Food Stamps |
| | | Financed Elderly Services |

While it is possible to retire without investing in a pension plan, pension plans are an efficient system for accumulating income for retirement. At the same time, pensions become complicated because people are unable to predict when they will die, how much income they will be able to earn, the lifestyle they will have, the age they will retire, and what the future inflation rate will be (Schultz 100).

Pension funds create a benefit to workers by allowing them to pool resources to save on investment expenses and share the risks associated with saving for retirement (Mitchell and Rappaport 54). Pensions typically provide an annuity, which eliminates insecurity issues about a person outliving their savings because they are promised a payment from retirement to death. The more workers that participate in a fund, the greater the economy of scale becomes, allowing the fund as a whole to save on administrative expenses and reduce transaction costs (Mitchell and Rappaport 54). In addition, once a fund had reached a sufficient size, mortality tables are able to be constructed to determine the average life expectancy of an individual (Schultz 106). This allows participants to share the risk of retirement because individuals who live longer than expected are balanced out by individuals who die before their estimated life expectancy.

As a result of a positive attitude towards pension funds from society, the act of providing an income for the elderly became more than just a morality issue. Businesses found that offering a pension fund as part of their benefit package served to attract and retain valuable workers (Clark and Quinn 78). Companies with large upfront costs for hiring and training workers were able to reduce their turnover rates and therefore reduce their human resources costs by introducing pension funds into their compensation packages. Also, multiple studies were conducted by Stuart Dorsey, a primary researcher in this area, to determine if the adoption of pensions by companies would enhance labor productivity. He concluded that there was "a strong positive relationship between pension coverage and training on the job, providing a further link between the use of pensions as a kind of compensation and employee productivity (as quoted by

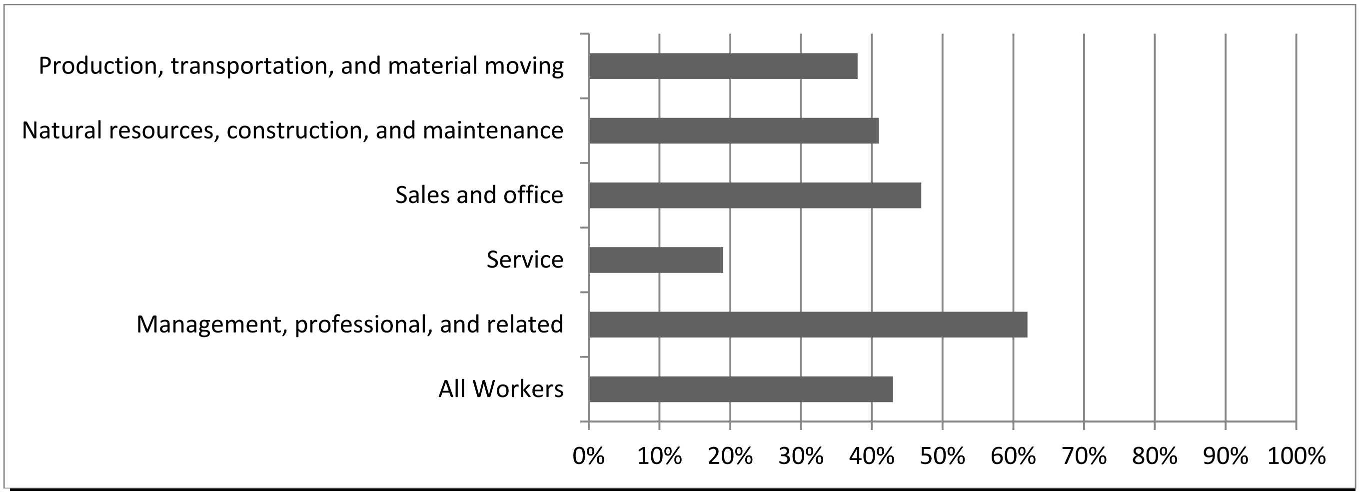
Clark and Quinn 84)." His research showed that employees who felt that a company was willing to invest more in its workers, were more likely to stay in their positions and thus develop more specialized skills and in effect become more efficient. These same employees also developed a sense of loyalty and were less likely to shirk their responsibilities (Clark and Quinn 83-84).

However, while the history and desire for pensions may seem relatively straight-forward, the pension system itself is a highly complex structure. Within the United States there are two main sectors for pensions: the public sector, which are pension funds provided by the government, and the private sector, which are funds established by employers or individuals. Unlike several other countries, in the United States there is a mix between public and private pensions; the balance of which often falls under heated debate. One argument in support of public pensions is that they more readily redistribute wealth since the role of the government is to adjust the distribution of income in accordance with society's general values and perceived needs of special population groups (Schulz 117). Another argument in favor of public pensions is that the annuities can be purchased cheaper and without the effects of adverse selection problems commonly found in the private markets, where people who expect to live longer are more likely to purchase plans. Next, administrative costs under public plans tend to be cheaper, representing about 1% of annual contributions compared to private pensions with a 12-14% rate. Then, public pensions have more benefit adjustment mechanisms built into their fund system in order to deal with inflation compared to private pensions which are unwilling to deal with the increased costs required for adjustment and are unable to develop sufficient mechanisms for estimating the amount of adjustment required. Finally, public pensions provide coverage to a majority of citizens compared to private pensions which tend to be more options focused (Schulz 119).

In contrast, there are some supporters of private pensions who feel that private pensions are the better sector and should be expanded.  First, private funds have more flexibility because they do not have as broad of coverage and are therefore easier to adapt for differing situations or conditions (Schulz 121).  Supporters argue that private pensions play a crucial role in the stability of the economy by encouraging individuals to save for retirement by investing in capital markets.

Regardless of the sector chosen, most pension funds can be classified as either defined contribution plans or defined benefit plans.  ERISA and the Internal Revenue Code describe a defined contribution plan as one ". . . which provides for an individual account for each participant and for benefits based solely upon the amount contributed to the participant's account, and any income, expenses, gains, and losses, and any forfeitures of accounts of other participants which may be allocated to such participant's account (Employee Retirement Income Security Act)."  The key characteristics of defined contribution plans is that plan contributions are determined by a formula instead of actuarial requirements, plan earnings are allocated to each individual's account, and plan benefits are not insured by the Pension Benefit Guaranty Corporation (Krass and Keschner 15). In other words, a defined contribution plan is a pension plan which provides retirement savings from contributions made by an employer, employee, or both based on annual salary.  This type of private pension plan is quickly dominating the market. Figure 2 provides a chart describing defined contribution pension plan participation of private industry workers as adapted from the Bureau of Labor Statistics data based on a March 2010 survey.

**Figure 2: Percent of Private Industry Workers Participation in Defined Contribution Retirement Plans, Selected Occupational Groups**




Pension plans classified as defined contribution plans can be categorized into six different investment options. The first option is a savings and thrift plan, which requires an employee to contribute predetermined amounts of income into an individual account that is matched on a percentage basis by the employer ("Six Ways to Save For Retirement"). Next, is a deferred profit-sharing plan, where the employer contributes a fixed or discretionary amount to participant's accounts based on the amount of company profits, which may be allocated equally or based on the employee's salary. Then, there is a money purchase pension plan, which provides mandatory fixed employer contributions that result in an imposition of a penalty tax if not contributed annually. Another option is a savings incentive match plan (SIMPLE), which allows for employees to make contributions to the plan based on a reduction in their salary, but is only available to companies with less than 100 employees. Also, employee stock ownership plans exists, in which the employers pays a designated amount to a fund that is invested in company stock. In addition, a relatively new defined contribution plan called a simplified employee pension plan was established to allow employers of any size to create individual accounts for employees at a financial institution.

However, defined contribution plans do have to be maintained in majority by the employer. There are two main ways for an employee to contribute to a defined contribution plan: through a 401(k) plan with pretax contributions or a Roth 401(k) with post-tax contributions ("Six Ways to Save For Retirement"). Contributions can be made on a cash or deferred arrangement in which an employee can elect to defer receiving a portion of their compensation in favor of contribution to a 401(k). Employees participating in a 401(k) assume responsibility for their own retirement income and have the option to manage their own investments in some scenarios.

401(k) plans began in the 1970s when corporations were trying to determine a way for their highest-paid executives to avoid paying taxes on their cash bonuses (Ghilarducci 117). The IRS decided that if the executives were to direct their earnings into deferred compensation accounts, they could avoid paying taxes on the amounts until they were withdrawn in later years, presumably when the executives would be retired and thus have a lower tax rate. However, the condition mandated by the IRS was that the deferred compensation accounts be made available to all employees. In 1978 Congress added Section 401 subsection (k) to the tax code to deal with the issues of pretax contributions into an individual account. Many employers soon adopted what would be known as 401(k) plans as a way to supplement their current benefit packages (Ghilarducci 117).

As mentioned earlier, another classification of private pension funds is a defined benefit plan. ERISA and the Internal Revenue Code define a defined benefit plan as ". . . a pension plan other than an individual account plan," which provides a definitely determinable annual benefit – i.e. the benefits are determined on the basis of a formula contained in the plan (ERISA §3(35), Int. Rev. Code §414(i)). These plans are categorized as a plan with formulas geared towards retirement benefits instead of contributions, annual contributions determined by actuarial assumption, limited benefit insurance by the Pension Benefit Guaranty Corporation, special rules for early termination, and reduced company costs when forfeitures are made (Krass and Keschner 19). In summary, defined benefit plans promise fixed retirement benefits defined by a specific formula.

Pension plans classified as defined benefit plans can be categorized into three options: fixed benefit plans, flat benefit plans, and unit benefit plans (Krass and Keschner 19). A fixed benefit plan provides each participant with the same monthly pension regardless of the variation in employee compensation levels or years of service. Flat benefit plans provide a benefit to employees based upon their individual compensation levels, such as a percentage amount of their normal monthly compensation. A unit benefit plan focuses on years of service of each employee by providing greater benefits to employees who have worked longer even with the same level of compensation (Krass and Keschner 20).

Throughout much of history, defined benefit pension plans were considered the standard plan for companies offering pension compensation packages. Over the years there has been an increasing demand for defined contribution plans. One reason employees like defined contribution plans are because they appear easy to understand and control. Most defined contribution plans offer periodic statements of account balances and generally show a lump sum balance instead of projected retirement income (Mitchell and Rappaport 60). A defined contribution plan functions well for the purpose of individual asset accumulation because employees own and control the assets, giving them the ability to substantially increase their benefit through sound investment. Owners can withdrawal their funds in a lump-sum to use as desired or pass on benefits to their heirs.

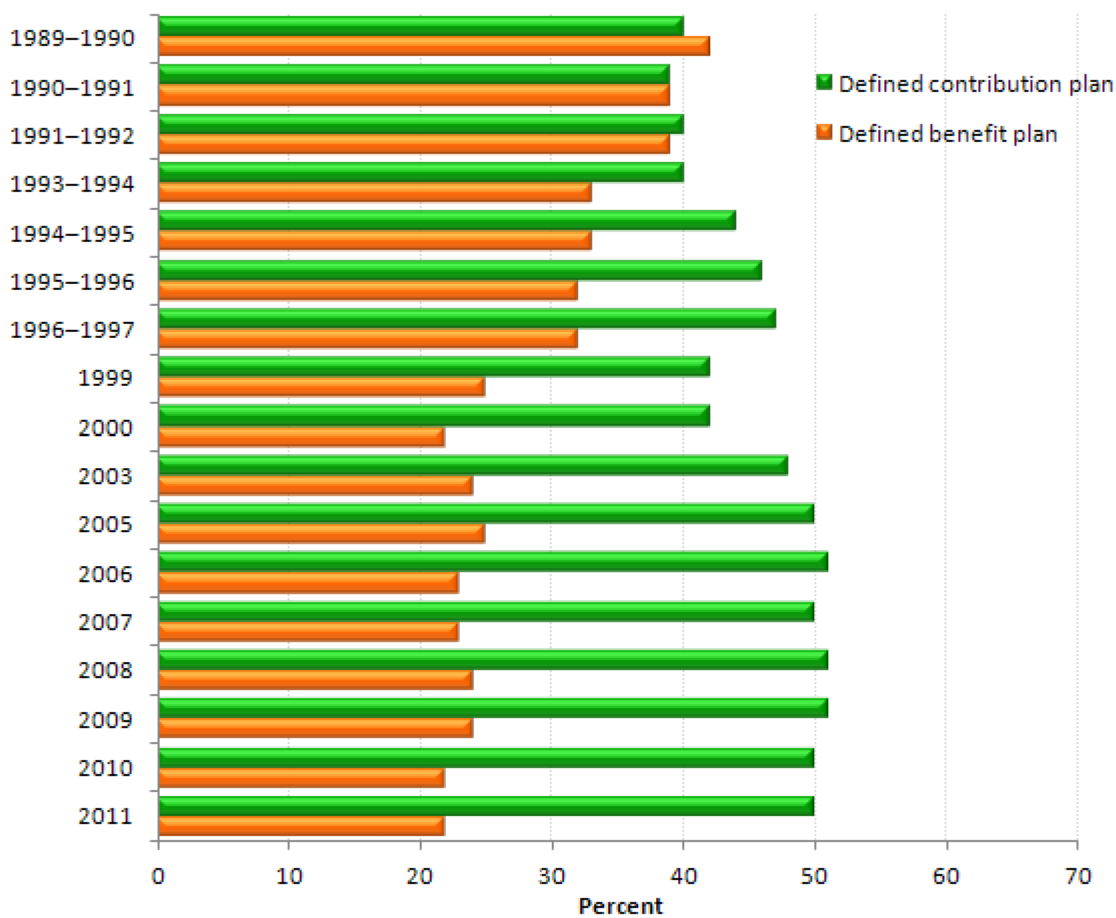
Defined contribution plans, such as the 401(k), also eliminate common risks associated with defined benefit plans (Ghilarducci 119). For example, in most cases employees would not have to worry about employer risk, which is the possibility that a company will either choose to stop providing a defined benefit plan or lose its accumulated benefits as a result of business failure. It is important to note that if a company contributes to a defined contribution plan in the form of the company's own stock or invests employee contributions in a fund containing their company stock, a defined contribution plan then becomes exposed to employer risk.

Another risk usually eliminated with a defined contribution plan is employment risk, the risk that an employee will not be working with the same employer for the rest of their working career. Most defined benefit plans have vesting requirements that mandate employees build up significant pension credits before they are eligible to receive benefits. The problem results from the fact that most employees who stay with a company for less than five years are not able to accumulate any pension credits. Because defined contribution plans work on an individual account basis, they are more mobile from one job to another (Ghilarducci 120).

As a result of employee demand, there has been an increasing shift in employers from offering defined benefit pension plans to defined contribution pension plans. Figure 3 provides a comparison between the participation rates amongst defined benefit plans and defined contribution plans over the last several years. A motivating factor behind the shift was due to the distribution of risk. With defined contribution plans, an employer's duty ends with the payment of the contribution, where a defined benefit plan creates increased risk for the employer because they are responsible for ensuring the fund has sufficient value to meet the promised benefits to employees. Also, defined benefit plans are typically funded entirely by the employer where defined contribution plans are funded primarily, or at least jointly, by the employee.

Another reason for the shift from defined benefit plans to defined contribution plans occurred due to government regulation under the Employee Retirement Income Security Act (ERISA) of 1974, which significantly increased the cost, risk, and administrative hassle of employers for private-sector defined benefit pension plans (Kilgour 20 – 28).

**Figure 3:** Percent of full-time employees participating in defined contribution and defined benefit plans, private industry, 1989–2011




Source: U.S. Bureau of Labor Statistics, National Compensation Survey

Many changes enacted by ERISA increased the cost and administrative hassle of private-sector defined benefit plans. An amendment to the act reduced the participation age to 21 and changed the definition of what constituted an accrued benefit. As a result of the change, administrative expenses for plan sponsor soared to meet the complicated grandfathering requirements now in the act. Also, pretax employee contributions were allowed in defined contribution plans, but not defined benefit plans. In order to reduce administrative costs, employers are allowed to cash-out participants with a vested plan benefit if their benefit is below a specific level. When legislation was passed in an attempt to more accurately represent lump-sum payments due to participants, the press attacked sponsors of defined benefit plans accusing them of unfairly cutting benefits. The complicated requirements of ERISA and unfair standards between defined contribution and defined benefit plans increase costs and frustrated employers, which have contributed to the shift to defined contribution plans (Scahill 38).

Defined contribution plans are simple to account for, have less administrative cost, and tend to be naturally less expensive than defined benefit plans. One reason defined contribution plans are less expensive is because they are voluntary plans. Many employees choose not to participate in defined contributions plans and therefore employers do not bear the financial responsibility of matching their contributions. Then, a firm can contribute their own stock to a defined contribution plan instead of having to spend cash. If a firm properly times their stock contribution, they can reduce cost by adding stock to the fund when prices are low. Also, employers can reduce their contributions to a defined contribution plan to reduce costs, but cannot eliminate their financial responsibility to a defined benefit plan (Ghilarducci 133).

However, not all aspects of the defined contribution plan are positive. One of the main problems associated with defined contribution plans relates to the issue of why pensions arose in the first place: the inability of the average worker to plan for retirement by accumulating enough assets. In order to have sufficient retirement income, individuals must begin saving at the very beginning of their working career and make retirement savings a continuous project. Most financial advisors would recommend individuals save 7% to 15% of every paycheck beginning in one’s thirties in order to have a retirement income equal to your current employment income.

The problem is that most Americans are "present-minded," meaning that they are more likely to focus on current expenditure such as buying a house or vacationing then saving for something that will happen many years in the future like retirement (Ghilarducci 120).

In addition, the most common form of defined contribution plan, the 401(k), allows participants to borrow from their accumulated assets, unlike defined benefit plans and most other defined contribution plans (Munnell and Sunden 129 - 130). The tax law limits the loans to 50% of the account balance up to $50,000 dollars and the loans must be paid back at an interest rate of 1 or 2 points above the participant's prime rate within one to five years. People tend to favor borrowing from their 401(k) instead of a financial institution because it presents lower transaction costs, there is no need for loan approval, and borrowers are able to keep their savings accumulations as a "rainy day" fund. The problem arises from the fact that the funds are not earning a return while they are on loan and borrowers tend to contribute less to their contribution plans while they are attempting to pay back the borrowed funds. Also, when paying back the loan, borrowers are doing so from post-tax earnings, which means they will essentially pay more in income to accumulate the same threshold of benefits than they would if the earnings had been contributed pre-tax.

While the overall effects may seem small, a simulation model done by Alicia Munnell and Anika Sunden (126) show that even small percentage changes in fund balances can create huge gaps in retirement income. They based their simulation on several assumptions including: (1) the participant never borrowed from the accumulated fund assets, (2) the participant borrowed 50% of the fund assets at age 40 to be paid back in equal installments over five years while continuing to maintain his normal contribution levels, (3) assumes the same facts of situation two except the participant suspends normal contributions while he repays the loan and

(4) the participant defaults on the loan after borrowing for two years, then resumes contributions one year after the default date. The results of the model are presented below in Figure 4. The greatest level of change in the fund balance is almost $63,967, which is a large sum of money for an individual who will live on a fixed income.

**Figure 4: The Effects of 401(k) Loans on Retirement Wealth Simulation**

| Loan Activity | Account balance at age sixty-two | Percent of no-loan balance |
|---|---|---|
| (1). No Loan | $ 353,408.00 | 100% |
| (2). Repay loan and maintain contributions | $ 349,569.00 | 99% |
| (3). Repay loan and suspend contributions | $ 289,441.00 | 82% |
| (4). Default on loan | $ 296,371.00 | 84% |
| Greatest Level of Change: | $ 63,967.00 | 18% |

Another problem with defined contributions plans, such as the 401(k) is their form in the stock market. When these plans were first introduced, most employers invested the contributions into a limited selection of investment pools for their employees. The trend today is to offer a wide variety of investment options to employees, giving them a greater amount of control in their investment decisions. The problem is that most participants lack the strong financial education required to be able to make wise investment decisions that will ensure an adequate return to keep up with inflation. Additionally, the stock market itself comes with risk from its volatile nature. Workers with defined contribution plans tend to pay larger administration and investment fees because they lack the clout to be able to negotiate lower fees with financial managers (Ghilarducci 127).

Since the Unites States has such a complex pension system, there is a huge variety of pension plan options available for companies to choose from. As Krass and Keschner summarized, “the type of qualified plan that a company chooses to adopt depends primarily on the company's objectives in establishing a plan, the amount it can afford to contribute to the plan, and the ages of those employees the company wants to benefit most (33)." As mentioned above, each plan has its own advantages and disadvantages and thus will each fulfill different objectives for a company. A company's cash position will affect its choice of pension plan because the adoption of a defined benefit plan requires a funding commitment even if the company has no profits. In most cases, it does not make sense to borrow cash to meet pension obligations and therefore companies in a weak financial position will tend to choose profit-sharing-based plans. Profit sharing plans are especially useful to companies who have earnings that fluctuate from year to year. The age of employees also impacts the choice of plan chosen by a company. For a company whose essential employees are older, a defined benefit plan is the more logical choice of pension type. With defined contribution plans, age is not a factor in determining the percentage a company will typically contribute to the fund. As a result, older workers who have limited contribution years will not be able to accumulate sufficient retirement income (Krass and Keschner 36 – 38).

Once a company chooses the type of plan they would like to offer, they must then choose the actual plan provisions they would like to sponsor. The first provision to consider is eligibility requirements. A qualified plan may require an employee to be age 25 and to complete one year of service with the company before he or she becomes eligible to participate in the plan. Depending on the type of plan chosen, a company may set a maximum age limit for participation. For example, a defined benefit plan may exclude employees who are first hired within an age range of five years before the plan's normal retirement age. The normal retirement age is typically established at the earlier of the time specifically stated in the plan or the time the participant reaches age 65. Another exclusion allowable in plan eligibility is union employees as long as retirement benefits were the subject of good-faith bargaining (Krass and Keschner 54 – 56).

Other factors influencing the contributions or benefits of a plan include contribution requirements and cash or deferred features. Employers are allowed to require employees to make a specific level of mandatory contributions to their pension plans. Also, employees may be limited to the amount of voluntary contributions they may make. For example, qualified plans often limit the amount of voluntary contributions to 10% of the employee's total compensation for all years of service since he or she became a participant. With cash or deferred features, employees may have the option to receive company contribution in the form of cash or elect to have the amounts contributed to some type of profit sharing or stock plan. Employees may also be given the option to have a salary reduction agreement in which a portion of current compensation or future salary increases can automatically be contributed to the plan by the company (Krass and Keschner 30, 46).

Another plan provision companies need to consider are the vesting requirements. Vesting is the non-forfeitable portion of a participant's account balance in a defined contribution plan or in his accrued benefit under a defined benefit plan. Vesting is directly related to the employee's length of service except in the case of an employee's own contributions (regardless of whether they are mandatory or voluntary), since employees have a non-forfeitable right to 100% of benefits from their own contributions at all times. A year of service is considered a 12 month period during which an employee worked a minimum of 1,000 hours of service. Under the Internal Revenue Code §411, there are certain limitations which may apply to what qualifies as years of service. Years before the employee reached the age of 22 (except the use of the "Rule of 45" under ERISA), years before the plan went into effect, years in which the employee refused to make any required contributions, and years representing a break in service may be disregarded for vesting purposes. Plans may provide for full vesting under special circumstances such as reaching an early retirement age, becoming disabled, or death. ERISA established three minimum vesting schedules for employers to choose from, as well as the “Rule of 45” stating that no vesting of benefits is required during a participant’s first five years of service, but after 10 years of service a participant must be at least 50% vested (Int. Rev. Code §411).

**ERISA Vesting Table 1: Ten-Year Vesting**

| Years of Service | Non-forfeitable Percentage |
|---|---|
| Less than 10 | 0% |
| 10 or more | 100% |

**ERISA Vesting Table 2: Five to 15-Year Vesting**

| **Years of Service** | **Non-forfeitable Percentage** |
|---|---|
| Less than 5 | 0% |
| 5 | 25% |
| 6 | 30% |
| 7 | 35% |
| 8 | 40% |
| 9 | 45% |
| 10 | 50% |
| 11 | 60% |
| 12 | 70% |
| 13 | 80% |
| 14 | 90% |
| 15 or more | 100% |

**ERISA Vesting Table 3: Rule of 45**

| **Years of Service** | **Sum of Age and Service Years** | **Non-forfeitable Percentage** |
|---|---|---|
| 5 | 45 | 50% |
| 6 | 47 | 60% |
| 7 | 49 | 70% |
| 8 | 51 | 80% |
| 9 | 53 | 90% |
| 10 | 55 | 100% |

While the selection and provisions of a pension plan are both important decisions for companies, most organizations are primarily concerned with how to account for pensions. As noted by Sylvester Schieber, from the early beginnings of pensions to the enactment of ERISA in 1974, much of the private sector of pension plans focused on government regulations, especially the tax treatment of pension plans and their benefits. Since the enactment of the federal income tax in 1913, reasonable employer pension payments to retirees or contributions to trust funds have been considered tax-deductible expenses for plan sponsors. Sponsors can deduct contributions to their plans as a business expense in the year the contribution is made and most plans utilize a tax-exempt fund so their contributions and accrued interest is taxable only when dispersed (Schieber, *Predictable Surprise* 130).

In the early beginnings of pensions, the government did not mandate funding requirements on employer sponsored pension plans. Many companies utilized a pay-as-you-go system, which did not require liabilities to be funded as they accrued. As pension costs grew, some companies chose to discontinue their plans for financial reasons. Prior to 1938, sponsors had the ability to establish retirement plans when the economy was good and revoke them when their financial position changed. The 1938 Revenue Act modified provisions to require trusts to provide benefits to employees until all obligations had been met. Government regulation focused primarily on tax matters, but paid little attention to the actual structure of the plans (Schieber, *Predictable Surprise* 131).

The 1950s and 1960s were categorized by an increased importance of pension funds and adverse publicity about pensions. Prior to ERISA legislation, the regulation of retirement plans was contained primarily in the Internal Revenue Code with the Internal Revenue Service (IRS) having the responsibility for code enforcement. Early pension regulation systems had many faults. For example, there were no requirements to assure adequate funding of pension plans and the IRS had no obligation to oversee the actuarial information supporting private pensions. In addition, plan sponsors had little or no reporting and disclosure guidelines under the early pension framework and there were no protection measures established for plan assets to prevent incompetent or dishonest plan administrators from mismanaging them (Scahill 35)

An issue for early pension plans was agency risk, which is the risk of plan managers improperly handling or disposing of plan assets for a purpose other than providing benefits to employees. The biggest agency scandal occurred in the mid-1950s, when Jimmy Hoffa negotiated a pension fund that would be sponsored by employer contributions of almost $1 million per month. Hoffa used the money to invest in mortgages and make special interest rate loans to his friends and influential people. Hoffa's associates received a benefit by acting as loan brokers on commission. Within 10 years, almost a fifth of the plan assets were in trouble and Hoffa was indicted for fraud (Schieber, *Predictable Surprise* 136).

In 1958, the federal Welfare and Pensions Plans Disclosure Act was established to provide plan participants with sufficient information about the plan so they would be able to detect malpractice and wrongdoing. If improper behavior was discovered, participants were entitled to seek relief with the Department of Labor under state or federal law (Scahill 35). The Act required plan administrators to publish a detailed description of each established pension plan and a copy of the related annual report. Descriptions included details of the operation of each plan, characteristics and make up of each plan, and the related rights and benefits of each plan (Wooten 15-16). However, the Welfare and Pensions Plan Disclosure Act left too much room for interpretation. Mounting concern and distrust about the private pension system led

President Kennedy to create the Committee on Corporate Pension Funds, which would soon deal with a major scandal in the United States (Scahill 35).

Many of the problems with early pensions stemmed from the relationship between the employers and the unions who initially rallied for the establishment of pensions. Both parties had a mutual desire to retire older workers who had prolonged their careers during World War II. The only way to accomplish their goal was to pay substantial benefits from the very beginning of the pension plans by adopting pension formulas which would allow older workers to receive retroactive credit for prior years of service. The real issue was that the benefits that were being paid for the rest of the lifetime of these workers had no prior funding, meaning that many companies were simply assuming millions of dollars in liabilities. The decision was made to amortize the large upfront costs over a 30 year period. However, every three years pension benefits became the subject for union negotiation contracts, but companies were not allowed to pre-fund plans with a benefit under the tax code. This meant that every three years companies simply assumed more liabilities while still being behind in the funding of their previous plans (Schieber, Predictable *Surprise* 138).

Public animosity about the regulation of pensions reached a peak in 1963 when Studebaker's factory in South Bend, Indiana closed leaving 4,500 employees under the age of 60 receiving only 15 percent of the retirement benefits they had earned if they were even able to collect anything at all (Langbert 133). In 1950, the Studebaker Company had agreed with the United Auto Workers (UAW) to establish a plan for their blue-collar workers. The company had initially planned to amortize their substantial pension start-up costs over several decades, assuming their current revenues would continue. However, at the end of World War II, demand was declining and the lifting of war-time economic restrictions allowed big auto producers to cut prices to compete for the limited demand. Bankruptcy eventually cut off the company's revenue stream and they were forced to terminate the pension plan. The UAW eventually ended up paying 85% of the original benefits to eligible employees. They demanded that federal policymakers establish a system like the Federal Deposit Insurance Corporation for the pension systems to prevent another event like this from ever happening again (Schieber, *Predictable Surprise* 139).

President Kennedy's committee consisted of the Secretary of Labor, Treasury, Health, Education, and Welfare as well as the chairs of the Council of Economic Advisors, the Securities and Exchange Commission, and the Federal Reserve Board. When the committee delivered their report to President Johnson, they concluded that the pension system was inadequate in the protection of participant rights, funding, benefit protection, and oversight (Scahill 35). Their report recommended that public policy should provide tax incentives to encourage the growth and reliability of private pension plans. Social Security and private pension plans needed to be adjusted to adequately reflect wage levels and the standard of living. The Internal Revenue Code was asked to require tax-qualified plans to establish reasonable vesting schedules. It recommended that plan funding be certified by a qualified actuary on a regular basis and that assumptions used in actuarial valuations be reviewed against realistic standards. Finally, a qualified public accountant should certify the value of plan assets in a pension fund and current service accruals needed to be fully funded (Schieber, *Predictable Surprise* 140).

Ten years after the Committee on Corporate Pension Funds issued its report, ERISA was established with new rules on disclosure, vesting, eligibility, funding, fiduciary responsibility, and benefits for executives. The law requires plan administrators to produce a detailed annual report that is audited by a certified public accountant. It mandates the naming of a fiduciary that is to act exclusively for the benefit of the plan participants. ERISA allowed plans to exclude employees under 25 and limit benefit accruals to an employee's years of service as a plan participant (Langbert 136).

ERISA protects the benefits for employees by requiring employers with defined benefit plans to fully fund all benefits participants have earned. Companies are prohibited from using pension funds for any purpose other than paying employee pensions and health benefits. It limited the age and length-of-service requirements that firms can require before an employee may be considered eligible for participation. ERISA requires all private-sector pension plans to purchase insurance from the Pension Benefit Guaranty Corporation (Purcell and Staman 50-51).

Schieber describes the 1980s after the enactment of ERISA as a decade of regulatory schizophrenia. When Ronald Reagan took office, his goal was to reduce federal income taxes in light of the severe recession. The result was the Tax Equity and Fiscal Responsibility Act of 1982, which called for a reduction in federal income taxes over the next three years. It reduced the maximum pensions that could be provided on a tax preferred basis with the rationale that cutting retirement benefits would add to the federal tax revenues without raising rates. The Department of Treasury had estimated that upper income level employees were earning a disproportionate amount of the tax benefits of pension plans by earning 36% - 65% of the value of benefits compared to 2% - 5% earned by the bottom half of wage earners.

In 1987, the Omnibus Budget Reconciliation Act passed, thus reducing the full funding limits for defined benefit plans. In other words, pension trusts were now increased beyond the limit considered tax deductible. The new law essentially prevented plan sponsors from putting aside enough money to sufficiently fund the eventual retirement benefits for younger workers. Baby boomers had an average age of 33 in 1988 when the act took effect, pushing the funding of their promised benefits back several years. Changes in 1993 further reduced the amount of pension plan funds put aside early in a worker's career by reducing the limit on the amount of compensation that could be considered in funding employer pension plans from $200,000 to $150,000. Problems arose because funding rules looked at the employees' expected salary at retirement and worked backwards, meaning the percentage of funds expected to be over the limit in the future (creating the percentage limit for current salary levels) increased. As a result, workers in their early to mid years who were earning between $20,000 and $30,000 had greater caps on what could be contributed in pension costs to fund their future pensions.

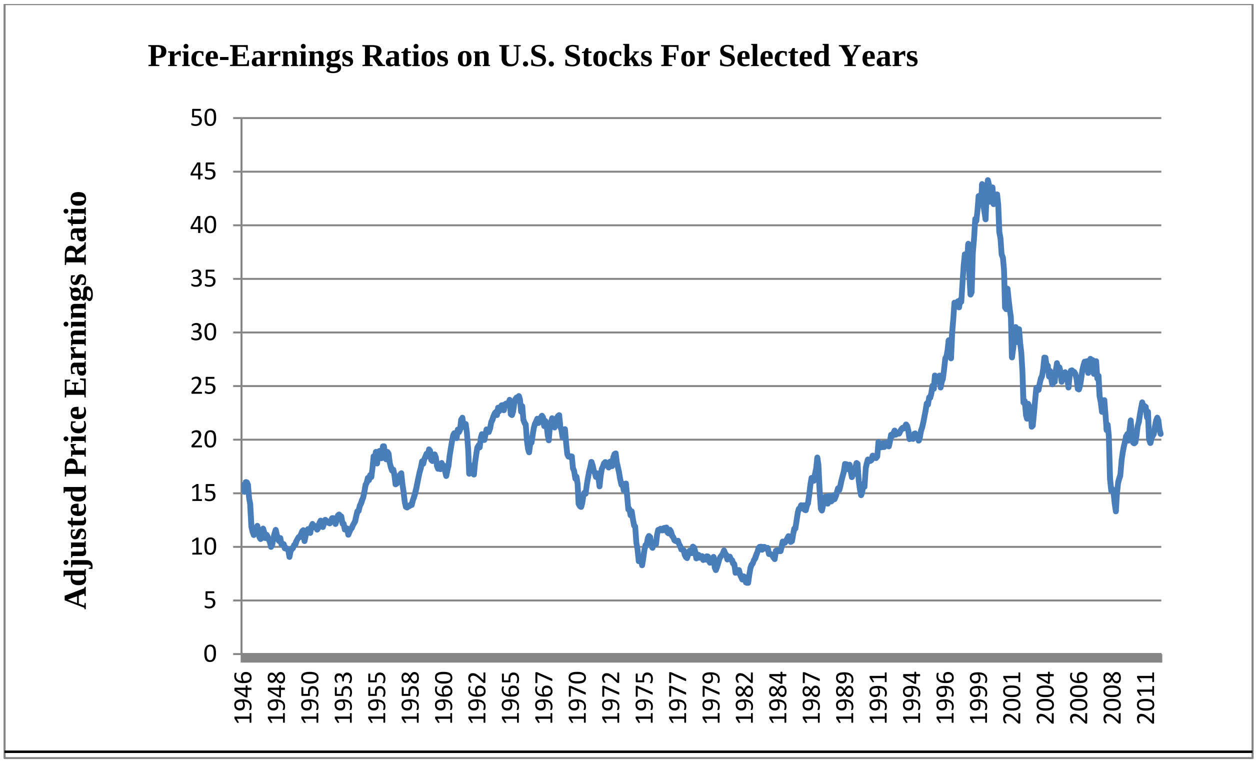
**Percentage of Workers in Selected Pension Plans Affected by Pension Funding Limits by Age and Median Pay Levels in 1998** (Schieber *Predictable Surprise* Table 15.1)

| Age of Workers | Percent Above $160,000 Limit | Median Pay |
|---|---|---|
| Less than 20 | 17.5 | 20,280.00 |
| 20 to 24.9 | 47.2 | 27,831.50 |
| 25 to 29.9 | 59.7 | 36,614.09 |
| 30 to 34.9 | 57.4 | 44,875.01 |
| 35 to 39.9 | 45.5 | 53,982.00 |
| 40 to 44.9 | 30.5 | 66,573.07 |
| 45 to 49.9 | 17.9 | 90,100.00 |
| 50 to 59.9 | 12 | 128,893.29 |
| 60 to 64.9 | 6.5 | 179,301.06 |

Another change in the 1980s was enacted by the Financial Accounting Standards Board (FASB). The board was interested in providing a better alignment between assets and liabilities on corporate balance sheets after reviewing the actuarial methods plan sponsors were using to calculate and report pension obligations and expenses in their financial statements. Previously, companies were using "entry age normal" cost method to fund benefits, which meant that they contributed a steady percentage of a worker's pay over his or her career. FASB created new rules requiring sponsors to use the projected-unit-credit method, which would provide reduced costs early in a worker's career and then increasing funding requirements in later years. For baby boomers, this meant that funding costs were being further pushed to the later years of their careers.

During most of the 1980s, the stock market was performing well and interest rates were high. As asset values increased, it looked like it would be easy to fund future pension benefits and most plans appeared to be overfunded. Many companies started to terminate their plans temporarily and use the excess assets for other projects. ERISA allowed sponsors to recapture assets of terminated plans as long as all liabilities to participants and beneficiaries were settled. The IRS regulated terminations by requiring annuities to be purchased for plan benefits to protect employees against market fluctuations. In addition, excise taxes and penalties on plan asset revisions would often consume any excess benefit there had been before withdrawal (Schieber *Predictable Surprise* 150 – 160).

By the 1990s, the a large portion workforce was advancing into the later years of their careers. This meant that contributions should have been increasing, which would have eliminated the large gaps between plan liabilities and assets. Robert Shiller, a finance professor from Yale University, conducted a study estimating that the price-to-earnings ratio for many stocks had averaged 16.2 since 1946 but jumped to the mid 40s during the 1990s. Prices were at an all time high compared to current earnings, signaling that investors expected companies to outperform their history. Booming financial markets further increased pension asset values (Schieber *Predictable Surprise* 169).




Source: Robert J. Shiller, updated data used in developing *Irrational Exuberance,* found at http://www.irrationalexuberance.com/.

Problems hit in the early part of the new millennium when stock prices tumbled. Between 1999 and 2002, the value of private defined benefit assets dropped by 21 %. Making matters worse, between 2006 and 2008, the value of equities held in private pension systems dropped by another 48 percent, the equivalent of $700 billion. At the same time that asset values were dropping, liabilities for funding were on the rise. When interest rates dropped in the hopes of changing the direction of the economy, more capital was needed to provide for pension benefits. By the end of 2009, less than 10% of sponsors had sufficient assets to fund their estimated liabilities (Schieber, *Predictable Surprise* 184).

During the 1990s, the Pension Benefit Guaranty Corporation established under ERISA paid $3.6 billion in claims, compared to $33.6 billion during the first half of the 2000s. It quickly became apparent that the original premiums per participant of $1 would not be enough to cover the amount of claims being processed. From 1978 to 1990, the premium per participant increased to $19. In 2010, a flat rate premium was set for $35 per participant with an additional $9 per each $1,000 of unfunded vested benefits. A variable premium has been in effect for 20 years with no apparent ease on the employer termination problem. The Pension Benefit Guaranty Corporation had been established to deal with isolated incidents for failure, but was not equipped to handle the massive bankruptcies across the steel, airline, and automobile industries (Schieber, *Predictable Surprise* 185).

In 2005, United Airlines made national headline news when they defaulted on their pension contributions. On August 20, 2004, a bankruptcy judge had given United thirty days to devise a corporate restructuring plan, ignoring union plans to appoint an outside trustee for the pension plan. Apparently United had illegally halted payments to their pension plan in June. Many long-term employees lost almost three-fourths of their pensions. However, United chief Glenn Tilton received his $4.5 million trust, which the company had preserved. He argued that his trust was not a pension, giving rise to a double standard between worker and executive pensions. This event became the basis for the Pension Reform Act of 2006 (Ghilarducci 105 – 106).

President Bush proposed the Pension Protection Act as a means to shore up pension funding and limit the liability of the Pension Benefit Guaranty Corporation. The Pension Protection Act increased pension funding by requiring defined benefit plans to use interest rates derived by the Treasury department to determine the valuation of the future payments of income. This requirement increases funding because the lower the interest rate used, the higher the liability recognized. Prior to 2006, firms were using interest rates on long-term corporate bonds, with high interest rates, to value their pension liability, which made their liabilities appear lower and left many pension funds underfunded. The Pension Protection Act also limits the extent to which firms can create "credit" balances by overfunding their pension plans in anticipation of harsh times, because often the estimated values of the credits are unrealistically high. Companies were required to ensure that their plan assets equaled their plan liabilities. Any deficits were required to be paid off in seven years.

In addition, the act limits the liability of the Pension Benefit Guaranty Corporation, which acts as an insurer for pension funds. Congressional republicans argued that companies engaged in moral hazard with their pension investments because they knew any negative results from high-risk investments would be insured by the government. The Pension Protection Act reduced the amount of benefits insured by the Pension Benefit Guaranty Corporation, increased premiums owed by plan participants, and encouraged individuals to self-insure their own benefits. However, the plan did not address the two key problems of the Pension Benefit Guaranty Corporation financing problems because it caused defined benefit plans to be less attractive, eliminating potential premium payers and established no measures to prevent the collapse of entire industries (Ghilarducci 109 – 113).

In response to the problem created by the Pension Protection Act, Congress enacted the Worker, Retiree, and Employer Recovery Act (WRERA) in 2008, which extended the time employers had to increase the asset value in their underfunded pensions. The Pension Protection Act had required that multi-employer pension funds that were deemed to be in a critical status by a certified actuary notify their stakeholders of the funds' status within 30 days of the actuary's report. Congress recognized the issues that would arise should employers release the true status of their pension funds and then be required to improve the value of assets that had decreased 35% in value. WRERA allowed employers to enter a three-year rehabilitation period to improve plan funding.  Also, sponsors could elect to temporarily keep the status of the fund during the prior year, for the upcoming year in order to gain a “freeze” period of one year during which they would have the opportunity to find a solution to the issue without having to notify stakeholders that there was an issue (Egelberg 82).

Congress was not the only government body to attempt to redefine the standards for pension plans in 2006.  In September 2006, the Financial Accounting Standards Board amended their previous standards for accounting for pensions by issuing FASB No. 158 “Employers’ Accounting for Defined Benefit Pension and Other Postretirement Plans.” The board hoped to address the concerns of the public that prior standards were not properly informing users of financial statements about the funded status of pension plans in a clear and understandable way.  Prior standards had allowed sponsors to recognize an asset or liability from a defined benefit plan on their balance sheets, but in most cases the reported status differed from whether the fund was actually overfunded or underfunded.  For example, many plans that were underfunded were being reported as assets on the balance sheet.  In addition, employers had been permitted to delay recognition of certain economic events that affected the costs of providing pension benefits, such as changes in plan assets and benefit obligations.  Most importantly, information regarding the overfunded or underfunded status of a plan was reported in the footnotes of the financial statements in the form of reconciliation of the overfunded or underfunded status to the amounts reported in the balance sheet.  Financial statement users had problems assessing the company’s financial position and ability to meet their postretirement benefit obligations when the information was only reported in the notes.  In conclusion, the board decided that the current reporting standards “did not provide representational faithfulness and understandable financial information and might lead to the inefficient allocation of resources in the capital markets

(Financial Accounting Standards Board 158)." Therefore, FASB undertook a project to comprehensively redefine the current standards set forth in Statements 87 (Employer's Accounting for Pensions), 88 (Employer's Accounting for Settlements and Curtailments of Defined Benefit Plans), 106 (Employer's Accounting for Postretirement Benefits Other Than Pensions), 132 (Employer's Disclosures About Pensions and Other Postretirement Benefits), and other related pronouncements (Financial Accounting Standards Board 158, 4-5).

The new statement improved financial reporting by making information reported in the financial statements more complete, timely and representationally faithful. Information was made more complete through the requirement that sponsors of single-employer defined benefit plan to report the overfunded or underfunded status of a plan on the face of the financial statements instead of in the notes. Information became timelier because all transaction and events affecting the funded status of a plan would be recognized in comprehensive income in the year in which they occur. The measurement date of plan assets and benefit obligations is the date of the fiscal year-end balance sheet, eliminating the previous rule that had allowed an alternative measurement date of up to three months earlier.

When FASB implemented the new statement it understood that there would be significant costs necessary to implement the changes, but believed the benefits of more relevant information for decision making would outweigh the costs. In an attempt to minimize costs, FASB did not require retrospective application of the new standards or additional computations other than those related to income tax effects. The basic approach for measuring plan assets, benefit obligations, and annual net period benefit costs remained the same.

The funded status of a defined benefit plan is a measure of the difference between the fair value of the plan assets and the benefit obligation. Plan assets are measured at fair value except for assets used in plan operations, which are measured at cost less accumulated depreciation, and participating rights in certain issuance contracts (Financial Accounting Standards Board 158, 12). The benefit obligation used in determining funded status is the projected benefit obligation: an actuary's estimate of the total retirement benefits earned so far by employees by applying the appropriate pension formula at estimated future compensation levels, discounted to their present value. The projected benefit obligation changes as the result of service cost, interest cost, prior service cost (only occurs when plans are initiated or amended in the period), gains and losses on the projected benefit obligation as a result of revisions in the estimate of pension liability, and retirement benefits paid in the period. Statuses for all overfunded plans shall be collected and reported as an asset with the status of all underfunded plans being collected and reported as a liability.

At the same time, there is a tremendous amount of uncertainty surrounding the costs of a defined benefit pension plan. The goal of pension accounting is to match the compensation cost of an employee's pension benefits over the employee's approximate service period. Calculating the period pension expense in a defined benefit plan requires the estimation of the percentage of employees who will qualify for the plan, the rate of salary increases until retirement, the length of time the benefits will be paid, the rate of return of the pension fund assets, and the discount rate that will properly reflect the present value of future benefits.

The net periodic pension expense is composed of multiple elements. The first element is the service cost, which is defined as the actuarial present value of projected benefits earned by employees in the current accounting period. A second element is the interest accrued on the pension liability. Pension liability is recorded at a discounted basis based on interest rates of high-quality investments and each year a plan's obligation increases to reflect the interest accrued. The third element is the expected return on plan assets is calculated by taking the fair value of the plan assets at the beginning of the period multiplied by the anticipated increase in plan assets due to investment activities. A fourth element of pension expense is amortization of prior service costs, which are credits service of employees when amendments made to plans. FASB requires that these costs be allocated over the remaining service lives of the employees. The fifth element is the effects of gains and losses due to changes in the market value of plan assets or changes in the assumptions that affect the projected benefit obligation (Apostolou and Crumbley 22-26).

These gains and losses are not reported as part of pension expense on the income statement, but their net amortization is included. The cumulative basis of the net loss or gain is reported in accumulated other comprehensive income. FASB requires a delayed recognition of gains and losses on the projected benefit obligation or plan assets even though these changes impact the cost of providing pension plans as they occur. Delayed recognition was favored by a majority of corporate America and thus considered the more politically acceptable approach. Justification for delayed recognition is that over time the gains and losses have the opportunity to cancel each other out, and therefore reporting them as they occur would create unnecessary fluctuation in income from the constant increases and decreases in pension expense. However, over time there may be instances where the gains and losses do not balance each other out and must be prevented from becoming too large. As a result, a net gain or loss will affect pension expense only if it exceeds the greater of 10% of the projected benefit obligation or the plan assets. In fact, only a portion of the excess is included in pension expense determined by the total excess amount divided by the average remaining service period of active employees expected to receive benefits under the plan. FASB does allow sponsors the option to include the entire excess in pension expense, but companies rarely elect this option.

A plan sponsor recognizes pension expense and the cash paid to fund the plan on its books. The sponsor is not required to fund the entire pension expense, but must at least fund the service cost. Companies can choose to pay more than their pension expense in order to reduce their pension liability, or they may choose to pay less than their pension expense in order to take advantage of prepaid pension expense. Assets and liabilities of a pension plan are not reported on the sponsor's financial statements because pension plans are considered their own legal entities and thus create their own financial statements and file their own tax returns.

FASB's changes to pension accounting received numerous complaints and FASB even acknowledged the shortcomings of their own requirements. The biggest concern is that the financial statements still do not provide an accurate portrayal of the benefit arrangement. Since delayed recognition of losses is permitted, many companies did not reflect in their earnings the huge losses their pension plans suffered as a result of the downturn in the economy during 2008. A study conducted by Price Waterhouse Coopers in 2010 found that 50 of the largest U.S. companies had unamortized losses equivalent to 34% of their total plan obligations or several billion dollars of unrecognized expense (Akresh and Stoler 30). FASB acknowledges that delayed recognition leads to information that excludes the most current and relevant details. The board felt it would be conceptually preferable to have no delayed recognition, and in 2008, decided to formally reconsider accounting for benefit plans.

**Data from 2011 Annual Reports (in $ billions)**

| | Exxon Mobil | AT&T | IBM |
|---|---|---|---|
| Total liabilities - GAAP | 170 | 599 | 96 |
| **Total liabilities - Modified** | **198** | **650** | **180** |
| Debt-to-equity - GAAP | 1.1 | 5.1 | 4.8 |
| **Debt-to-equity - Modified** | **1.3** | **5.6** | **8.9** |
| Annual benefits cost - GAAP | 4.0 | 4.1 | 0.3 |
| **Annual benefits cost - Modified** | **8.7** | **15.0** | **4.7** |
| Error as percent of GAAP pre-tax income | 6% | 55% | 21% |

The above diagram demonstrated the difference between current GAAP reporting standards for pension plans for three separate companies compared to a modified approach eliminating the netting of plan assets versus plan obligations and the income smoothing effects of pension costs. Adapted from: "FASB: Use Simple Truth to Clean Up Pension and OPEB Mess" by Paul Miller and Paul Bahnson.

In 2009, FASB issued the FASB Staff Position 132(R) "Employer's Disclosures About Post Retirement Benefit Plan Assets" to address concerns about disclosures lacking transparency on the types of plan assets, the risks of the assets, and the market effects on the value of the assets. The Board had initially considered requiring disclosures to include the fair value measurements of plan assets similar to the measurement of other assets under FASB 157 "Fair Value Measurement." FASB eventually concluded that fair value measurements would not apply to the scope of statement 157. First, on the balance sheet plan assets are presented net of benefit obligations, which are not measured at fair value. Reporting a non-fair value measurement on the face of the statements and then fair value amounts in the disclosures, especially when the obligations will never be measured at fair value, would only create confusion among the users of financial statements. Second, FASB 157 requires the disclosure of gains and losses attributable to the unrealized gains and losses on assets included in earnings be disclosed would be difficult to apply to pensions because of the delay recognition aspect of the unrealized gains and losses (Financial Accounting Standards Board 132).

FASB 132(R) requires employers to disclose information about how investment allocation decisions are made, including the underlying investment policies and strategies of the company. They shall disclose a range of percentages for the allocation of major categories of plan assets included in the latest balance sheet. Employers must provide a narrative description of the basis used to determine the expected long-term rate-of-return-on-assets and the extent to which historical returns were used in the assumptions. Sponsors shall disclose the valuation techniques used to develop the fair value of the plan assets including unobservable inputs such as actual returns; purchases, sales, and settlements; and transfers between the various levels of asset classifications within the hierarchy. Employers also need to provide users of financial statements with a general understanding of the concentrations of risks associated with the invested plan assets.

The second phase of FASB's pension overhaul project will attempt to address many of the underlying complex issues associated with the current standards. In particular, the second phase will focus on how pension accounting effects the income statement. The Financial Accounting Standards Board and the International Accounting Standards are currently under agreement to strive for more uniform accounting standards. As a result, it is the popular belief of many that the second phase of pension reform will be very similar to the Exposure Draft of the International Accounting Standards Board issued in April of 2010. According to the IASB, the components of pension expense will be reclassified. Service cost would continue to be classified as an operating expense, but interest cost would be classified as interest expense so as not to impact operating income. The expected return on assets would be measured with the same discount rate as interest cost instead of the current standard of the greater of the discount rate and market-related value of assets. Finally, the amortization of unrecognized prior year's gains and losses would be eliminated and would no longer be recognized as a component of pension cost in future accounting periods. There is speculation that the proposed adoption would increase pension cost volatility, but in actuality they would moderate pension cost volatility and operating income. Since the component effecting operating expenses would be reduced it would be easier to forecast operating income and determine budgets (Senoski 1-2).

Compared to accounting for a defined benefit pension plan, accounting for a defined contribution plan is relatively simple as expressed in FASB 87. For defined contribution accounts the obligation is represented simply by the contribution owed by the sponsor. As a result, pension expense for each period is represented by the amount of contribution called for in the period under the plan terms. Separate disclosures from any sponsored defined benefit plan shall be made for a description of the plan, employee groups covered, the basis for determining contributions, and any significant matters affecting the comparability of information for presented periods. For plans having both characteristics of defined benefit plans and defined contribution plans, reporting requirement shall be based on the majority "substance" of the plan (Financial Accounting Standards Board 87).

Multiemployer plans are plans in which two or more unrelated employers contribute, per collective-bargaining agreements. Assets contributed by one employer may be used to provide benefit for the employees of other participating employers. These plans are often used for companies in related industries. Participating employers shall recognize net pension cost equal to the required contribution for the period per the agreement and a liability for any required contributions unpaid (Financial Accounting Standards Board 87).

One reason for the problem of underfunded pensions resulted from the fact that many firms participate in multi-employer plans as a way to reduce transactions costs by taking advantage of economies of scale. This type of structure also served to share risks amongst different firms because other firms could help contribute to the fund if another was experiencing a temporary problem. However, with the recession, too many firms were defaulting on their contributions leaving the other incapable of making up the difference (Goldstein 42).

In addition to FASB attempting to reform pension accounting requirements for the private sector and non-profit companies, the Governmental Accounting Standards Board (GASB) has also undertaken the task of redefining their pension standards. The project resulted from a review of the effectiveness of the existing standards, especially in regards to the usefulness of information for decision making and the transparency of information. For governmental entities with fiscal years beginning after June 2013, GASB has approved the implementation of Statement No. 67 “Financial Reporting for Pension Plans” and Statement No. 68 “Accounting and Financial Reporting for Pensions” in the hopes of improving the way state and local governments report their pension liabilities and expenses.

These statements replace Statement No. 27 “Accounting for Pensions by State and Local Governmental Employees” and Statement No. 50 “Pension Disclosures” for pension plans administered through trusts or similar arrangements. For the first time, governments with defined benefit pensions will be required to recognize their long-term obligation for pension benefits as a liability in the statement of net position. The measurement of the annual costs of providing pensions will change through the requirement of the immediate recognition of more pension expense than provided for in the current standards. Pension expense should include the immediate recognition of annual service cost, interest on the pension liability, and effect of changes in benefit terms on the net pension liability. Changes in the assumptions used to determine the projected benefit obligation and the differences between expected and actual results will be reported over the average remaining service period of plan participants. Also, the difference between actual and expected return on assets will be reported in pension expense over a five year period. In addition, the rate used to discount the projected benefit payments to present value should reflect the long-term expected return on plan investments if the plan net position is expected to be sufficient to pay the pensions of current employees and retirees or the rate should reflect the yield on 20-year AA municipal bonds if the plan net position does not equal the expected rate of return for the investment (Cohn).

When the standards were first released in June 2012, GASB was inundated with questions and concerns from governmental entities. In an attempt to clarify common misconceptions, GASB issued a fact sheet to address public concerns. First, according to the clarification sheet, the new statements are not meant to establish pension funding guidelines, but instead represent a separation between pension accounting and pension funding roles. It is GASB’s belief that funding approaches are not necessarily a good basis for reporting guidelines. Second, the statements do not establish how much governments will pay for pensions, but instead establishes how entities will report pension expense. The amount of funds actually contributed to a pension plan is a public policy decision that will remain in the control of the individual governmental agency. Third, comparability will be greatly improved by requiring that actuarial costs be allocated based on the entry age method, projected benefits of each individual for actuarial assumptions be allocated based on service expected from entry age to estimated exit age, applied as a level percentage of payroll. Previous standards had allowed the choice of six different actuarial cost allocation methods, each of which could be applied by either a level dollar amount or a level percentage amount.

The biggest concerns addressed to GASB concerned the new requirement to report a net liability in the statement of net position. Many governmental entities saw the requirement to use a municipal bond rate for discounting the projected benefit as a punishment for not having fully funded their pensions. While it is true that the less well-funded a plan is the more likely it is that the projected benefit will have to be discounted using a municipal bond index rate, the goal was to ensure that the pension liability would adequately reflect the employer's outstanding debt instead of a punitive measure. GASB's reasoning was that plans with a net liability could not be expected to have sufficient assets to produce the level of investment income that would allow them to reduce the funds an employer would need to contribute to their plans. In the current economic conditions, municipal bond rates are lower than the expected returns on plan investments, which will increase the present value of projected benefit payments and thus increase the pension liability. In addition, discounting is only one aspect used to determine pension liability. A government's pension liability is also determined through the process of projecting and attributing benefits. The amount of liability will also vary depending on the types of benefits promised, the lengths of service of employees, the final salaries of employees in their later years of employment, the life expectancy of retirees, and the inflation rate affecting the rates of return on investments (Government Accounting Standards Board).

Governmental pension liabilities are not a minor concern and may represent the next financial crisis. According to a study conducted by the Pew Center, at the end of 2008, government pension funds in the United States were underfunded by $1 trillion and only four states had plans that were fully funded. These figures don't include post-employment benefits which are also estimated to be underfunded by at least $1 trillion.  In addition, some investment managers for the government trusts estimate that if governments were required to follow the stricter standards placed upon corporate pensions, the underfunded status of plans would double or triple (Urahn 1).

The main reason for the problem arose from the fact that pension planners for governments were allowed to set their expected returns on investments for actuarial purposes at whatever level they deemed reasonable instead of being required to base their estimate on actual market prices.  However, whatever the planners deemed reasonable would vary greatly depending on political pressure.  For example, the higher a rate of return is, the closer a plan appears to be funded, which means there will be no need to raise taxes for funding or cut benefits.  Since the actual return typically will not be known for two or three decades, political policy makers are able to gain public favor with higher estimates and pass off the problems caused by their unreasonable estimates to their successors.  Policy makers demonstrated a severe lack of discipline by expanding benefits and offering cost-of-living increases without considering their long-term cost or how to fund them.

**State's Pension Liabilities Ranked from High to Low**

| State | Underfunded Liability (Billions) | Percent Funded | | State | Underfunded Liability (Billions) | Percent Funded |
|---|---|---|---|---|---|---|
| Illinois | 54.4 | 54% | | Missouri | 9.0 | 83% |
| Kansas | 8.3 | 59% | | New Mexico | 4.5 | 83% |
| Oklahoma | 13.2 | 61% | | Michigan | 11.5 | 84% |
| Rhode Island | 4.4 | 61% | | Montana | 1.5 | 84% |
| Connecticut | 15.9 | 62% | | Utah | 3.6 | 84% |
| Massachusetts | 21.8 | 63% | | Virginia | 10.7 | 84% |
| Kentucky | 12.3 | 64% | | Arkansas | 2.8 | 87% |
| West Virginia | 5.0 | 64% | | California | 59.5 | 87% |
| New Hampshire | 2.5 | 68% | | North Dakota | 0.5 | 87% |
| Hawaii | 5.2 | 69% | | Ohio | 19.5 | 87% |
| Colorado | 16.8 | 70% | | Pennsylvania | 13.7 | 87% |
| Louisiana | 11.7 | 70% | | Vermont | 0.5 | 88% |
| South Carolina | 12.1 | 70% | | Iowa | 2.7 | 89% |
| Indiana | 9.8 | 72% | | Texas | 13.8 | 91% |
| Mississippi | 8.0 | 73% | | Georgia | 6.4 | 92% |
| New Jersey | 34.4 | 73% | | Nebraska | 0.8 | 92% |
| Alaska | 3.5 | 76% | | Idaho | 0.8 | 93% |
| Nevada | 7.3 | 76% | | Tennessee | 1.6 | 95% |
| Alabama | 9.2 | 77% | | South Dakota | 0.2 | 97% |
| Maryland | 10.9 | 78% | | Delaware | 0.1 | 98% |
| Wyoming | 1.4 | 79% | | North Carolina | 0.5 | 99% |
| Arizona | 7.9 | 80% | | Washington | 0.2 | 100% |
| Maine | 2.8 | 80% | | Wisconsin | 0.3 | 100% |
| Oregon | 10.7 | 80% | | Florida | 1.8 | 101% |
| Minnesota | 10.8 | 81% | | New York | 10.4 | 107% |

Adapted from information provided by the PEW Center (Urahn 15-19)

The problem of underfunded government pensions is not just an issue for state and local government employees. If pension managers are required to increase contributions to the plans, taxpayers and corporations may see large tax increases in an attempt to generate the revenues to pay for the bail outs. Also, pensions are currently funded in large by municipal bonds, but that market may suffer a shock if the public starts fearing for the stability of the financial health of their local governments. Many corporations which believe they have a safe investment in municipal bonds may soon find themselves with more risk than originally anticipated. However, the problem may not be as horrible as some experts fear. Governments currently have trillions of dollars in assets in their pension plans and several years before their liabilities truly become due. While defined benefit plans of corporations place the risk solely on employers, government defined benefit plans place the risk on the taxpayers who number in the billions (Cheney 30-33). Thus, there are more people to share the burden.

Historically, government pensions have been funded on a pay-as-you go system through payroll taxes in which current workers pay for the retirement benefits of recently retired workers. However, during the last several decades, many industrialized nations have experienced increased life expectancies and lower reproduction rates. The result is a lower worker-to-pension ratio with a smaller pool of workers sharing increasing pension costs. At the same time, governments are hesitant to reduce the amount of benefits offered to employees on order to make up the difference. One reason for their reluctance is the fact that many government employees participate in unions who utilize collective bargaining agreements to place pressure on decision makers. Also, a common assumption is that government workers are willing to accept lower wages in the government sector in exchange for greater future benefits (Frank et al. 384 - 386).

A proposed solution to the pension issues facing state and local governments is to shift employees from defined benefit plans to defined contribution plans. In 2010, several states enacted legislation that gave their employees the option to choose between defined benefit and defined contribution plans. Michigan, which closed its defined benefit plans and switched completely to defined contribution plans, has shown financial data over the last few years that indicates a reduction in the growth of their long-term liabilities and reduced costs on the state budget by double-digit figures as a result of the change. However, some state policy makers argue that pension reform is not a necessary step. Their first argument is that unlike corporations, the government does not have the ability to fail and will therefore continue indefinitely. Another belief is that even if the current situation causes a domino effect in state pension failures, the federal government will have no option but to interfere and establish a solution to the financial crisis (Frank et al. 386 – 387).

These assumptions fail to consider the fact that the federal government is facing its own issues with retirement benefits. The federal government maintains the Social Security program for which millions of Americans depend on as part of their retirement planning. However, recent concerns have been raised as to the stability of the program. When Social Security was established in 1935, the program was meant to act as a “foundation” for income after retirement or disability, but never had the intent to provide a comfortable retirement income in itself. Today, almost two-thirds of beneficiaries over the age of 65 utilize Social Security benefits for more than half of their total income and one-fifth of beneficiaries over the age of 65 account for Social Security benefits as their only source of income. These statistics emphasize the importance of pension issues in the United States, especially considering that the average Social Security benefit is only about $10,000 a year (Diamond and Orszag 15).

Social Security found its roots amongst the aftermath of the Great Depression. In 1933, about 15 million Americans, 40% of the population, were unemployed with millions more working just a few days a week. Even worse than being unemployed was being unemployed and old. Over half of the elderly were impoverished with no other option but to turn to the poorhouse. As noted earlier, private pensions were unreliable during this time and those that were willing to pay benefits were financially unstable. When President Roosevelt took office, he planned to propose progress legislation that would provide protection to workers in all economic circumstances (Altman 22 – 24). Public popularity for change increased early in Roosevelt's term when a California physician, Francis Townsend, published an article proposing a public pension system in which every citizen over the age of 60 would be given $200 a month provided that they were unemployed, not a felon, and would spend the money within 30 days. At the same time, Senator Huey Long of Louisiana proposed creating pensions for everyone over the age of 60 who had less than $10,000 in cash (Schieber, *Predictable Surprise* 33 – 34).

In June 1934, President Roosevelt established the Committee on Economic Security to consider the issue of a social insurance program and proposals to promote greater economic security. The biggest belief on all sides was that any program that would be established would have to be funded by both employer and employee contributions to ensure that recipients would not be stigmatized by society for receiving benefits since recipients would have paid for them over the course of their working careers. The committee's proposal to Congress included two parts: the first would provide an old-age assistance program at the state level based on a means-tested formula similar to welfare, while the second would create old-age insurance based on wages for which contributions had been made. In a means-tested system benefits would only be paid to workers who fall below a certain annual income threshold. Financing the program would be based on contributions with the government subsidizing the benefits of early workers.

On January 17, 1935, the Social Security Act was adopted by a vote of 371 to 33. The final provisions of the act called for funding through payroll taxes at a rate of 1% on the first $3,000 in earnings, which would increase a half-percent every three years until it reached a rate of 3%. Employees over the age of 65 after 1942 would be eligible to receive benefits provided that they had worked for the prior five years. Once the system matured, tax rates were projected to cover the cost of benefits, but in the early years future beneficiaries would receive slightly less than the contributions they made in order to give the initial retirees adequate benefits (Schieber, *Predictable Surprise* 35 – 40).

Social Security became more than a means of providing retirement income to elderly individuals. The program currently provides benefits to retired workers, disabled workers, survivors of deceased workers, and family members of beneficiaries. Social Security benefits are dependent on a worker's previous earnings increase the longer a person delays collecting their benefits. The first stage in benefit determination is to index a worker's average monthly earnings for a specified period of time, 35 years for retirement benefits, and dividing the indexed amount by 12. Next, the primary insurance amount is calculated based on a progressive formula in which lower earners will receive a larger share than higher workers. For example, a worker with an average indexed monthly earning of $1,000 may be entitled to a primary insurance amount of 67% while someone with an average indexed monthly earning of $6,000 may be entitled to a primary insurance amount of 31%. Then, a monthly benefit amount is determined based on the primary insurance percentage amount adjusted for age at which a worker chooses to start collecting benefits. Finally, benefits are adjusted for cost-of-living inflation amounts (Diamond and Orszag 18 – 19).

**Initial Claim Age Differences and Their Effect on Benefits Received**

| Year Worker Turns 62 | Full Benefit Age | Benefit (Percent of PIA) | | |
|---|---|---|---|---|
| | | 62 Years | 65 Years | 67 Years |
| 1999 | 65 years | 80.00 | 100.00 | 113.00 |
| 2000 | 65 years, 2 months | 79.17 | 98.89 | 111.92 |
| 2001 | 65 years, 4 months | 78.33 | 97.78 | 111.67 |
| 2002 | 65 years, 6 months | 77.50 | 96.67 | 110.50 |
| 2003 | 65 years, 8 months | 76.66 | 95.56 | 110.00 |
| 2004 | 65 years, 10 months | 75.83 | 94.44 | 108.75 |
| 2005 - 2016 | 66 years | 75.00 | 93.33 | 108.00 |
| 2017 | 66 years, 2 months | 74.17 | 92.22 | 106.67 |
| 2018 | 66 years, 4 months | 73.33 | 91.11 | 105.33 |
| 2019 | 66 years, 6 months | 72.50 | 90.00 | 104.00 |
| 2020 | 66 years, 8 months | 71.67 | 88.89 | 102.67 |
| 2021 | 66 years, 10 months | 70.83 | 87.78 | 101.33 |
| 2022 + | 67 years | 70.00 | 86.67 | 100.00 |

Since its adoption in 1935, Social Security has been amended to adjust to the changing social climate. One of the main debates that has reappeared since the act's inception is how the system should be funded. In the very beginning Edwin Witte and Arthur Altmeyer, the early developers of the idea for Social Security, had a conflict with Albert Linton and Senator Arthur Vandenberg in regards to whether Social Security should be financed under a pay-as-you-go system or as a full-reserve funding. The plan structure in 1935 as a full-reserve system called for Social Security contributions to be accumulated and invested in Treasury bills, but the fear was that such a system would lead to excess government spending. In a speech, Senator Vandenberg expressed his beliefs by stating:

> "What has happened, in plain language, is that the payroll taxes for this branch of Social Security have been used to ease the contemporary burdens of the general public debt or to render painless another billion of current Government spending, while the old-age pension fund gets another promise-to-pay which another generation of our grandsons and granddaughters can wrestle with. It is one of the sickliest arrangements ever invented. It fits particularly well into the schemes of things when the Federal Government is on a perpetual spending spree (as quoted by Shultz and Shoven 64)."

Senator Vandenberg suggested a pay-as-you-go system in which tax collections from workers would immediately be used to pay the benefits of the citizens currently retired. His system would have accumulated a small reserve for periods of poor economic performance and would be cheaper to operate. However, the "pay-go" system would require that payroll taxes for each year exactly match the amount of benefits that would be paid, which would be almost impossible to administer (Schieber and Shoven 70 – 72).

In 1939, amendments were made to the Social Security Act that embodied the vision of both sides. A three year delay was placed on increasing payroll taxes to pacify the supporters of a pay-as-you-go system, while mandating that government contributions would ultimately be required to some extent. Also, benefits were extended to dependent spouses with the idea that husbands were the typical household breadwinners. However, as Edwin Witte quickly realized, nonworkers would now be receiving benefits for which they had made no contributions. He feared the new system would not cover the expected costs in the future (Schieber, *Predictable Surprise* 49 – 51).

Witte knew the tax rate for Social Security needed to be based on the "dependency ratio", which is calculated by taking the ratio of the number of people receiving benefits to the number of people paying payroll taxes multiplied by the average benefits paid to recipients to the average wage of contributors to the system. In the early years the dependency ratio was artificially low since workers had to meet the initial requirements before they could begin receiving benefits. For example, in 1940 there were about 400 workers paying Social Security for each retiree. However, the ratio was expected to change drastically as the public expressed concern about the workers covered under the system. Over the next several years, Social Security would change to cover farm workers, domestic workers, self-employed individuals, and government employees. At the same time, Congress continued to attempt to delay the increases in payroll taxes. Congress was failing to accrue enough revenue to cover the current liabilities represented by Social Security while also incurring massive debt to finance wars. Finally, in 1950, Congress could no longer ignore the issues facing Social Security and proposed amendments to increase the payroll tax with provisions to gradually continue the increase into the 1970s (Schieber 53 – 59).

When President John Kennedy took office, one of his first concerns was the fact that while Americans were protected from loss of income in their old age, there was still a huge gap represented by the lack of protection from the high cost of health care incurred in old age. However, for all his emotional appeal to the public, Kennedy was not able to get Congress to agree with his plans for a Medicare system. Opponents believed a Medicare system would be forcing all citizens into a mandatory system of providing health care funds even if they did not require the assistance. After years of debate, Medicare was finally signed into law in 1965 (Altman 202).

Social Security soon lost public attention in favor of the Vietnam War, but retirement income would quickly become a major focus of attention again in 1973. As noted earlier, during the 1970s Congress was focused on the protecting the rights of the workers to collect pensions after the scandals of the 1960s. Right after the scandals with pensions in the private sector, the trustees of Social Security reported that the program had a projected deficit. Double-digit inflation had caused benefit levels to increase rapidly, while unemployment and slow wage growth were causing income for the system to be lower than originally anticipated. The annual report of the trustees in 1975 reported that the funds would be exhausted under the current system by 1979. President Ford developed a formula that would provide only a percentage of the final pay of workers as benefits and suggested increases to the payroll tax of about $1 per week on each employee. Congress was unwilling to make such changes during an election year though and the necessary revisions would not take place until 1977 under the Carter Administration (Altman 216 – 219).

However, after the 1977 amendments, the economy continued to grow worse. Even more frightening, was the general misconception of what Social Security was meant to be. For a majority of the public, Social Security represented a social insurance program similar to a private pension that the government would oversee, while policy makers often saw an inflow of revenues that could be used to insure citizens against economic hardship. The Reagan administration proposed to reduce early retirement benefits by providing only 55% of the normal benefit for those who retired before the designated age as opposed to the current system of 80%. The problem was that his proposal would have been more disadvantageous to lower income workers who did not always have the option to invest in private company pensions, which they could live off of for a few years before reaching the government's mandated age, like many wealthier workers were doing. On May 20, 1981, the Senate voted 96 to 0 that they would never enact any change in Social Security that would "precipitously and unfairly penalize early retirees (Altman 226 – 232)."

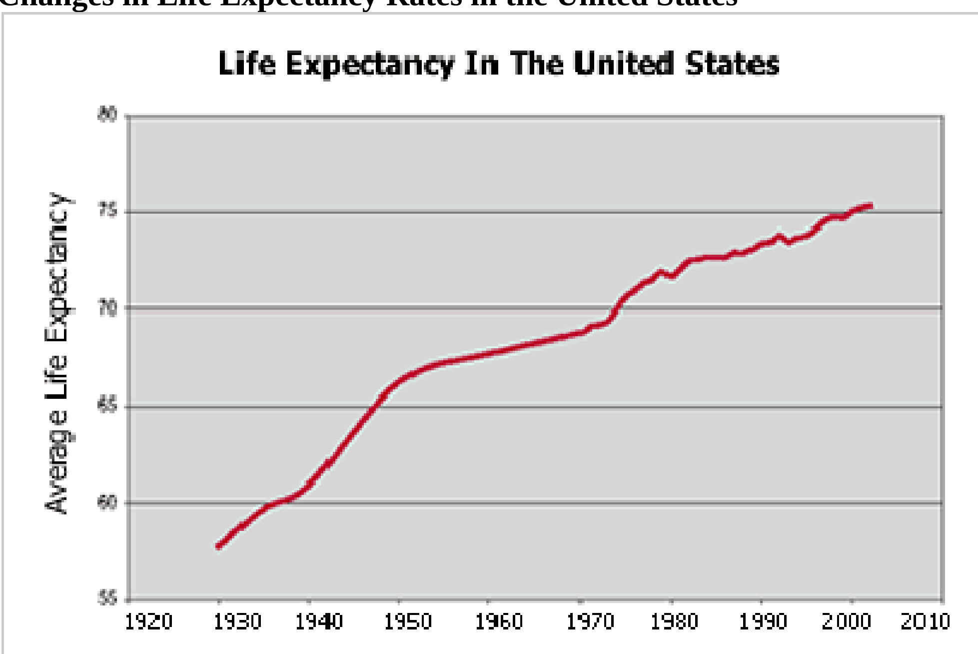
Instead Reagan created a commission headed by Alan Greenspan to study Social Security's finances and develop a recommendation for improvement. Social Security had reached the point where there were not enough funds to cover the year's benefits. The commission's short-term solution was to decrease future benefits while accelerating the advance in the payroll tax schedules. The long-term problem presented an even more complicated matter of how to finance the system with the baby boomer generation in line for future retirement. After much discussion, it was decided that the retirement age would begin increasing in the year 2000 to eventually reach age 67 by 2022 (Schieber, *Predictable Surprise* 82 – 83).

After the 1983 amendments, the focus of policy makers became the balance of the trust fund. In 1985, the surplus in the trust rose to $42 billion and would pass the $200 billion mark by the end of 1990. Projections predicted that the system would be able to continue to pay benefits until the youngest of the baby boomers reached their 100th birthdays. However, the good news would not last. At the end of 1985, the actuaries for the trust revised their report to state that the trust would require additional funds by the year 2049, and in 1995, the report would again be revised to state that the system would only be able to support itself into the year 2029, when a majority of the baby boomers will have reached age 66. The changes occurred from the realization that the economic assumptions made in 1983 were overly optimistic and from changes in the methods used for estimation (Schieber, *Predictable Surprise* 84 – 86).

According to Diamond and Orszag (58-60), a major impact on the long-term deficit of Social Security is increasing life expectancy rates. Since 1940, life expectancy rates have increased by four years for men and five years for women. The 1983 amendments to Social

Security had adjusted the benefit level to account for increased life expectancies until 2022, but if the rates continue to rise, the projected costs of Social Security will continue to rise. With actuarial assumptions it can be difficult to account for mortality since some members may die very early and others may live very long, but the average mortality rate will still remain the same. In many cases, higher income individuals will be the citizens living longer since they have better odds of having access to better medical care, but these individuals are also the citizens, whose benefits are based on higher income levels, further increasing the strain on Social Security. Even if workers stay in the workforce longer, since individuals are living longer, they will simply claim benefits at a later time and therefore have a higher primary insurance amount (Diamond and Orszag 58 – 60).

**Changes in Life Expectancy Rates in the United States**

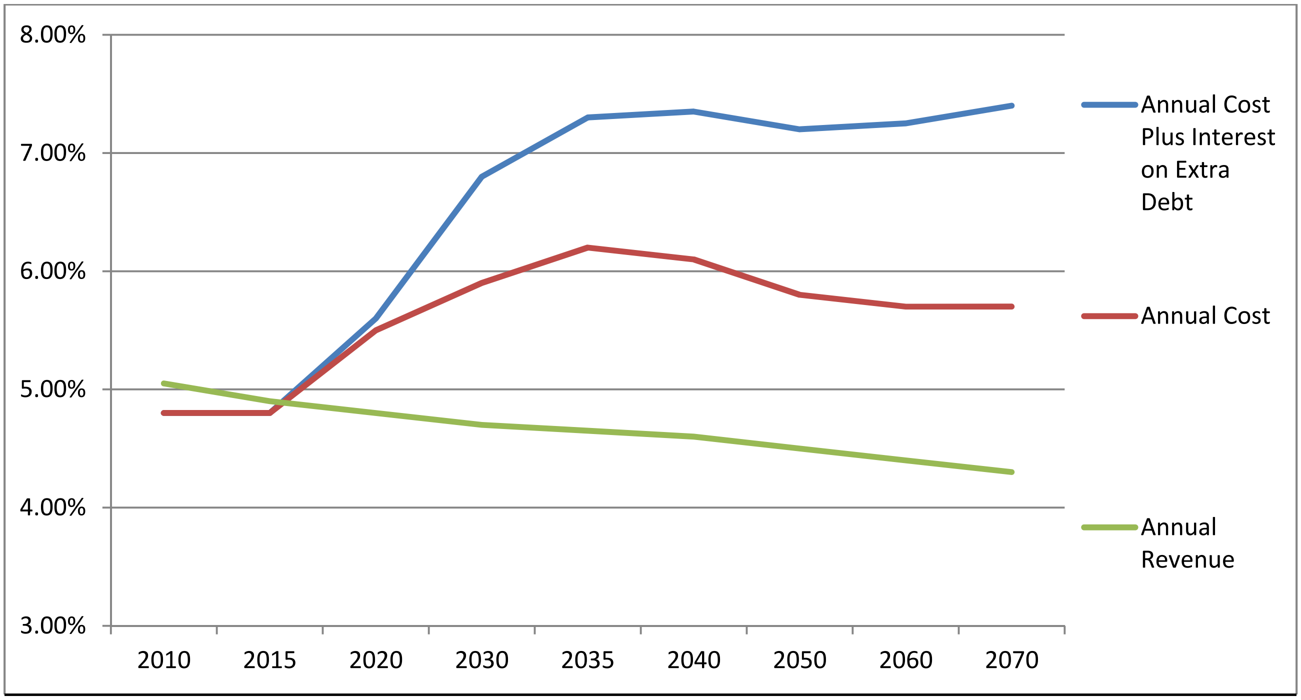



Another factor causing a deficit in Social Security is an increase in earnings inequality. Over the last two decades, earnings for the workers at the higher end of the earnings distribution scale have raised the most. The problem results from the fact that the payroll tax to finance

Social Security is only imposed up to a maximum income level. However, the inequality may actually be a benefit to Social Security financing over the long-term. The higher earners will retire and be replaced with lower earners who will pay for the benefits of the retirees, but collect lower benefits in the later years when they retire. In addition, the Omnibus Budget Reconciliation Act of 1993 removed the cap of taxable earnings for Medicare, which now resulted in about a 5% increase in tax revenue without a change in the actual tax rates. The change in earnings inequality can also be seen in gender differences. Women are now developing substantial careers outside of the home, which eliminates the burden of the spousal benefit element of Social Security in which non-workers were receiving benefits that had not made tax contributions for (Diamond and Orszag 64 – 66).

Next, a contributing factor to the Social Security deficit is what has been termed the "Legacy Debt Burden." Since the first generations of benefit recipients received greater benefits than their actual contributions and return on investments warranted, current beneficiaries will be forced to accept lower benefits than they could have been entitled to if extra benefits of the early years had been allowed to accumulate interest over several decades. Actuaries for the Social Security Administration have conducted an analysis of what the trust fund would have held had the initial start-up windfalls had not been financed and they discovered that as of 2012 there would have been a $22 trillion surplus (Schieber, *Predictable Surprise* 63). It is estimated that individuals born in 1936 and thereafter will now be paying more in contributions than they can ever expect to see as benefit payments. Also, the financing of the legacy debt functions similar to the public debt where interest costs are incurred. In spite of the current problems they created, the earlier benefits were meant to offset much of the hardship created by two World Wars and the Great Depression. If higher benefits had not been paid, there would be greater odds that the workers now paying for the burden would have had to pay to finance the retirement of their parents or grandparents instead (Diamond and Orszag 72).

**Revenue, Cost, and Interest Projections for Social Security as a Percent of Gross Domestic Product**




Adapted from data from Diamond and Orszag

With the stability of Social Security in question, a tremendous amount of attention has been given to the first wave of baby boomers that have become eligible for benefits. Studies conducted by the Employee Benefit Research Institute and the Urban Institute have found retirement trends in the past two decades to be dramatically different from the past century. Men used to work past the “traditional” retirement age of 65, but over the last 20 years, they began choosing to collect their Social Security benefits at age 62. Nonetheless, a survey of baby boomers aged 50 – 59 found that many of them expect to work past the 62 mark due to the decline in employer-sponsored retiree health benefits, higher levels of education resulting in higher earnings, and the shift away from defined benefit pension plans (Cutler 18 -19). Another reason for the expectations of a longer work term is due to the penalties imposed by Social Security for early retirement. For each month before the actual retirement age that a worker retires, a penalty of 5/9 of one percent is imposed up to 36 months and then the benefits are further reduced by an additional 5/12 of one percent for each month over the 36 month threshold (Social Security Administration).

While many baby boomers may work longer into their lives, it may not be because they are holding out for higher Social Security benefits. Individuals who lack another source of retirement income often find themselves unable to survive on Social Security alone. Social Security allows a person collecting benefits before their full retirement age to earn a little over $13,000 a year before they will lose a portion or all of their monthly benefit. The penalty often results in workers losing $1 in Social Security benefits for every $2 they earn. Once the recipient reaches his or her full retirement age, the Social Security Administration will recalculate their PIA to adjust for the previous reduction in benefits. However, in some cases it would make more sense for workers earning little more than the threshold limits to simply enjoy their retirement because they benefits will be reduced to the point that their earnings do not make up the difference. Even after the full retirement age has been reached, annual exemption amounts still apply to the outside earnings allowable, but the limitation averages around $30,000 to $35,000 depending on the year in which the individual reaches full retirement age (Dalton and Pattison 40-50).

Yet the 76 million members that compose the baby boomer generation span a period of birth that is almost 20 years long, causing some analysts to believe that the generation should actually be split into two categories. The latter half of the generation is actually predicted to retire at the 62 mark if not earlier. The belief is that Social Security’s insolvency will not provide them with any benefit and they are therefore more willing to take early benefits to receive some of the gain they anticipated while there is still cash available. Then, the rocky economic climate after the financial crisis of 2008 has forced early retirement on many individuals through the loss of job opportunities. Early retirees also chose to start collecting benefits for health reasons. Many baby boomers feared they would not be able to afford their medical expenses, especially with the rising cost of healthcare and others believed they were not prepared to pay for the costs associated with long-term care (Cutler 20).

As issues with Social Security gained public attention, the focus of many workers shifted back to the original debate of how Social Security is funded and what occurs with accumulated funds in the trust. The underlying assumption relies on how the funds are saved: they could be invested in other assets to boost the fund balances or they could be used to pay debts to reduce interest payments. During the late 1980s, Senator Ernest Hollings revisited Senator Vandenberg’s concerns in 1937 that the government was using the new enacted Social Security tax rates to pay for the current operating expenses of the government. An Advisory Council established in the mid-1990s found that policy makers had been making the surplus in Social Security funds available to other funds in order to finance America’s current consumption practices. Since the goal of the federal government was to operate a balanced general budget, the surpluses in Social Security were used to buy back some of the federal debt (Schieber, *Predictable Surprise* 88).

The Treasury would issue special bonds to the trust fund in exchange for cash, increasing the wealth position of the country. Since the transfers were merely from one fund of the government to another, they did not represent debt of the government in financial statements, but could be thought of as a balance of how much the federal government would owe the Social

Security program in later years. Even though the bonds are backed by the full faith and credit of the United States, they still represent a liability to taxpayers because the bonds will eventually have to be paid by future taxpayers. The special bonds collect interest just like the public debt does, but instead of having to recognize a real expense, there are no consequences to the spending power of the government when interest payments are not made to the trust fund. In 2008, the government spent the $1.2 trillion in Social Security surplus accumulated since the 1983 amendments and has since added an additional $4.3 trillion in interest (Graham 16 -17).

Democrat Nancy Pelosi declared that the solution to the Social Security debt owed by the government was simple: the funds just needed to be paid back. However, in reality, the solution is not that simple. For example, in 2007 the Social Security trust fund had a surplus in taxes of $190 billion, but for that amount to even be meaningful, the government would have had to achieve a budget surplus of $190 billion just to break-even. In addition, the government would have needed an additional $2.4 trillion to pay back the debt owed instead of the $161 billion deficit it actually had in 2007. The problem becomes compounded when considering the costs of the Iraq War at $10 billion to $12 billion a month and tax cuts enacted for the highest earners amounting to $60 billion. In the current economic situation, the future does not look any better. The Congressional Budget Office estimates that roughly $9 trillion will be added to the debt in the next decade. The special bonds will become a serious issue in 2016 when Social Security begins paying more in benefits for the baby boomers than it collects in payroll tax revenue (Graham 19).

In a sense, the middle-class and working poor that pay payroll taxes have provided a loan to the federal government to fund essential programs that otherwise would have been paid for by income taxes had four presidential administrations had not allowed tax cuts for the wealthy.

Still, Social Security's assets have been invested in government securities since the program's inception. The only other option was to invest in market securities and after the Great Depression destroyed nearly 85% of the value of most securities, the public was not emotionally ready for such a decision. Politicians also feared that the government having the ability to invest such tremendous sums of money would have given it too much power in the private market and perhaps the ability to control corporate America. By not investing in the market, the government was sacrificing the higher returns available from corporate equities (Hiltzik 103 – 104).

Seeing that Washington is obviously aware of the issues facing Social Security, people should question why it is not the primary concern of politicians. First, Democrats in the House of Representatives feel that the costs of Medicare and Medicaid represent a more urgent issue. The argument is that if healthcare costs can be reined in, there will be a lighter burden on Social Security; and if the cost reductions are not as successful as planned, Social Security can later be fixed. Yet, even if health care inflation is reduced (eliminating some of the budget issues), a White House budget director estimates that Medicare and Medicaid will still double relative to the economy by 2050 (Graham 50). Second, some politicians feel the projections for Social Security are unreasonable and the problem will not be as bad as is currently feared. After all, some projections which use strong wage growth, higher levels of immigration, more births, and slower increases in longevity show that Social Security will be at manageable levels if benefits are simply reduced by a small fraction. Third, some opponents of reform claim that Social Security does not have a financing problem since the trust has the total value of needed funds in government bonds. The costs of how to redeem the bonds for cash is a Treasury issue that is outside the scope of Social Security reform according to their claims. Yet, using intermediate-cost assumptions the benefits paid will exceed the taxes taken in as revenue by $100 billion in

2020. No matter what the reasoning is, the longer Social Security reform is postponed, the more drastic the changes will have to be. Tough decisions will have to be made about who will receive the burden of Social Security: new retirees that will suffer from reduced benefits or the nation's children that will see dramatic tax increases (Graham 31 – 34).

**The Cost of Fixing Social Security Based on Implementation Year**

| Year Tax Hike is Imposed | Size of Tax Hike as a Percent of GDP | Annual Tax Hike (Based on 2009 GDP) | Size of Tax Hike as a Percent of Payroll Tax |
|---|---|---|---|
| 2009 | 0.98% | $138 Billion | 8% |
| 2016 | 1.09% | $154 Billion | 11% |
| 2037 | 1.85% | $261 Billion | 90% |

Even though Social Security reform may not be high on the priority list of members of the Senate and House of Representatives, it has been at the forefront for the elected presidents for the last several terms. In 1994, President Clinton appointed an advisory council to make recommendations about the program's future. Two-thirds of the council advised moving towards an individual account system. When President Clinton set out to develop Social Security reform, he knew he would need the strong support of Republicans since his own party would be opposed to changing such a liberal system. Negotiations evolved between President Clinton and Republican House Speaker Newt Gingrich and chairman of the House Ways and Means Committee, Bill Archer. The principles behind their proposed reform included protecting Social Security beyond the 21st century, maintaining universality, providing dependability, preserving low-income and disabled benefits, and maintaining fiscal discipline (Graham 103 – 104).

Initial proposals suggested asset investment in the stock market and privatization with the potential for individual accounts, but he did not want to consider higher payroll tax rates. In addition, President Clinton wanted to reduce the poverty levels among women who had historically been double the rate of elderly men. His proposals included an elimination of the limit on post retirement earnings before reducing Social Security benefits. President Clinton also proposed that portions of the government surplus in the budgets under his term be directed to ensuring the financial soundness of Medicare and perhaps adding a drug benefit program or provisions for the cost of long-term care (Altman 104).

Despite having bipartisan support, Clinton's goal for Social Security reform would fall through as a result of public scandal. Prior to the Monica Lewinsky scandal, President Clinton had been strong arming liberal Democrats while Newt Gingrich had been doing the same with conservative Republicans. Seeing the potential for the fall of a Democratic president, Republicans were unwilling to focus on supporting the President's proposals. In addition, President Clinton could not continue to strong arm his own house if he expected to gain support in his pending impeachment trial. President Clinton himself was quoted in an interview at the end of his term with journalist Joe Klein as stating "we didn't get to do Social Security. I think maybe we could have gotten it if we hadn't had that whole impeachment thing (as quoted by Schieber, *Predictable Surprise* 108)." Instead, in his 1999 State of the Union Address, President Clinton called for contributing budget surpluses to Social Security trust funds and fund surpluses would be used to pay off government bonds held by private investors while crediting Social Security for the reduction in interest charges (Schieber, *Predictable Surprise* 108 – 109).

Social Security became a hot issue in the 2000 presidential campaign. Al Gore wanted to establish a "lock box" so that Social Security funds could not be spent elsewhere and advocated paying down the federal debt with surpluses in the funds while crediting Social Security with the saved interest, much like the belief of President Clinton. George W. Bush proposed to not raise payroll taxes and allow younger workers to voluntarily invest part of their Social Security taxes into individual retirement accounts. Democrats feared Bush's proposal would exacerbate the system since billions of dollars would be diverted into personal accounts, thereby reducing the revenue stream used to pay current benefits in a system that was already expected to run into insolvency (Schieber, *Predictable Surprise* 111).

One of the first things President Bush did upon assuming office was to create a 16 member Commission to Strength Social Security. The commission developed three different proposals, with the favored plan sponsoring the option for workers to redirect up to four percentage points of the payroll taxes up to $1,000 annually to a personal account on the condition that they would then receive reduced benefits under the Social Security system. Initial benefit calculation would change to reflect indexing based on the Consumer Price Index instead of the growth of wages and anyone who had contributed to the system for at least 30 years would be guaranteed a benefit equal to 120% of the official poverty line. The new system would need to borrow funds from the government to pay for the plan starting in 2025, but they would be expected to pay all loans by 2054. Critics of the plan claimed the transaction costs for implementing the system were too high since a shift to individual accounts to build up a savings system while still continuing to pay current benefit levels would require additional money with large initial costs. Estimates of the actual transition costs ranged from $2 to $3 trillion (Schieber, *Predictable Surprise* 112 – 113).

The commission itself came under attack due to the fact that the President had chosen the 16 members himself instead of sharing the appointment process with Congress as President Reagan had done. The White House had chosen the commission through a screening process with political operator Karl Rove and economic advisor Larry Lindsey to ensure that each member was not opposed to a system of privatization. Also, not one member came from organized labor or from the Social Security Administration itself. The public felt the commission lacked independence and guaranteed that any proposals sent to Congress would never gain support. As a whole, Washington began calling the commission the "President's Commission" claiming that he had stacked the members in his favor (Hiltzik 189 – 190).

Similar to how President Clinton's goals for Social Security reform became sidetracked by the Monica Lewinsky scandal, President Bush's campaign would be forestalled by the terrorist attacks on September $11^{th}$, 2011, which would shift the focus of government officials away from almost all domestic matters (Hiltzik 211). During his second term, President Bush tried to revitalize Social Security reform by resorting to scare tactics in order to push the issue before the 2006 election. Even though the Congressional Budget Office projected that the fund would not begin taking from principle until 2028, the Bush administration was convinced the problem would really become a crisis by 2018. President Bush went as far as to visit Parkersburg, West Virginia where Social Security's Treasury bonds are kept and declared that there was no trust fund, but rather a vault filled with worthless pieces of paper. The next tactic was to target African Americans by claiming Social Security benefits were unfair to them because their race tended to have shorter life expectancies and overall poorer health compared to European Americans. This ethnic group would therefore receive a disproportionate share of the Social Security benefits. Finally, the administration realized that if they truly wanted to push their reform through, they would need to remove older citizens from the debate since those aged 55 and older would strongly oppose any package that would significantly reduce their benefits (Altman 280 – 285).

Unfortunately for President Bush, many politicians and even citizens saw through his tactics. First, Social Security had been established as a trust creating a legal obligation for the fiduciaries, including the secretary of the Treasury, to protect the trustees even if a conflict developed in their individual departments. In fact, during the Reagan administration, a similar conflict had arisen when the Secretary of the Treasury did not transfer money collected by the IRS for the trust fund in favor of financing public debt. A lawsuit was filed against the Social Security trustees in the U.S District Court. Second, the concern for African Americans was unfounded since the Bush proposal enacted no programs to change the very issues he claimed Social Security currently lacked and it proposed cuts to Medicaid, a program which would have improved the poorer health issues among African Americans. Finally, senior citizens were not willing to ignore the Social Security debate even after they had been told that their benefits would not be cut. Many explained that they "were not concerned about their own benefits, but cared greatly about the benefits their children or grandchildren might or might not get (Altman 280 – 285)."

The benefit of investing in individual accounts came from the assumption that individuals would be able to earn a better rate of return in the private market, but if their return was not equal to at least three percent, they would actually do worse than if they had kept all of their benefits in the Social Security system. Also, unlike Social Security, private account balances would not be protected against inflation. Another problem arose from the fact that the defined contribution nature of the private accounts could not be blended with the defined benefit nature of the Social Security system. For example, there were unanswered questions as to how dependent benefits would be paid under Bush's plan. Would children still receive full benefits, or would large families be forced to divide the small private accounts (Altman 287)?

**Benefit Cuts under the Bush Plan in 2075**

| Income Level (2009 Wages) | Social Security Income Replacement Rate | Social Security Annual Benefit | Bush Plan Income Replacement Rate | Bush Plan Annual Benefit |
|---|---|---|---|---|
| $ 18,900.00 | 55.3% | $ 10,450.00 | 55.3% | $ 10,450.00 |
| $ 42,000.00 | 41.0% | $ 17,220.00 | 29.6% | $ 12,420.00 |
| $ 67,200.00 | 34.0% | $ 22,850.00 | 19.8% | $ 13,300.00 |
| $ 106,800.00 | 27.3% | $ 29,150.00 | 13.8% | $ 14,740.00 |

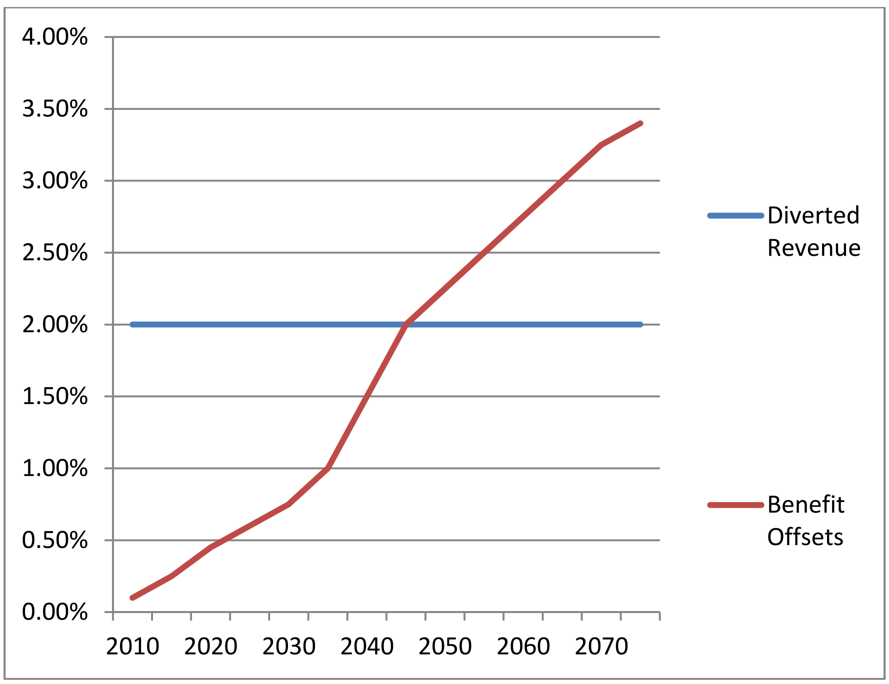
The benefit levels are based on retirement at age 67 and are not adjusted for the potential impacts from individual accounts (Graham 46).

Technically, President Bush did not need bipartisan support in order to pass his proposals since the Republican Party controlled both the Senate and House of Representatives. Ultimately, President Bush's reform would not be passed due to the outrage that arose from American citizens. During a speaking tour meant to stir up support, stories appeared about people being thrown out of the forums if they demonstrated any potential support for the current Social Security system and claims that speakers had been coached by White House staff. Attacks on the reform came from a wide variety of interest groups including AARP, representing senior citizens, AFL-CIO, representing organized labor, the Alliance for Worker Retirement Security representing manufacturers, and the United Senior Association, representing the pharmaceutical industry. With falling support, the vote on the proposal continued to be pushed further and further into the future until it reached 2006. Republicans were unwilling to support a system that still lacked public favor in the election year and Democrats hoped for a change in power in Congress in order to push their own beliefs (Altman 289 – 291).

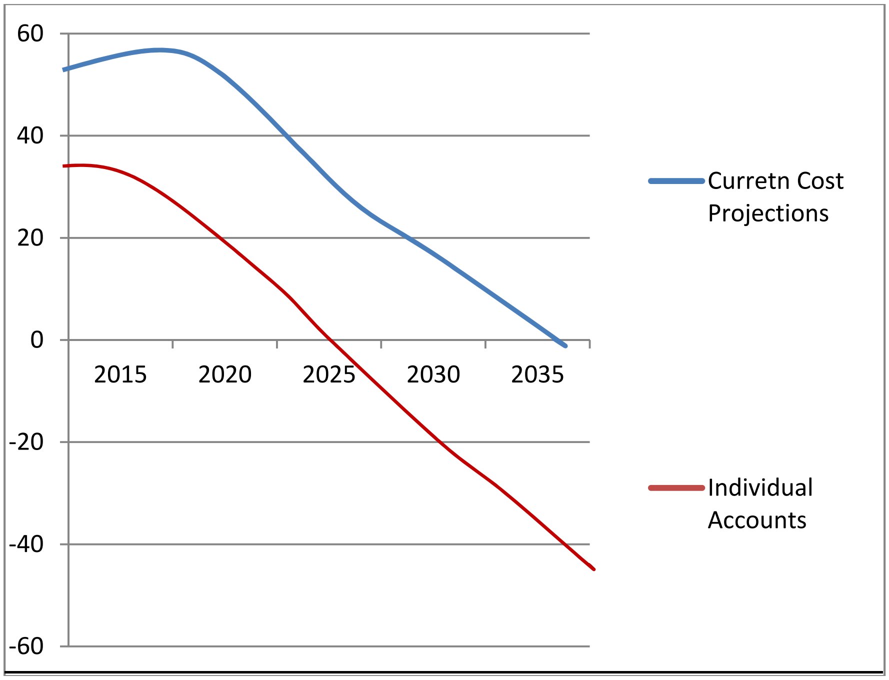
While neither President Clinton nor President Bush could get their reform proposals passed, many of the elements they embraced continue to arise in current suggested reform proposals. One of the most popular proposals was the concept of moving to more of a defined contribution system through use of individual accounts. The general concept of a personal account system would provide a flat benefit amount from Social Security for all participants in the amount of $600 per month that would be wage-indexed to determine future benefit amounts. It would also include a mandatory personal account contribution equal to five percent of salary, which would be composed of an additional 2.5% for individual workers and 2.5% of existing payroll tax receipts. Workers would have the option to invest their personal account funds in a variety of investments ranging from inflation-protected Treasury securities to high-earning equity funds. To protect against abuse, the government would mandate that funds in the personal accounts could only be used for retirement purposes and borrowing would not be allowed for any purpose. Any balance remaining in the fund at the participant's death would be part of their estate to be passed to their heirs. Based on a conservative return on investment of 2.2%, the benefit for low and moderate income workers under a personal account system would be higher than benefits under Social Security with the current operation to 2050 (Shultz and Shoven 92 – 94).

As noted by President Bush, the current Social Security system could not be maintained if some of the revenue currently withheld from payroll taxes was being diverted into individual accounts without some type of benefit reduction from Social Security payments. The reduction in benefits would have to be equal to the amounts diverted from Social Security plus interest that would have occurred on the funds had they been invested in the trust. Even though the funds would eventually equalize over the life of each worker, an individual account system would create cash flow problems for the trust. Currently, about 85 cents of every dollar contributed to the trust is used to pay current benefits to retirees and thus a diversion of revenue would exhaust the system much quicker, requiring additional revenue to pay benefits or a reduction in benefits. If the additional revenue were to come in the form of a loan from the government, there could be consequences for the public debt. The public would most likely invest their individual funds in the stock market to take advantage of better returns, but the demand for bonds will fall. The interest rate on government bonds would increase making the cost of government financing even higher (Diamond and Orszag 140 – 144).

**Cash Flow Implications from Diverted Payroll Tax Revenue**




The graph depicts the benefit offset required with diverted revenue assuming a 2% contribution to individual accounts. Over a longer horizon there will be no effect in present value terms, but there will be negative cash flow as a percentage of payroll taxes payable for a period of about 45 years. Adapted from Diamond and Orszag.




This graph illustrates the time portfolio of the trust fund based on cash flow changes made in the previous graph. Current cost projections are based on data provided by the Commission to Strengthen Social Security. The net cash outflow will cause the trust fund to be exhausted almost a decade quicker than the current operating system.

President Bush was not the only person pushing for a personal account system in 2005. Republicans Senator John Sununu and Representative Paul Ryan created a bill introducing their own ideas on how to fix Social Security. Their bill deviated from President Bush's by allowing workers to invest up to 10 percentage points of the payroll tax into personal accounts for the first $10,000 of wages each year and five percentage points on all wages above that. The bonds necessary to finance the transition would be amortized allowing the liabilities of Social Security to be eliminated and payroll taxes to be drastically cut. The Ryan-Sununu plan also assumed plan financing could come from extra corporate taxes resulting from the growth corporations would see from spending. Also, payroll taxes would eventually provide a surplus, which would be used to pay the bonds necessary for initial financing. Workers under the age of 55 would have the option to participate in the new system with any Social Security benefits they received being based on the past taxes they had already paid into the system (Farrara).

Ryan believed his plan would be able to stimulate the economy by providing additional capital for corporations, thus increasing their potential for growth and offset slowdowns in the labor force growth. For individuals who choose to participate, their benefits would have been insured dollar for dollar for all funds invested, ensuring that inflation or a large downturn in the economy would not bankrupt an individual for retirement. After a personal account would reach a minimum threshold, the fund would enroll in a "life cycle" plan which would automatically adjust the portfolio diversification based on worker age. Once an account accumulated $25,000, individuals would have the option to invest in equity options approved by the Personal Social Security Board. Low income workers who choose to utilize the personal account system would be guaranteed a benefit of at least 150 percent of the Federal poverty level. In order to account for increasing life expectancies, the retirement age would increase by 1 month every two years until it eventually reaches the age of 70 (Ryan 33 – 37).

A problem with the Ryan-Sununu plan was that it relied heavily on numerous assumptions. First, the two politicians based their plan on the concept that the government would be able to cover the current shortfall in Social Security with spending cuts equaling about 8% of the entire federal budget. However, Congress would have had to be willing to make the large cuts, which not all members were willing to do. Second, they assumed investment in personal accounts would result in greater corporation profits and thus more tax revenue. The two Republicans estimated that within 25 years, corporate tax payments would increase by 1% of GDP per year. On the other hand, their plan did not specify that any increase in corporate taxes would have to be diverted into the Social Security system, and therefore the funds would most likely go towards reducing the public debt (Graham 38 – 39).

In addition, the overall concept of privatization is not without its flaws. As mentioned previously, the diversion of revenue would create cash flow problems. Also, individual accounts create more risk because benefits would not only depend on lifetime earnings and retirement timing, but also the quality of investment decisions and performance of the markets. Personal accounts would make it harder to progressively distribute earnings between higher earners and lower earners. Then, Social Security offers other benefits, such as disability, which would be difficult to fund with individual accounts. An individual account system would also need administration maintenance at a higher cost than the current structure (Diamond and Orszag 134 - 135).

If an individual account system is so flawed, then why are so many politicians recommending it? The answer is that personal accounts result from the political economy, aging population, and incentive effects. Many reform proposals are opposed on a political level because they represent unequal treatment within either gender segments or generational fractions. Since personal accounts offer higher returns for all participants and function on a basis of participants receiving what they contributed, they give the impression of being able to fare better in a deadlocked political vote. Aging populations often require increased tax rates, reduced benefits, or increased retirement age to adjust for funding shortfalls. Under a defined benefit type of system, applying actuarial assumptions to account for required plan changes can be difficult because there is such a wide range in factors in the benefit formula and then any required changes must gain legislative approval. However, in an individual system, the accumulated benefits are easily calculated with an annuity formula and adjustment can quickly be made by an individual worker. Personal accounts provide a more visible correlation between contributions made and benefits received since contributions to the Social Security system are often perceived as nothing more than additional taxes. Mobility would be enhanced because many civil servants are not part the Social Security system and career changes between the private and civil sector therefore alter retirement benefits currently. Individual accounts would also blend with the current family relationship trend of increased divorces and multiple remarriages because at divorce, the accumulated benefits in individual accounts could be combined and equally split amongst spouses (Holzman and Palacios 49 – 53).

As long as Social Security remains a concern for millions of Americans and thus an important political issue, policy makers will continue to develop reform plans. Like Senator Sununu and Representative Ryan, Republican Robert Bennett also proposed a Social Security reform plan during President Bush's term. Bennett's plan would have focused on the solvency issue during the current time and leave the issue of private accounts for Congress in the future. First, he wanted Social Security benefits to be calculated based on a sliding scale of a participant's income with lower income individuals having their benefits calculated based on wage growth, richer individuals having their benefits determined from price indexes, and middle-class individuals having their benefits calculated under a blended formula. Second, yearly benefits would be adjusted using the latest actuarial tables available, so if a person's life expectancy increased, their monthly benefit check could be reduced in order to continue of lifetime payment. Bennett believed his plan would be able to reduce the Social Security deficit by at least 90% over several years (Broder).

**Benefit Cuts under the Bennett Plan in 2075**

| Income Level (2009 Wages) | Social Security Income Replacement Rate | Social Security Annual Benefit | Bennett Plan Income Replacement Rate | Bennett Plan Annual Benefit |
|---|---|---|---|---|
| $ 18,900.00 | 55.3% | $ 10,450.00 | 47.2% | $ 8,925.00 |
| $ 42,000.00 | 41.0% | $ 17,220.00 | 25.2% | $ 10,600.00 |
| $ 67,200.00 | 34.0% | $ 22,850.00 | 16.9% | $ 11,360.00 |
| $ 106,800.00 | 27.3% | $ 29,150.00 | 11.8% | $ 12,625.00 |

Benefit levels reflect a retirement age of 67 with no suspension of progressive price indexing before 2072. The data is adapted from *The 2009 OASDI Trustees Report* (Graham 50).

In spite of the fact that the Bennett plan made no mention of a private account system, many Democrats feared his plan would be nothing more than a "bait-and-switch" once the bill actually came to debate. Also, while millions of seniors were in danger of outliving their savings, the Bennett plan would provide little support to many people who are expected to live into their nineties. The Bennett plan would also hurt disability receivers who currently receive benefits until their retirement age and then experience a seamless transition to retirement while still receiving the same benefit payment. However, under the Bennett plan, disabled workers would receive their full disability benefits until their retirement age and then face reduced benefits for the rest of their lives (Graham 50 – 51).

Other reform proposals the include the Liebman-MacGuineas-Samwick (LMS) compromise proposed by the then White House budget director Jeffery Liebman, the New America Foundation policy director Maya MacGuineas, and Dartmouth University professor Andrew Samwick as well as the Bowles-Simpson plan proposed by the co-chairs of the U.S. Debt Commission Erskine Bowles and Alan Simpson. The LMS compromise would have allowed for the financing of personal accounts to supplement reduced Social Security benefits under the condition that more revenue was diverted into Social Security. The plan would increase the expected retirement age an extra year to age 68 and make the earliest retirement age with benefits age 65. A 1.5% payroll tax would be imposed on all wages currently covered by Social Security as well as raising the wage base to cover 90% of all wages. Even without the benefit reductions, the LMS compromise would have eliminated almost all of the legacy debt just from increased revenues. Personal accounts would be funded with 3% of annual wages, half from the increase in payroll taxes and the other half from a matching contribution with revenues flowing into Social Security. Basically, two-thirds of the personal account plan would be paid for by redistributing the revenue generated from higher earners over the payroll-tax ceiling to all participants. Overall, the LMS compromise would increase revenue flowing into Social Security by almost 19% while only diverting about 4% of Social Security's existing revenue base to personal accounts (Graham 85 – 88).

The Bowles-Simpson plan was a broad plan established to reduce the federal deficit by cutting expenditures and raising taxes that would affect the federal budget and Social Security. Some features that would affect Social Security include the elimination of all tax expenditures, including payroll taxes, except for the child credit, earned income credit, foreign tax credits, and a few preferences. Tax rates would be indexed using the Consumer Price Index instead of wages. The Social Security wage base would increase by 2% each year more than the growth in average wages, making the FICA cap $140,000 in 2015. Other alternative variations would reduce the limits on contributions to employer-sponsored retirement plans and individual retirement accounts to about 43% of their current level and a cap would be placed on the amount of tax-free accruals allowed for both defined benefit and defined contribution plans (Tax Policy Center). The Bowles-Simpson plan would eliminate any remaining upper-income tax cuts established under the Bush administration for income over $250,000. The tax base for Social Security revenue would be equivalent to 90% of all income, which would raise $238 billion over the next decade. The methodology for measuring inflation adjustments would be change to slow cost-of-living increases. Finally, the retirement age would increase to 68 in 2050 and 69 in 2075 (Klein 19).

In addition to full reform proposals, general concepts have been proposed on how to fix the deficit issue facing Social Security. One idea which had been touched on in numerous other reform proposals is the concept of indexing. Under this system, Social Security benefits would be indexed according to increases in prices instead of increases in wages. With wage indexing, initial benefits are determined based on a worker's highest 35 years of earnings multiplied by the average overall wage growth during that period. Since wages tend to increase faster than prices, retirees often receive greater benefits even above a reasonable adjustment for inflation (Graham 229 – 230). Wages increase faster because the economy experiences productivity improvements such as better tools for workers and increases in education. Progressive price indexing would leave benefits unchanged for the bottom 30% of the population while higher income individuals would still see their benefits grow in accordance with the economy. Indexing allows for current retirees to keep their benefit levels, but gradually introduces a change to the Social Security system. Initially, lower income workers would earn more than higher income earners, but in about 100 years, the benefit level would be the same for most benefit earners (Shultz and Shoven 88 – 90).

Another idea to fix Social Security is to utilize additional government revenue to reduce the solvency issue currently associated with the system. According to the Economic Growth and Tax Relief Reconciliation Act of 2001, the estate tax will gradually be eliminated in the future.

If the estate tax was returned to a $3.5 million exemption per person and the rate was established at 45%, about 20% of the 75-year actuarial deficit for Social Security would be eliminated. As an alternative, the estate tax could be converted into an inheritance tax that would be imposed on the recipient of the property instead of the estate. The revenue collected would not be subject to actuarial projections and would keep Social Security off of the annual federal budget. In fact, the concept of using an estate tax to finance benefits for the elderly was first introduced by Thomas Paine when the country was first founded (Diamond and Orszag 93–95).

Currently, no significant legislation aimed at fixing pensions has passed Congress. President Barrack Obama has followed his predecessors by establishing his view on how to solve the nation’s pension crisis. In his 2014 budget request, President Obama called for an increase in contributions to federal employee pensions of 1.2 percentage points. It also called for a switch to the chained Consumer Price Index for inflation measurements, which would result in lower cost of living adjustments to federal pensions and a reduction in growth of Social Security benefits. A chained CPI establishes measures that are about 0.25 to 0.30 points lower than the standard CPI measure. Also, a new proposed suggestion for an automated management system to digitized personal data and the calculation of new employees’ pensions is estimated to save the federal government over $100 million each year in pension administration costs (Losey). However, again the changes fail to truly address the structural issues associated with pensions in the United States.

In conclusion, the United States is currently facing pension issues in both the private and public sectors. The current trend of most companies is to shift to defined contributions plans, but the asset values of existing defined benefit plans plummeted during the 2008 financial crisis when stock values took a steep decline. Currently, employers are attempting to financially infuse their pensions to pay for the benefits of current retirees while also trying to meet the higher funding regulations for baby boomers that are entering the later part of their working careers. FASB attempted to improve the financial reporting of pension information by requiring that the funded status of a pension plan correlate to the classification on the company's balance sheet. The second phase of FASB's pension reform will focus on the income statement effects of pensions and potentially eliminate the delayed recognition feature of gains and losses.

In addition, the government is facing drastic pension issues. Forty-six out of 50 states are currently reporting underfunded pension plans. GASB hopes to solve the issue by changing how assets and their related returns are valued. For the first time ever, GASB will require state governments to recognize a liability for their long-term pension obligations. The federal government is seeing pension issues in the form of Social Security. The system was designed to provide a foundation for retirement for individuals to build off of, but today, almost two-thirds of citizens consider Social Security to be their main source of retirement income. Problems arose when the government continued to expand the benefits offered by Social Security, but continued to delay raising the payroll tax to provide funding. In addition, people are now living longer and retiring sooner. Presidents and senators over the last decade have proposed a variety of solutions to Social Security's funding crisis ranging from benefit reductions to an individual account system, but no plan has been able to survive a vote in the bipartisan Congress. Ultimately, policymakers need to focus on fixing the structural issues associated with the root causes of the pension issues and not just provide temporary fixes. Fortunately, there are still several years available before the pension system in the United States in no longer able to support itself, and as history has already demonstrated, the United States government has a habit of being able to pull the retirement system back from the brink of disaster.

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