FINAL REPORT

JOINT LEGISLATIVE STUDY COMMITTEE ON DEFINED CONTRIBUTIONS OPTION

DECEMBER 1998/JANUARY 1999

Committee Report

Joint Legislative Study Committee on Defined Contribution Option

Introduction

During the second regular session of the 43rd Arizona Legislature, the issue of offering a defined contribution retirement option to employees of the state and political subdivisions of the state was raised and discussed. Various bills were introduced establishing such an option, but concern was expressed over technical difficulties with the bills. The bills were later amended to establish a legislative committee to study the defined contribution retirement option during the interim. The bills were heard but did not pass. Noting the significance of the issue, the President of the Senate and the Speaker of the House of Representatives appointed an ad-hoc committee to study the defined contribution option.

Committee Charge

On May 28, 1998 the President of the Senate and Speaker of the House of Representatives appointed the following members to the Joint Legislative Study Committee on Defined Contribution Option:

Senator Scott Bundgaard, Co-Chair	Representative Michael Gardner, Co-Chair
Senator George Cunningham	Representative David Armstead
Senator Tom Patterson	Representative Wes Marsh

The President and the Speaker charged the Committee with studying and making recommendations regarding the statutory, administrative and procedural changes necessary to implement a defined contribution retirement option for both state employees and employees of political subdivisions. According to the appointment letter, the recommendations should address all advantages and disadvantages of a defined contribution retirement option for the state of Arizona, its political subdivisions and members of the various state retirement programs. The Committee's report is due by December 1, 1998 and the Committee is dissolved from and after December 31, 1998.

Committee Discussion

The Joint Legislative Study Committee on Defined Contribution Option met twice during the interim. At the first meeting, the Committee took testimony from the Arizona State Retirement System (ASRS) Board and its actuary; the manager of the Public Safety Personnel Retirement System (PSPRS), the Corrections Officers Retirement Plan (CORP) and the Elected Officials Retirement Plan (EORP); representatives from both Great West Benefits Corporation and Americans for Tax Reform; and representatives of the Fraternal Order of Police (FOP) and the Professional Firefighters Association (minutes attached).

The actuary for the ASRS presented a series of hypothetical defined contribution models and discussed how each would impact the ASRS plan, the state and employees (Executive Summary attached). Members of the committee debated the various assumptions built into the models. The representative from Great West presented material supportive of defined contribution (DC) plans (see attached), although he cautioned that such plans are not right for all employees. Americans for Tax Reform also spoke in favor of DC plans, reviewing previous testimony their representative made before the Senate Finance Committee in the Spring. The plan administrator for PSPRS, CORP and EORP commented on the issues of cost, portability and state liability as they relate to the smaller retirement plans. Finally, the representatives of the FOP and Professional Firefighters Association expressed concern over converting their retirement plans to DC plans. Committee members made the observation that such conversions could be done in a way to ensure voluntary participation only.

At the second meeting, the Committee began by discussing proposed recommendations (minutes attached). Members debated the merits of defined contribution and defined benefit (DB) systems, particularly as they relate to employee benefits. While some members argued that evidence presented to the Committee at the previous meeting showed that DC sytems, relative to DB systems, actually penalize high performing employees, other members maintained that this is not true. These members claimed that all employees win under a DC system due to the portability function. They further argued that if a DC plan is offered as an optional plan, employees win because they are given a choice.

Members also debated the constitutionality of the Legislature adopting a DC plan, based upon changes made to the state constitution by Proposition 100 during the November 1998 election. (Attached is a memo prepared by Legislative Council addressing this issue and distributed at the meeting.) Finally, the Committee voted on its recommendations, with the minority stating it would submit a minority report (attached).

Committee Action

The Joint Legislative Study Committee on Defined Contribution Option adopted the following recommendations:

1. Require ASRS, CORP, PSPRS and EORP employers to offer an optional DC plan to employees, effective July 1, 2000. (New and existing members will choose either enrollment in the existing DB plans or the new DC plan.)

2. The new DC plan shall offer ancillary benefits similar to those offered by the existing defined benefit plans, i.e., survivor and health benefits and long term care disability.

3. Require the Department of Administration (DOA) to administer the new DC plan through a procurement contract with multiple administrators as determined by rule.

4. Require DOA to recommend to the Legislature employer and employee contribution rates.

5. Members of the new DC plan will be vested in the plan after one year.

6. Require existing DB plans to transfer to the new DC plan the present value of "accounts" for members switching to the new DC plan -- principal, interest and growth.

7. Require a complete fiscal analysis to be performed, evaluating both the impact of the proposed DC plan on the existing DB systems and on the Department of Administration.

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EXECUTIVE SUMMARY

Watson Wyatt Worldwide Presentation
Defined Benefit/Defined Contribution Projection Models

Introduction

The Arizona State Retirement System (ASRS) Board asked the Plan actuary, Watson Wyatt Worldwide (Watson Wyatt), to study the impact of the potential implementation of a defined contribution (DC) plan as an option to the current ASRS defined benefit (DB) plan. Watson Wyatt developed computer models to project outcomes under various scenarios in accordance with generally accepted actuarial principles and ASRS actuarial assumptions.

Methodology

Watson Wyatt modeled four scenarios to study the impact on the ASRS financial health, employer and employee costs and employee benefits.

- Scenario 1: Status Quo – no optional DC plan created;
- Scenario 2: Moderate option – DC plan contribution rate equal to DB rate up to 4 % of pay, *plus* contributions to the long term disability and health insurance premium benefit plans;
- Scenario 3: Low option – 3.34 % of pay to a DC plan (employer contribution *includes* contributions to the long term disability and health insurance premium benefit plans;
- Scenario 4: High option – 7 % of pay to a DC plan (employer contribution *includes* contributions to the long term disability and health insurance premium benefit plans

Assumptions

- The study analyzed the impact on employee benefits for 12 hypothetical employees hired at four different ages and having three different rates of average salary increases.
  - Ages 25, 35, 45 and 55.
  - Salary increases: a low performer (average salary increase of 2 % per year), an average performer (4 % per year) and a high performer (6 % per year).
- The projections assume an investment return of 8%, except that the rate for the DB plan is reduced to 7 % when projected negative net external cash flow exceeds 5 % of assets.
- The models project employee election rates between the DB and DC plans based on level of employer contribution and age of the electing employee.

Conclusions

- DC options other than the high option may save employers money, but benefit levels likely will be reduced for many employee classifications.
- DC plan alternatives reward the shorter-service employee over the longer-term employee.
- The DB plan rewards high performers most and DC plans favor low performers.
- Employees who become disabled and survive to their normal retirement date will receive significantly lower post-LTD benefits under the DC alternatives.
- Creation of an alternative DC plan *initially* is beneficial to the funded status and contribution rate of the DB plan, but may lead to funding and negative cash flow problems and higher contribution rates.

- If investment return remains favorable, the Status Quo will be even more cost advantageous.
- Future DB excess earnings COLAs may be difficult to sustain with presence of DC options.
- The stand-alone health supplement plan for DC plans must define how the supplement will work when DC member elects a lump sum distribution.
- It is possible to increase short-term benefits under the current DB plan at a modest increase in cost by adding a cash balance overlay feature.

Scenario 1: Status Quo

- The current DB plan will become marginally underfunded (99 %) after 20 years.
- External cash flow will not become an asset allocation problem.
- The contribution rate will level out at 5.5 % to 5.6 %.

Scenario 2: Moderate Option

- External cash flow will become a problem for the DB plan: exceeds 5 % of assets after 9 years and over 8 % in 21 years.
- In early years, DB contribution rate may drop to very low levels if it is tied to the DB contribution rate, producing an inadequate rate in the DC plan.
- The DB plan contribution rate eventually will exceed 6 % of pay.
- The DB plan will become underfunded three years later than under Status Quo.
- Once the DB plan becomes underfunded, the underfunding will increase rapidly because of changes in asset allocation that will be necessary.
- This scenario initially will save employers money, but will cost more after about 7 years and eventually by more than $35 million per year.
- DC contribution rates are greater than current DB plan rate, but produce consistently higher benefits only for the low performers at young ages. Most career employees will receive lower benefits.

Scenario 3: Low Option

- The DB plan underfunding occurs two years earlier than in Status Quo.
- The DB plan funding ratio drops to 91% after 25 years.
- Negative cash flow for the DB plan exceeds 5% of assets after 12 years, but will not exceed 7 %.
- The DB plan contribution rate exceeds 6 % after 18 years and exceeds 7 % after 23 years.
- Once the DB plan becomes underfunded, the asset allocation problem will cause underfunding to increase rapidly.
- This scenario always will save employers money, because of the low employer DC contribution rate (1.6 %), but employee benefits under the DC plan likely will not be adequate.
- DC contribution rates are comparable to current DB plan rate, but there is a significant decrease in benefit levels.

Scenario 4: High Option

- The DB plan remains overfunded through out the study period.
- Negative cash flow for the DB plan exceeds 5 % of assets after 3 years and 8 % after 17 years.
- The DB plan contribution rate varies little from Status Quo.
- This scenario will always cost employers more because of the higher DC contribution rate.
- Total employer contributions exceed Status Quo by $14 million in first year after transition: by $171 million in 2022.
- The composite employer contribution rate for the DB and DC plans exceeds Status Quo by 1.0 % to 1.2 %.
- Even at the high DC contribution rates, the high performer has lower benefits.
- Low and average performers may develop higher long-term retirement benefits under the DC plan.

Arizona State Retirement System

Defined Benefit / Defined Contribution Projection Models Executive Summary

November 1998

Watson Wyatt
Worldwide

General Description

- Have modeled four scenarios associated with introducing an alternative defined contribution (DC) plan to co-exist with the current Arizona State Retirement Plan, a defined benefit (DB) plan.
- Scenario 1 - Status Quo
  - » A projection of the DB plan if no alternative DC plan is created.

General Description (continued)

- Scenario 2 - 4+% DC
  - » An alternative DC plan with a moderate employer contribution rate.
  - » Employees contribute 5.25% of pay to DC plan and 0.49% of pay to LTD plan.
  - » Employers contribute 4.00% of pay to DC plan, 0.49% to LTD plan, and 1.25% of pay to a health insurance premium supplement plan for DC plan participants.
  - » Total employee/employer rate is 5.74% of pay.

General Description (continued)

- Scenario 3 - 3.34% DC
  - » An alternative DC plan with a total employer commitment equal to their 1998/1999 ASRS obligation.
  - » Employees contribute 2.85% of pay to DC plan and 0.49% to LTD plan.
  - » Employers contribute 1.60% to DC plan, 0.49% to LTD plan, and 1.25% to health supplement plan.
  - » Total employee/employer rate is 3.34% of pay.

General Description (continued)

- Scenario 4 - 7.00% DC
  - » An alternative DC plan with a total employer commitment equal to the rate contributed for certain System members.
  - » Employees contribute 6.51% of pay to DC plan and 0.49% to LTD plan.
  - » Employers contribute 5.26% of pay to DC plan, 0.49% to LTD plan, and 1.25% to health supplement plan.
  - » Total employee/employer rate is 7.00% of pay.

Key Assumptions

- Election rates of DB versus DC plan will vary by employees' age and will differ depending on the level of the employers' DC contribution rate.
- There will be a transfer of assets from the DB plan to the new DC plan for current DB plan participants who elect to change plans.

General Observations

- The current DB plan remains a bargain for Arizona taxpayers and plan participants because favorable investment returns have driven its cost down.
  - » Only 2.17% of pay for 1999/2000 and 2000/2001.
- DB plan rewards those employees who remain in covered employment.
- DC plan provides greater benefits to short service employees when compared to a traditional DB plan like ASRS.

General Observations (continued)

- The DB plan has no cash flow problems as long as there is no alternative DC plan.
- Initially, the DB plan's cost will go down if an alternative DC plan is created.
  - » The DB plan's liabilities will be reduced by more than the amount of assets transferred to the DC plan.

General Observations (continued)

- The greatest danger to the DB plan if an alternative DC plan is created is that net external cash flow each year will exceed 5% of assets.
  - » It will exceed 7% of assets under Scenario 3 and Scenario 4.
  - » Once it reaches this level, ASRS may need to alter its asset allocation to produce more cash.
  - » If the asset allocation moves from higher-returning equities to lower-returning fixed income or cash, the fund's ability to support its actuarial assumption rate will be impaired.

General Observations (continued)

» A lowering of investment return expectations will cause the cost of the DB plan to increase in terms of a percent of pay to a higher level than under the status quo.

- Because of the cash flow/investment return issue, Scenario 2 - 4+% DC and Scenario 4 - 7.00% DC will eventually cost employers more than Scenario 1 - Status Quo.

General Observations (continued)

- Only Scenario 3 - 3.34% DC will save employers money.
  » But it represents a significant decrease in benefits for longer-term employees.
- The DC alternatives will benefit the low performing employees the most.
  » Especially if they are hired at younger ages.
- The high performing longer-term employee is hurt most by moving to a DC plan.

General Observations (continued)

- The average performing employee will be better off under the DC plan in the early years of their career but worse off in the later years of their career.
- The employee hired at an older age is much better off under the current DB plan.
- For employees in the DC plan who become disabled and survive to retirement age, the DC plan will not provide adequate benefits when the LTD benefit ceases.

Recommendations

- If the objective is to reduce costs only over the short-run (next five years) and there is no concern about a reduction in long term benefits, the creation of an alternative DC plan will accomplish this objective.
- If the objective is to reduce costs long-term and there is no concern about a reduction in long term benefits, Scenario 3 - 3.34% DC will accomplish this objective.

Recommendations (continued)

- If the objective is to increase portability and to increase short-term benefits with no decrease in long term benefits, the DB plan can be amended to include a cash balance overlay feature for a very modest increase in cost.
  - » When measured against the 1998/1999 DB plan contribution rate, it can be implemented for virtually no increase in the contribution rate.

Great-West

Defined Benefit vs Defined Contribution Considering Your Options

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August 1998

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Chapter

1

Defined Benefit to Defined Contribution: Issues of Conversion

A topic in current discussion in the public sector is conversion from a Defined Benefit ("DB") plan to a Defined Contribution ("DC") plan. The concerns over conversions affect not only the financial features of both programs, but the fundamental differences of philosophies that accompany the specific programs.

A **Defined Benefit Plan** provides a specific benefit at retirement age (typically age 60). The benefit is usually computed based on a variant of years of service and compensation, times a specific percentage. The benefit is guaranteed for the participant's life (or the joint lives of the participant and a survivor). Employer contributions are based on certain mathematical assumptions called actuarial assumptions. Contributions are invested through a trust and investment earnings are used to increase plan assets. DB plans account for benefits as prospective liability offset against fund assets. Plan assets in excess of projected benefits yield an over-funded plan and plan assets less than projected liabilities yield an under-funded plan.

Defined Contribution Plans are more akin to an investment vehicle or individual account. Contributions, typically employer and employee, are placed in a trust and invested. The participant receives either a lump sum equal to the total accumulation in the plan, including investment earnings, or an annuity equivalent to the lump sum.

A Defined Contribution plan is a plan under which the employer and the employee make contributions to individual employee accounts. Each employee ultimately receives either a lump-sum or a benefit equal in value to the vested account balance. The value of the account balance depends on contributions and investment performance. There are no guarantees of benefit levels.

In a Defined Benefit Plan, factors such as age, final average pay, and years of service are the prime determinants of a member's pension. A Defined Contribution Plan, by contrast, has two factors for determination: investment return and contribution level. Unlike the contractual guarantee of the DB, the DC accumulates according to the contribution level of the member and employer, and the rate earned on those contributions.

Comparison factors for DB to DC, aside from philosophical distinctions, are usually based on a benefit to benefit-equivalence basis, present value basis, and a net present value basis. Each method provides a comparative format from a different viewpoint.

Benefit to Benefit Equivalence

In a benefit-to-benefit equivalence comparison, the calculated benefit payment under the DB plan is compared to the benefit equivalent of the DC plan. The benefit equivalent of the DC is computed by taking the future value of accumulated contributions (including compensation increase assumptions) and computing a withdrawal based on similar factors as the DB (like COLA rider, life expectancy, etc.). Benefit equivalence is useful to participants acclimated to DB plans, since it relates similar amounts. The concept of benefit equivalence is tied directly to the investment and inflation assumptions used in the projection.

Present Value

The present value method computes the present value of the Defined Benefit plan and compares it to the Defined Contribution balance at retirement date. The present value can be computed at a discount rate selected for comparison or using an inflation-adjusted rate of return as the discount rate. The time period used is typically the normal life expectancy of the participant.

Net Present Value

Net present value computes the present value of benefits, less the present value of accumulated contributions, using a hurdle as described above. This method shows the net after-contribution value of the pension and is useful where more than one contribution rate is provided for the participant. An additional, but less reliable method, is payback, where the net contributions are divided into the present value of benefits, giving a multiple return. Payback is less effective than NPV as a comparison technique but has the advantage of simplicity.

THE SHIFT FROM DB to DC

The historical trend of DB as a pension and DC as employee savings has shifted dramatically. For example, in 1975 there were 103,000 Defined Benefit plans in the private sector, out of 311,000 total plans. By 1992, the number of DB plans had decreased to 89,000, while the number of total plans in the private sector had increased to 708,000[1]. However, much of the shift to DC in the private sector is in the aspect of small DB plans shifting into the DC sector. **Seventy-five percent of the net decrease in DB plans in the private sector from 1985-1990 was attributable to very small plans**[2]. Nonetheless, the DC movement has some fundamental differences in the philosophy and computation that influence both the public and private sector plans. Shifts from DB to either "pure" DC or hybrid-type DB/DC plans is in progress in many states. The DC shift has the following general aspects:

A shift in society from the "cradle-to-grave" employment notion to the acknowledgment of job mobility and uncertainty, giving rise to a demand for pension **portability**;

An effort to **transfer investment risk and return** away from the trust and to the participant;

A desire to create greater **plan flexibility** through employee contributions;

An attempt to reduce or **eliminate the unfunded past service cost** liability of a defined benefit plan.

A consciousness toward **cutting administrative costs** associated with a DB program.

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[1] Source: Employee Benefit Research Institute tabulations based on US Department of Labor, Pension and Welfare Benefits Administration, *Private Pension Bulletin* (Winter 1996).

[2] Source: ERBI Notes, June 1996, "Worker Decision in an Evolving Retirement Income System"

How DB Plans Are Different From DC Plans

Public Policy

A primary consideration in the DB/DC debate in the public sector boils down to a question of public policy or the philosophy underlying the purpose of retirement programs in general. What is the purpose of a pension system? Is it to provide a base for retirement income for those who will not or cannot provide for themselves, or a savings mechanism to allow an efficient means for employers and employees to accumulate funds for future retirement needs?

Portability

The concept of portability reflects a growing aspect of job mobility. Where employees may have achieved the requisite 20 or 30 years of service with an employer in the past, today's uncertain economic environment, with layoffs, privatization and merging of entities, makes the average employee's tenure significantly less. DB plans generally do not provide a portable benefit with many having requirements of at least 10 years of service prior to any permanent accrual of benefits. An employee could work for 9 years at four employers, garnering 36 total years of service and have no pension benefit whatsoever. DC plans provide portability in the account balance which the employee takes with them to subsequent employers.

Flexibility

A DB program will usually only provide a participant with a choice concerning benefit payout (i.e. in the form of single life annuity, joint and survivor annuity, term certain, etc.). DC plans can be designed to allow the participants to choose the level of contribution, the investment vehicle, and the form of payout.

Investment Risk & Return

DB plans assume the investment risk of investment performance. A DB plan is constructed based on many actuarial assumptions including investment return, mortality of pensioners, setback, and entry age.

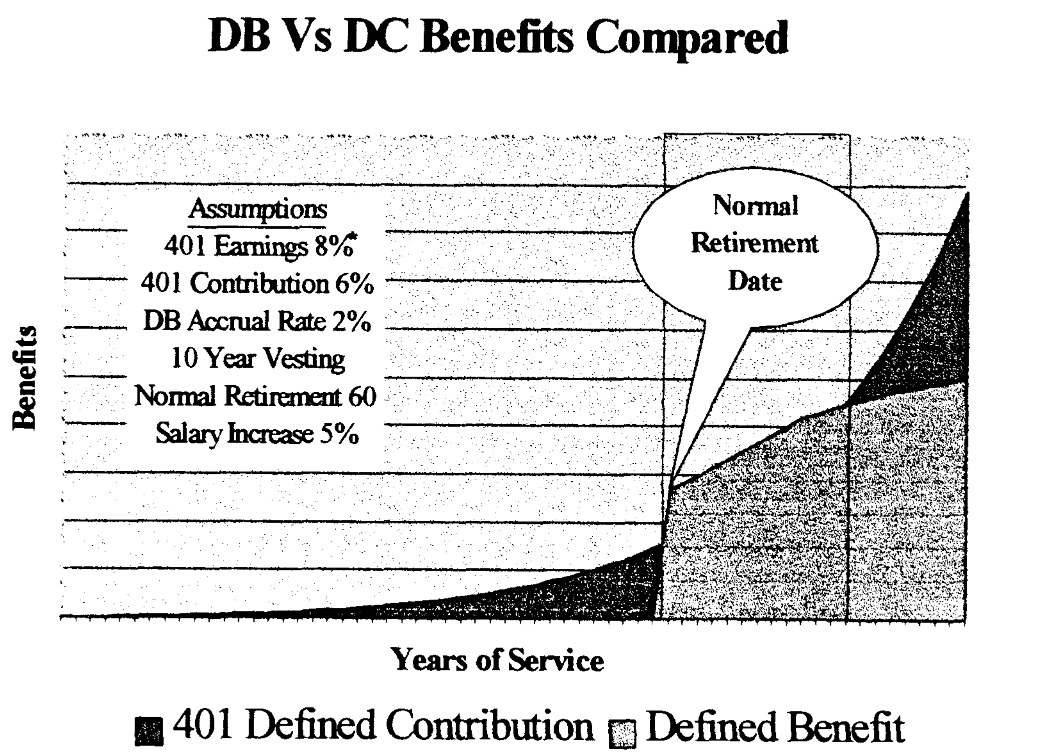
DC plans usually shift the investment risk and return to the participant. Participants frequently direct their own investments and select a risk/return trade-off appropriate to their personal situation.

Administrative Costs

A DB program generates additional costs not found in the DC format, including actuarial services, accounting services, bonding, investment management, and administration. DC plans are usually less expensive to administer, particularly because of their lack of actuarial computation.

- Employees?
- Taxpayers?
- Employer?

What is the correct answer? Probably both a Defined Benefit Plan and a Defined Contribution Plan. Some employees will have a better benefit under the Defined Benefit Plan, some under the Defined Contribution Plan. The employer should allow employees to choose the plan that is right for them. By offering a voluntary Defined Benefit to Defined Contribution conversion, an employer can provide more benefits to more employees for the same cost. However, most employers actually see cost savings and a financial strengthening of their pension trust fund.



For Illustrative Purposes Only
*Not intended to predict or project future investment results. Actual rate of return may be higher or lower depending on how funds are actually invested. "401" refers to a 401(a) defined contribution plan.

Figure I

Figure I Illustrates that when an employee works for a single employer for their entire career and leaves service at normal retirement date, age 60, they would receive a greater benefit then they would receive under a defined contribution plan. The chart above shows that employees covered under a defined contribution plan would receive a greater benefit if they left service prior to normal retirement date, age 60, or if they continued to work well after normal retirement date. According to published statistics, fewer then 25% of employees stay with one employer for their entire career.

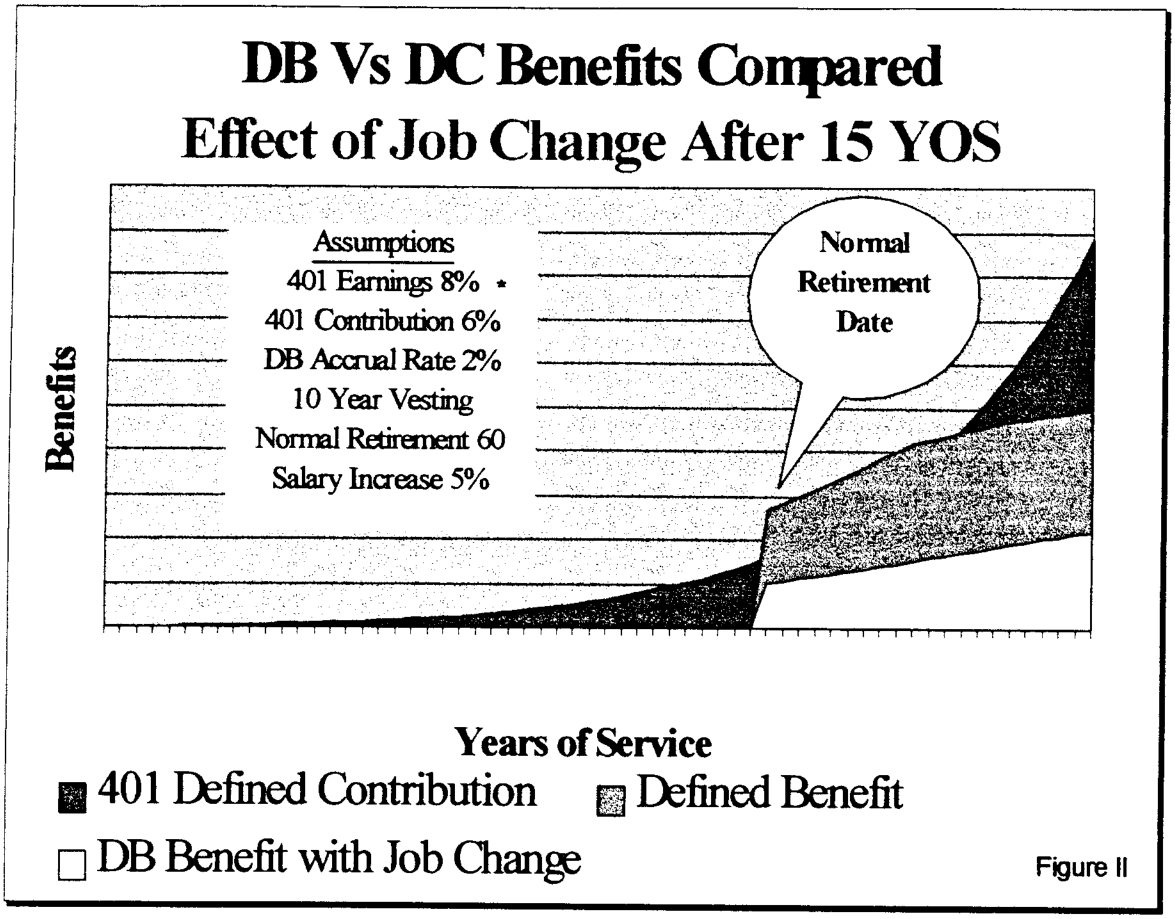


Figure II

For Illustrative Purposes Only
*Not intended to predict or project future investment results. Actual rate of return may be higher or lower depending on how funds are actually invested. "401" refers to a 401(a) defined contribution plan.

Figure II - Notice that when an employee changes jobs just once in their career, they may be severely penalized under the Defined Benefit Plan. In fact, using the example above, this employee would receive a greater benefit from the Defined Contribution Plan.

Chapter 2

What is a 401(a) Defined Contribution Plan?

Contributions

Participants own and direct investments of their own separate accounts. The maximum contribution allowed is the lesser of 25% of compensation or $30,000. Public employees may make contributions, however, any pre-tax contributions must be mandatory and irrevocable for every employee covered by the plan. Pre-tax contributions are allowed under IRC 414(h)(2). Employee may make voluntary after-tax contributions but usually choose to make voluntary pre-tax contributions to §457 plan.

Vesting

With a DB to DC plan conversion, each employee that chooses the DC plan will become 100% vested immediately regardless of years of service. New employees, employees hired after completion of the conversion process, may be subject to a vesting period. Employees are always 100% vested in their own contributions therefore, vesting schedules only impact the employees rights to the employers contribution. Unlike Defined Benefit Plans that may have onerous vesting schedules, a DC plan may not have a vesting schedule more restrictive than listed below. The employer can always have a less restrictive vesting schedule but never a more restrictive schedule.

<u>5 Year Cliff, 100% vested after 5 YOS</u>	<u>3/7 Year Graded</u>
	3 YOS 20% vested
	4 YOS 40% vested
	5 YOS 60% vested
	6 YOS 80% vested
	7 YOS 100% vested

Portability

Under a Defined Benefit Plan, if an employee leaves service before normal or early retirement date, a vested employee must wait until normal retirement before benefits begin. Benefits are tied to Final Average Salary at the time of leaving service. It may take years before benefits begin. Inflation may significantly erode the purchase power of the earned benefit.

A 401(a) Defined Contribution Plan allows employees to change jobs and bring their assets with them. There is no inflation penalty because assets continue to be invested. Furthermore, an employee may be able to roll their 401(a) assets into a new employers 401 plan or an IRA.

Investments

Most employers who put in a 401(a) Defined Contribution plan allow their employees to invest contributions among several fund options. This is not always the case. Some employers make all or some of the investment decisions on behalf of their employees.

Employer Directed Investment decisions have the potential to expose the employer to some fiduciary risk. If the employer invests to aggressively or misjudges the market, the benefit the employee realizes at retirement may be harmed. If the employer invests too conservatively, there may be insufficient assets to provide an adequate benefit at retirement.

Because of the fiduciary exposure, most employers allow their employees to make their own investment decisions. The employer makes a broad selection of investment options available allowing the employee to choose among the options.

Employers may restrict the number and types of investment options. This allows the employer to manage the amount of risk and fees their employees are exposed. Some employers restrict their contributions to a fund of their choice. The employer restrictions are usually lifted when the employee becomes vested.

All earnings on investments accrue tax deferred.

Loans

At the employer's discretion, employees may make loans against the assets in their 401(a) account. Loans cannot exceed the maximum of the lesser of $50,000 or 50% vested assets in the employee's account. The maximum loan term is 5 years and must be paid back in installments over the term of the loan. Some plans allow several loans outstanding at one time, however, they must, combined, adhere to the maximums stated above. If the loan is used to purchase an employee's primary resident, the term can be extended beyond five years. Interest on loans used to purchase a home is not deductible. Default on a loan constitutes a distribution and is subject to taxation and a possible penalty tax.

There are two types of loans, **Collateral** and **Account Reduction**. With a **Collateral** loan, the employee's 401(a) assets remain in their account. The loan is made by the plan administrator and all interest on that loan is paid to the plan administrator. If an employee should default on the loan, the plan administrator can recover their loss by taking possession of the collateral or assets in the employee's 401 account. Usually, the plan administrator will require that assets equal to the loan amount is put in a low yielding stable value account assuring against loss of principal.

Account Reduction loans act very differently. When an employee takes an **Account Reduction** loan, the employee's 401(a)-account balance is reduced by the loan amount. Interest on loans is paid by the employee and is deposited along with principal in the employee's own account. Interest is generally quoted as a percentage over prime.

Survivorship & Disability Benefits

If an employee becomes disabled or dies, the employee becomes 100% vested immediately. 100% of both the employer and employee contributions plus earnings go to the beneficiary. An employee can choose anyone to be the beneficiary. The beneficiary can choose all the forms of distribution available to the employee.

Distribution Options

Under most Defined Benefit plans employees are eligible for a life annuity or, in many cases, optional forms of distribution such as Joint and Survivor Annuity or actuarially equivalent lump sum distributions. These distributions begin at normal retirement age, usually age 60 or, in some cases, employees may choose to take a reduced benefit called an early retirement benefit.

Under a 401(a) Defined Contribution Plan an employee can retire at any age. Not only can an employee choose a form of distribution similar to that provided under most Defined Benefit Plans, but may choose from a wide selection of flexibility distribution options.

Guaranteed Lifetime Annuity

Employees may choose a guaranteed life time annuity. This will provide an employee with a guaranteed benefit for as long as the employee lives. Joint & Survivor annuities provide a guaranteed benefit for the employee and a beneficiary. Anyone can be a beneficiary under a DC plan. DB plans usually limit the beneficiary to a spouse. Once an annuity is purchased, the employee may not change the frequency or amount of the payment. In addition, once a beneficiary is selected, the beneficiary may not be changed.

Systematic Payments

A systematic distribution provides the greatest amount of flexibility. With few exceptions, employees may choose the amount they wish to withdraw form their accounts and the frequency of their withdrawals. In addition, employees may change the amount of withdrawal, the frequency of withdrawals and even the beneficiary.

Some of the most attractive features of a systematic withdrawal are the ability of employees to continue to control their investments and the ability for an employee to leave an estate. However, unlike an annuity, the employee is not guaranteed to receive a benefit for life. There is the risk that the employee may out live their assets.

Combination of Guaranteed and Systematic Withdrawals

For the maximum in flexibility, an employee can choose to use a portion of the assets in their 401(a) account to purchase an annuity providing a life guaranteed benefit while enjoying the flexibility of systematic withdrawals.

IRS Regulations for Systematic Withdrawals

If an employee leaves service before attaining age 55 and begins taking a distribution before age 59½, the employee may be subject to an early withdrawal tax of 10% of the distribution. This tax can be avoided if the employee takes the distribution in equal installments calculated over his/her lifetime.

If an employee receives a distribution from a qualified retirement plan after separation from service and separation occurs during or after the calendar year in which the employee attains age 55, the 10 percent penalty tax will not apply. Thus, it appears that a 54-year-old employee will not be subject to the penalty tax on a distribution made after separation from service as long as the employee attains age 55 during the calendar year in which separation occurs.

Generally, the 10% additional income tax is imposed on the portion of early distributions from qualified plans that is includible in gross income. However, under one of the several exceptions to that general rule, the tax does not apply to distributions that are part of a series of substantially equal periodic payments made not less frequently than annually for the life (or life expectancy) of the employee, or the joint lives (or joint life expectancy) of the employee and his or her beneficiary.

However, if the series of periodic payments is subsequently modified within five years after the date the first payment in the series is made (or, if later, by the date an employee reaches age 59-1/2), the exception to the 10% additional income tax no longer applies, and the taxpayer's tax for the year in which the series of payments has been modified is increased by the amount that would have been imposed, but for this exception, plus interest.

All employees are required to take a minimum distribution at age 70 ½. The IRS imposes a 50% excise tax on a payment that should have been taken at 70 ½ but was not.

Chapter

3

Approaches to a Conversion

Complete Conversion

A complete conversion is more commonly known as a full plan termination. Under a full plan termination, annuities are purchased for all ex-employees who are receiving a benefit and for terminated vested employees who are owed a future benefit. After purchasing annuities, the remaining pension assets would be distributed to active employees. When the assets are distributed to active employees, the employee can do what they want with the assets. They can roll them into a new 401(a) plan if allowed by the new plan, roll them into an IRA or take the money in cash.

If the pension trust is over-funded, the employer may, at their discretion, recover a portion of the over-funding. If the trust is under-funded, the assets remaining after annuities have been purchased is distributed to active employees on a pro-rata basis. Unlike the private sector, public employers are not subject to onerous filings and taxes.

Freeze the DB plan

All benefits are frozen under the DB plan. All new benefits accrue under the DC plan. Employees taking a distribution and terminated vested employees are unharmed. Their benefits continue as if nothing had changed.

New Employees only Conversion

Most often used when an employer has a severely under-funded pension system. New employees would be covered by the DC option while current employees would continue to accrue benefits under the DB plan.

Voluntary Partial Plan Conversion

All new employees go into the 401(a) plan, current employees may choose which plan they want. This is known as the "Win-Win" approach and is the most common method of conversion in the public sector.

No one gets hurt! Employees who expect to receive a greater benefit with the Defined Benefit Plan may stay in the Defined Benefit Plan. While employees who expect to receive a greater benefit from the Defined Contribution plan may choose to go to the Defined Contribution plan. Employees get to choose which plan best meets their needs. The employer offers a retirement program that meets the needs of more employees and in most cases realizes long-term savings.

Generally, new employees are not given a choice. As a condition of employment, they accrue their retirement benefits under the new Defined Contribution Plan. In some cases, the employer contribution to new employees is lower then contributions made to existing employees, further increasing the likelihood of savings for the employer.

A Win-Win Employer Benefits

Predictable fixed funding cost. Unlike a DB plan, funding is fixed as a percentage of salary. DC plans are pay-as-you-go. Contributions are made to an employee's account every pay period, eliminating the potential for an unfunded liability. Because the employer is not carrying the liability of an employee retirement obligation, bond ratings may improve, reducing the cost to raise capital.

Lower Administrative cost. DC plans do not require services of an actuarial firm, reducing administrative cost. In most cases, administration and asset management fees are paid by the employee. Defined Contribution Plans offer simplified plan administration. There is one source for recordkeeping; investment management; employer reporting; and participant support and education.

DC Plans are a good recruiting tool. A younger work force is looking for portability. They want to know, wherever they go, they can take their pension with them. DC plans can provide that desired portability. DB plans offer little or no portability.

A Win-Win Employee Benefits

Employees always have ownership of contributions and the vested portion of employer contributions. For those employees who choose to convert from the DB plan, they are vested immediately, while generally, new employees have a quicker vesting schedule.

Portability is usually described as one of the most attractive benefit for employees. Along with portability, employees point to flexibility as an important feature. Employees have control over investments & distribution decisions. They often see improved survivorship and disability benefits and can retire when they want to, at any age.

Those employees that choose the DC option feel they will realize a greater retirement benefit with the DC plan. This is particularly true for younger employees and employees who plan to leave service before they would be eligible for a benefit under the DB plan. This is so because assets continue to be invested after leaving service and there is no inflationary penalty for delaying distribution.

Chapter 4

Quantitative Evaluation

Summary of Actuarial Procedures

Accrued benefits are determined on a termination of employment basis using service and FAC to date. Since FAC is not usually provided, we use current salary as of data valuation.

Benefit commencement age is the earliest age the member would be eligible to retire with full benefits based on projected service. Therefore, it is assumed that all employees would receive a benefit at age 60. This of course is not the case. Some employees will choose to leave service prior to or following normal retirement date. However, for purposes of calculating Net Present Value (NPV) of accrued benefit we must assume that employees will retire when the employee would first become eligible for full retirement. Anything less would unfairly penalize the employee.

Unisex mortality is assumed after benefit commencement age for the purpose of determining the single sum value at benefit commencement age. This could be based on a mortality basis for plan option factors or on the valuation mortality table adjusted for male/female mix. In this case, employees are eligible for a lump sum distribution at retirement based on Unisex 67 Group Annuity Tables with a one year setback and 6% interest. This table was provided by the employer and used in determining the single sum value.

This single sum value is discounted to the member's present age using interest only. The discount rate used is the rate assumed in the last actuarial valuation. A lower discount rate is allowed and if used, would provide larger single sum distributions. We calculated the present value of the single sum to current date discounted at 6%.

No further adjustments are made, although potentially an adjustment could be needed to assure sufficiency of plan assets to provide for the probable number of transfers and leave the defined benefit plan actuarially sound.

Hypothetical Examples

Retirement Eligibility: Age 60 with 15 years of service.
Benefit Formula: 2% of FAC per year of service payable for life.
Member age 34.5 with 11 years of service: FAC is $43,550. Using unisex mortality table provided by the employer and 6.00% rate, provides roll-in amount of $26,400.

The expected number of transfers will not jeopardize the actuarial soundness of the DB plan.

Procedure

Accrued benefit = $43,550x .02 x 11 = $9,581 per year payable at age 60.
Single sum value at age 60 = $9,581 x 12.11 = $116,025.91
Transfer amount = $\$116{,}025.91/(1.06)^{25.5} = \$26{,}257.62$

The use of an adjustment to present values must be reviewed closely. The GASB funded ratio is not appropriate since it is based on present values calculated using future pay increases. This has been used by some actuaries. The "ABa' FASB calculation is also not appropriate since it is based on accrued benefit calculated at retirement ages which may not be consistent with transfer values using the PERS method.

When calculating termination values, your actuary should keep in mind the effects of military buybacks and other forms of time buybacks. Buybacks may have a significant impact on the termination values for those impacted. One last issue concerning buybacks, at the time of this writing the IRS has not issued an opinion letter on this subject, any use of buybacks should take into consideration 415 limits.

Your actuary should pay special attention to the impact Qualified Domestic Relation Orders issued for your employees and adjust termination values to take QDROs into account. Again, if like buybacks, QDROs are overlooked when calculating termination values, it create problems during the conversion process.

It is always best NOT TO RELEASE any values to employees until all values have been calculated and audited.
You must have an accredited actuary calculate conversion values using the aforementioned procedure. Any numbers provided are for illustrative purposes only.

Results of Study

When conducting the analyses, we looked at both the effect on the current employee population and the comparative effect on new employees. Illustration 1 through 3 show the effects on the current employee population using one set of common assumptions. We assumed that employees would receive, on average, a 3.00% annual salary increase. We further assumed that the assets in an employee's Defined Contribution account would earn an average return of 8.00%.

We understand that most employees at retirement take a lump sum distribution. The lump sum distribution is determined using an employee's accrued benefit discounted using 67 GA-3 2/5 Unisex mortality tables set to 6%. We used the tables provided by the Employer when calculating the NPV of employees accrued benefit.

The purpose of the first three illustrations is to see contribution rate effect on benefits under the DC plan when compared to the DB plan. We were looking for what percentage of your current employees would likely receive a greater benefit from the DC option and corresponding value of transfer amount from the pension trust.

The pension trust is over-funded. The over-funded position of the plan allows the employer to look at enhancing the amounts distributed from the pension trust. We anticipated that by increasing the enhancing distributions, the employer could reduce ongoing contributions to the DC plan. Illustration 1 is our base line. We used 100% of the employees NPV of accrued benefit to calculate each employee's lump sum distribution. Illustration 2 and 3 used 105% and 110% respectively.

	50% Choose DC	*Lowest per head*
100% NPV	14% to 15%	$50,687 @ 16%
# Employees	105 to 127	142, $7.2 million
105% NPV	13% to 14%	$61,835 @ 15%
# Employees	104 to 122	141, $8.7 million
110% NPV	12% to 13%	$69,912 @ 17%
# Employees	118 to 146	213, $14.9 million

We took the data from Illustrations 1-3 and sorted them. Our goal was to attempt to establish the most efficient mix of contribution rate, NPV of accrued benefit and asset roll-out per employee. It is important to establish goals for a DB to DC conversion. Generally employer's measure the success of a conversion based not only on the efficient mix, but on the number of employees who find the DC option more attractive. We choose a target of 40%. Other employers who have gone through this process usually see between 40% and 50% of their employees go to the DC option.

By targeting 40% employee roll-out, we have identified the most efficient mix of 100 NPV, 13% contribution rate and a fairly minimum impact on the pension trust with expected roll-outs of $5.2 million or $59,467 per employee.

New Employees

The Employer can realize even greater savings by requiring new employees to go into the DC plan. Illustrations 7–9 demonstrate based on an 3.00% annual average salary increases, 8% average return on investments in the DC plan, what age and what contribution rate to target for new employees.

Under all three illustrations an employee who's employment starts at age 20 or younger and works for the employer until they reach 60, might expect a greater benefit with the DC plan. Likewise, employees who come to work at age 55 and work until 60 might expect a greater benefit from the DC option. The group of employees who begin with the employer between age 20 and 55 are affected the most by contribution rate.

As you might expect, when the contribution rate is increased, more employees would benefit greater from the DC option. This is particularly true for young employees.

Summary

Defined Contribution Plans provide a greater retirement benefit for many public employees. DC plans allow employees to retire when they want to, at any age. DC Plans allow employees to move from one employer to another without being penalized. DC plans offer employees the ability to leave an estate.

DB employees are unharmed. Those employees who would expect to receive a greater benefit from the DB plan can remain in the plan. Those employees who are term vested or in distribution under the DB plan will not be harmed in anyway. In fact, most employers who under go a voluntary DB to DC realize an improvement in strength of the pension trust.

Employer realizes cost savings when the contribution rate to the DC plan is less then the DB plans normal cost. Long-term savings are assured when the employer's contribution rate for new employees is lower then the contribution rate current employees.

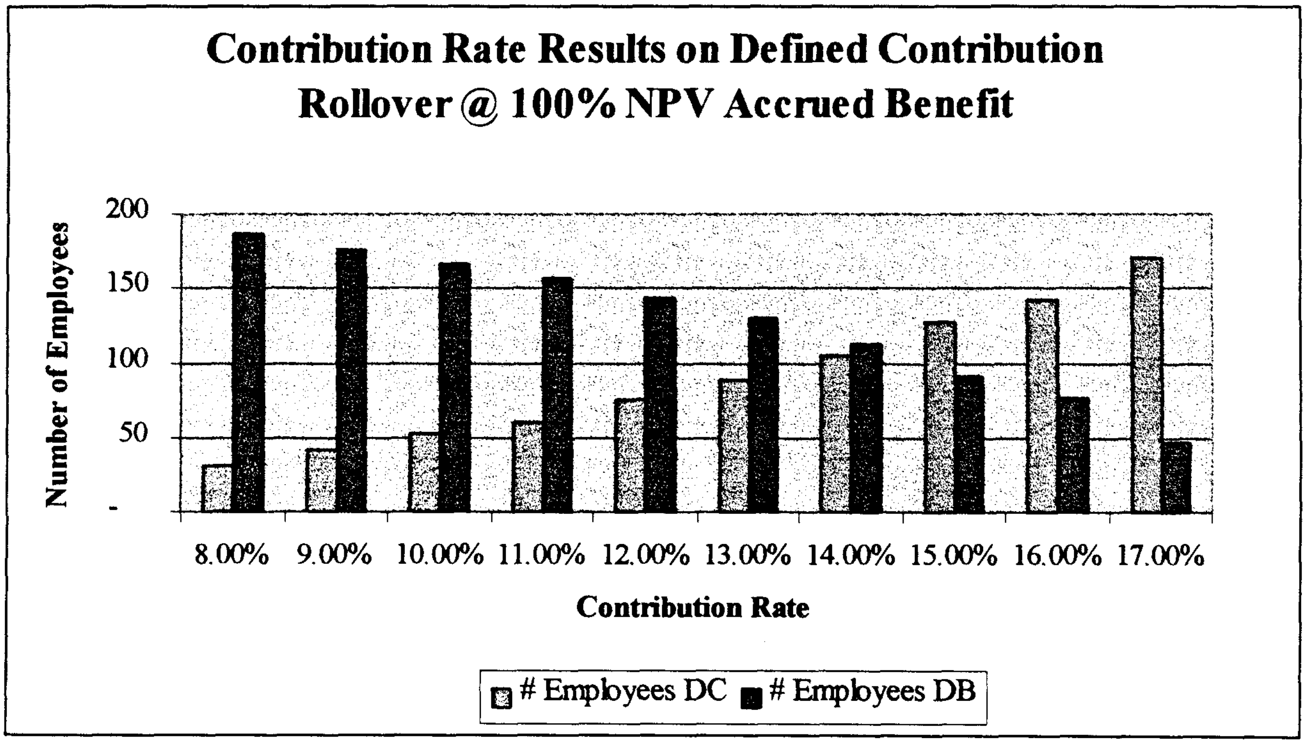
You can structure a DC plan that allows for portability while rewarding long service employees. You want your work force to stay because they want to, not because their hands are tied by a pension system that penalizes employees for leaving service early.

This generation and future generations of employees are expected to be more mobile. This is especially true for skilled and technical employees. A DC Plan will broaden your pool of recruit. Unless an employee wants to spend their entire career with one employer, a DC plan will generally provide a greater benefit.

By moving from a Defined Benefit Plan to a Defined Contribution Plan using the "Win-Win" approach, the employer may provide more benefits for more employees at a lower cost.

Exhibits

Illustration 1:
3.00% annual average salary increase
8.00% average annual earnings on assets deposited in a 401(a) Defined Contribution accounts
100% of NPV accrued Benefit discounted at 6% using 67 GA-3 2/5 Unisex 1-year setback

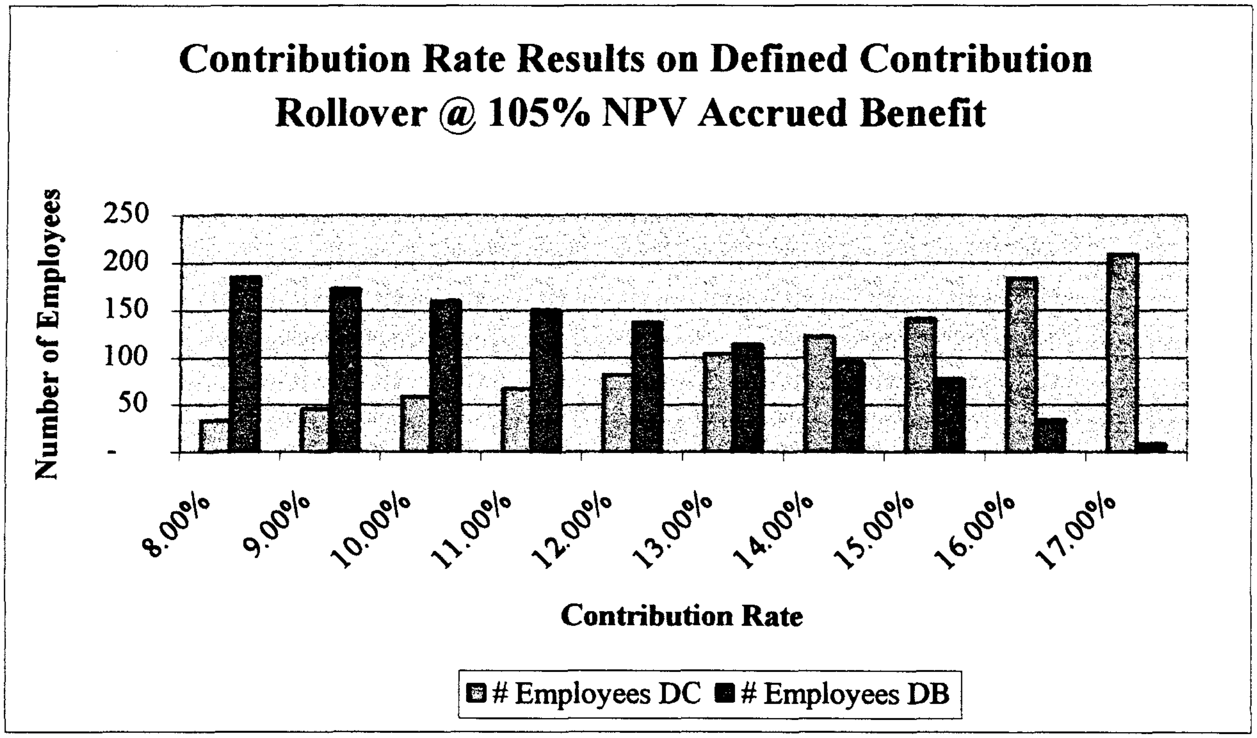


For illustration purposes only

Contribution	*# Employees DC*	*# Employees DB*	*% Employees DC*	*% Employees DB*	*Roll Amount*	*Roll Amount Per Employee*
8.00%	31	187	14%	86%	4,529,763.11	$146,121
9.00%	42	176	19%	81%	4,548,487.10	$108,297
10.00%	52	166	24%	76%	4,590,934.37	$88,287
11.00%	61	157	28%	72%	4,648,356.45	$76,203
12.00%	75	143	34%	66%	4,876,775.73	$65,024
13.00%	88	130	40%	60%	5,233,052.14	$59,467
14.00%	105	113	48%	52%	5,754,209.26	$54,802
15.00%	127	91	58%	42%	6,678,189.01	$52,584
16.00%	142	76	65%	35%	7,197,563.58	$50,687
17.00%	171	47	78%	22%	9,144,869.02	$53,479

Illustration 2:

3.00% annual average salary increase
8.00% average annual earnings on assets deposited in a 401(a) Defined Contribution accounts
_105%_ of NPV accrued Benefit discounted at 6% using 67 GA-3 2/5 Unisex 1-year setback

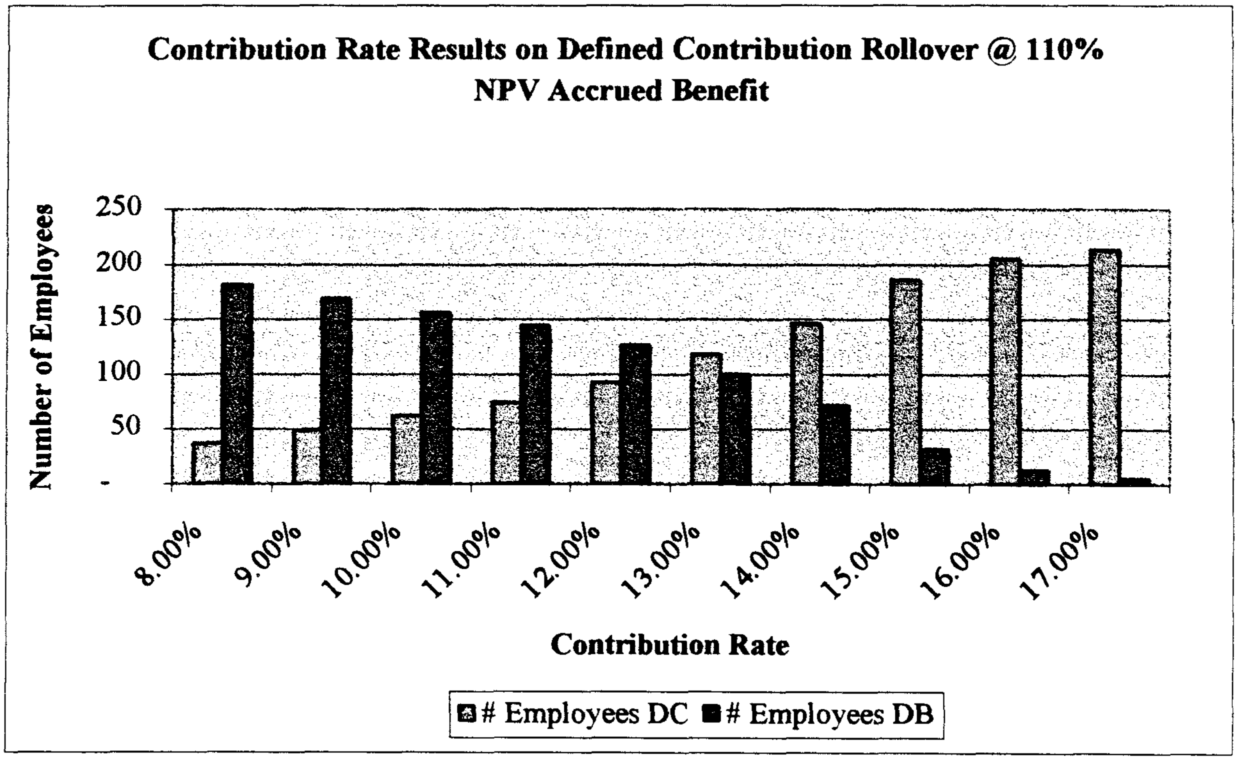


For illustration purposes only

Contribution	*# Employees DC*	*# Employees DB*	*% Employees DC*	*% Employees DB*	*Roll Amount*	*Roll Amount Per Employee*
8.00%	33	185	15%	85%	$5,027,084	$152,336
9.00%	45	173	21%	79%	$5,053,422	$112,298
10.00%	58	160	27%	73%	$5,331,506	$91,923
11.00%	67	151	31%	69%	$5,497,298	$82,049
12.00%	81	137	37%	63%	$5,743,822	$70,911
13.00%	104	114	48%	52%	$6,587,993	$63,346
14.00%	122	96	56%	44%	$7,730,712	$63,366
15.00%	141	77	65%	35%	$8,718,765	$61,835
16.00%	184	34	84%	16%	$11,975,687	$65,085
17.00%	209	9	96%	4%	$14,092,861	$67,430

Illustration 3:

3.00% annual average salary increase
8.00% average annual earnings on assets deposited in a 401(a) Defined Contribution accounts
110% of NPV accrued Benefit discounted at 6% using 67 GA-3 2/5 Unisex 1-year setback



For illustration purposes only

Contribution	*# Employees DC*	*# Employees DB*	*% Employees DC*	*% Employees DC*	*Roll Amount*	*Roll Amount Per Employee*
8.00%	37	181	17%	83%	5,799,467.79	$156,742
9.00%	49	169	22%	78%	5,827,059.21	$118,920
10.00%	62	156	28%	72%	6,120,971.46	$98,725
11.00%	74	144	34%	66%	6,667,472.06	$90,101
12.00%	92	126	42%	58%	7,296,889.23	$79,314
13.00%	118	100	54%	46%	8,628,482.68	$73,123
14.00%	146	72	67%	33%	10,764,084.29	$73,727
15.00%	186	32	85%	15%	13,868,878.31	$74,564
16.00%	205	13	94%	6%	14,751,980.31	$71,961
17.00%	213	5	98%	2%	14,891,340.56	$69,912

Illustration 4: Sorted by Roll per employee

NPV Accrued Benefits	*Contribution*	*# Employees DC*	*# Employees DB*	*% Employees DC*	*% Employees DB*	*Roll Amount*	*Roll Amount Per Emp.*
100%	16.00%	142	76	65%	35%	7,197,564	$50,687
100%	15.00%	127	91	58%	42%	6,678,189	$52,584
100%	17.00%	171	47	78%	22%	9,144,869	$53,479
100%	14.00%	105	113	48%	52%	5,754,209	$54,802
100%	13.00%	88	130	40%	60%	5,233,052	$59,467
105%	15.00%	141	77	65%	35%	8,718,765	$61,835
105%	13.00%	104	114	48%	52%	6,587,993	$63,346
105%	14.00%	122	96	56%	44%	7,730,712	$63,366
100%	12.00%	75	143	34%	66%	4,876,776	$65,024
105%	16.00%	184	34	84%	16%	11,975,687	$65,085
105%	17.00%	209	9	96%	4%	14,092,861	$67,430
110%	17.00%	213	5	98%	2%	14,891,341	$69,912
105%	12.00%	81	137	37%	63%	5,743,822	$70,911
110%	16.00%	205	13	94%	6%	14,751,980	$71,961
110%	13.00%	118	100	54%	46%	8,628,483	$73,123
110%	14.00%	146	72	67%	33%	10,764,084	$73,727
110%	15.00%	186	32	85%	15%	13,868,878	$74,564
100%	11.00%	61	157	28%	72%	4,648,356	$76,203
110%	12.00%	92	126	42%	58%	7,296,889	$79,314
105%	11.00%	67	151	31%	69%	5,497,298	$82,049
100%	10.00%	52	166	24%	76%	4,590,934	$88,287
110%	11.00%	74	144	34%	66%	6,667,472	$90,101
105%	10.00%	58	160	27%	73%	5,331,506	$91,923
110%	10.00%	62	156	28%	72%	6,120,971	$98,725
100%	9.00%	42	176	19%	81%	4,548,487	$108,297
105%	9.00%	45	173	21%	79%	5,053,422	$112,298
110%	9.00%	49	169	22%	78%	5,827,059	$118,920
100%	8.00%	31	187	14%	86%	4,529,763	$146,121
105%	8.00%	33	185	15%	85%	5,027,084	$152,336
110%	8.00%	37	181	17%	83%	5,799,468	$156,742

For illustration purposes only

Illustration 5: Sorted by total Roll Amount

NPV Accrued Benefits	*Contribution*	*# Employees DC*	*# Employees DB*	*% Employees DC*	*% Employees DB*	*Roll Amount*	*Roll Amount Per Emp.*
100%	8.00%	31	187	14%	86%	4,529,763	$146,121
100%	9.00%	42	176	19%	81%	4,548,487	$108,297
100%	10.00%	52	166	24%	76%	4,590,934	$88,287
100%	11.00%	61	157	28%	72%	4,648,356	$76,203
100%	12.00%	75	143	34%	66%	4,876,776	$65,024
105%	8.00%	33	185	15%	85%	5,027,084	$152,336
105%	9.00%	45	173	21%	79%	5,053,422	$112,298
100%	13.00%	88	130	40%	60%	5,233,052	$59,467
105%	10.00%	58	160	27%	73%	5,331,506	$91,923
105%	11.00%	67	151	31%	69%	5,497,298	$82,049
105%	12.00%	81	137	37%	63%	5,743,822	$70,911
100%	14.00%	105	113	48%	52%	5,754,209	$54,802
110%	8.00%	37	181	17%	83%	5,799,468	$156,742
110%	9.00%	49	169	22%	78%	5,827,059	$118,920
110%	10.00%	62	156	28%	72%	6,120,971	$98,725
105%	13.00%	104	114	48%	52%	6,587,993	$63,346
110%	11.00%	74	144	34%	66%	6,667,472	$90,101
100%	15.00%	127	91	58%	42%	6,678,189	$52,584
100%	16.00%	142	76	65%	35%	7,197,564	$50,687
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105%	14.00%	122	96	56%	44%	7,730,712	$63,366
110%	13.00%	118	100	54%	46%	8,628,483	$73,123
105%	15.00%	141	77	65%	35%	8,718,765	$61,835
100%	17.00%	171	47	78%	22%	9,144,869	$53,479
110%	14.00%	146	72	67%	33%	10,764,084	$73,727
105%	16.00%	184	34	84%	16%	11,975,687	$65,085
110%	15.00%	186	32	85%	15%	13,868,878	$74,564
105%	17.00%	209	9	96%	4%	14,092,861	$67,430
110%	16.00%	205	13	94%	6%	14,751,980	$71,961
110%	17.00%	213	5	98%	2%	14,891,341	$69,912

For illustration purposes only

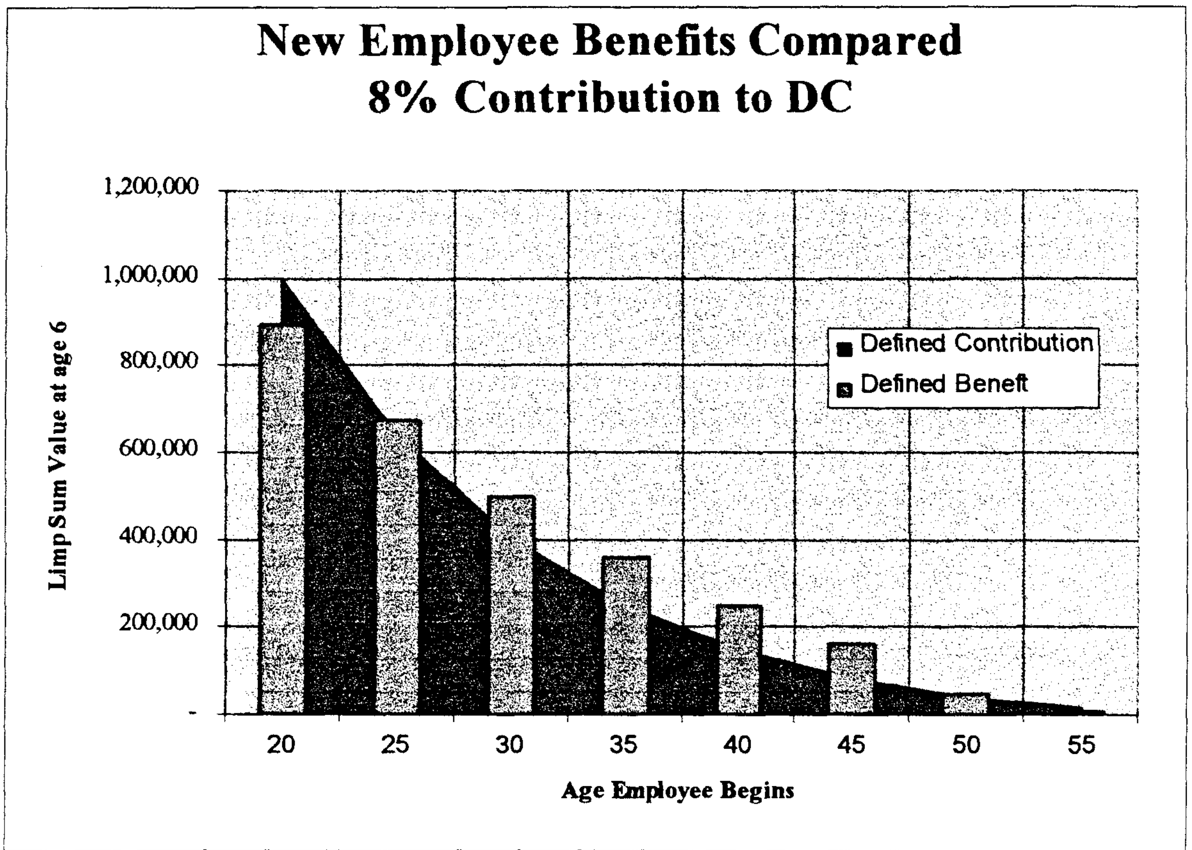
Illustration 6: Sorted by Number of the employees choosing DC

NPV Accrued Benefits	*Contribution*	*# Employees DC*	*# Employees DB*	*% Employees DC*	*% Employees DB*	*Roll Amount*	*Roll Amount Per Emp.*
100%	8.00%	31	187	14%	86%	4,529,763	$146,121
105%	8.00%	33	185	15%	85%	5,027,084	$152,336
110%	8.00%	37	181	17%	83%	5,799,468	$156,742
100%	9.00%	42	176	19%	81%	4,548,487	$108,297
105%	9.00%	45	173	21%	79%	5,053,422	$112,298
110%	9.00%	49	169	22%	78%	5,827,059	$118,920
100%	10.00%	52	166	24%	76%	4,590,934	$88,287
105%	10.00%	58	160	27%	73%	5,331,506	$91,923
100%	11.00%	61	157	28%	72%	4,648,356	$76,203
110%	10.00%	62	156	28%	72%	6,120,971	$98,725
105%	11.00%	67	151	31%	69%	5,497,298	$82,049
100%	12.00%	75	143	34%	66%	4,876,776	$65,024
110%	11.00%	74	144	34%	66%	6,667,472	$90,101
105%	12.00%	81	137	37%	63%	5,743,822	$70,911
100%	13.00%	88	130	40%	60%	5,233,052	$59,467
110%	12.00%	92	126	42%	58%	7,296,889	$79,314
100%	14.00%	105	113	48%	52%	5,754,209	$54,802
105%	13.00%	104	114	48%	52%	6,587,993	$63,346
110%	13.00%	118	100	54%	46%	8,628,483	$73,123
105%	14.00%	122	96	56%	44%	7,730,712	$63,366
100%	15.00%	127	91	58%	42%	6,678,189	$52,584
100%	16.00%	142	76	65%	35%	7,197,564	$50,687
105%	15.00%	141	77	65%	35%	8,718,765	$61,835
110%	14.00%	146	72	67%	33%	10,764,084	$73,727
100%	17.00%	171	47	78%	22%	9,144,869	$53,479
105%	16.00%	184	34	84%	16%	11,975,687	$65,085
110%	15.00%	186	32	85%	15%	13,868,878	$74,564
110%	16.00%	205	13	94%	6%	14,751,980	$71,961
105%	17.00%	209	9	96%	4%	14,092,861	$67,430
110%	17.00%	213	5	98%	2%	14,891,341	$69,912

For illustration purposes only

Illustration 7:

3.00% annual average salary increase
8.00% average annual earnings on assets deposited in a 401(a) Defined Contribution accounts
8.00% contribution to the DC plan
$30,000 Starting Salary
Retire at age 60



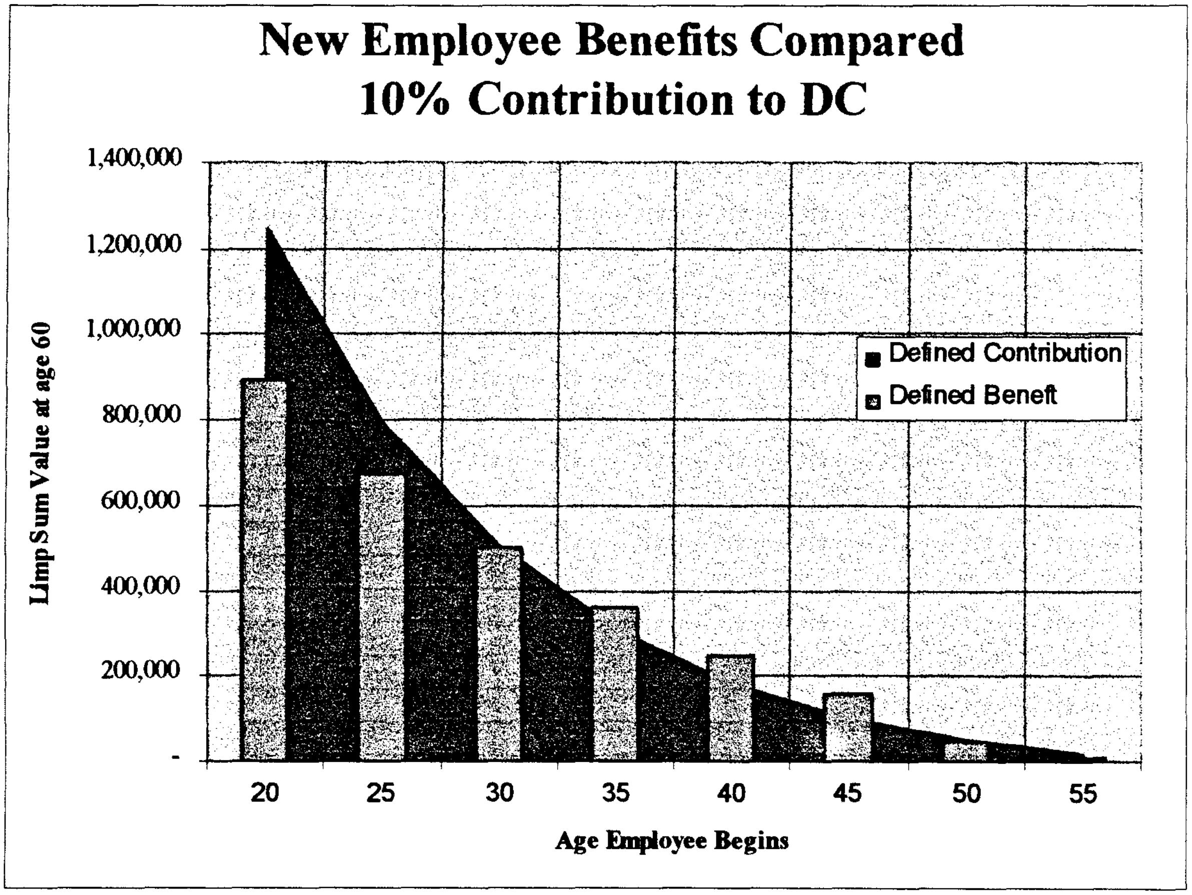
For illustration purposes only

Age	*Lump Sum DC*	*Percent Vested DC*	*Lump Sum DB*	*Percent Vested DC*
20	995,676.00	100%	893,915.00	100%
25	638,366.00	100%	674,711.00	100%
30	402,755.00	100%	498,867.00	100%
35	248,215.00	100%	358,606.00	100%
40	147,573.00	100%	247,469.00	100%
45	82,667.00	100%	160,102.00	100%
50	41,375.00	100%	46,035.00	50%
55	15,612.00	100%	9,927.00	25%

For illustration purposes only

Illustration 8:

3.00% annual average salary increase
8.00% average annual earnings on assets deposited in a 401(a) Defined Contribution accounts
10.00% contribution to the DC plan
$30,000 Starting Salary
Retire at age 60



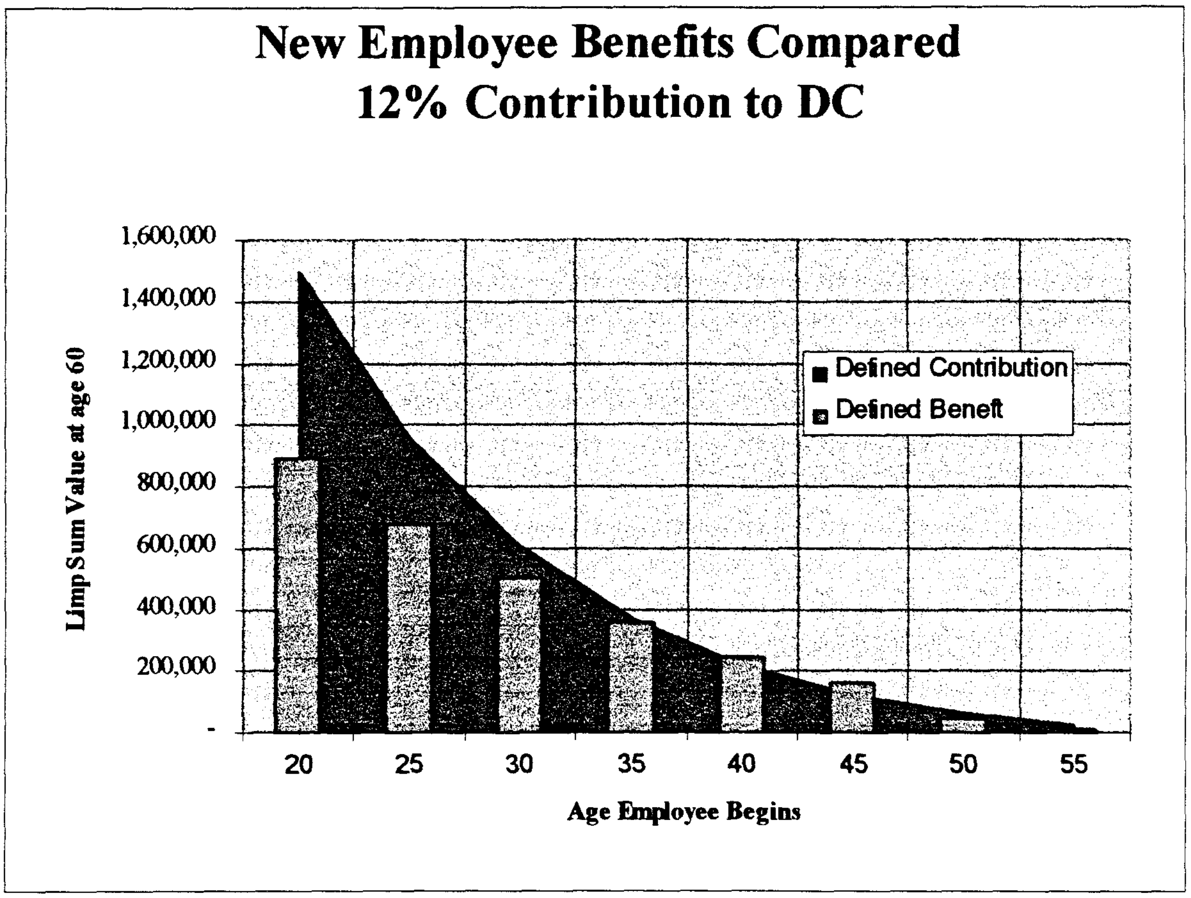
For illustration purposes only

Age	*Lump Sum DC*	*Percent Vested DC*	*Lump Sum DB*	*Percent Vested DC*
20	1,244,595.00	100%	893,915.00	100%
25	797,958.00	100%	674,711.00	100%
30	503,444.00	100%	498,867.00	100%
35	310,269.00	100%	358,606.00	100%
40	184,466.00	100%	247,469.00	100%
45	103,334.00	100%	160,102.00	100%
50	51,718.00	100%	46,035.00	50%
55	19,515.00	100%	9,927.00	25%

For illustration purposes only

Illustration 9:

3.00% annual average salary increase
8.00% average annual earnings on assets deposited in a 401(a) Defined Contribution accounts
12.00% contribution to the DC plan
$30,000 Starting Salary
Retire at age 60



For illustration purposes only

Age	*Lump Sum DC*	*Percent Vested DC*	*Lump Sum DB*	*Percent Vested DC*
20	1,493,515.00	100%	893,915.00	100%
25	957,549.00	100%	674,711.00	100%
30	604,133.00	100%	498,867.00	100%
35	372,323.00	100%	358,606.00	100%
40	221,360.00	100%	247,469.00	100%
45	124,001.00	100%	160,102.00	100%
50	62,662.00	100%	46,035.00	50%
55	23,418.00	100%	9,927.00	25%

For illustration purposes only

ARIZONA LEGISLATIVE COUNCIL

MEMO

December 16, 1998

TO: Senator George Cunningham

FROM: Ken Behringer, General Counsel

RE: Defined Contribution Plans; Effect of Proposition 100

QUESTION

Is a defined contribution plan for public employees allowable under the Arizona Constitution as amended by Proposition 100?

ANSWER

The Legislature may be prohibited from using a defined contribution plan as part of a public retirement system.

DISCUSSION

At the 1998 general election, the Arizona voters approved Proposition 100 that added article XXIX to the Arizona Constitution (article XXIX) to provide certain protections for public retirement systems. Article XXIX, section 1, subsection A provides:

> Public retirement systems shall be funded with contributions and investment earnings using actuarial methods and assumptions that are consistent with generally accepted actuarial standards.

A defined contribution system does not use actuarial methods and assumptions in determining its funding levels. The very nature of this system is that contributions are defined and set, they do not vary based on earnings or liabilities of the retirement fund.

It could be argued that this provision means that, if a defined benefit plan is used, that generally accepted actuarial standards must be applied. However, the plain language of the subsection is not limited in this manner. It requires that funding be determined using accepted actuarial methods and assumptions. Since a defined contribution plan does not use these methods and assumptions, it appears that this type of plan cannot be used for a public retirement system.

In a quick review of other state constitutions, I have not found a similar provision, nor have I found any court cases looking at any similar issue. I will continue looking and let you know if I do find anything.

CONCLUSION

Constitution of Arizona article XXIX, as added by Proposition 100, probably prohibits the Legislature from using a defined contribution plan for a public retirement system.

cc: Debbie Johnston

ARIZONA STATE LEGISLATURE
Forty-third Legislature - Second Regular Session

JOINT LEGISLATIVE STUDY COMMITTEE ON DEFINED CONTRIBUTION OPTION

Minutes of the Meeting
Friday, November 13, 1998
Senate Hearing Room 3

Cochair Bundgaard called the meeting to order at 2:00 p.m. and roll was taken.

Members Present

Senator Scott Bundgaard, Cochair	Representative Michael Gardner, Cochair
Senator George Cunningham	Representative David Armstead
Senator Tom Patterson	Representative Wes Marsh

Staff

Debbie Johnston, Senate Research Analyst
Tami Stowe, House Research Analyst

Speakers Present

Ray Rottas, Chairman, Legislative Committee, ASRS Board
Michael Carter, Actuary, Watson Wyatt
Barry Aarons, Americans for Tax Reform
Scott Baker, Regional Vice President Government Conversion Programs
Jack Cross, Administrator, PSPRS, CORP, EORP
Scott Simmons, Correction Officer, representing Fraternal Order of Police
Tim Hill, Executive Vice President, Professional Firefighters Association

Guest List (Attachment A)

Senator Bundgaard announced that he would hear Agenda Item #3 first.

PRESENTATION BY ARIZONA STATE RETIREMENT SYSTEM (ASRS) BOARD

Ray Rottas, Chairman, Legislative Committee, ASRS Board, thanked the Committee for the opportunity to speak on this important issue. He said there are 270,000 members who belong to the ASRS, 55,000 of whom are retired and 45,000 of whom are non-active or people who have moved on but left their money in the system and who will collect a portion when they retire at age 65. Mr. Rottas said he hopes to supply information to the Committee on which it could base its decision. He noted the Committee is dealing with a large number of people, and cautioned it to "tread softly through this issue" as many retirees are concerned about their future and react quickly. Mr. Rottas stated that Michael

Carter will cover the report the Committee had received yesterday (Copy was not distributed to the staff and is not attached.)

Michael Carter, Actuary, Watson Wyatt, stated his pleasure at the opportunity to present the report to the Committee, which he noted is an imposing document. Mr. Carter noted that currently there is no alternative plan to the State's defined benefit plan. He said Watson Wyatt has studied three alternative defined contribution plans and the impact of each on the defined benefit plan, the State and the employees.

Mr. Carter called the Committee's attention to page 23 of the report and described the contribution pattern that will be followed throughout the discussion. He explained that Scenario 2 - an Alternative Defined Contribution Plan is structured to have an employer contribution rate of 4%, and the employee rate will be employer rate plus what the employer would be putting into the continuation of a health supplement plan. Arizona's defined benefit plans have supplemental health plans that help pay for the retiree's medical care as well as a long-term disability plan that is separate from the defined benefits plan but also administered by ASRS. Mr. Carter stated that the assumption is that the retirees will not be precluded from having a health supplement, therefore that amount is included in the defined contribution proposal, and it is also assumed that they will still be covered by a long-term disability plan. He noted that the current cost for the long-term disability is .49% of pay from employees and employers. The cost of the health plan is 1.25% for the employer.

Mr. Carter stated Scenario 3, which is modeled on page 24, assumes that the total cost for the employer would be no greater than it is in FY1999. The State is currently contributing 3.34% of pay to the retirement plan and the long-term disability plan. In the example Mr Carter described, 1.60% of pay is paid for retirement, 1.25% for the health supplement and .49% for the long-term disability.

Mr. Carter described Scenario 3 as a low-cost option, Scenario 2 as a mid-cost option and Scenario 4 as a high-cost option. Referring to page 25, Mr. Carter explained that Scenario 4 includes only a few employees in higher education and the "grandfathered system" for which the obligation is a total of 7% of pay.

Mr. Carter said the purpose of the analysis was to determine the impact under any of these plans which are assumed to be an alternative to the defined benefit plan, and the employees will have a choice to remain with the defined benefit plan or go to the defined contribution plan. Mr. Carter discussed the election rates between various age groups noting it is assumed that the older employees would stay in the defined benefits plan, and the younger new hires would go into the defined contribution plan.

Mr. Carter explained the only concern is if there is a reduction in the influx of new members into the defined benefit plans that would have a detrimental effect on the defined contribution plan. He directed the attention of the Committee to page 94 and explained the basis for the analysis focuses on asset allocation and how that could be affected. The costs of the defined benefit plans have been going down, and currently the State is contributing 2.85% to the defined plan along with the 1.25% for the supplemental health care plan and the .49% for long-term disability. To measure the detrimental effect on asset allocation the difference between the contribution or net external cash flow and the benefits paid out is calculated. As contribution rates decline, the dollar amount also declines, while benefits increase and a negative external cash flow results. Mr Carter suggested that as long as the negative cash flow is not above 5% of assets there is not an asset allocation problem. The retirement system can generate interest and dividends.

Senator Bundgaard asked if Mr. Carter was referring to asset allocation as an investment strategy. He wondered if the retirement system would be able to pay all the benefits if everyone suddenly demanded their money. Mr. Carter clarified that if the difference between the contribution inflow and the benefit outflow exceeded 5% of the assets, the retirement system might need to change the assets from equities into fixed income interest-bearing securities that would be available to the net cash flow requirements.

Mr. Carter said that Scenario 1 is the existing defined benefits plan, and over the next 25 years he does not see a problem with cash allocation. If Scenario 2 is chosen, there will be fewer dollars flowing into the defined benefit plan.

Senator Bundgaard asked why Mr. Carter assumed that new employees would not join the defined benefit plan. Mr. Carter said the defined contribution plan builds value to an employee much faster than a defined benefit plan, and if an employee does not see himself as a long-term employee, he will likely choose the defined contribution plan. Mr. Carter gave examples of possible new employees and which program they might consider.

Representative Gardner asked what ratio was used for models 1, 2, 3 and 4 in the presentation. Mr. Carter referred the Committee to page 26 and said that if existing employees were within five years of being able to retire, and have fifteen years of service, they would keep the defined benefit plan. Under age 40, Mr. Carter felt that 95% of the employees would choose the defined contribution plan under Scenario 2. He stated that under Scenario 3 it was assumed that more employees would elect to stay since it has a lower contribution rate. Scenario 4 has a higher contribution rate and more employees would enter the contribution plan.

Representative Gardner asked for the overall assumption from which the percentages on page 94 were obtained. Mr. Carter said that the 1997 data was available for the model and they entered the number of retirements and deaths based on current actuarial assumptions taken from the actual experience of the State. It was assumed the total workforce would grow at the average rate of 1% per year over 25 years. The percentages of new people coming into the system were then fed into the computer and a model was obtained. Those percentages are indicated on pages 26, 27 and 28.

Representative Gardner said there are an extraordinary amount of assumptions built into that model. Mr. Carter explained the assumptions, and stated that one in particular should be noted. The assumption is that there would be no aging of the group of new hires, but that demographics show that there will be fewer employees age 25 to 35 in the work force in ten years. If the election rates are geared to age and the group is older, they will be more likely to go into the defined benefit plan. He said he believed the analysis to be a conservative one.

Representative Gardner said he saw it the opposite way, and that there would be older people coming into the work force and the defined benefit plan would be stronger than reflected in the analysis.

Senator Patterson stated he had a problem with the issue of asset allocation, and said it makes no sense to say that a portfolio that is 25% to 35% invested in fixed securities which experiences a rise from 5% to 8% in the amount of payout, would then experience an inadequate cash flow, and stated that Mr. Carter is presenting an extreme situation.

Mr. Carter said that cash influx items are coupons or interest payments on fixed income and dividends on stock and allocations to cash, i.e., 30 day bills. He said in an extreme situation one could sell securities. He said that if the system must generate more cash to meet benefit payments there is a limited amount of dividend income, which leaves selling securities, using fixed income interest or changing the allocation to cash. For the proper management of the plan, cash holdings or fixed income holdings should be increased. The system may have to move from 35% fixed income to 40% or more fixed income. Over the long-term, the fund will have a higher expected return with a higher allocation to equity-type investments.

Senator Patterson said he did not believe that the system managers would not maintain the system and the ratios of securities within the account. He took issue with Mr. Carter's answer about why a 30-year old would choose a defined contribution plan and said he believed that the long-term arrangement with its multiples of rate-of-return would have a greater payout upon retirement and that even a 30-year old would consider that.

Mr. Carter responded that, when talking about a stand-alone defined contribution plan versus a defined benefit plan, if the defined contribution plan averaged 15% over the years, it would be true that the defined benefit plan would have also earned that much, and probably would have earned more because of the management fees for a defined contribution plan. Mr. Carter said that has happened with the current retirement plan and the cost is only 2.8%. When the 1998 valuation is presented, a further decline will be seen, and in the last asset liability model the cost is zero for this plan. The Legislature has a choice to increase benefits, or enjoy the good fortunes of a zero contribution rate.

Senator Patterson said that his point is that the 30-year old would be better off choosing the defined contribution plan throughout his life and that the quick turn-around on profit is not the only reason he would choose that plan.

Representative Armstead stated the 30-year old segment will most likely be turning over faster than the 40-year old segment. He said employment statistics agree with what Mr. Carter said and that many employers deal with that daily.

Mr. Carter stated that the defined benefit plan will need to have more assets going to cash flow under the option of having both defined benefit and defined contributions plans. The actual return will diminish and when the difference is severe enough, an asset allocation change will have to be considered.

Senator Bundgaard asked if there is something which shows the effect that a lesser return on assets will have on a defined benefits plan. Mr. Carter replied there is not because it will not have an effect. Senator Bundgaard referred to page 4, indicating a possibility of not having cash on hand to pay employees who withdraw their retirement benefits, and queried if that would not effect retirement. Mr. Carter confirmed that it only effected the cost of the defined benefit plan.

Senator Cunningham asked who bears the cost in that instance. Mr. Carter responded that under the current structure both employees and employers will bear the cost. If there is a decline in investment returns then the cost to the employer and employee over the years will increase, but the benefit will remain untouched. Senator Cunningham clarified that by cost Mr. Carter meant the amount of contribution on both the employer's and employee's part.

Mr. Carter referred to page 95 of the report and stated if an alternative program is created, the cost of the defined benefit plan will drop, and the benefit plan will lose more liabilities than it will transfer assets. The employees transferring to the contribution plan will take their assets but will not take the percentage by which the benefit plan is overfunded.

Mr. Carter said that if and when a dual system is created, the existing employees will have an option to stay in the benefit plan or move to the contribution plan during the first year. When they move to the contribution plan, the retirement benefit value is transferred with them. The liabilities that will be moved will be greater than the assets that will be moved.

Senator Patterson said that should be a decision of the Legislature when they create the plan. Mr. Carter agreed, and stated that one bill in the 1998 Legislature anticipated an election by the current employees with a movement of assets from those employees.

Representative Gardner clarified that the liability is greater than the asset. Mr. Carter said initially it is, and the contribution rate for the defined benefit plan will be lower than the current status quo rate. Eventually, if the allocation rate becomes enough of an issue, the ability of the fund to return the assumption rate is impaired, and will go down 1%. Mr. Carter explained that once that begins happening, the contribution rate to the plan will increase as shown. The contribution rates between the current plan and Scenario 4 are almost identical and it is not until the later years that there will be a greater cost. In terms of money, the amount is going to be less because you have fewer people in the system. He asked the Committee to turn to page 99 and stated that the defined benefit plan costs would gravitate upward and level out at 5% to 5.6%. Mr. Carter stated that in Scenarios 2 and 4, there would be a higher cost to the employer while Scenario 3 would cost less.

Senator Cunningham referred to page 98 and asked if the figures were the sums of the costs of the defined benefit and defined contribution plans to the employer. Mr. Carter verified they are and also include the long-term disability benefit and the health supplement. Senator Cunningham clarified that Scenario 3 is the least costly to the employer.

Representative Gardner stated that the difference between Scenario 1 and Scenario 3 is $100 million, and asked if the reinvestment of that money is included in the model. Mr. Carter said it is presumed the money would be budgeted somewhere else within the employer's budget.

Mr. Carter said the next step was the implication for the employee. Four hypothetical ages for hire were considered with 3 employees within each age category. He said the average age of State employment in Arizona is 35. He added that three levels of employee performance had been modeled. The lower performers were given an assumed raise of 2% throughout their career, the average performers averaged 4% and the high performers would average 6% increases. Mr. Carter explained the chart on page 55, and stated the low performers demonstrated on the chart would be better off in a defined contribution plan. He called attention to the fact that in the early years of employment the defined contribution plan options exceed the value of the early years of the defined benefit plan.

Senator Patterson asked how to translate the benefit into a lump sum. Mr. Carter replied a 2% multiplier is used times the salary growth times the years of service for a benefit to be paid at retirement. He said an actuarial figure is applied to the current age. He said the idea is similar to a single premium deferred annuity insurance policy.

Mr. Carter referred the Committee to page 62, and said for the average performer the long-term benefit is greater under the defined benefit plan. For the high performer, Mr. Carter said that a traditional defined benefit plan will pay out better over the long-term.

Tape 1, Side B

Mr. Carter explained the connection between the long-term disability program and the retirement system, noting that ASRS pays disability until the person retires.

Mr. Carter stated that currently in a defined contribution plan a retiring employee would take either a lump sum or a roll over, and he suggested that the Committee draft legislation for a supplemental health plan if the person is taking a lump sum or roll over. He also said that if the contribution rates are closely related, he would suggest putting a floor on a defined contribution rate from both the employer and employee. He reiterated that Scenarios 2 and 4 would cost the employer money. He said the Committee should assess what level of benefit it wants to provide. Mr. Carter mentioned the excess-earning cost-of-living adjustment (COLA) and said that would be harder to maintain if the numbers are reduced entering the defined benefit plan. If there is a concern for portability, a cash balance overlay can be built into the plan.

Mr. Carter mentioned page 90, and said the public sector has a disadvantage in that it cannot set up a new 401K like the private sector can. Therefore, if the plan is to be tax-sheltered, a choice cannot be given to the employee as to the rate he contributes. The employee must be locked into a rate when he comes into the plan. Responding to Senator Bundgaard, he said the tax code says the rate must be specified and they must contribute it in order to be tax-sheltered. He thought the Legislature could develop a choice which would be an irrevocable selection.

He added that some defined contribution plan options could end up costing the employer more in the long run.

Representative Armstead thanked Mr. Carter for his presentation and said Mr. Carter had clarified the subject matter for the Committee.

PUBLIC COMMENTS

Scott Baker, Vice President for Regional Benefit Plan Conversions, Great West Benefits Corporation, said he will address the procedural issues, the first of which is the pre-tax contributions made by employees. If the Legislature chooses to have the contributory pension system, any contribution made by an employee with pre-tax treatment must be mandatory and irrevocable for every employee under that plan. The employees cannot discriminate and can have only one pick-up contribution. He suggested there could be a formula similar to that which currently exists.

Mr. Baker said he believes in defined contribution plans, although they are not right for every employee and employees should be given the choice. He claimed that defined benefit plans could "hurt" an employee far more than a defined contribution plan. He said most employers feel they can supply more benefits at lower costs. Mr. Baker attested the Legislature's challenge is to construct a plan which will supply more benefits at a lower cost.

Mr. Baker said the mean tenure of a local government worker is 9.3 years, for a man it is 5.1 years and for a women it is 3.8 years. Most government plans have a 10 year vesting, which means that most government employees never receive benefits from a defined benefit plan because they do not stay long enough to vest. Mr. Baker claimed that fewer than 25% of the employees reach 20 years of service. He noted that more than 75% of the employees receive less than 40% of their compensation according to national statistics. Mr. Baker also commented that during their lifetime, most people will change jobs seven times and do not benefit when a defined benefit plan is the only option.

Mr. Baker distributed "Defined Benefit vs Defined Contribution-Considering Your Options" (Attachment B) and referred to the graph on page 7 which illustrates the assumptions for the comparison in a defined contribution plan as explained below that chart. Mr. Baker said any employee who leaves service prior to his normal retirement date is penalized by the defined benefit plan. Older, long-term employees that work beyond their retirement date will also benefit from a contribution plan. He claimed that 75% of employees get a reduced benefit under the defined benefits plan, and only 25% of employees receive an adequate retirement. He referred to the chart on page 8, and stated the lower white area represents an employee that left service once in his carrier after 15 years and illustrates that a defined contribution plan would be the better benefit.

Mr. Baker cautioned that the Legislature must consider portability if a defined contribution plan is offered. He stressed that portability is an important consideration. He also noted the risk of investment and the responsibility for the investment shifts to the employee. Mr. Baker said he advocated a voluntary change from a defined benefit to a defined contribution plan, and that the State must provide adequate information and time for the employees to make the decision. The risk lies in the fact that they may make the wrong decision.

Senator Patterson stated the Committee was working from two different models since it did not have a specific option to discuss. He said Mr. Baker's comments are the opposite of most plans to which he had been introduced, and that a beneficiary packet of information was given to the employees with certain options for qualified investments worthy of a pension plan as well as instructions on how to choose the options. Senator Patterson said most companies do not necessarily rely on the educational process.

Mr. Scott replied the education is not about specific investment options. If the employee is supplied that, he will not understand the benefits as compared to a defined benefit plan. He said the employees must be educated as to what the plans are in order to make an intelligent decision.

Representative Armstead stated his experience has been with medical insurance plans, but said Mr. Scott's point was well-taken. A change in carriers had been made at Representative Armstead's place of employment; the company had taken the time and spent the money to educate the employees on the benefits. He said the results were that people understood what their benefits were and used them more effectively.

Mr. Scott stated that if employees were allowed to make voluntary decisions and the employer expected a certain percentage to move to the new plan, but the employees were not provided with adequate information, the company would not reach the expected percentage. He used the State of Michigan as an example where 10% of employees elected to go into a defined contribution plan while 25% had been expected to change. He noted several reasons for that, but the main reason was inadequate communication about the prospects of the plan. He said it is a real challenge to provide proper information.

Mr. Scott said he felt that the defined contribution plan is still the best way to go, and that it provides a win-win situation because of predictable fixed funding costs. There are also lower actuarial costs, as one is not needed for a contribution plan, and if an employee has questions, he calls the plan administrator. Mr. Scott said there is also less record keeping because the State's costs cease when the employee leaves. It further eliminates the potential of an under-funded plan. He noted the contribution rate is locked in, and there is one source for record keeping, investment management, and employee aid. Mr. Scott said it is good for the employee because he has control over his investments, and there is immediate vesting. He noted that portability was the major benefit, but there are also better survivor benefits; the employee can leave at any age, and the assets continue to grow after he leaves service. He mentioned that in some cases there is loan capability.

Senator Cunningham referred to Mr. Carter's presentation, and said that Mr. Scott's underlying premise of more benefits with less cost contradicted Mr. Carter. He said he felt that the Legislature would require more education before offering such a plan to its employees. He said there is disagreement between the two presentations over policy and the projections. Senator Cunningham said the differences between the two must be reconciled and that the Committee should approach the situation slowly.

Senator Patterson said he did not feel there was contradiction between the two presentations. Mr. Carter's Scenario 2 would cost only marginally more than the current plan and in the course of seven years, would actually cost less. He felt that each had presented a plan which would be more beneficial than the current defined benefit plan. He said the defined contribution plans out-perform the defined benefit plan overall. Senator Patterson thought that for the same amount of money there would be better benefits even with Mr. Carter's possibility of the allocation rate becoming an issue in the benefit plan.

Senator Cunningham said his perception was that it is not uniformly beneficial to members. When high performers are hired at age 40 or better, the defined benefit plan may be preferable, especially in the later years. He stated that proves the point that one cannot make the uniformly applicable statement that the defined contribution plans are going to provide more benefits across the board. Senator Cunningham said it is important the Committee knows what it is offering and what the implications are before it is presented to the employees.

Jack Cross, Administrator, Public Safety Personnel Retirement System (PSPRS), Correction Officials Retirement Plan (CORP), Elected Officials Retirement Plan (EORP), commented on the discussion of the cost savings of a defined contribution plan. Mr. Cross said it depends on whether the most savings are in administrative costs, what the investment cost savings are and how the plan is managed. If employees were to choose a mutual fund, the costs would rise for the employee, but go down for the employer. Mr. Cross noted that in the PSPRS all of the administrative plan costs total 3 basis points. He said for the existing deferred compensation plan, depending on the mutual fund chosen, the costs can be between 140 and 282 basis points. Mr. Cross said the State's investment performance is better than 90% of the funds offered by the deferred compensation program. He said the statement by Mr. Baker that the employer costs would drop is true, but it is shifted to the employee.

Mr. Cross said that portability is a problem. In the PSPRS he said there is not much of an issue with portability, as those people stay in their chosen career for life. In an effort to reduce turnover, portability and vesting are definite considerations, especially in light of the money spent to train people.

Senator Bundgaard asked what shortening the vesting periods would do to the returns on the funds. Mr. Cross said if the vesting period is shortened and money is paid to people that have not previously been paid, the contribution rates would rise.

Senator Patterson asked why a fund manager would charge three basis points for a defined benefit plan and up to 282 points for a defined contribution plan. He said he thought if the plans were the same size, it would not matter where the money came from.

Mr. Cross replied the difference is that he is the fund manager for the three funds and does not receive the salary a Wall Street Manager does. He commented that they are often paid $1 million per year, and that marketing costs, operating costs and profit are factored into the cost of administering the plan.

Senator Patterson said that Mr. Cross is assuming that there will be some changes in the fund management, and that is not necessarily the case. Mr. Cross agreed that if the change is made to a plan similar to the deferred compensation program where the employee chooses the mutual fund, then there would be an increase in cost. If the plan is administered as it currently is, there would be no increase.

Mr. Cross noted the other concern was that of liability. He stated that the three plans he manages have been able to do better than predicted every year. He added that the managers are very conservative about investments and how they do the funding, and also all the earnings are not recognized every year. If the earnings were recognized in the actuarial valuations the plans would be up to 150% funded.

To assuage concern about what happens during "bad times," Mr. Cross said the plans are all well-managed, the managers are very conservative about where the money is placed and should be encouraged to be more conservative, and he agreed that perhaps a floor should be put on the contribution rate for the members and employers. He commented that if all the assets were recognized, the CORP and EORP rates would be at zero now.

Scott Simmons, Correction Officer, Pima County, representing the Fraternal Order of Police (FOP), stated the view of the FOP is that it is against employees of the courts and public safety going into a defined contribution plan. He stated the members can see the benefits for other groups such as the elected officials because of the term limits. He stated the members feel it would pull too much out of the system, and with the aging population there would be fewer members coming in to contribute to the system.

PRESENTATION ON DEFINED CONTRIBUTION OPTION - AMERICANS FOR TAX REFORM

Barry Aarons, representing Americans for Tax Reform, said he had heard very qualified presentations from both Mr. Carter and Mr. Baker, and he would not go into actuarial assumptions. He said there will be a future time for discussing those assumptions. Mr. Aarons reminded the Committee that the Americans for Tax Reform had brought Peter Ferrara to testify about defined contributions before the Senate Finance Committee, and he wanted to bring out a few points from that testimony. Mr. Aarons stated there is a weakness in the defined benefits system regarding portability, which is a nationwide problem. He said a particular Arizona problem is the term limits of elected officials where a group of legislators are forced to retire and they will have little to show for their time in office. The EORP is a good place to begin a defined contributions system. Mr. Aarons said the benefit may not apply to judges, who once appointed stay in office. He said he thought the issue of portability is very important due to the mobility of workers in society today. He mentioned that in the 1950's and 1960's people changed jobs only three to four times in a lifetime, but today the rate of career change is 7.5 times. Therefore, many employees will reach retirement age and not have a lot to show for it. If an employee chooses a defined contribution plan and can roll over into another defined contribution plan or another type of federally approved plan, then he can change jobs many times without losing his retirement benefits.

Using himself as an example, Mr. Aarons related his recent work history, and said that had he not been able to contribute to a defined contribution plan, he would have saved very little for his retirement. While the balance in his plan was not as much as it would have been under a defined benefit plan, he still maintained a significant balance toward his retirement.

Mr. Aarons stated that recent statistics show that 70% of all California state workers would get only 40% of their benefits, and that is also true in some other states. He related some experiences that had occurred in the state of Michigan when it turned to a defined contribution system. He noted 42% of government workers in Oakland County, Michigan, chose to go into the new plan and took less than 37% of the assets from the defined benefit plan, which also continued to grow throughout the conversion. In Palm Beach, Florida, 63% of workers took a defined contribution plan and took only 14% of the assets of the defined benefit plan with them. He said when the Committee arrives at a set of numbers reflecting those who will move from a defined benefit plan to a defined contribution plan, it should make any move that it finds "appropriate and comfortable" toward a defined contribution option.

PUBLIC COMMENT

Tim Hill, Executive Vice President, Professional Firefighters, stated that the members of PSPRP are concerned with any move toward a defined contribution plan. He stated a lot of members, when making career decisions, look at the public safety and compare it with the long years as well as the good benefits that currently exist in the defined benefit program. They realize that when they reach a certain age, or if they become disabled, there are benefits for their families. This is an attractive recruiting tool for the firefighters to keep people in the profession. He said for the firefighters it was as much a safety issue as a benefit because of the money that is spent in training firefighters. There is an additional cost if that firefighter is trained an a paramedic.

Mr. Hill said the members are enjoying low contribution rates and the employers are able to benefit from low costs. Mr. Hill stated that the PSPRP members are assured a benefit for their families if they are disabled or killed in the line of duty. Under a defined contribution plan, the family will get only the amount that has been paid in plus the interest paid to that point. There is no long-term disability program. Mr. Hill said the firefighters were in support of the portability concept, although those in that line of duty did not move around as much as those in other occupations. He also said that a defined contribution was fine for someone who started young and worked till retirement. However, the firefighters do not want someone fighting a fire along side them at the age of 65 because it affects both the firefighters' and the public's safety. He mentioned smaller departments, i.e., Bisbee, would be extremely harmed if an employee left service and took his defined contribution payment with him and that department had to invest more money in training a new firefighter.

Senator Patterson questioned whether Mr. Hill thought more rapid vesting is a good idea. He stated that Mr. Hill had presented a lot of arguments against a defined contribution plan for public safety personnel. He did not understand the harm in offering them an option. Senator Patterson said no options will be taken away from, but more will be offered.

Mr. Hill stated that he is not anti-defined contribution plans, but is trying to express concerns which should be considered regarding adoption of such a plan.

Tape 2, Side A

Mr. Hill said as long as the education about the plans was thorough and complete on both sides, i.e., the benefits of a defined benefit plan versus the benefits of a defined contribution plan, and the ramifications of both, then he would agree to offering the options. He said that young people are not interested in building a home or having a family, and are often tempted to take the money from the plan and spend it unwisely. Also the earnings on something such as a 457 plan are limited by the federal government, so one does not reach his goal as well under a defined contribution plan.

Senator Bundgaard asked for clarification on the disability system offered the firefighters. Mr. Hill said if the firefighter is totally disabled in the line of duty, he receives a disability pension which is approximately that of retiring with 25 years of service and receiving a full pension. If he is killed, the family receives a full survivor's pension. In the defined contribution plan, there is no such provision and the family receives only the amount that has been put into the plan and the interest gained to that point. Under the defined benefit plan, there is a clause which tells the family exactly what it will receive, while under the defined contribution plan there is nothing to let them know what they will receive.

Senator Bundgaard said it seemed to him that a defined contribution plan, such as in Scenario 4, would have been better in both the short-term and long-term. Mr. Hill responded that the assumptions were based on a 7% contribution, and that no employer is paying 7%. He asked Mr. Cross to clarify the matter.

Mr. Cross said the answer is that if the firefighter were killed with only three years of service he might have only $10,000 in his account, but under the current defined benefit plan, the family would receive half of his pay for the rest of their lives. The analysis does not look at the public safety program.

Senator Patterson said that is the reason for life insurance being purchased in defined contribution plans.

There being no further business the meeting was adjourned at 4:30 p.m.

Respectfully submitted,

Karen Neuberg

Karen Neuberg
Committee Secretary

(Attachments and tape on file in the Secretary of the Senate's Office)

Hearing Room No. 2
Date: NOV 13 1998
Time: 2:00 pm

MEETING OF COMMITTEE ON

DEFINED CONTRIBUTION OPTION

NAME	REPRESENTING	BILL NO.
Page C. Patterson	Maricopa County	—
DAVID MENDOZA	AFSCME Council 97	—
JOHN BLACKBURN	MEAO	—
Pat Cantelme	Phoenix Fire Fighters	—
Bill Shields	United Phoenix Fire Fighters	—
Tom Finnerty	ASRS	
Tim Hill	PROF. FIREFIGHTERS	
SCOTT SIMMONS	Pima Co. SHERIFFS DEPT-FOP	
PETE DUNN	ARIZ. JUDGES ASSN.	
BILL COOK	ASREA	

Attachment A

ARIZONA STATE LEGISLATURE
Forty-third Legislature - Second Regular Session

JOINT LEGISLATIVE STUDY COMMITTEE ON DEFINED CONTRIBUTION OPTION

Minutes of the Meeting
Wednesday, December 16, 1998
Senate Hearing Room 2

Cochair Bundgaard called the meeting to order at 2:16 p.m. and roll was taken.

Members Present

Senator Scott Bundgaard, Cochair	Representative Michael Gardner, Cochair
Senator George Cunningham	Representative David Armstead
Senator Tom Patterson	Representative Wes Marsh

Staff

Debbie Johnston, Senate Research Analyst	Tami Stowe, House Research Analyst

Speakers Present
Leroy Gilbertson, Director, Arizona State Retirement System

Discussion and Recommendations

Senator Bundgaard said the Committee has considered some recommendations for Legislation next year, which will be discussed and voted on.

Senator Cunningham stated he asked Legislative Council what the effect of Proposition 100 is, assuming the passage of Proposition 100 and a defined contribution option is enabled. He said the conclusion of Ken Behringer, General Counsel, Legislative Council, (Attachment A) is that a defined contribution plan is not allowed with the language in the Constitution regarding Proposition 100 because of the provisions relating to actuarial standards. Senator Cunningham said he wondered if the Committee wants to seek further clarification from the Attorney General.

Senator Bundgaard said he was just made aware of the problem regarding the proposed bill and how it relates to Proposition 100. He agreed that once a bill is compiled a legal opinion may be worthwhile. However, he stated he would prefer to continue with a defined contribution option plan, and if necessary, allow it to be tested in the courts.

Senator Cunningham requested that the Legislative Council's opinion be included in the Committee's report.

Senator Patterson stated he thought characterizing this as a Legislative Committee being in defiance of the Constitution is somewhat extreme. He said Legislative Council is "hooded" in its approach and only points out problems. He said the intent of the provision is that generally accepted actuarial standards should be used, not other standards, and not that the program should be restricted to plans that have investment earnings based on actuarial standards. Senator Patterson said the Committee is not in defiance of the Constitution and is certainly not bound by an opinion of the Legislative Council.

Representative Armstead said he had just read the proposal entertained by the Committee in reference to a bill. He asked if the Committee has been able to determine the effect on the existing plan. He said he thought that had not been discussed in its entirety at the last meeting. He asked if the cause/effect relationship is a part of the bill the Committee will recommend. He suggested that should be submitted to the Legislature simultaneously.

Representative Gardner stated the proposal has a long way to go and the purpose of today's meeting is to make recommendations and stated that ~~it~~ thinks this type of plan has merit within certain parameters. Representative Gardner felt a lot of those challenges will have been worked out before the Legislature votes on the legislation. He said he thought the Committee had investigated the cause/effect relationship thoroughly, and that the plan has opportunities for the employees from which they should not be deprived.

Representative Armstead said he thought the Committee should come up with a defined contribution option package which includes all the relevant data. He reminded the Committee that there will probably be only one committee hearing during session on the subject. He said it is a very complex issue and would bring questions such as Senator Cunningham has raised. Representative Armstead suggested study sessions for the legislators. The package should be provided to each and every legislator so that information will be in front of him when the bill is heard. He mentioned an acquaintance had made nothing on his defined contribution plan the prior year. Representative Armstead asked that person about the counseling or informational programs offered through his company, and was told there were none. He stated the Committee should use that as a warning signal and make sure the information is in place for everyone to assess.

Senator Bundgaard stated he felt the presentation by Watson Wyatt at the last meeting had given an accurate picture of the system with several "worst case scenarios." He said the object of this Committee is give employees the choice of which type of system they want to belong to. He noted that there is greater benefit for some employees to stay in a defined benefit program, but for others there is benefit in the defined contribution. He said he would like to investigate Proposition 100 further, but felt the memo from Legislative Council only pointed out a possible problem. He said he wanted to continue deliberations on the defined contribution option and begin drafting a bill.

Senator Cunningham reminded the Committee that high performing employees will benefit most from the defined benefit plan, while low performing employees will benefit most from the defined contribution plan. He said he did not know if that was the way the State wanted to go, and wondered if a choice should be offered.

Representative Armstead said that is an important point. He said if something is to be done for employees it must be equal to all employees. He stated there is always a question of legal vulnerability to discrimination. The program may not be designed for the lower achieving employees. He suggested that left room for lawsuits.

Senator Bundgaard said he could not foresee lawsuits because the State offered a choice to employees. He said people make choices as to where to shop and where to send their children to school, and were trusted with those choices as adults.

Senator Patterson said he is concerned about those remarks being entered into the record. He said he thought that all employees could benefit from a well-designed plan. He attested that every plan previously discussed offers guidance and restricts choices to worthy choices that are a grade of investments that would go into a retirement plan and said he did not feel it is a problem. He said the Committee had heard one speaker say the plan would favor low performing employees, while the next speaker said it would favor high performing employees. Senator Patterson said no one knew the exact wording of the plan but obviously those who earned more would invest more and thereby be rewarded for being high performing employees. He said he hoped that the Legislature would have some more definite scenarios to discuss, and not have to continuously deal with possible problems. He said he thought it should be approached with an open mind, and that employees had the potential to retire with two to three times as much as they might in another plan.

Representative Armstead said the State does not have the ability to identify high performing employees.

Senator Cunningham said the testimony by Watson Wyatt was well researched, and the company had made it clear there would be some winners and some losers. He felt that those who are disabled would be worse off under a defined contribution plan. Senator Bundgaard asked for justification of that remark.

Leroy Gilbertson, Director, Arizona State Retirement System, said that unless provided in a separate plan there is no long term disability plan, which is provided in the current defined benefit plan. He said that if a defined contribution plan is provided, a longterm disability plan would have to be included.

Senator Bundgaard stated that the Committee should review the recommendations, as that is one of the recommendations for legislation.

Senator Cunningham said the other category of "losers" could be those who stay in the defined benefit plan. He said there would not be as much excess earnings generated, and they will not received cost of living allowances that they might otherwise receive. He said he believed the subject should be examined more closely. He said he sensed a presumption on the part of the Committee that it would move forward with a defined contribution plan in spite of the testimony received. Senator Cunningham said that a characterization of his postion as "less than open-minded" could be shared as a characterization of others on this Committee.

Senator Cunningham said that he came from an organization that had both types of plans, that the experience of one person is often anecdotal, and the Committee should not resort to anecdotal policy making and should review the trends and patterns. He assured the Committee that there will be a minority report setting forth some of his concerns stated here, as well as his concerns about the constitutionality.

Senator Bundgaard thanked Senator Cunningham for his remarks. He asked that the recommendations be discussed.

Senator Patterson moved the recommendation that the Arizona State Retirement System (ASRS), the Corrections Officers Retirement Plan (CORP), the Elected Officials Retirement Plan (EORP), and the Public Safety Personnel Retirement System (PSPRS) employers be required to offer an optional defined contribution plan by July 31, 2000. The motion CARRIED by voice vote.

Representative Gardner moved the recommendation that the new defined contribution plan shall offer ancillary benefits similar to those offered by the existing defined benefit plans, i.e., survivor and health benefits and long-term care disability. The motion CARRIED by voice vote.

Representative Gardner moved the recommendation that the Department of Administration to administer the new defined contribution plan through a procurement contract with a single provider. The motion CARRIED by a voice vote.

Representative Gardner moved the recommendation that the Department of Adminstration recommend to the Legislature employer and employee contribution rates. The motion CARRIED by voice vote.

Representative Gardner moved the recommendation that members of the new defined contribution plan will be vested after one year. The motion CARRIED by voice vote.

Representative Gardner moved the recommendation to require the existing defined benefit plans to transfer to the new defined contribution plan the present value of "accounts" for members switching to the new defined contribution plan, including the principal, interest and the growth. The motion CARRIED by voice vote.

Representative Armstead said he had a recommendation he would like to move.

Representative Armstead moved that a complete fiscal analysis upon the current plans be conducted, and a complete analysis of the fiscal effect of what has been moved under the defined contribution plan be done to determine the effect on the Department of Administration.

Senator Bundgaard asked if the Watson Wyatt study would provide any of that information.

Debbie Johnston, Senate Research Analyst, stated that the Watson Wyatt report may possibly address the ASRS portion of the effect on DOA but not the other retirement systems, nor would it address the costs incurred by DOA.

The motion CARRIED by voice vote.

Senator Patterson commented that he had been concerned about Proposition 100 during the last election and whether it would affect the ability of the Legislature to pass an option such as the defined contribution plan for the employees. Upon investigation of that possibility, he was assured that was not the intention or effect of Proposition 100. He said he hopes that those people will continue to hold that position.

There being no further business, the meeting was adjourned at 2:45 p.m.

Respectfully submitted,

Karen Neuberg
Committee Secretary

(Tapes and attachments on file in the Secretary of the Senate's office.)

MINORITY REPORT
FOR THE JOINT LEGISLATIVE STUDY COMMITTEE ON DEFINED CONTRIBUTION PROGRAMS

FINDINGS

The testimony at the committee meetings indicated the following:

- If all new employees were forced to go to a defined contribution plan, the lower investment return would cause the contribution rate of the current defined benefit plan to increase dramatically. Therefore, optional defined contribution plans were modeled.

- Of the three alternatives modeled, only one (Scenario 3) would result in a cost savings to the state. That scenario, however, results in significantly lower employee pensions than under the current defined benefit plan.

- High performing employees will benefit most from the current defined benefit plan.

- Employees who become disabled will be worse off under the defined contribution plan. For example, an employee who becomes disabled and survives until retirement age will not be provided with adequate benefits when the long-term disability benefits cease. This occurs because the DC plan does not receive accruals during the disability, other than interest. The defined benefit plan permits service credit to accrue during the disability, increasing the employee's retirement benefit.

- The defined benefit plan continues to be a bargain for Arizona taxpayers and plan participants because favorable investment returns have driven its costs down. ** FYs 99 and 00 it has a rate of only 2.17%.

- The defined contribution options, other than the high option, may save employers money but benefit levels more than likely will be reduced for many employee classifications.

- Initially, the creation of an alternative defined contribution plan is beneficial to the funded status and contribution rate of the defined benefit plan, but may lead to funding and negative cash flow problems and higher contribution rates.

- Public employees have not advocated for the adoption of a defined contribution plan. If the current plan is changed, this will have a tremendous impact on public employees. It is these individuals that should decide which plan they consider to be most beneficial to them.

POTENTIAL EFFECT IF EMPLOYEES GIVEN CHOICE OF PLANS

- Employees who stay in the current defined benefit plan will probably not receive cost-of-living adjustments, because it will be difficult to generate excess earnings.

- Employees hired at a later age are much better off under the current defined benefit plan.

- The defined contribution plan alternatives reward the shorter-service employee over the longer-term employee.

- Under the defined contribution plan, the average performing employees will be better off in the early years of their career, but worse off in the latter years.

- If the objective is to increase portability and to increase short-term benefits with no decrease in long-term benefits, the defined benefit plan can be amended to include a cash balance overlay feature for a modest increase in cost. A defined contribution alternative only provides portability to defined contribution program members.

- If defined contribution plans cost more to the state and give fewer benefits to the employees that the state would most like to attract, i.e., long-term, high performing employees, then the only reason to adopt a defined contribution plan is because it is portable. There are, however, cash balance overlay options that could be added to the current defined benefit plan to increase its portability.

CONSTITUTIONALITY

- At the last meeting of the committee, the question was raised regarding the ability of the Legislature to adopt a defined contribution plan in light of the passage of Proposition 100 in the General Election held November 3, 1998.

- Proposition 100 was designed to provide certain protections for public retirement systems by requiring the funding of these systems with contributions and investment earnings using actuarial methods and assumptions.

- In a memorandum written by the general counsel of the Arizona Legislative Council, it was stated that a defined contribution system does not use actuarial methods and assumptions. Therefore, it was concluded that the "Constitution of Arizona, Article XXIX, as added by Proposition 100, probably prohibits the Legislature from using a defined contribution plan for a public retirement system." (Memorandum attached)

For these reasons, we feel the committee should not recommend to the Legislature the adoption of the defined contribution plan, but instead direct the Arizona State Retirement System to research and recommend at least three cash balance overlay options for the Legislature to consider during the upcoming session.

George Cunningham

Senator GEORGE CUNNINGHAM

David Armstead

Representative DAVID ARMSTREAD

December 22, 1998