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MEMORANDUM

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Public Retirement Planning
"Defined Contribution" and "Defined Benefit" Plans

In establishing the Benefits Review Task Force ("Panel") former New Jersey Acting Governor Richard J. Codey said: "This is a problem we can no longer ignore. We need people with real working experience to provide options for the state to consider".

Any intelligent dialogue about the "problem" and its solution must include a discussion about offering a choice of plans, Defined Benefit or Defined Contribution. The Panel's deliberations should have been the logical place to begin such a discussion but sadly the Panel would have nothing to do with it. On the contrary, the Panel arrogantly asserts on page 20 of its Report (www.state.nj.us/benefitsreview/final_report.pdf):

> *"Defined Contribution Plans have a number of attributes that limit their applicability to most state and local public employees, although they are suitable for higher education professionals and elected or appointed officials. Defined Contribution plans place all of the investment risk on the individual. Hence, they are best for employees who can bear that risk because they have other assets and who are knowledgeable about investment alternatives."*

Not only is this assertion totally wrong it is highly insulting to all who lack a college degree. Prior to allowing the higher education employee to join the Defined Contribution Plan (Alternate Benefit Program) does the state require the employee to file a net worth statement and take an examination to evaluate his or her knowledge about "investment alternatives"? Of course not! The law states: All *"full-time faculty, officers, visiting professors, and certain professional administrative staff required to possess a college degree or its equivalent"* must join the Defined Contribution Plan.

While there is an educational requirement to join there is no "other assets" amount or "knowledge about investment alternatives" standard that must be met. Did the Panel ever think that some in the higher education crowd, if given a *choice* of plans, would choose the Defined Benefit approach?

Prior to 1969 higher education employees belonged to the Teachers' Pension and Annuity Fund or the Public Employees' Retirement System (TPAF-PERS). As a group, higher education personnel are more mobile than other career civil servants and, as will be shown in this Memorandum, the Defined Benefit system is hurtful to such employees. The Defined Contribution system, on the other hand, is ideal for the employee who has had several employers during a career of service or just one.

The Defined Contribution plan is *not* reserved for the higher education community because they have earned college degrees, are "well-paid", have "other assets" and are "knowledgeable about investment alternatives". *Career mobility* is the sole reason why higher education personnel are required to join the Defined Contribution Plan. If attainment of a college degree, being "well-paid", having "other assets" and being "knowledgeable about investment alternatives" were the requirements for participation then the Defined Contribution Plan would comprise the majority of public employees in this state and not the small minority that it does.

When it comes to choosing the *type* of retirement plan one size does *not* fit all. The choice of plan is best left to the individual based on his or her personal circumstances. The Defined Contribution approach may very well be "suitable" for the person that cleans the office of the Professor of Greek Mythology but "unsuitable" for the Professor. The State of Florida has come to this conclusion by offering a *choice* of plans to its entire public employee workforce. http://www.myfrs.com/content/index.html. New Jersey along with all the other states should do the same.

Each *type* of plan has a different impact on a participant's total compensation, career mobility, and retirement income.

The Defined Contribution Plan

This type of plan makes its pension commitments to participants in the form of monthly contributions that are a stated percentage of current salary. The employer's contributions, along with those of the employee, are deposited each month to the individual retirement investment account of each participant, as are the investment earnings on the accumulating contributions. For the Defined Contribution plan illustrated in this Memorandum, contributions are 12% of salary, with 7% paid by the employer and 5% by the employee. (Under the assumptions used, this rate of contribution provides a retirement income of about the same amount as the Defined Benefit plan illustrated after a career of participation.)

During the working years, all funds contributed to a Defined Contribution plan accumulate with investment earnings, and at the time of retirement may be used to provide an annuity income based on the amount of the accumulation. Age, of course, has a material effect on life expectancy and therefore on the rate of monthly pay-out. The younger the age of retirement, the smaller the monthly income per $1,000 of accumulation, because the longer the number of years over which payments will be made.

The Defined Benefit Plan

This type of plan provides that if an employee stays with one employer until retirement, he or she will receive a monthly single-life income equal to a specified percentage of the average salary paid by the employer in the years just prior to retirement, e.g., 50% of final-5-year average salary at age 65, after a career of service. The monthly single-life income is therefore the same for all who have identical salary and service histories. The accumulation needed to pay the income is determined by the age, salary and service of the person.

The Defined Benefit plan in the illustrations that follow provides that for each year of participation the plan will pay a retirement income at age 65 equal to 1.5% of the average salary paid the employee during the final five years of participation in the plan. This formula therefore promises that after 35 years with one employer the participant will receive a retirement income equal to 52.5% of final-5-year average salary.

Pension Contributions as Deferred Compensation

It is revealing to compare the two plans in terms of how much they add to a participant's total compensation each year. Under the Defined Contribution plan illustrated, employer contributions of 7% of salary are credited to the participant's retirement account each month along with the participant's own contributions of 5%. Each month the employer is therefore adding 7% of salary as deferred compensation to each person's account.

A Defined Benefit plan is more difficult to pin down in terms of how much it adds to a person's compensation each year. Although employer costs are often expressed as a percentage of salary, e.g., "7% of covered payroll," this over-all percentage is rarely indicative of the value of pension benefits earned by any individual in the plan. Instead, the cost of the defined benefit earned by a year's work depends on a person's age, salary, and years of participation in the plan. If the plan is contributory, participants contribute a stated percentage (5% in the illustration), just as in Defined Contribution plans. But the employer's share of the cost varies substantially from person to person, adding little or nothing to a younger person's compensation, and adding a great deal with advancing age and long-term participation in the plan. This is shown in Table I, which illustrates the contribution pattern required to keep each type of plan *fully funded* for a person who enters at age 30 and stays with one employer until age 65 (see below for assumptions used).

Assumptions

All of the Tables are based on the following assumptions:

- Salary is $8,000 a year at age 30, increasing by 4% a year to an average of $28,107 a year between ages 60 and 65.
- The Defined Benefit plan provides that a person who enters at age 30 and stays with one employer until age 65 will receive a retirement income of 52.5% of the final-5-year average salary, or $14,756 a year for life.
- The level contribution rate for the Defined Contribution plan (12% of salary) was selected because under the stated assumptions it too will provide a single life annuity of approximately the same amount at age 65.
- Both plans provide full and immediate vesting and the full accumulation value is assumed to be payable to the participant's family if he or she dies before retirement.
- Employee contributions are 5% of salary for both plans.
- The investment return is 5% for both plans.

Table I

Contributions as Per Cent of Salary

Employee's Attained Age	Employee Contributions Either Approach	Employer Contribution Defined Contribution Plan	Employer Contribution Defined Benefit Plan
30	5%	7%	-2.18%
35	5	7	-0.99
40	5	7	1.02
45	5	7	3.86
50	5	7	7.83
55	5	7	13.38
60	5	7	21.06
64	5	7	29.27

Under the Defined Benefit plan illustrated, the younger employee's own 5% contributions are more than enough, with anticipated interest earnings, to cover the *full cost* of the defined benefits earned at the younger ages, and to cover *most* of the cost until nearly age 50. Thereafter, for a participant who remains at one employer throughout a career, the employer's share of the cost rises rapidly with advancing age and long service, because each year's pension commitment includes not only (a) the cost of the current year's 1.5% benefit, based on the most recent five years' average salary, but also (b) the additional cost of updating all previously earned benefits to the latest 5-year average salary. This results in deferring most of the employer's pension commitment for an individual to the final years of long service, as shown. For example, in the Table I illustration about 85% of the employer's cost under the Defined Benefit plan is deferred until after the 25th year of participation, between the participant's age 55 and 65.

This deferral has the unfortunate effect of making a disproportionate part of a person's lifetime compensation contingent on age and fealty to one employer. Deferred funding also works to the disadvantage of those who participate at the younger ages but leave the work force during the middle years, say to raise a family. They take little or no deferred compensation with them when they leave, and their re-entry problems, if they later return to work, are exacerbated by the high pension costs at the older ages. A Defined Benefit plan also has worrisome implications for an employer's budgeting and salary administration, especially during periods of salary inflation. For example, under the Defined Benefit plan illustrated, each salary increase of $1,000 at age 60 carries with it a pension cost of approximately $5,800 between ages 60 and 65.

Death Benefit Prior to Retirement

It is also interesting to compare the amount that accumulates on behalf of each participant during the working years. Under Defined Contribution plans the accumulated funds are payable to the participant's beneficiary if the participant dies prior to retirement. Under the Defined Benefit system, any employer funding on behalf of an employee is forfeited upon death prior to retirement. The funds revert to the pension plan and help pay the employer's pension costs for other participants. But Table II shows the combined amounts of accumulated employer and employee contributions at 5-year intervals, and assumes that under both plans the full amount would be payable to the beneficiary or estate of a participant who remains at one employer until the ages shown and then dies.

Table II

Accumulated Death Benefit Prior to Retirement

(Assuming participant remains at one employer until death at age shown)

Age Attained at Time of Death	Defined Contribution Plan	Defined Benefit Plan
30	$ 953	$ 223
35	7,166	1,951
40	16,476	5,621
45	30,066	12,846
50	49,521	26,495
55	76,964	51,545
60	115,225	96,572
64	156,115	156,523

Retirement Income and Career Mobility

The effect of career mobility on the end product of each plan also bears examining. A person who moves among several employers having identical Defined Contribution plans will reach retirement with the same level of retirement income that would have been produced staying at one of the employer's for an entire career. On the other hand, a person who moves among several employers having identical Defined Benefit plans will reach retirement with substantially less retirement income than by staying at one of these employers for an entire career. Consider Jack and Jill.

Jack is covered from age 30 to age 65 by the 12% Defined Contribution plan illustrated. He will receive $14,718 a year at age 65, or about 52.4 percent of his final-5-year average salary whether he remains at one employer throughout his career or moves among several employers having identical plans.

Jill is covered by the Defined Benefit plan illustrated, and if she stays at one employer from age 30 to age 65 she will receive a retirement income of $14,756 a year, or 52.5% of final-5-year average salary. But if, for example, she changes employers at age 40 and again at age 50, remaining at the third employer until age 65, her retirement income will be $10,246, even though all three institutions have identical Defined Benefit plans and provide full and immediate vesting. This occurs because when she leaves an employer the defined benefits earned at that employer are related to the participant's 5-year average salary *just before leaving,* not to the 5-year average salary just before retirement.

The “cold storage vesting” of Defined Benefit plans provides no way for vested benefits to increase between termination of employment and retirement. The calculation is shown below:

Table III

	Average Salary Last 5 years at Each Employer	x	Years of Service	x	1.5%	=	Yearly Income at age 65
Employer 1	$10,543	x	10	x	.015	=	$ 1,581
Employer 2	15,606	x	10	x	.015	=	2,341
Employer 3	28,107	x	15	x	.015	=	6,324
							$ 10,246

Advantages of Each Plan

The main advantage of a Defined Benefit plan is that it assures retiring employees with equal periods of service at a given employer a consistent ratio of retirement income to final average salary. And this ratio (although not the amount of retirement income) is predictable if it can be assumed that the employee will stay with a given employer until retirement.

A major advantage of the Defined Contribution plan is that it adds a consistent and visible percentage of salary to each employee’s total compensation at the time the compensation is earned. If one person’s salary is more than another’s, the deferred compensation is greater by the same percentage, not warped out of proportion by age or length of service. This pattern of funding, unlike a pattern that defers most of the employer’s commitment to the final years of long service, helps keep the pension plan a neutral factor when the person is deciding about joining or leaving an employer (also when the employer is making the decision). Shouldn’t the individual have a full measure of benefits whether staying at one employer or moving among several?

The Defined Contribution plan also has budgeting advantages for the employer. Pension costs are a constant percentage of salary each year. And the employer’s pension obligation for each person is fully and permanently funded at the time the obligation is incurred, not left as an open liability tied to whatever salary levels the future brings.