Basics of
Public Employee Pensions
With Special Reference to San Diego

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Introduction: The Initial Decision

The are two separate issues involving in arriving at a "solution" to the current financial problems of the San Diego City Employees Retirement System: (1) Addressing the present unfunded liabilities, and (2) Preventing the same situation from developing in the future. The first of these is purely one of somehow paying the bill. I am addressing the second issue here, with limited reference to the present problem.

It has been suggested as part of the solution, that the city adopt a "401(k)" replacement plan, instead of the present type of defined benefit plan. The following discussion considers the pros and cons of this suggestion.

Why a defined benefit pension plan.

In summary, any new retirement plan should provide adequate benefits under a governing structure that ensures both (1) fair representation of employer and employee interests and (2) responsible administration, subject to personal penalty for failure to act in accordance with law.

In the consideration of possible "reform" of the San Diego City Employees Retirement System, it has been proposed that, in line with private industry, the City substitute a "401(k)" defined contribution plan (with pension benefits based on the amount contributed, plus earnings) for the current defined benefit plan (with benefits based on salary and years of service). Before considering the pros and cons of such a change, it is worthwhile to understand some of the key differences between private and government pension plans. Also, experience over the past eighty years provides an indication of things to come.

In addition to the constraints of business conditions and profit and loss decisions, private sector plans operate under an intensive federal regulatory system, with overview by both the IRS and the Department of Labor. In the interest of federal income tax collections, there are limitations on both the amount of employer contributions and benefit levels. In the interest of the protection of plan beneficiaries, there are restrictions on types of investments. Those who are responsible for the proper administration of these plans are called "fiduciaries", facing significant penalties for violations of law and regulations.

Those governing and administering our state and local government plans do not have anything like these personal considerations. In most instances, irrespective of the level of benefits or effectiveness of investments, the full faith and credit of the government stands behind the pension promise. Further, the large size of these pension funds is a sure attraction for manipulation. As a consequence, today, city after city and state after state is facing major unfunded pension plan liabilities. Stories of the misuse of governmental pension plan assets come from many parts of the country.

Despite these developments, it is essential that our public employees have adequate personal retirement security, with pension benefits that relate to the type of employment. As citizens and taxpayers, to receive the level of public service we require- and these requirements are extensive- we must assure government workers that their retirement income security is assured.

In several ways, public employees retirement plans are greatly different from those of the private sector. The major aspects are: (1) We have always considered public service to be long-term employment. For the most part, those of us who take a government job and stay in it for over three years do not leave

for the private sector. The pension plans generally encourage continued employment, with the benefit formulas providing greater benefits at later years of service. The defined benefit formulas generally are based both on total years of service and salary in the last year or years of employment. Thus the long-term employee is shielded from the increases in the cost of living that have taken place over his or her twenty-five to thirty-five years of service. Further, because the benefits are promised, the employer takes the risk of pension fund investment losses or gains over those same years, as well as the increases in longevity. This follows the ages-long tradition, going back to Roman times, of encouraging and recognizing good and faithful public service.

(2) While in the private sector, there is the constant involvement of the employer in the determination of benefits, this is not the case in the public sector. The people who pay for the benefits are often not represented in the negotiation of benefits and employee contributions. Understandably from their standpoint, the employees are constantly concerned with their pension provisions. As can be seen today, across the country, at both the state and local level, there is pressure for changes to meet perceived needs. Very often, it is the elected officials who face this pressure and just as very often their first concern is immediate labor peace and employee support. However, rarely is the taxpayer sitting at the other side of the table. Both the State of California and the City of San Diego retirement systems currently provide good examples.

Beginning in the 1920s, in New York and New Jersey, the answer to these two aspects has taken the form of the actuarial reserve system- that is, based upon various assumptions and experience with respect to such factors as employee turnover, life-expectancy, salary scales and investment earnings, there is a determination of immediate annual cost to the employer. By periodic payment of liabilities for past service and advance funding for current service,

annual employer costs remain fairly stable. Government is required to make these annual contributions, so that unfounded deficits do not arise. Further, any increase in cost is part of the consideration of proposed benefit improvements. The legislator, governor, mayor, city counsel member, city manager, etc. therefore makes a knowledgeable decision in agreeing to establish or to increase benefits. When these principles are violated, the structure is shattered.

It has been suggested that the City substitute a defined contribution plan for the current defined benefit plan. An example given is the strong move in the private sector to 401(k) plans. Here, each employee has a separate account credited with employer and employee contributions as well as investment gains and losses. At retirement, the accumulated funds can be used to purchase an annuity, with monthly payments for life. While the employer's only responsibility is to make the required contribution during the employee's career, there are three very large downsides from the employee's standpoint:

(1) Since contributions are based on today's dollars, this means that with any significant inflation over the years, the retirement benefits based on the accumulated account may well fall short of being adequate for long-term employees.

(2) The employee rather than the employer, is at risk for investment losses and gains. This is fine when the account gains, but can be disastrous to morale when there are investment losses.

(3) Individual retirement planning becomes one of guessing on market conditions, rather than individual desires.

(4) The employee is at risk for the increased cost of improvements

in life expectancy in the future. As life expectancy continues to improve, the lump sum cost of providing a specific monthly benefit increases. There is a decrease in amount of monthly retirement benefit that can be produced by a specific amount of accumulated contributions.

Interestingly, in those original New Jersey and New York plans, the retirement allowance consisted of both a defined benefit portion provided by the employer and a defined contribution portion based upon the employee contributions. However, with inflation after World War II, the amount of the monthly pension benefit provided by the employee contributions was so inadequate, that these systems changed to a full defined benefit formula basis.

The pattern of public pension funds has been to create a supplemental "money purchase" program in which employee contributions are matched to some degree by the employer. This arrangement permit's the employee to risk the gains and losses of the market place, without sacrificing basic pension income protection.

Whatever the financial solution immediately adopted for the current city pension crisis, the general nature of government plans requires that there be constant taxpayer involvement in the future. Without that currently missing ingredient, the present San Diego play will be repeated over and over again.

I. Pension Fund Governance
(Presentation Outline)

- Governing Law
  - Specific Plan Provisions and Conduct
    - Private Sector: ERISA
    - Public Sector: State Law
  - General Plan Provisions and Conduct
    - Income Tax Laws
    - Trust Law
- Agencies
  - Plan Sponsor
    - Benefit Provisions
    - Funding Decisions
  - Trustee (Fiduciary)
    - Plan Administration
      - Benefits: Determinations
      - Assets: Investments
  - Actuary
    - Funding Status
    - Contribution Calculation

II. Pension Plan Types
(Presentation Outline)

Defined Benefit Plan

- Fixed Dollar
- Formula

Defined Contribution Plan

- 401(k)
- IRA
- Other Money Purchase Arrangements

III. Public Employer as Plan Sponsor
(Presentation Outline)

Creating the Plan: First Decisions

A. Type of Plan

Special nature of public employment

Why a basic defined benefit plan

Why an age/service formula plan

Why employee contributions

Possible supplemental defined contribution plan

B. Benefit Formula

1. Employer Purpose
    a. Recognition of service
    b. Encourage retirement
    c. Employee morale
    d. Employee recruitment

2. Employee Interest
    a. Replacement of employment income
    b. Retirement benefits available at appropriate time
    c. Need for disability and survivor coverage
    d. Equitable treatment among employees
    e. Credit for past service

3. Cost Considerations (See Section V)
    a. Ultimate cost determined by actual experience
    b. Usual decision based upon level annual budget requirement: Why "Entry Age Normal"

Actuary's role:

Assumptions concerning future experience:

Non-actuarial:

Investment earnings

Salary scale

Actuarial:

Mortality (actives/retirees/beneficiaries

Withdrawal rates

Disability rates

Retirement rate

C. Financial Decisions

1. For current and future service: what can be afforded?
2. For past services, what can be afforded? Implications of:
   a. Giving no credit.
   b. Giving partial credit.
   c. Giving full credit.
3. Administrative Costs

D. Plan Governance

1. Composition of Trustee Board
   a. Size
   b. Representation of Government, Public and Employees
2. Powers of Trustee Board
   a. Benefit determinations
   b. Investment authority
   c. Hiring authority
   d. Budgetary powers

3. Pension Fund Staff
    a. Structure
    b. Status

4. Appointment of Professionals
    e. Actuary
    f. Attorney
    g. Medical Consultant (For Disability Retirement decisions)
    h. Auditor

E. IRS Qualification
    a. General value to the employees
    b. Specific value to service-connected disability retirees and survivors.

IV. Pension Benefit Formulas

Service Retirement

What is the employer's goal? To provide an appropriate level of replacement income for career employees: generally from 50% to 70% of salary—at an affordable cost.

"Salary" is generally the "Final Average Salary (FAS)" or "Final Average Compensation (FAC)" of the average salary of some period before retirement, usually three years. San Diego: Highest one year average

"Cost" is generally the level annual contribution requirement, the "level" being a consistent percentage of total payroll. (Advantage of Entry Age Normal)

"Projected Unit Credit Method" (San Diego): Lower cost at early working life stage, higher, later.

Normal Service Retirement Age: Earliest point of receiving full formula benefit

For simplicity, only clerical plans considered here. Safety benefits are more liberal.

Examples:

Private Industry: Age 65
Social Security: Age 65-67
Public Employees: Ages 60-65
San Diego: Age 55 with 20 years of service (or age 62 & 10)

IV. Pension Benefit Formulas

Early Service Retirement

Generally, at a set number of years of service, such as 25, or a combination of age and years of service, such as age 55 with 20 years of service. The pension is actuarially reduced from the full service benefit.

Public Employee Clerical Benefit Formula

General example: 2% of FAS per year of service to a maximum of 70% FAS (25 years = 1/2 FAS, 30 years = 2/3 FAS)

Where Social Security applies: Lower formula for lower portions of FAS.

San Diego (Option 3): 2.5% of FAC per year of service at age 55, increasing by steps to 2.80% at age 65, with a maximum of 90% FAC
(25 years at age 60 = 63.75% FAC, 30 years = 76.5%FAC
25 years at age 65 = 70% FAC, 30 years = 84% FAC)

Retirement: Survivor Benefits

General: Retiree takes a reduction in retirement allowance to provide for survivor pension.

San Diego: 50% continuance to eligible spouse.

Service Connected ("Industrial") Retirement

Definition of Eligibility (Role of Medical Consultant)

Benefit: Generally: 1/2 to 2/3 FAS
San Diego: Minimum of 1/2 FAC (additional possible)
Income tax considerations in plan design

IV. Pension Benefit Formulas

Ordinary Disability ("Non-Industrial") Retirement

Definition of Eligibility (Role of Medical Consultant

Benefit: Generally: 1/3 FAS or up to service retirement benefit with possible actuarial reduction.

San Diego: Minimum of 1/3 FAC (additional possible)

Service Connected ("Industrial") Death

Generally: 1/2 FAS to eligible spouse

San Diego: Same

Income Tax considerations in plan design

Non-Service Connected ("Non-Industrial") Death

Generally: Single payment, up to 11/2 Salary

San Diego: Single payment, up to six month salary

If retirement eligible: 1/2 FAC spouse's pension

Vesting of Benefits

Generally: After 5 to 10 years of service

San Diego: After 10 years of service

Annual Cost of Living Pension Adjustment (COLA)

Generally: From 11/2% to 3%

San Diego: Based on CPI, up to 2%

Member Contributions

Generally: 5%-6%, some picked up by employer

San Diego: Vary by age, major pickup by city

IV. Pension Benefit Formulas

Credit for Past Service

If none: Fairness issues/no cost

If partial: Fairness issues/reduced cost

If full: Full cost

Credit for Various Types of Leaves

If creditable, how charged to employee?

Breaks in Service:

How large a break?

How to determine charge to employee?

How to accumulate credit?

How to Treat Transfers to and from Other Governments (Reciprocity and Portability)

See Discussion of Costs (Section V)

V. Pension Plan Costs

Normal Cost

The actual cost of a pension plan is only realized through the actual experience over the years. For the employer, this cost is the result of pension payments plus administrative costs, minus employee contributions and investment earnings.

In an actuarial reserve system, at an employee's retirement, there is to be on hand a sufficient amount of money to pay for the pension benefits for the duration of that pension (employee and beneficiary). Call this the annuity or pension reserve. For each year of service, an amount has to be set aside which, with investment earnings, will produce this reserve. Call this annual amount the Normal Cost.

As examples of the required reserve for an individual life, the following annuity factors would apply to the annual pension benefit:

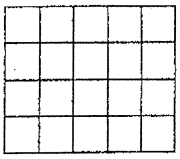
	Interest Rate Assumption	
Age	6%	8%
55	12.17	10.25
60	11.07	9.48
65	9.85	8.58

(UP84 Mortality Table)

Translating these factors into examples of reserve requirements:

A. With 6% Interest:

		-Pension Amount-	
Age	$20,000	$30,000	$40,000
55	$243,400	$365,100	$486,800
60	$221.400	$332,100	$442,800
65	$197,000	$295,500	$394,000



B. With 8% Interest:

	-Pension Amount-		
Age	$20,000	$30,000	$40,000
55	$205,000	$307,500	$410,000
60	$189,600	$284,400	$379,200
65	$171,600	$257,400	$343,200

In words, for an employee retiring at age 65, with a pension of $20,000, assuming investment earnings of 6%, we would need a reserve of $197,000. (Chart A)

For an employee retiring at age 55, with a pension of $40,000, assuming investment earnings of 8%, we would need a reserve of $410,000. (Chart B)

The early the retirement age and the lower the interest earnings assumption, the greater the needed reserve and the lesser number of years to accumulate that reserve. Thus, the early retirement age and the lower the interest earnings assumption, the higher the amount needed for each year of service: the Normal Cost.

Initial Benefit/Cost Decisions

Generally, in setting up a pension plan, the public employee plan sponsor (state or local government) is initially interested in the projected annual cost. Assuming for the moment that there will be no credit for past service, the Normal Cost, developed by the actuary, represents the cost of one year's service by the covered employees. There are a number of different Normal Cost funding methods. In essence, the employer must decide whether to pay less initially more later (such as under the Projected Unit Credit (PUC) Funding Method), or to have a higher, but level (as a percent of salary) payment, using the Entry Age Normal (EAN) Funding Method.

V. Pension Plan Costs

That decision having been made, the actuary's cost determination will result from the application of the various assumptions (see Section III) to the specific employee group.

The Normal Cost represents the amount of money that must be set aside this year, which, with interest at an assumed rate, will produce the pension reserve.

The following presentation applies only to the service retirement benefit alone.

For the purpose of this discussion only, and without taking into account any actual employee statistics, let us assume that for a 2% FAS/ age 65 benefit formula with an interest earnings assumption of 8%, the Normal Cost would be about 6% of covered payroll. To understand the effect on the Normal Cost of changes in benefits and in assumptions, roughly:

For each year of earlier retirement, add from 4% to 6%

For each percent of interest earnings reduction, add 15%

For a 50% spouse's continuation, add 15%

On the basis of three changes, with a Normal Retirement age of 55, an interest earnings assumption of 6%, and a 50% spouse benefit continuation, the combined impact on would be roughly almost to double the Normal Cost. Note that these are very approximate estimates, based upon all of the previous assumptions, including the base Normal Cost figure used above and are used here only for discussion purposes.

Another assumption used by the actuary is the projected salary scale. Clearly, this would have an effect on the estimate of final average salary. The public employer is in the best position to make a judgment about future salary increases.

V. Pension Plan Costs

Section III includes a list of assumptions used by the actuary in arriving at the annual cost of a pension plan. Two of these, projected investment experience (the interest factor) and projected salaries (the salary scale) could be set by the employer (plan sponsor). As a simple rule of thumb, plans generally have a 2% to 2 ½% spread between projected interest and the salary scale.

Having determined what it can afford with regard to service retirement, including the offset in costs of any employee contributions, the plan sponsor then considers other possible benefits, including those listed above.

After the plan is adopted, the experience determines whether the Normal Cost payments are sufficient to meet the annual recalculations of Normal Cost by the actuary. If these payments are more than sufficient, the employer may choose to take advantage of the surplus be reducing current contributions, However, if the payments are not sufficient, the new Normal Cost calculations will require an increase in the level of annual contributions.

Past Service Benefits and Costs

A the outset, the degree to which pension credits are granted for past service determines the pension plan's liability for such past service. Using the factors discussed above, the actuary determines this liability: called the Unfunded Actuarial Liability (UAL) or Unfunded Actuarial Accrued Liability (UAAL). Generally, as part of the adoption of past service credits, a plan of amortizing this past service liability, with interest, over a fixed period of years (15 to 30 years) is also adopted. The annual payment for the past service liability is added to the Normal Cost, producing both the employer's total contribution requirement and, to the degree the past service liability remains, the new Unfunded Actuarial Liability.

Later Improvements in Benefits

The employer's payment for benefit improvements consists of two parts:

(1) the new Normal Cost for current and future service, and

(2) if the improvements apply to past service, the increase in this cost is added to the UAL, to be paid over an agreed-upon amortization period.

Amortization Interest

The payment of the UAL may be thought of as a mortgage payment: the interest rate can have a major impact on the specific annual amount of the contribution requirement.

Example, using a UAL of $10,000,000:

	Annual Payment	
No. of Years of Payments	6% Interest	8% Interest
15	$1,013,000	$1,147,00
30	$719,500	$880,100

The parallel figures for the San Diego City Retirement System latest actuarial report, showing a "UAAL" of $1,369,000,000 as of June 30, 2004:

	Annual Payment	
No. of Years of Payments	6% Interest	8% Interest
15	$102,617,000	$116,911,000
30	$ 72,835,000	$ 89,154,000

Note: When presented, the actuary's report of contribution requirement is for the previous year. At that point, the budget for the current year is already operative. Thus the actuary's contribution requirement will be paid in the following fiscal year, two years after the year being reported on by the actuary.

VI. Ongoing Pension Plan Administration

In addition to the Trustee, the Plan Sponsor continues to play a role in the on-going administration of the pension plan. As noted below, this role could range from merely making the annual contributions to participating in making certain assumptions underlying the annual cost calculations.

Trustee: Usually called the "Board of Trustees" or "Trustees".

The actions of trustees of both public and private pension plans are measured against the provisions and interpretation of ERISA's requirements as well as the general laws governing trusts. The basic requirement is that a trustee act solely in the interest of the plan beneficiaries (members, retirees, and other persons receiving benefits). In large measure this has to do with the prudent spending of plan funds and the investment of plan assets, with no self-dealing.

In carrying out the plan administration, the board of trustees generally appoints:

The key administrative staff members.

The actuary
Investment consultant(s)
Investment Managers
Bank
Medical consultant (s)
Attorney (although in public plans, often a member of the government's legal staff serves in this capacity.
An auditor
Other service providers

VI. Ongoing Pension Plan Administration

The Trustees' major functions are to:

Pass on benefit applications

Invest plan assets

Adopt the assumptions (factors) underlying the actuary's calculation of plan assets, liabilities and the government's annual contribution requirement.

Review the actuary's annual report and certify the amount of the government's annual contribution requirement.

Setting the assumptions concerning future experience, used by the actuary

Repeating the list in Section III:

Non-actuarial:

Investment earnings

Salary scale

Actuarial:

Mortality (actives/retirees/beneficiaries

Withdrawal rates

Disability rates

Retirement rate

While in most cases, the Trustees alone review these with the actuary, government plan sponsors have taken part in considering the non-actuarial assumptions: the salary scale and the investment earnings ("interest rate").

VI. Ongoing Pension Plan Administration

Board of Trustees Activities

Benefit Determinations

Service Retirement (Including Early Retirement and Vesting)

Although both the eligibility requirements for service retirement as well as the amount of the pension are described in the pension plan document, there are always questions, such as:

- Amount of service:
  - How to calculate parts of a month
  - Credit for leaves of absence
  - Military service
- Amount of pension:
  - Age determination
  - Final Average Salary (FAS) (overtime?)
  - Actuarial reductions (for early age or survivor benefit options)

Disability Retirement: Service and Non-Service Connected

- Determination of qualifying disability
- Determination of Service Connected Disability
  - (Both of these usually involve special hearings and use of Medical Consultant)
  - (Income Tax Considerations)