FUNDING NEW JERSEY PUBLIC EMPLOYEE RETIREMENT SYSTEMS

New Jersey has six major State-administered retirement systems. Along with the required contributions of the public employees, these systems are funded by contributions from the State and other public employers. Five of those systems, the Public Employees' Retirement System (PERS), the Teachers' Pension and Annuity Fund (TPAF), the Police and Firemen's Retirement System (PFRS), the State Police Retirement System (SPRS) and the Judicial Retirement System (JRS), are defined benefit pension plans. The Alternate Benefit Program (ABP) for faculty at New Jersey public institutions of higher education is a defined contribution pension plan.

DEFINED BENEFIT PENSION PLANS IN GENERAL

A defined benefit pension plan is a pension plan which provides a certain benefit determined by a stated formula for the life of the beneficiary, often with cost-of-living increases. The formula is usually related to an employee's length of service and salary. A minimum number of years of service is usually required before employees are vested in their accrued benefit, that is, granted an irrevocable right to a certain benefit. Public employee defined benefit plans usually require an employee contribution of a certain percentage of compensation through payroll deduction. The actuarial valuation, together with the plan's benefit provisions, determines the employer's periodic contribution. The employer's annual cost may fluctuate from year to year due to the investment performance of plan funds. While actuarial assumptions and funding methods affect the periodic contribution made to the plan, they do not affect the ultimate cost of the plan. The public employer faces an open-ended financial obligation since it is responsible for payment of the defined (promised) benefits.

From the public employer perspective, the unfunded liabilities of a defined benefit plan can lead to budgetary uncertainty in addition to the actual expense of the plan. In an effort to save money, employers may decrease pension fund contributions by adjusting pension obligations and actuarial assumptions, which, if accompanied by a decline in investment earning, can create imbalances.

FUNDING DEFINED BENEFIT PENSION PLANS

In order to pay defined benefits to current retirees and to future retirees, the employer can take either a pay-as-you-go approach or a reserve funding approach. The pay-as-you -go approach has proven less successful historically because it creates unknown liabilities and unsecured promises. Under the reserve funding approach, employee and employer contributions are invested to earn income and the resulting accumulated funds pay for the employees' promised or defined benefits. Actuarial valuations are used to compute the yearly contributions needed to fund the benefits, that is, to assure that contributions and investment income are sufficient to fulfill the promises. Actuaries use assumptions about employees, retirees, investment return and salaries to calculate the amount of contributions necessary for adequate accumulation of funds. Demographic assumptions about employees and retirees include length of service, retirement age, death rates and such. The actuarial assumption regarding the investment rate of return for the State-administered retirement systems is currently 8.25 percent. Another actuarial assumption, related to the long-term rates of growth in employees' salaries, estimates increases due to merit and seniority as well as inflation. The actual experience of a plan is examined periodically, and adjustments are made to fund the retirement system appropriately. Actuaries for the New Jersey systems update actuarial assumptions every three years for use in the annual valuation of each retirement system.

ACTUARIAL VALUATION OF DEFINED BENEFIT PLANS

<u>Actuarial Accrued Liability</u> — <u>Actuarial Value of Assets</u> = <u>Unfunded Actuarial Accrued Liability</u>

<u>Actuarial Accrued Liability</u> The mathematical process used to determine the amount of the annual contributions (employee and employer) needed to fund a retirement system is the actuarial valuation. If the employee contribution rate is fixed, the actuarial valuation determines the employer contribution. This process calculates the actuarial accrued liability, which estimates the overall obligation or benefit promise to current and former employees, as well as the valuation of the assets accumulated to offset the liabilities. In 1994, New Jersey changed its actuarial cost method used to fund the retirement systems from the entry age normal method to the projected unit credit method.

<u>Actuarial Value of Assets</u> When a retirement system is funded on an actuarial basis, assets accumulate over time. One of four methods is usually used to determine the actuarial value of assets: the cost method, market method, moving-average method, and blended method. The PERS asset valuation method, for example, is a five-year average of market value, or the moving-average method.

<u>Unfunded Actuarial Accrued Liability</u> The portion of a retirement system's actuarial accrued liability not covered by the actuarial value of its assets is the unfunded actuarial accrued liability. Or, stated another way, the unfunded actuarial accrued liability is the amount needed for accrued benefits but unfunded by the accumulated contributions and investment earnings. This unfunded actuarial accrued liability is considered a long-term liability that is amortized (paid gradually) over 30 to 40 years. The total employer contribution each year, then, consists of (1) an amount to fund the benefits that will accrue to members during the next year

(normal cost), (2) an amount related to the amortization of any unfunded actuarial accrued liabilities, and (3) an amount related to the amortization of any gain or loss due to the differences between the past actuarial assumptions and actual experience.

Funded Ratio The ratio of a system's actuarial value of assets to actuarial accrued liabilities yields a funded ratio, expressed as a percentage. If that ratio is 1, or 100 percent, a retirement system is said to be "fully funded;" its assets are equal to its actuarial liabilities.

Valuation Assets The New Jersey statutes for the retirement systems define "valuation assets" as the value of the assets for the preceding valuation period increased by the regular interest rate, plus the net cash flow for the valuation period (the difference between the benefits and expenses paid and the contributions) increased by one half of the regular interest rate, plus 20 percent of the difference between this expected value and the full market value of the assets as of the end of the valuation period. In general, excess valuation assets are the valuation assets for a valuation period less the actuarial accrued liability for the valuation period, if the sum is greater than zero. The statutes for each of the New Jersey retirement systems, however, provide more specific definitions of when a system has excess valuation assets (N.J.S.A. 18A:66-18 for TPAF, 43:6A-33 for JRS, 43:15A-24 for PERS, 43:16A-15 for PFRS and 53:5A-34 for SPRS).

FUNDING NEW JERSEY PUBLIC EMPLOYEE DEFINED BENEFIT PLANS

Employee & Employer Contributions

Contributions from employee members and their public employers, combined with investment earnings, fund a retirement system's promised benefits. New Jersey's five defined benefit systems, PERS, TPAF, PFRS, SPRS and JRS, have fixed contribution rates for the employee members, expressed as a percentage of salary. The basic rates are 5 percent for PERS and TPAF, 8.5 percent for PFRS, 7.5 percent for SPRS, and 3 percent for JRS.

Under current law, the employee contribution rates for members of PERS and TPAF may be reduced by a maximum of 2 percent when the State reduces its employer contributions due to use of excess assets to pay the normal contribution. The PERS employee contribution rate was reduced to 4.5 percent for calendar years 1998 and 1999 and to 3 percent for calendar years 2000 through 2003. The TPAF employee contribution rate was reduced to 4.5 percent for calendar years 1998 through 2001 and to 3 percent for calendar years 2002 and 2003. The PERS State employee contribution rate and the TPAF employee contribution rate have both returned to 5 percent. The local employee PERS contribution rate may be somewhat less than 5 percent. Prior to 1994, PERS and TPAF employee contribution rates were variable rates based on a member's age at the time of enrollment; younger enrollees started with lower rates.

For the State and local public employers, the contribution amount (normal cost component and amortization component) varies depending upon the actuarial valuation of the system's assets and liabilities. State and local employers participating in the retirement systems must be required, by explicit legislation, to make the full employer contribution each year as determined by the plan actuaries. The full contribution includes: (a) annual payments of the actuarially determined normal pension contribution; and (b) payments of a portion of any unfunded accrued liability.

In addition to paying contributions into the various retirement systems as an employer for its own employees, the State has also paid the TPAF employer contributions for all school districts for more than 40 years. For fiscal year 2003, for example, this cost was calculated by the actuaries at $461.8 million. This State contribution, however, was eliminated through the use of excess valuation assets. By fiscal year 2007, the State contribution rate to fund the employer share of the TPAF ballooned to $1,155.7 million.

The State has sometimes reduced the amount of its retirement systems obligations by changing the asset valuation method to recognize (use) more than 20 percent of market value (60 percent to 100 percent) for certain fiscal years. Such revaluations were done in 1992, 1993 and 1997. Local governments experienced reduced obligations as well. In addition, P.L.2001, c.44 reduced by $150 million the PFRS normal contribution for local government employers based on the PFRS July 1, 1998 valuation. In 1997, the State issued $2.8 billion of bonds, reasoning that because of favorable conditions in the financial market, the State's unfunded accrued liabilities could be funded at a lower rate (average of 7.64 percent on sold bonds versus regular interest of 8.75 percent) over a shorter period (32 years versus 59 years) than through the retirement systems. The proceeds from the bond sales were deposited in various pension funds to eliminate the unfunded actuarial accrued liabilities of the State existing at that time. The State's contribution amounts were reduced by $600 million for fiscal years 1997 and 1998, with additional contribution savings for the next two fiscal years. Payment of what are commonly referred to as "the pension bonds" is a separate obligation of the State, unrelated to the status of the retirement systems. After several years of no contributions, in fiscal year 2004, the State faced payments of perhaps as much as $1 billion to the retirement systems and $160 million for installment payments on the 1997 bonds. Similarly, after a couple of years of "holidays" from pension payments, local governments face significant increases in pensions costs in the fiscal years ahead.

A full annual employer contribution was the practice of State government for the entire existence of the pension systems prior to the enactment of the 1997 Pension Security Plan. Much of the reason for the erosion in the pension systems' fiscal health is attributable to the enactment of that law (P.L.1997, c.115). From fiscal year 1997 to fiscal year 2003, State and local government employers did not have to make contributions to the pension funds.

The use of surplus pension assets replaced the annual payments that should have been made by the employers. A subsequent law, P.L.2003, c.108, has led to the resumption of contributions (on a phased-in approach). However, this phased-in approach has also used surplus pension assets.

Investment Income

When a retirement system's assets earn low rates of return, the State and local public employers must contribute additional funds to finance the retirement benefits promised to employees. The funds of the five State-administered defined benefit retirement systems are invested by the Division of Investment in the Department of the Treasury. The director of the division functions within policies set by the State Investment Council, which has 11 members, a representative from each of the boards of trustees of PERS, TPAF, PFRS, SPRS and the Consolidated Police and Firemen's Pension Fund Commission, five gubernatorial appointees and one member appointed by the Governor from among three persons nominated jointly by the President of the Senate and the Speaker of the General Assembly. On the one hand, the strength of the financial markets in 1997 and 1998 yielded high rates of return (about 22 percent) above the 8.75 percent used in actuarial valuations and created excess assets in the systems. Alternatively, the recent downturn in investment performance, whose actuarial impact has been muted by five-year averaging, has the effect of reducing excess assets and increasing employer contributions. New Jersey retirement systems' portfolio and other investment holdings have lost approximately $25 billion in the last two years from a high value of $95.4 billion in August of 2000 (stated values of assets and losses can vary depending upon methods of calculation and valuation). The value of the State's pension portfolio was about $69.8 billion at the end of fiscal year 2005.

On January 20, 2005, the New Jersey State Investment Council, without prior Legislative approval, adopted a policy known as the "Alternative Investment Program." Although the Alternative Investment Program may lack the legal authority, it directs the Division of Investment to make investment in three assets classes defined as follows: private equity, real assets, and hedge funds. The total allocation in Alternative Investments is targeted to be 13 percent of the Pension Funds' market value.

Enhancement of Retirement Benefits Equals Increased Liabilities

Various changes by law that enhance the benefits provided by the retirement systems increase the liabilities of those systems. Sometimes, excess assets are used to offset the new unfunded actuarial accrued liability and the normal contribution. In past years, for example, there have been significant changes to the benefits offered by PFRS, PERS and TPAF. P.L.1999, c .428, among other things, provides a 50 percent of final compensation PFRS retirement allowance with 20 years of service and a survivors pension upon the ordinary death of a PFRS member. P.L.2000, c.8, then, increased the percentage of recognition of market value of PFRS assets for the valuation period ending June 30, 1998 (100 percent for the State and 57 percent for local employers) to create excess valuation assets to cover the accrued liability and normal cost and provided that the State is responsible for any accrued liability and normal costs attributable to the enhanced benefits of P.L.1999, c.428 not offset by excess valuation assets.

P.L.2001, c.133 and P.L.2001, c.353 changed from 1/60 to 1/55 the fraction used in the calculation of PERS and TPAF retirement allowances for both active and retired members, a 9 percent increase in benefits. Those laws provide that the actuarial value of assets for the valuation period ending June 30, 1999 will be the full market value of the assets as of that date; the five-year average of market value is used beginning with the revised June 30, 2000 valuations. This recognition of assets covered the unfunded actuarial accrued liability for these benefit increases. In addition, to fund the additional annual employer normal contribution for these increased benefits, a Benefit Enhancement Fund in PERS and in TPAF will be credited with excess valuation assets each year in an amount not to exceed the amount of member contributions. If the assets in these funds are insufficient to cover the normal contribution for the increased benefits for a valuation period, the State will pay the difference for both the State and local employers.

The addition of enhanced benefits in the Workers Compensation Judges Part under P.L.2001, c.259 and the Prosecutors Part under P.L.2001, c.366 results in additional PERS unfunded actuarial accrued liabilities and some increase in normal cost. Likewise, the amortized cost of the early retirement incentives of P.L.2002, c.23 increases the State's contributions to PERS and TPAF.

DEFINED CONTRIBUTION PENSION PLANS

In defined contribution pension plans, the employer's benefit promise is in the form of an actual periodic contribution placed into an employee's individual account. The contribution can be based upon various factors such as a percentage of an employee's pay or the employee's age and service, or it can be an amount designed to accumulate to a targeted benefit. Defined contribution plans look like bank accounts because the contribution from the employer is deposited in the employee's account, which then accumulates interest and investment earnings. A defined contribution plan may allow or require employees to make additional contributions of their own to their accounts. The employer's contributions vest upon deposit. Some initial waiting period for the vesting of employer contributions may exist at the beginning of employment.

Unlike a defined benefit plan, a defined contribution plan does not guarantee a stated retirement allowance regardless of the employee's salary or years of service. The benefit is a function of the amounts of employer and employer contributions, wage history, and investment earnings. The participant usually is responsible for the investment choices.

Full-time officers and faculty members of New Jersey public institutions of higher education participate in the Alternate Benefit Program (ABP), which is a defined contribution pension plan. ABP members contribute 5 percent of base salary and the State pays an employer contribution of 8 percent of base salary. Six providers are approved by the Division of Pensions and Benefits to offer annuity investment accounts for ABP members: ING Life Insurance and Annuity Company, Teachers Insurance and Annuity Association/College Retirement Equities Fund (TIAA/CREF), Travelers (CitiStreet), AIG VALIC, AXA equitable Life Insurance Company, and The Hartford.

A defined contribution pension plan has a stable and predicable employer contribution rate; actuarial estimates and investment income are no longer factors of budgetary concern. A defined contribution plan shifts the investment risk from the employer to the employee. Defined contribution plans, however, impose fiscal constraints because increases in employer contributions for new benefits cannot be postponed through amortization.