Selected Actuarial and Pension Terms

Actuary
A qualified independent professional who determines the amount of money that needs to be deposited in a defined benefit Plan to ensure adequate assets accumulate to pay the promised benefit.

Actuaries are certified by the Society of Actuaries (SOA) through a series of exams. There are two levels of actuarial designations, Fellow of the Society of Actuaries (FSA) and Associate of the Society of Actuaries (ASA).

Both designations are certified to issue actuarial option and advice but the Fellow of the Society of Actuaries (FSA) has met additional educational requirements and is the highest designation issued by the SOA. The Society of Actuaries is also responsible for making sure actuaries follow the code of ethics and disciplining those that don't. Most credentialed actuaries are also members of The American Academy of Actuaries (MAAA) and must adhere to actuarial standards of practice (ASOP) and guidelines issued by the Academy.

Actuarial Accrued Liability
Excess of the present value of a pension fund's total of future benefits (payable to the pension plan participants) and fund administration expenses over the present value of the future normal cost of those benefits.

Actuarial Assumptions (or Assumptions)
The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;
(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;
(c) Retirement rates — the rate or probability of retirement at a given age; and
(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Actuarial assumptions are grouped into two categories: Economic assumptions and Demographic assumptions. Economic assumptions include inflation, cost-of-living adjustment, salary increases or growth and investment return. Demographic assumptions include mortality rates, retirement rates, turnover or withdrawl rates and disability rates.

Actuarial Valuation
The actual cost of the municipality's pension Plan based on the Plan's demographics. The cost is based on the Plan's determined retirement age, benefit level, years of credited service, and the individual demographics of the employees. The actuary calculates how much money is needed to fund the pension.

Accrued Benefit
The amount of benefit earned to date based on your service or contributions to a retirement Plan. The portion of accrued benefit contributed by your employer is subject to a vesting schedule.

Accrued/Accrual
Accounts on a balance sheet that represent liabilities and non-cash-based assets used in accrual-based accounting. These accounts include, among many others, accounts payable, accounts receivable, goodwill, future tax liability and future interest expense.

Accrued Vested Benefit
The amount of benefit earned to date based on your service or contributions to a retirement Plan. The portion of accrued benefit contributed by your employer is subject to a vesting schedule.

Amortization
The paying off of debt in regular installments over a period of time.

Amortization of the Unfunded Actuarial Accrued Liability
Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Annual Pension Cost
A measure of the periodic cost of an employer's participation in a defined benefit pension Plan. The annual pension cost should be measured as the sum of the annual required contribution (ARC), one year's interest on the net pension obligation, and an adjustment to the annual required contribution to offset the effect of actuarial amortization of past under or over contributions.

Annual Required Contributions (ARC)
The employer's periodic required contributions to a defined benefit pension Plan, calculated in accordance with certain actuarial parameters.

Annuity
A series of periodic payments that typically continues for the lifetime of the participant. Optional forms include a joint and survivor annuity and a term-certain annuity that pay a beneficiary a predetermined amount if the participant dies first.

Annuitize
To arrange for a gradual payout, for instance monthly, of an investment, such as a pension or annuity contract, over a stated number of years or your life expectancy (or joint life expectancy with you beneficiary), instead of taking it in one single sum.

Asset
A resource with economic value that an individual, corporation or country owns or controls with the expectation that it will provide future benefit.

Benchmark
A basis of comparison for the investment return of an investment manager or for an overall portfolio.

Beneficiary
The joint annuitant or any other person, estate, or trust fund you last designated in writing to receive any benefits which may be payable upon your death.

Calculation Age
The age you want to use to calculate the present value (lump sum value) of an annuity.

Career Average Earnings
A pension benefit formula that determines the member's benefit by calculating earnings throughout the member's career, rather than using that member's final salary before retirement.

Career- Average Formula
The method of determining the amount of a defined benefit pension by multiplying a percentage of the employee's average salary over the years of employment by years of service to the company.

Closed amortization period
A specific number of years that are counted from one date and, therefore, declines to zero with the passage of time. For example, if the amortization period is initially 30 years on a closed basis, 29 years remain after the first year, 28 years after the second year, and so forth.

Compounding
The growth of principal left undisturbed as it gathers interest, and interest on the interest.

Contributory Plan
A plan to which participants, as well as the employer, contribute. Under certain contributory plans participants may be required to contribute as a condition of eligibility.

COLA (Cost-of-living Adjustment)
An annual adjustment on wages or other regular payments (e.g. pension benefits) that is in line with the Consumer Price Index or some other rate of inflation.

Credited Service
The number of years of employment that count toward earning pension benefits.

Defined Benefit Plan (DB)
A pension Plan having terms that specify the amount of pension benefits to be provided at a future date or after a certain period of time; the amount specified usually is a function of one or more factors such as age, years of service, and compensation.

Defined Contribution Plan (DC)
A pension Plan that defines how much contributions to be made by employee and employer to each employee's individual account. The account grows according to the amount of contributions and investment earnings.

Deferred Retirement Option Plan (DROP)
A DROP Plan is an arrangement under which an employee who would otherwise be entitled to retire and receive benefits under an employer's defined benefit retirement Plan instead continues working. However, instead of having the continued compensation and additional years of service taken into account for purposes of the defined benefit Plan formula, the employee has a sum of money credited during each year of the continued employment to a separate account under the employer's retirement Plan. The account earns interest (either at a rate stated in the Plan, or based on the earnings of the trust underlying the retirement Plan). The account is paid to the employee, in addition to whatever benefit the employee has acquired under the defined benefit Plan based on earlier years of service, when the employee eventually retires.

Discount Rate
The interest rate used in determining the present value of future cash flows.

Early Retirement
Retire earlier than normal with reduced benefits. Benefits are reduced for longer period of payments.

FICA
The Federal Insurance Contributions Act - a tax on income that ensures eligibility for Social Security payments and Medicare.

401(k), 403(b), and 457 Plans
These defined contribution plans allow employees to save for retirement on a tax-deferred basis. 401(k) plans are found in the private sector and the public sector in some states. 403(b) plans are for employees of public educational institutions and certain non-profit tax-exempt organization. 457 plans (also known as deferred compensation plans) are for governmental employees and non-church-controlled tax-exempt organizations.

Funded Ratio
The ratio of a plan's current assets to the present value of earned pensions. There are several acceptable methods of measuring a plan's assets and liabilities. In financial reporting of public pension plans, funded status is reported using consistent measures by all governmental entities. According to the Government Accounting Standards Board (GASB), the funded ratio equals the actuarial value of assets divided by the actuarial accrued liability calculated under the Projected Unit Credit cost method.

General Accounting Standards Board (GASB)
This governmental agency sets the accounting standards for state and local government operations

Hard freeze
The Plan stops service accruals for all active participants and participants stop earning benefits. Assets remain in the Plan and are paid out when workers retire or leave, but the workers benefits do not grow with additional years of service. Benefit is based on the final salary as of the freeze date and no salary after the freeze date is included in the determination of the retirement benefit.

Inflation Adjusted
A measure of return that accounts for the return period's inflation rate. Inflation-adjusted return reveals the return on an investment after removing the effects of inflation.

Integrated Pension Plan
So as not to be duplicative of Social Security benefits, defined benefit plans often provide that part of the Social Security pension be subtracted from the member's annuity. Defined benefit or defined contribution plans can provide that lower pension accruals be applied to employee's earnings below a specified level, generally the Social Security taxable wage base. Employees earning more than the social security taxable wage base receive greater contributions to reflect that social security benefits are not provided on pay over that amount

Investment Consultant
A qualified independent professional, typically a Chartered Financial Analysts (CFAs), hired by the Board of Trustees to recommend and monitor the investment managers of the pension fund. Additionally, the investment consultant provides regular updates to the Board on the progress of the market, helps the Board determine its asset allocation and investment policy.

Investment Return
The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

Multi-Employer Plan
A collectively bargained pension plan to which more than one non-related employer contributes.

Multiplier
A factor that quantifies the change in total income as compared to the injection of capital deposits or investments which originally fueled the growth. It is usually used as a measurement of the effects of government spending on income, and it can be calculated as one divided by the marginal propensity to save.

Net Present Value
A method for evaluating the profitability of an investment or project. The net present value of an investment is the present (discounted) value of cash inflows minus the present value of cash outflows.

Normal Cost
The portion of the actuarial present value of pension Plan benefits and expenses that is allocated to a valuation year by the actuarial cost method.

Normal Retirement Age
The age where pension benefits are payable in full. This is defined in Plan documents. Most pension Plans define age 65 as the normal retirement age.

Open Amortization Period
An amortization period that begins again, or is recalculated, at each actuarial valuation date. Within a maximum number of years specified by law or policy (for example, 30 years), the period may increase, decrease, or remain stable.

Pay-As-You-Go
A method of recognizing the costs of a retirement system only as benefits are paid. Also known as the current disbursement cost method.

Pension
A series of periodic payments, usually for life, payable monthly or at other specified intervals. The term is frequently used to describe the part of a retirement allowance financed by employer contributions. Compare with "annuity".

Pension Liability
Future payouts that a pension is obligated to make. A pension run by a company that has a large number of workers nearing retirement has more liabilities than one run by a company with a smaller eligible workforce.

Pension Obligation
Total projected benefits attributable to (1) retirees and other employees entitled to benefits, and (2) current employees depending on their service to date.

Pension Related Debt
All long-term liabilities of an employer to a pension Plan, the payment of which is not included in the annual required contributions of a single-employer or the actuarially determined required contributions that usually include interest.

Present Value
The current worth of an amount or series of amounts payable in the future, after discounting each amount at an assumed rate of interest and adjusting for the probability of its payment or receipt.

Rate of Return
The ratio of money gained or lost (whether realized or unrealized) on an investment relative to the amount of money invested.

Replacement Ratio
The monthly gross at retirement, divided by gross monthly income just prior to retirement.

Service Retirement
Retirement dependent upon completion of a specified period of service. In some usages, the term has the same meaning as "normal retirement".

Soft Freeze
When a Plan stops benefit accruals for all active participants, but allows benefits to increase with the growth in participants' wages. The determination of the retirement benefit under a "soft" freeze includes all salary.

Unfunded Actuarial Accrued Liability (UAAL)
The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Unfunded Liability *or* Unfunded PBO
The excess, if any, of the pension benefit obligation over the valuation assets. This is the portion of all benefits earned to date that are not covered by plan assets.

Vesting
The percentage of a participant's account or benefit that he or she owns and is entitled to when he or she terminates employment.