

# GENERAL ASSEMBLY OF NORTH CAROLINA

Session 2005

## Legislative Actuarial Note

RETIREMENT

**BILL NUMBER:** Senate Bill 1105 (First Edition)

**SHORT TITLE:** Retirement Systems Technical Corrections.

**SPONSOR(S):** Senator Nesbitt

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**FUNDS AFFECTED:** General Fund, Highway Fund, Receipt Funds and local funds

**SYSTEM OR PROGRAM AFFECTED:** Teachers' & State Employees' Retirement System, Consolidated Judicial Retirement System, Legislative Retirement System, Local Governmental Employees' Retirement System and Firemen's and Rescue Squad Workers' Pension Fund

**EFFECTIVE DATE:** July 1, 2005

**BILL SUMMARY:** Amends GS 135-5(g1) to provide for payment of benefits in the event of the primary beneficiary's death. Adds new GS 135-10.1 listing circumstances in which an application for service, early, or disability retirement is null and void. Makes parallel changes in GS Chapter 128. Repeals GS 58-86-85. Amends GS 58-86-35 and 58-86-40, allowing for termination of membership in Firemen's Pension Fund by member. Makes conforming changes.

**ESTIMATED IMPACT ON STATE:** Both, Mellon, the Retirement System's actuary, and Hartman & Associates, the General Assembly's actuary, agree there would be no cost or very little cost.

**ASSUMPTIONS AND METHODOLOGY: Teachers' & State Employees' Retirement System:** The cost estimates of the System's Actuary are based on the employee data, actuarial assumptions and actuarial methods used to prepare the December 31, 2003 actuarial valuation of the fund. The data included 303,768 active members with an annual payroll of \$10.1 billion and 123,077 retired members in receipt of annual pensions totaling \$2.1 billion. Significant actuarial assumptions used include (a) an investment return rate of 7.25%, (b) salary increase rate of 6.25%, (c) the George B. Buck Mortality Tables for deaths in service and after retirement and (d) rates of separation from active service based on System experience. The actuarial cost method used was the entry age normal method with open-end unfunded accrued liability and a frozen unfunded liquidation period of nine years. Detailed information concerning these assumptions and methods is shown in the actuary's report, which is available upon request from Stanley Moore.

**Consolidated Judicial Retirement System:** The cost estimates of the System's Actuary are based on the employee data, actuarial assumptions and actuarial methods used to prepare the December 31, 2003 actuarial valuation of the fund. The data included 497 active members with an annual payroll of \$49.5 million and 408 retired members in receipt of annual pensions totaling \$19 million. Significant actuarial assumptions used include (a) an investment return rate of 7.25%, (b) salary increase rate of 6.25%, (c) the 1979 George B. Buck Mortality Table for deaths after retirement, and (d) rates of separation from active service based on System experience. The actuarial cost method used to determine the liabilities is the projected benefit method; however, the method used to determine the contribution rate is the projected unit credit method with a frozen unfunded liquidation period of nine years. Detailed information concerning these assumptions and methods is shown in the actuary's report, which is available upon request from Stanley Moore.

**Legislative Retirement System:** The cost estimates of the System's Actuary are based on the employee data, actuarial assumptions and actuarial methods used to prepare the December 31, 2003 actuarial valuation of the fund. The data included 170 active members with an annual payroll of \$3.7 million and 235 retired members in receipt of annual pensions totaling \$1.5 million. Significant actuarial assumptions used include (a) an investment return rate of 7.25%, (b) the 1971 Group Annuity Mortality Tables for deaths in service and after retirement and (c) 100% vesting after five years of service with no assumptions for terminations other than death and disability. The actuarial cost method used was the projected unit credit cost method with service prorate. The actuarial liability is computed by using member service to date and attributing an equal benefit amount to each year of credited and expected future service. Detailed information concerning these assumptions and methods is shown in the actuary's report, which is available upon request from Stanley Moore.

**Disability Income Plan of North Carolina for Teacher's & State Employees'**

The cost estimates of the System's Actuary are based on the employee data, actuarial assumptions and actuarial methods used to prepare the December 31, 2003 actuarial valuation of the fund. The data included 314,271 active members with an annual payroll of \$10.9 billion, actuarial value of assets \$268 million and 5,083 disabled members in receipt of annual pensions totaling \$46 million. Significant actuarial assumptions used include (a) an investment return rate of 7.25%, (b) across-the-board salary increases of 5.75%, (c) rates of disability and termination based on the Group Long-Term Disability (GLTD) Valuation Tables published in the Society of Actuaries Transactions Volume XXXIX, 1987. The assumed rate of approval for Social Security disability benefits prior to the completion of four years of disability is 75% and the assumed future increases in Social Security benefits are 3.75% per year. Claims cost for the Long Term Disability benefits are calculated using the one-year term cost method, i.e., the cost of coverage is the present value of all LTD benefits payment that will be made on expected claims incurred during the year following the valuation date. Short Term disability benefits are calculated on a pay-as-you-go basis. Detailed information concerning these assumptions and methods is shown in the actuary's report, which is available upon request from Stanley Moore.

**Local Governmental Employees' Retirement System:** The cost estimates of the System's Actuary are based on the employee data, actuarial assumptions and actuarial methods used to prepare the December 31, 2003 actuarial valuation of the fund. The data included 119,755 active members with an annual payroll of \$3.9 billion and 34,861 retired members in receipt of annual

pensions totaling \$487.5 million. Significant actuarial assumptions used include (a) an investment return rate of 7.25%, (b) salary increase rate of 6.25%, (c) the 1979 George B. Buck Mortality Tables for deaths in service and after retirement and (d) rates of separation from active service based on System experience. The actuarial cost method used was the projected benefit method with aggregate level normal cost and frozen accrued liability. Detailed information concerning these assumptions and methods is shown in the actuary's report, which is available upon request from Stanley Moore.

**Firemen's and Rescue Squad Workers' Pension Fund:** The cost estimates of the System's Actuary are based on the employee data, actuarial assumptions and actuarial methods used to prepare the June 30, 2004 actuarial valuation of the fund. The data included 32,811 active members and 9,194 retired members in receipt of annual pensions totaling \$17.8 million. Significant actuarial assumptions used include (a) an investment return rate of 7.25%, (b) the 1974 George B. Buck Mortality Table for deaths after retirement and (c) rates of separation from active service based on Fund experience. The actuarial cost method used was the entry age method with open-end unfunded accrued liability and a frozen unfunded liquidation period of nine years. Detailed information concerning these assumptions and methods is shown in the actuary's report, which is available upon request from Stanley Moore.

**SOURCES OF DATA:** System Actuary - Mellon  
General Assembly Actuary - Hartman & Associates, LLC

**TECHNICAL CONSIDERATIONS:** None

**FISCAL RESEARCH DIVISION: (919) 733-4910.** The above information is provided in accordance with North Carolina General Statute 120-114 and applicable rules of the North Carolina Senate and House of Representatives.

**PREPARED BY:** Stanley Moore

**APPROVED BY:** James D. Johnson, Director  
Fiscal Research Division



**DATE:** April 5, 2005

**Signed Copy Located in the NCGA Principal Clerk's Offices**