

GENERAL ASSEMBLY OF NORTH CAROLINA

Session 2005

Legislative Actuarial Note



**BILL NUMBER:** Senate Bill 1741 (First Edition)

**SHORT TITLE:** Modify Appropriations Act of 2005.

**SPONSOR(S):** Senator Garrou

**SPECIAL PROVISION: PROVIDE COST-OF-LIVING INCREASES FOR RETIREES OF THE TEACHERS' AND STATE EMPLOYEES' RETIREMENT SYSTEM, THE JUDICIAL RETIREMENT SYSTEM AND THE LEGISLATIVE RETIREMENT SYSTEM**

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

**SYSTEM OR PROGRAM AFFECTED:** Teachers' and State Employees' Retirement System, Consolidated Judicial Retirement System and Legislative Retirement System.

**EFFECTIVE DATE:** July 1, 2006

**PROVISION SUMMARY:** Provides a post-retirement increase of 3% in the benefits of retirees of the Teachers' and State Employees' Retirement System, the Consolidated Judicial Retirement System and the Legislative Retirement System.

**ESTIMATED IMPACT:**

**Teachers' and State Employees' Retirement System**

Retirement System Actuary: Buck Consultants estimates the cost to be 1.02% of the payroll of all members of the Teachers' and State Employees' Retirement System.

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2001-11</u>
General Fund	\$86.4M	\$90.1M	\$93.8M	\$97.8M	\$101.9M
Highway Fund	\$ 4.3M	\$ 4.4M	\$ 4.6M	\$ 4.8M	\$5.0M
Receipt Funds	<u>\$27.5M</u>	<u>\$28.7M</u>	<u>\$29.9M</u>	<u>\$31.2M</u>	<u>\$32.5M</u>
<b>TOTAL COST</b>	<b>\$118.2M</b>	<b>\$123.2M</b>	<b>\$128.4M</b>	<b>\$133.8M</b>	<b>\$139.4M</b>

**General Assembly Actuary:** Hartman & Associates estimates the cost to be 0.93% of the payroll of all members of the Teachers' and State Employees' Retirement System.

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
General Fund	\$78.8M	\$82.1M	\$85.6M	\$89.2M	\$92.9M
Highway Fund	\$ 3.9M	\$ 4.1M	\$ 4.2M	\$ 4.4M	\$4.6M
Receipt Funds	<u>\$25.1M</u>	<u>\$26.2M</u>	<u>\$27.3M</u>	<u>\$28.4M</u>	<u>\$29.6M</u>
<b>TOTAL COST</b>	<b>\$107.8M</b>	<b>\$112.3M</b>	<b>\$117.1M</b>	<b>\$122.0M</b>	<b>\$127.1M</b>

There are available gains of 0.70% of payroll in the Teachers' and State Employees' Retirement System so an increase of 0.32% in the employer contribution rate would be necessary to pay the additional cost. The appropriation needed is as follows:

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
General Fund	\$27.1M	\$28.3M	\$29.4M	\$30.7M	\$32.0M
Highway Fund	\$ 1.3M	\$ 1.4M	\$ 1.5M	\$ 1.5M	\$ 1.6M
Receipt Funds	<u>\$ 8.6M</u>	<u>\$ 9.0M</u>	<u>\$ 9.4M</u>	<u>\$ 9.8M</u>	<u>\$ 10.2M</u>
<b>TOTAL COST</b>	<b>\$37.1M</b>	<b>\$38.6M</b>	<b>\$40.3M</b>	<b>\$42.0M</b>	<b>\$43.7M</b>

#### **Consolidated Judicial Retirement System**

Retirement System Actuary: Buck Consultants estimates the cost to be 1.59% of payroll.

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2001-11</u>
<b>General Fund</b>	<b>\$860,190</b>	<b>\$884,619</b>	<b>\$909,743</b>	<b>\$935,579</b>	<b>\$962,150</b>

General Assembly Actuary: Hartman & Associates estimates the cost to be 1.44% of payroll.

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2001-11</u>
<b>General Fund</b>	<b>\$779,040</b>	<b>\$801,165</b>	<b>\$823,918</b>	<b>\$847,317</b>	<b>871,381</b>

There are available gains in the Consolidated Judicial Retirement System so no additional appropriation is needed.

#### **Legislative Retirement System**

Retirement System Actuary: Charles Dunn estimates the cost to be 1.65% of payroll.

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2001-11</u>
<b>General Fund</b>	<b>\$59,813</b>	<b>\$59,813</b>	<b>\$59,813</b>	<b>\$59,813</b>	<b>\$59,813</b>

General Assembly Actuary: Hartman & Associates estimates the cost to be 1.47% of payroll.

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2001-11</u>
General Fund	\$53,288	\$53,288	\$53,288	\$53,288	\$53,288

**SPECIAL PROVISION: INCREASE THE MONTHLY PENSION FOR MEMBERS OF THE FIREMEN'S AND RESCUE SQUAD WORKERS' PENSION FUND**

**FUNDS AFFECTED:** General Fund

**SYSTEM OR PROGRAM AFFECTED:** Firemen's and Rescue Squad Workers' Pension Fund

**EFFECTIVE DATE:** July 1, 2006

**PROVISION SUMMARY:** Increases the monthly benefit to retirees and future retirees of the Firemen's and Rescue Squad Workers' Pension Fund from \$163 to \$165.

**ESTIMATED IMPACT ON STATE:**

Both the Fund's actuary, Buck Consultants and the General Assembly's actuary, Hartman & Associates, LLC, estimates the cost to be as follows:

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
Benefit Increase	\$625,000	\$625,000	\$625,000	\$625,000	\$625,000

There are actuarial gains in the Fund in the amount of \$111,000 so an appropriation of \$514,000 is required.

**SPECIAL PROVISION: INCREASE THE MAXIMUM MONTHLY PENSION BENEFITS FOR RETIRED MEMBERS OF THE NORTH CAROLINA NATIONAL GUARD**

**FUNDS AFFECTED:** General Fund

**SYSTEM OR PROGRAM AFFECTED:** North Carolina National Guard Pension Fund

**EFFECTIVE DATE:** July 1, 2006

**PROVISION SUMMARY:** Increases the benefit from the North Carolina National Guard Pension Fund from \$75 to \$80 per month for the first 20 years of creditable service and from \$7.50 to \$8.00 per month for each additional year of creditable service with the maximum benefit increased from \$150 to \$160 per month.

**ESTIMATED IMPACT ON STATE:** Both, Buck Consultants, the Retirement System's actuary, and Hartman & Associates, the General Assembly's actuary, agree that the cost will be as follows:

	<u>2006-07</u>	<u>2007-08</u>	<u>2008-09</u>	<u>2009-10</u>	<u>2010-11</u>
Benefit Increase	\$964,000	\$964,000	\$964,000	\$964,000	\$964,000

There are no gains within the Fund so a General Fund appropriation in the above amounts will be required. The accrued liability would be liquidated in a nine-year period of time.

## **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, 2004 actuarial valuation of the fund. The data included 311,612 active members with an annual payroll of \$10.4 billion and 128,577 retired members in receipt of annual pensions totaling \$2.3 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, 2004 actuarial valuation of the fund. The data included 490 active members with an annual payroll of \$49.4 million and 420 retired members in receipt of annual pensions totaling \$20.2 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, 2004 actuarial valuation of the fund. The data included 169 active members with an annual payroll of \$3.7 million and 236 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 prorated. 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.

### **Firemen 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, 2005 actuarial valuation of the fund. The data included 33,520 active members and 9,495 retired members in receipt of annual pensions totaling \$18.6 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.

**North Carolina National Guard Pension Fund**

The cost estimates of the Fund's Actuary are based on the employee data, actuarial assumptions and actuarial methods used to prepare the December 31, 2004 actuarial valuation of the fund. The data included 8,005 active members, 6,924 former members entitled to deferred benefits and 2,461 retired members in receipt of annual pensions totaling \$2.3 million. Significant actuarial assumptions used include (a) an investment return rate of 7.25%, (b) the 1979 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:** Buck Consultants  
Hartman & Associates, LLC  
Charles W. Dunn

**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:** Lynn Muchmore, Director  
Fiscal Research Division

**DATE:** May 23, 2006



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