



NORTH CAROLINA GENERAL ASSEMBLY

Session 2019

Legislative Retirement Note

Short Title: Advanced Cert. Service Purchase Option/LEOs.
Bill Number: Senate Bill 129 (First Edition)
Sponsor(s): Senator Steinburg

SUMMARY TABLE

ACTUARIAL IMPACT OF S.B. 129, V.1 (\$ in thousands)

	<u>FY 2019-20</u>	<u>FY 2020-21</u>	<u>FY 2021-22</u>	<u>FY 2022-23</u>	<u>FY 2023-24</u>
State Impact					
General Fund Impact	\$12 to \$124	\$31 to \$315	\$41 to \$409	\$47 to \$474	\$52 to \$524
Highway Fund Impact	- to -	- to -	- to -	- to -	- to -
Other/Receipts Impact	- to -	- to -	- to -	- to -	- to -
NET STATE IMPACT	\$12 to \$124	\$31 to \$315	\$41 to \$409	\$47 to \$474	\$52 to \$524
Local Impact					
Local Governments	\$21 to \$212	\$57 to \$565	\$82 to \$823	\$103 to \$1,034	\$124 to \$1,245
NET LOCAL IMPACT	\$21 to \$212	\$57 to \$565	\$82 to \$823	\$103 to \$1,034	\$124 to \$1,245

ACTUARIAL IMPACT SUMMARY

Systems Affected: Teachers' and State Employees' Retirement System (TSERS), Local Governmental Employees' Retirement System (LGERS), law enforcement special separation allowances.

Senate Bill 129 (First Edition) adds an option for law enforcement officers (LEOs) to purchase up to four years of service in TSERS or LGERS if they have earned the Advanced Law Enforcement Certificate awarded by the Criminal Justice Education and Training Standards Commission. The purchase would require a lump sum payment equal to the full actuarial cost of the additional service, calculated as the present value of TSERS or LGERS benefits with the purchase minus the present value of TSERS or LGERS benefits without the purchase. This present value is calculated using a 7% interest rate, 4% assumed cost-of-living adjustment (COLA), the valuation salary increase assumption, and retirement at the earliest unreduced age determined using the amount of service with or without the purchase. The lump sum does not include the value of additional special separation allowance or retiree medical benefits. This would be the first type of purchase in TSERS or LGERS known as "air time" that is not tied to a specific period of time.

Both Cavanaugh Macdonald, the actuary for the retirement systems, and Hartman & Associates, the actuary for the General Assembly, estimate that this bill will have no material impact on the

contribution rates or liabilities of TSERS or LGERS. G.S. 120-114(g) requires actuarial notes on bills modifying service purchases to contain an estimate of the impact measured using Treasury Bond yields and cost-of-living adjustment and salary increase assumptions consistent with those yields. Both actuaries estimate that the bill will also have no material impact measured using these alternative assumptions.

Cavanaugh Macdonald estimates that the present value of the separation allowance is roughly \$170,000 for each member who receives the separation allowance as a result of the purchase. Hartman & Associates estimates that the bill will increase separation allowance payments by the following amounts:

Range of Additional Separation Allowance Payments				
Fiscal Year	State LEOs		Local LEOs	
	Low	High	Low	High
FY 2019-20	\$ 12,422	\$ 124,221	\$ 21,210	\$ 212,098
FY 2020-21	31,469	314,693	56,514	565,138
FY 2021-22	40,885	408,848	82,285	822,850
FY 2022-23	47,363	473,630	103,438	1,034,383
FY 2023-24	52,377	523,769	124,455	1,244,546
FY 2024-25	53,934	539,342	140,534	1,405,344
FY 2025-26	53,285	532,850	150,663	1,506,627
FY 2026-27	50,778	507,780	158,301	1,583,010
FY 2027-28	48,468	484,678	160,712	1,607,119
FY 2028-29	47,585	475,853	161,166	1,611,662

The significant difference between the low and high estimates is due to uncertainty about the number of members who will choose to make the purchase.

Hartman & Associates estimates that the bill will have no material other postemployment benefit (OPEB) impact on the State and related governmental units due to retired LEOs being eligible for more years of retiree medical benefits.

ASSUMPTIONS AND METHODOLOGY

The cost estimates of the actuaries are based on the employee data, actuarial assumptions and actuarial methods used to prepare the December 31, 2017 actuarial valuations. Significant membership and financial statistics, assumptions, methods, and benefit provisions are shown in the following tables:

Membership Statistics (as of 12/31/2017 unless otherwise noted, M = millions)		
	TSERS	LGERS
Active Members		
Count	304,554	128,779
General Fund Compensation	\$11,005M	
Valuation Compensation (Total)	\$15,059M	\$6,453M
Average Age	45	44
Average Service	10.8	10.1

Inactive Members		
Count	160,087	68,243
Retired Members		
Count	215,008	68,766
Annual Benefits	\$4,521M	\$1,324M
Average Age	71	69
New Retirees During 2018	11,200	4,400

Financial Statistics (as of 12/31/2017 unless otherwise noted, M = millions)		
	<u>TSERS</u>	<u>LGERS</u>
Accrued Liability (AL)	\$79,209M	\$27,746M
Actuarial Value of Assets (AVA)	\$69,568M	\$25,521M
Market Value of Assets (MVA)	\$70,608M	\$25,918M
Unfunded Accrued Liability (AL - AVA)	\$9,641M	\$2,225M
Funded Status (AVA / AL)	88%	92%
Required Employer Contribution for FY 2019-20 (as % of pay)	12.97%	8.00% (non-LEO)
Salary Increase Assumption (includes 3.50% inflation and productivity)	3.50% - 8.10%	3.50% - 7.75%
Assumed Rate of Investment Return: 7.00%		
Cost Method: Entry Age Normal		
Amortization: 12 year, closed, flat dollar		
Demographic assumptions based on 2010-2014 experience, RP-2014 mortality, and projection of future mortality improvement with scale MP-2015		

Benefit Provisions		
	<u>TSERS</u>	<u>LGERS</u>
Formula	1.82% x Service x 4 Year Avg Pay	1.85% x Service x 4 Year Avg Pay
Unreduced retirement age/service	Any/30; 60/25; 65 (55 for LEO)/5	Any/30; 60/25; 65 (55 for LEO)/5
Employee contribution (as % of pay)	6%	6%

For the measurement required in G.S. 120-114(g), both actuaries assumed a 3.06% 30-year Treasury Bond yield and a cost-of-living adjustment assumption of 0.5%. Hartman & Associates also used a 2% wage inflation assumption.

Both actuaries used the following counts of advanced professional certificates awarded by the NC Department of Justice:

Advanced Certificates Awarded		
<u>Year</u>	<u>Law Enforcement</u>	<u>Correctional Officer</u>
2015	492	51
2016	451	56

2017	548	52
2018	665	128

Further detailed information concerning these assumptions and methods is shown in the actuary's report, which is available upon request from the Fiscal Research Division.

TECHNICAL CONSIDERATIONS

N/A.

DATA SOURCES

Cavanaugh Macdonald Consulting, LLC, "LEO Retirement and Higher Education Advancement Act – Senate Bill 129", March 27, 2019, original of which is on file in the General Assembly's Fiscal Research Division.

Hartman & Associates, LLC, "Senate Bill 129: An Act to Allow for Purchase of Up to Four Years Creditable Service in the TSERS or LGERS at Full Cost by Law Enforcement Officers Holding an Advanced Law Enforcement Certificate", March 30, 2019, original of which is on file in the General Assembly's Fiscal Research Division.

LEGISLATIVE ACTUARIAL NOTE – PURPOSE AND LIMITATIONS

This document is an official actuarial analysis prepared pursuant to Chapter 120 of the General Statutes and rules adopted by the Senate and House of Representatives. The estimates in this analysis are based on the data, assumptions, and methodology described above. This document only addresses sections of the bill that have projected direct actuarial impacts on State or local government retirement systems and does not address sections that have no projected actuarial impacts.

CONTACT INFORMATION

Questions on this analysis should be directed to the Fiscal Research Division at (919) 733-4910.

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