North Carolina Retirement Systems
Anti-Pension Spiking Contribution-Based Benefit Cap

August 2014

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Pension Spiking Overview

- Define Pension Spiking and 2014 legislation

- Explain how Pension Spiking occurs in our Retirement Systems

- Demonstrate the calculation to determine if a pension has been spiked

- Factors in selecting the Contribution Based Benefit Cap

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What is Pension Spiking

- Pension spiking is a substantial increase in compensation that results in unusually high liabilities to the Retirement System.

- These unforeseen liabilities are then absorbed by other members and employers in the Retirement System.

- Pension spiking is not a pervasive problem in North Carolina, but the Retirement Systems' actuary found enough instances that a solution is warranted.

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House Bill 1195: Pension-Spiking Prevention

- Last October, Buck Consultants presented the board a report on recommendations to prevent fraud, waste and abuse

- This was presented to the Legislative Research Committee on Treasurer's investments and State Employee Retirement Options, who made the recommendation, "the General Assembly should consider ways to implement measures to prevent pension spiking in all retirement systems".

- House Bill 1195, "Fiscal Integrity/Pension-Spiking Prevention" was enacted into law in July of 2014 with several key features:
  - Unforeseen liabilities are paid by employers
  - Average Final Compensation Cap of $100,000 was instilled
  - Options for employees hired in 2015 or later
  - Contribution Based Benefit Cap will be set by Board of Trustees

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Before Legislation: Cost Shift by Pension Spike

	EMPLOYER ONE	EMPLOYER TWO	EMPLOYER THREE
		[SPIKER]	
Annual Retirement Benefit:	$90,000	$90,000	$90,000
Present Value of Future Retirement Benefits	$1,000,000	$1,000,000	$1,000,000
Contributions	$400,000	$225,000	$400,000
Plus Investment Gains	+ $600,000	+ $175,000	+ $600,000
	$1,000,000	$400,000	$1,000,000
Liability:	$ 1,000,000	$ 1,000,000	$ 1,000,000
Employer's Impact on Next Year's Liability:	$0	$600,000	$0
Liability Payment Due:	$200,000	$200,000	$200,000
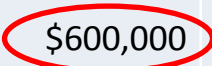
Unforeseen Liability for Pension Spike

Prior to the passage of the new Anti-Pension Spiking law, the unforeseen liabilities were shared by all the employers of the Retirement System

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After Legislation: Cost Shift by Pension Spike

	EMPLOYER ONE	EMPLOYER TWO	EMPLOYER THREE
		[SPIKER]	
Annual Retirement Benefit:	$90,000	$90,000	$90,000
Present Value of Future Retirement Benefits	$1,000,000	$1,000,000	$1,000,000
Contributions	$400,000	$225,000	$400,000
Plus Investment Gains	+ $600,000	+ $175,000	+ $600,000
	$1,000,000	$400,000	$1,000,000
Liability:	$ 1,000,000	$ 1,000,000	$ 1,000,000
Employer's Impact on Next Year's Liability:	$0	$600,000	$0
Liability Payment Due:	$0	$600,000	$0

Unforeseen Liability for Pension Spike

On and after January 1, 2015, under the new Anti-Pension Spiking law, the cost of the unforeseen liability is paid by the employer or employee who caused the pension spike.

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THE SPIKE ZONE:
New Pension Spiking Law Explained

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How does the new game work?

Example		Meaning
	Baseball	Retirement Application Form (Form 6)
	Pitcher	Members
	Batter	The Retirement System
	Umpire	The Anti-Pension Spiking Law

- Before the Anti-Pension Spiking law, the Retirement System had to swing at every pitch.

- The Anti-Pension Spiking law introduces an umpire to ensure more quality pitches.

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Which pitches are reviewed?

AFC ≥ $100,000

- The umpire monitors the playing field to determine which pitches are considered fair.

- The umpire only makes a call on pitches with an Average Final Compensation (AFC) of $100,000 or more, adjusted annually for inflation.

- For pitches with an AFC under $100,000, the Retirement System always hits a home run!

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Pitch in the STRIKE ZONE

Example of a pitch over the plate:

Name	Prudence Parker
System	Local Governmental
Retirement System Entry Date	1/1/1985
Retirement Date	1/1/2015
Age at Retirement	58
Years of Service	30
AFC	$200,000
Pension Benefit	$111,000 per year

- Prudence Parker received regular raises of 6% per year and did not receive a pension spike during the AFC period.

- The umpire reviews the pitch and determines that it is in the STRIKE ZONE.

Amount Employer Owes Retirement System = $0

This example uses a hypothetical Pension Spiking factor of 5. The Board of Trustees will select a factor based on the advice of the actuary in October 2014.

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Ball in the SPIKE ZONE

Example of a ball that enters the SPIKE ZONE:

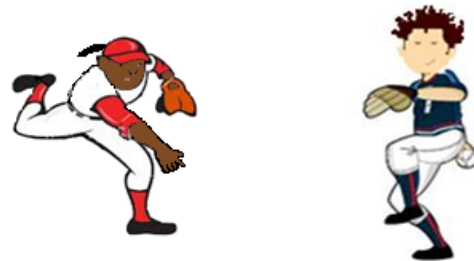| Name	Steven Spiker
System	Local Governmental
Retirement System Entry Date	1/1/1985
Retirement Date	1/1/2015
Age at Retirement	58
Years of Service	30
AFC	$200,000
Pension Benefit	$111,000 per year

- Steven Spiker received regular raises of 6% per year and receives $50,000 in additional compensation as a result of benefit conversion during the AFC period.
- The umpire reviews the pitch and determines that it is in the SPIKE ZONE.

Amount Employer Owes Retirement System ≈ $28,000

This example uses a hypothetical Pension Spiking factor of 5. The Board of Trustees will select a factor based on the advice of the actuary in October 2014.

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Prudence Parker vs. Steven Spiker

- Both Prudence Parker and Steven Spiker retired on the same day from the same system with the same pension benefit.

- The big difference is that Prudence Parker and her employer paid more into the Retirement System than Steven Spiker and his employer.

- When Steven Spiker retires, his employer owes an additional ~$28,000 to make up for this difference.

- This charge to the employer is the increased cost that the Retirement System would have borne in the absence of the new anti-spiking statute to pay the same benefit to Steven Spiker as Prudence Parker.

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The future of the SPIKE ZONE

- Example of a ball that enters the SPIKE ZONE <u>after 2020</u>:

Name	Steven Spiker, Jr.
System	Local Governmental
Retirement System Entry Date	***1/1/2015***
Retirement Date	1/1/2045
Age at Retirement	58
Years of Service	30
AFC	$200,000
Pension Benefit	$111,000 per year

- Just like his dad, Steven Spiker, Jr. received regular raises of 6% per year and an additional $50,000 as a result of benefit conversion during the AFC period.

- The umpire reviews the pitch and determines that it is in the SPIKE ZONE.

- Since Steven Spiker Jr. first entered the Retirement System in 2015, he has options….

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Options for members first hired in 2015 or later

- When Steven Spiker, Jr. retires he has three options:

    1. His employer can choose to pay the ~$28,000 owed to the Retirement System, or

    2. He can pay the ~$28,000 himself, or

    3. He can choose to receive a reduced pension benefit.

- If Steven Spiker, Jr. chooses option #3, his annual pension benefit would be reduced by $2,480 – from $111,000 to $108,520

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Spiking Calculation Explained

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Calculation details for Prudence Parker

Average Final Salary		$200,000
Years of Service	×	30
Local Governmental Multiplier	×	0.0185
Maximum Benefit Amount[+]		**$111,000.00**
Accumulated Contributions		$313,551.17
Annuity Factor (for age 58)	÷	11.4455
Contribution Based Benefit Cap Factor*	×	5.00
Contribution Based Benefit Cap		**$136,975.74**
Amount Owed to Retirement System		**$0**

The cap does not have an impact because the maximum benefit of $111,000.00 is less than the cap of $136,975.74.

*This example uses a hypothetical Pension Spiking factor of 5. The Board of Trustees will select a factor based on the advice of the actuary in October 2014.
[+]Choice of an alternative retirement benefit payment option, such as a joint and survivor payment option, does not alter the calculation.

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Calculation details for Steven Spiker

Average Final Salary		$200,000
Years of Service	×	30
Local Governmental Multiplier	×	0.0185
Maximum Benefit Amount[+]		**$111,000.00**
Accumulated Contributions		$248,412.35
Annuity Factor (for age 58)	÷	11.4455
Contribution Based Benefit Cap Factor*	×	5.00
Contribution Based Benefit Cap		**$108,519.66**
Maximum Benefit – Benefit Cap		$2,480.34
Annuity Factor (for age 58)	×	11.4455
Amount Owed to Retirement System		**$28,388.73**

The cap has an impact because the maximum benefit of $111,000.00 is greater than the cap of $108,519.66.

*This example uses a hypothetical Pension Spiking factor of 5. The Board of Trustees will select a factor based on the advice of the actuary in October 2014.
[+]Choice of an alternative retirement benefit payment option, such as a joint and survivor payment option, does not alter the calculation.

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Review

- The Anti-Pension Spiking Contribution-Based Benefit Cap approach to limiting pension spiking will prevent employers in the Retirement Systems from absorbing the additional liabilities caused by pension spiking by other employers.

- The pension spiking cap only applies to individuals with an Average Final Compensation (AFC) of $100,000 or higher, adjusted annually for inflation, and will only directly impact a small number of those individuals.

- The maximum number of people per year who can be affected by the cap is 0.75% of retirees.

- For members who enter the Retirement System from which they retire before January 1, 2015, the last employer will pay the cost of the additional liability on the Retirement System caused by the pension spike.

- For members who enter the Retirement System from which they retire on or after January 1, 2015, the employer or employee may pay for the additional liability, or the employee can choose to receive a reduced benefit.

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Contribution Based Benefit Cap

- Today you will be asked to determine the Contribution Based Benefit Cap (CBBC)
- As seen the calculation slides, the CBBC is used in the formula to determine the maximum benefit, an employee can earn without causing a spike to their pension
- Buck Consultants will provide a presentation covering
    1. Compliance
    2. Factors for first time implementing the statute (e.g. cautious vs aggressive)
    3. Next year's experience review

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North Carolina Retirement Systems
Contribution-Based Benefit Cap

Board of Trustees Meeting
Larry Langer and Mike Ribble
October 23, 2014

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House Bill 1195

- House Bill 1195 enacts an "Anti-Pension-Spiking Contribution-Based Benefit Cap" to be set by the Board of Trustees for both TSERS and LGERS.

- Per House Bill 1195,

  – "The Board of Trustees shall adopt a contribution-based benefit cap factor recommended by the actuary, based upon actual experience, such that no more than three-quarters of one percent (0.75%) of retirement allowances are _expected to be capped_."

- Conceptually, the factor is a comparison of a member's contributions to the member's retirement benefit.

- For House Bill 1195, Buck has prepared analysis of such factors based on data used for the December 31, 2012 valuations (the valuation in effect at the time HB 1195 was signed into law).

House Bill 1195

- The analysis applies the actuarial assumptions for retirement for each system to estimate
  - the number of annual retirements *expected*, and
  - the number of annual retirements *expected to be capped* under various contribution-based benefits cap factors.

- For TSERS, there were 59,602 active members eligible to retire. Based on the actuarial assumptions for retirement, approximately 10,766 of those active members are *expected* to retire in the year following the valuation.
  - How many of these 10,766 should have benefits capped by a contribution-based benefit cap factor?

- For LGERS, there were 21,320 active members eligible to retire. Based on the actuarial assumptions for retirement, approximately 3,394 of those active members are *expected* to retire in the year following the valuation.
  - How many of these 3,394 should have benefits capped by a contribution-based benefit cap factor?

Contribution-Based Benefit Cap Factor - TSERS

Contribution-Based Benefit Cap Factor	Number of Retirement Eligible Members Over Cap	Expected Number of Members Capped	Expected Percent of Members Capped
4.1	364	88	0.82%
4.2	309	75	0.70%
4.3	270	65	0.60%
4.4	233	58	0.54%
4.5	193	48	0.45%
4.6	160	39	0.36%
4.7	133	32	0.30%
4.8	110	27	0.25%
4.9	85	20	0.19%
5.0	68	16	0.15%

- Based on the actuarial assumptions for retirement, 75 active members are *expected* to retire with benefits at least 4.2 times greater than accumulated contributions.

- Using a contribution-based benefit cap factor of 4.2 results in these 75 *expected* retirements having benefits capped.

- Capping 75 members out of 10,766 members *expected* to retire (from prior slide) results in 75/10,766 = 0.70% of retirements having benefits capped.

- Using a contribution-based benefit cap factor of 4.2 appears to satisfy the HB 1195 criteria of capping no more than 0.75% of expected retirements, BUT…

…WHAT HAPPENS IF MORE CAPPED MEMBERS RETIRE THAN EXPECTED?

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Contribution-Based Benefit Cap Factor - LGERS

Contribution-Based Benefit Cap Factor	Number of Retirement Eligible Members Over Cap	Expected Number of Members Capped	Expected Percent of Members Capped
4.3	121	27	0.80%
4.4	109	25	0.74%
4.5	89	21	0.62%
4.6	79	19	0.56%
4.7	66	16	0.47%
4.8	54	13	0.38%
4.9	44	11	0.32%
5.0	39	10	0.29%
5.1	35	9	0.27%
5.2	28	7	0.21%
5.3	24	6	0.18%

- Based on the actuarial assumptions for retirement, 25 active members are *expected* to retire with benefits at least 4.4 times greater than accumulated contributions.

- Using a contribution-based benefit cap factor of 4.4 results in these 25 *expected* retirements having benefits capped.

- Capping 25 members out of 3,394 members *expected* to retire (from prior slide) results in 25/3,394 = 0.74% of retirements having benefits capped.

- Using a contribution-based benefit cap factor of 4.4 appears to satisfy the HB 1195 criteria of capping no more than 0.75% of expected retirements, BUT…

…WHAT HAPPENS IF MORE CAPPED MEMBERS RETIRE THAN EXPECTED?

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Considerations In Setting The Contribution-Based Benefit Cap Factor

TSERS

Contribution-Based Benefit Cap Factor	Number of Retirement Eligible Members Over Cap	Expected Number of Members Capped	Expected Percent of Members Capped
4.2	309	75	0.70%

LGERS

Contribution-Based Benefit Cap Factor	Number of Retirement Eligible Members Over Cap	Expected Number of Members Capped	Expected Percent of Members Capped
4.4	109	25	0.74%

- While 75 TSERS and 25 LGERS members are <u>expected</u> to retire over the sample cap factors shown above, many more members of each system are over the cap and <u>eligible</u> to retire
  - If greater than 75 TSERS or 25 LGERS retire over the sample cap factors shown above and the expected number of retirements actually occurs, then more than 0.75% of retirements would be capped, which does not satisfy the criteria of HB 1195.
  - The primary truth of assumptions is that whatever we assume is likely not to be realized

Considerations In Setting The Contribution-Based Benefit Cap Factor

- The analysis and sample factors above rely on certain data and assumptions
  - Valuation data used for the December 31, 2012 valuation
    - Analysis based on valuation data from other years may produce different results
  - Retirement assumptions from the prior experience study (2010)
    - Next experience study to be presented October 2015
    - We could find that retirement experience has changed, and that retirement experience for spikers differs from the general population

- We set many of our assumptions at "the average"
  - If in any given year our assumption is not met, we adjust costs accordingly with each valuation
  - If the assumptions don't pan out over 5 years, we adjust the assumptions and our cost expectation with the next experience review

- The CBBC factor should NOT be set at the average
  - It is prudent to set the CBBC factor at a level such that the threshold is very unlikely to be triggered
  - The ramifications of having the 0.75% threshold triggered suggests a liberal amount of cushion
  - Alternatively, setting the factor at a conservatively high level may result in far fewer capped benefits than the 0.75% threshold

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Recommendations

- For the reasons previously stated, the Board may consider a more conservative factor
  - For TSERS, Buck recommends a factor of 4.8; a factor of 4.8 would mean approximately 75% of the capped members retire in a given year (about 25% assumed)
  - For LGERS, Buck recommends a factor of 5.1; a factor of 5.1 would mean approximately 75% of the capped members retire in a given year (about 25% assumed)
  - As required by HB 1195, the Board should revisit the factor for each system once the next experience study is presented

- A CBBC factor of 4.8 for TSERS and 5.1 for LGERS would allow for spikers to retire at roughly three times the rate of the general population without triggering the threshold.

Certification

The results were prepared under the direction of Michael Ribble and Larry Langer who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. These results have been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about them.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law.

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Questions?

THANK YOU