

# NEW YORK CITY OFFICE OF THE ACTUARY



## FISCAL ANALYSIS FOR THE PENSION COSTS OF THE NEW YORK CITY RETIREMENT SYSTEMS RESULTING FROM THE WORLD TRADE CENTER ATTACK ON SEPTEMBER 11, 2001

**SUMMARY OF ANALYSIS:** Following the World Trade Center (WTC) attack on September 11, 2001 (9/11), the New York City Retirement Systems (NYCRS)<sup>1</sup> have experienced a significant increase in the number of accidental disability retirements (ADR) and accidental deaths (AD) amongst NYCRS members who participated in the rescue, recovery, or cleanup operations resulting from the attack.

This fiscal analysis presents the estimated pension costs for the NYCRS as of June 30, 2021 attributable to WTC ADRs and WTC ADs, where these additional costs have contributed to the decline in the funded status of the pension funds within the NYCRS.

This analysis is intended for the purpose of procuring federal financial assistance from the Federal Emergency Management Agency (FEMA).

**BACKGROUND:** The New York City Fire Pension Fund (FIRE) and the New York City Police Pension Fund (POLICE) incurred an actuarial loss as a result of the deaths of 343 FIRE members and 28 POLICE members on 9/11. In 2002, a FEMA grant application was submitted for reimbursement in the amount of \$64.6 million for the cost of this actuarial loss. Subsequently, in 2003, a separate FEMA grant application was submitted for reimbursement in the amount of \$185.8 million for the cost of the Special Accidental Death Benefits (SADB) without future 3.0% Cost-of-Living Adjustments (COLA) paid to eligible beneficiaries for the deaths of these members on 9/11.

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<sup>1</sup> New York City Employees' Retirement System (NYCERS)  
New York City Teachers' Retirement System (TRS)  
New York City Board of Education Retirement System (BERS)  
New York City Police Pension Fund (POLICE)  
New York City Fire Pension Fund (FIRE)

After 9/11, there has been a significant number of incidences of ADR and AD due to WTC. ADR and AD benefits are generally greater than service retirement benefits and thus, the increase in the number of ADR and AD incidences and the accelerated timing of these ADRs and ADs generally result in increased liabilities for the respective pension funds.

**FINANCIAL IMPACT - SUMMARY:** Based on the census data and the actuarial assumptions and methods described herein, the estimated financial impact of 9/11 on the NYCRS as of June 30, 2021 and reflecting WTC AD and ADR incidences through June 30, 2020 is estimated to be \$2,353.3 million. A breakdown of the financial impact by NYCRS is shown in the table below.

NYCRS	Net 9/11 Cost as of June 30, 2021 (\$millions)
FIRE	\$1,476.9
POLICE	783.7
NYCERS	91.3
TRS	0.6
BERS	<u>0.8</u>
Total	\$2,353.3

**CENSUS DATA:** The estimates presented herein are based on the WTC members in the census data used in the Preliminary June 30, 2019 (Lag) actuarial valuations of the NYCRS to determine the Preliminary Fiscal Year 2021 employer contributions and also include FIRE, Police, and estimated NYCERS WTC AD and ADR incidences in Fiscal Year 2020. The data used for this analysis was also supplemented with data from the members' benefit certifications and additional data provided by the NYCRS. A breakdown of the count of the WTC pensioners valued in this fiscal analysis by NYCRS is shown in the table below.

NYCRS	Count of Current WTC Pensioners valued in this fiscal analysis
FIRE	3,035
POLICE	1,082
NYCERS	355
TRS	1
BERS	<u>3</u>
Total	4,476

**ACTUARIAL ASSUMPTIONS AND METHODS:** This fiscal analysis presented herein has been calculated based on the actuarial assumptions in effect for the June 30, 2019 (Lag) actuarial valuations used to determine the Preliminary Fiscal Year 2021 employer contributions of NYCRS. To be consistent with the current law under General Municipal Law 208-f, this analysis reflects only the 3.0% SADB COLA increases that have been enacted effective through 7/1/2020.

The WTC benefits of impacted members were compared to a separate set of projected benefits for these impacted members assuming that 9/11 had never occurred. Under the latter hypothetical scenario, members generally are assumed to have continued active service from their original WTC disability retirement date or death date and their careers were projected forward using the actuarial assumptions in effect.

Under this methodology, the 9/11 cost as of the valuation date can be summarized as follows:

(1) Total WTC benefits paid less hypothetical expected benefit payments had 9/11 never occurred accumulated with interest

Plus

(2) Present Value of Future Benefits (PVFB) of WTC benefits less PVFB of hypothetical expected benefits had 9/11 never occurred

Less

(3) Amounts from the previous FEMA grants accumulated with interest.

For members that began receiving a WTC benefit following a post-retirement WTC Reclassification (i.e. retiring first for a non-WTC retirement, then reclassifying later to a WTC retirement), it was assumed that these members would have retired on their original retirement dates if 9/11 had never occurred. Therefore, instead of projecting hypothetical

expected benefit payments for these reclassified members, their WTC benefit amounts were compared to the benefit amounts of their original retirement beginning from their WTC Reclassification date.

The cost of WTC AD and ADR incidences in Fiscal Year 2020 was estimated for NYCERS due to insufficient data, while there were no new incidences in Fiscal Year 2020 for TRS and BERS.

**RISK AND UNCERTAINTY:** The costs presented in this fiscal analysis depend highly on the accuracy of the data provided, realization of the actuarial assumptions used, certain demographic characteristics of NYCERS, and other risks. If actual experience deviates from actuarial assumptions, the actual costs could differ from those presented herein. Costs are also dependent on the actuarial methods used, and therefore different actuarial methods could produce different results. Quantifying these risks is beyond the scope of this fiscal analysis.

Not measured in this fiscal analysis are the following:

- The impact of the WTC attack on NYCERS members who were not receiving WTC ADR or AD benefits as of June 30, 2020 but may do so at a later date.
- The impact of the WTC attack on Other Postemployment Benefit (OPEB) costs and other non-pension related costs.
- The impact of the WTC attack on individuals that are not currently NYCERS members.

**STATEMENT OF ACTUARIAL OPINION:** I, Sherry S. Chan, am the Chief Actuary for, and independent of, the New York City Retirement Systems and Pension Funds. I am a Fellow of the Society of Actuaries, an Enrolled Actuary under the Employee Retirement Income and Security Act of 1974, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of my knowledge, the results contained herein have been prepared in accordance with generally accepted actuarial principles and procedures and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

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Sherry S. Chan, FSA, EA, MAAA, FCA  
Chief Actuary

March 26, 2021

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