

BOARD OF EDUCATION RETIREMENT SYSTEM

Board Meeting Agenda

March 21, 2023

1. Calendar Item 1: Noting of the Minutes of the Meeting of the Board of Education Retirement System held on February 7, 2023 – **FOR CONSIDERATION AND ACTION.**
2. Executive Director’s Update – **FOR DISCUSSION.**
3. Calendar Items 2-17: Ordinary Business – **FOR CONSIDERATION AND ACTION.**
4. Calendar Item 18: Amendment to the Audit Committee Charter - **FOR CONSIDERATION AND ACTION.**
5. Calendar Item 19: Election of an Alternate Member of the Audit Committee – **FOR CONSIDERATION AND ACTION.**
6. Calendar Item 20: Authorization to the Comptroller of the City of New York to Invest, Sell and Exchange the Funds of the Retirement System – **FOR CONSIDERATION AND ACTION.**
7. Calendar Item 21: Authorization to Commence an Asset Allocation Study– **FOR CONSIDERATION AND ACTION.**
8. Calendar Item 22: Approval of Net Zero Implementation Plan – **FOR CONSIDERATION AND ACTION.**
9. Calendar Item 23: Investment Strategy Overview – **FOR DISCUSSION.**
10. Calendar Item 24: Adoption of the Actuary’s Determination for the Preliminary Fiscal Year 2024 Employer Contribution to the New York City Board of Education Retirement System – **FOR CONSIDERATION AND ACTION.**

Board of Education Retirement System
SUMMARY MINUTES
Meeting of the Board of Trustees
February 7, 2023

Appearances via WebEx:

Tazin Azad	Michelle Joseph
Geneal Chacon	Ruth Maria Kenley
Marjorie Dienstag	Jessamyn Lee
Khari Edwards	Donald Nesbit
Gregory Faulkner	Alan Ong
Anita Garcia	Kaliris Salas-Ramirez
Sheree Gibson	Maisha Sapp
Anthony Giordano	Seritta Scott
Angela Green	Thomas Sheppard
Naveed Hasan	Gladys Ward
Alison Hirsh	Ephraim Zakry

Ms. Azad joined the meeting at approximately 4:05PM.

Agenda Item 1 - Calendar Item 1: Noting the Minutes of the Meeting of the Board of Retirement held on January 18, 2023. On a motion by Mr. Sheppard and a second by Ms. Ward, this item was unanimously approved.

Agenda Item 2: Executive Director's Update.

Ms. Garcia joined the meeting at approximately 4:13PM.

Agenda Item 3 - Calendar Items 2-17: Ordinary Business. On a motion by Mr. Edwards and a second by Ms. Dienstag, these items were approved with an abstention from Ms. Garcia.

Agenda Item 4 – Calendar Item 18: Executive Session. Ms. Hirsh motioned to enter into Executive Session to discuss a disciplinary matter. The motion was seconded by Mr. Hasan, however, the motion did not carry. Trustees voted as follows: Mr. Edwards, Dr. Green, Ms. Hirsh, Ms. Joseph, Mr. Ong, Dr. Salas-Ramirez, Ms. Sapp and Mr. Zakry voted in favor; Ms. Dienstag, Mr. Faulkner, Mr. Giordano, Mr. Nesbit, and Mr. Sheppard voted to oppose; and Ms. Garcia and Ms. Gibson abstained from the vote.

Agenda Item 5 – Calendar Item 19: Amendment to the Audit Committee Charter. On a motion by Mr. Sheppard and a second by Ms. Dienstag, this Board considered this item.

Mr. Hasan left the meeting at approximately 5:02PM.

Ms. Chacon joined the meeting at approximately 5:07PM.

Agenda Item 6 – Calendar Item 20: Internal Audit Semiannual Update. On a motion by Mr. Sheppard and a second by Mr. Giordano, this item was discussed.

Mr. Zakry left the meeting at approximately 5:26PM.

On a motion by Mr. Sheppard and a second by Ms. Dienstag, the Board voted unanimously to enter into Executive Session.

Dr. Salas-Ramirez left the meeting at approximately 5:41PM.

Agenda Item 7: Calendar Item 21: Acceptance of the Comptroller's Recommendations for the Excluded Securities List. This item was approved with an abstention from Ms. Garcia.

Agenda Item 8 – Calendar Item 22: Ratification of the Executive Committee's Instructions to the Comptroller of the City of New York Regarding the Terms of a Side Letter to an Agreement to Commit Funds to a Private Equity Fund. On a motion by Mr. Sheppard and a second by Mr. Giordano, the Board approved this item with Ms. Hirsh voting to oppose and Ms. Garcia abstaining from the vote.

On a motion by Mr. Sheppard and a second by Ms. Dienstag, the Board voted unanimously to exit Executive Session and re-enter Public Session.

Agenda Item 9 – Calendar Item 23: Quarterly Update on Investment Performance and Fund Commitments. On a motion by Mr. Sheppard and a second by Ms. Dienstag, this item was discussed.

Ms. Hirsh left the meeting at approximately 5:48PM.

Dr. Salas-Ramirez rejoined the meeting at approximately 5:49PM.

Mr. Giordano left the meeting at approximately 5:50 PM.

Dr. Green left the meeting at approximately 5:56 PM.

Agenda Item 10 – Calendar Item 24: Election of an Alternate Member of the Audit Committee
On a motion by Mr. Sheppard and a second by Ms. Garcia, this item was discussed. Ms. Gibson nominated Ms. Azad to serve as Mr. Sheppard's alternate on the Audit Committee. Ms. Dienstag nominated Ms. Joseph to serve as Mr. Sheppard's alternate on the Audit Committee. The following trustees voted in for of appointing Ms. Azad as Mr. Sheppard's Alternate Committee Member: Ms. Azad, Ms. Chacon, Mr. Edwards, Ms. Gibson, Mr. Nesbit, Dr. Salas-Ramirez, and Mr. Sheppard. The following trustees voted in favor of appointing Ms. Joseph as Mr. Sheppard's Alternate Committee Member: Ms. Dienstag, Mr. Faulkner, Ms. Joseph, Mr. Ong, Ms. Kenley, Ms. Sapp, Ms. Scott, and Ms. Ward. Ms. Garcia and Ms. Lee abstained from the vote. No trustee was elected as Mr. Sheppard's Alternate Committee Member. On a motion by Mr. Faulkner and a second by Mr. Ward, the Board voted unanimously to table this agenda item to the next meeting of the Board.

Ms. Scott requested a determination as to whether the Board continued to maintain a quorum. It was determined that the Board had the requisite number of trustees to continue the meeting.

Agenda Item 11 – Calendar Item 25: Adoption of the Disability Committee's Recommendations. On a motion by Mr. Faulkner and a second by Ms. Dienstag, this item was approved with an abstention from Ms. Garcia.

Ms. Joseph left the meeting at approximately 6:10PM.

Agenda Item 5 – Calendar Item 19: Amendment to the Audit Committee Charter. On a motion by Mr. Sheppard and a second by Mr. Faulkner, the Board tabled this item until the next meeting of the Board. Ms. Garcia abstained from the vote.

No other items of business were presented. On a motion by Mr. Sheppard and a second by Ms. Garcia, the meeting was adjourned at approximately 6:12PM.

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DRAFT

BERS Strategic Asset Allocation

Proposed Timeline

April 2023

Introduction, Asset Classes, and Capital Market Expectations

In the first session we want to introduce the concept of strategic asset allocation, the factors that could induce a new asset allocation study (changes in funded ratio, legislative changes, etc.). In addition, the committee should review various asset classes, their reason for inclusion in the portfolio, and updated capital market expectations and correlations. Modeling for efficient portfolios should be BERS-specific and incorporate stochastic analysis. The goal of the first session is to establish a set of efficient portfolios for more detailed comparison at later sessions.

Discussion Questions

- How often should BERS review strategic asset allocation? What events should trigger an immediate review?
- What are current expected returns for stocks, bonds, cash, and alternative investments?
- How have expectations changed since last asset allocation?
- Are there new asset classes that merit inclusion in the portfolio?
- Are there asset classes that should be eliminated/combined in the portfolio?
- What are the characteristics of a portfolio that is expected to return 7.0% over the next 5-10 years?
- Should we increase alternative investments to the new “basket clause” limit?

May 2023

Liabilities, Cash Flows, and Goals

Understanding the growth and structure of plan liabilities and the short and intermediate term cash flows are an essential element in determining the plans asset allocation. Potential policy portfolios should be optimized not just for efficiency against a risk-free rate but also for their probability of meeting plan goals over long periods of time. Importantly, the modeling around liabilities and cash-flow should be BERS-specific, incorporate stochastic analysis, and integrate BERS fixed Tax Deferred Annuity. In addition, BERS has supplemental goals around environmental, social, and governance (ESG) and diversity, equity, and inclusion (DEI) goals that may influence asset allocation and portfolio construction. The goal of this session is to understand the drivers of liability growth and funded ratio volatility and examine how various “efficient” portfolios best achieve plan goals.

Discussion Questions

- What is the current growth trajectory of plan liabilities?
- How does the fixed return TDA impact funded ratio volatility?
- How do actuarial assumptions impact the plans ability to withstand additional market volatility?
- How do near and intermediate projected cash flows effect ability to commit to private market investments?

Are there efficient portfolios that better meet funded ratio goals?
How does using open-plan rather than closed-plan projects change the optimal asset allocation?
How do some of our additional goals (ESG and DEI initiatives) affect asset allocation?

June 2023

Benchmarking, Rebalancing Ranges, and Pacing

While capital market expectations, liability growth, and cashflows are the key inputs for developing the strategic asset allocation there are additional that help inform including benchmarking, rebalancing, and pacing goals.

Benchmarking measures the performance of each of the individual asset class programs and the overall portfolio against either a relevant market standard or an absolute return target.

Rebalancing is the periodic selling and buying securities to maintain strategic asset class weights established by the strategic asset allocation.

Pacing analysis defines the annual commitment amount for various private market asset classes that, overtime will best achieve the target allocation. Pacing analysis gives the board an idea of how long it will take to achieve target allocation under a normal environment.

The goal of this session is to better understand how each of these elements will affect the implementation of a given policy portfolio. For instance, a higher allocation to alternatives means a portfolio that may be more difficult to benchmark and that will take longer to implement.

Discussion Questions

Should we formalize a reference portfolio benchmark and public market equivalent benchmark to better understand whether added complexity has added value to the portfolio?

Do current rebalancing ranges strike the right balance between staying on course with policy while minimizing transactions costs?

What are realistic goals for private market pacing?

Should we utilize an opportunity cost (public market equivalent) or a fund benchmark (Cambridge or Burgiss) to benchmark private markets?

Are private market contribution and distribution assumptions realistic?

June 2023

Putting it All Together and Voting

Ideally, the board will vote on an asset allocation prior to the end of the fiscal year. Taking everything into account, BERS Investment Strategy, Segal Marco Advisors, and the Bureau of Asset Management will propose 3-4 portfolios, rebalancing ranges, and pacing plans that meet the parameters for the board to review and ultimately.



BERS INVESTMENT MEETING



March 21, 2023



NET ZERO IMPLEMENTATION PLAN

BERS'S NET ZERO COMMITMENT

In October 2021, BERS set an aspirational goal to achieve net zero GHG emissions by 2040 across its investment portfolio to mitigate the systemic risks of climate change to its investments and the real economy, taking into account the best available scientific knowledge and fulfilling fiduciary duty.

- ✓ Adopted Net Zero Asset Owner Commitment of the Paris Aligned Investment Initiative (PAII)
- ✓ Adopted preliminary Climate Action Plan that requires development of a Net Zero Implementation Plan in a year



NET ZERO GOAL: BROADER FRAMEWORK

GOAL To decarbonize the market, not just our portfolio, and keep fossil fuels in the ground, consistent with our fiduciary duties.

CONDITIONS We can't do this alone — requires collective action by governments, regulators, companies, and investors on both the demand side and the supply side, in energy and all sectors, especially utilities, transportation, real estate, industrials, and materials, to keep global temperature rise well below 2° C.



NET ZERO PLAN OVERVIEW

1. Disclose emissions & risk
2. Invest in climate change solutions
3. Engage for alignment & action
4. Divest to de-risk



DISCLOSE EMISSIONS & RISK

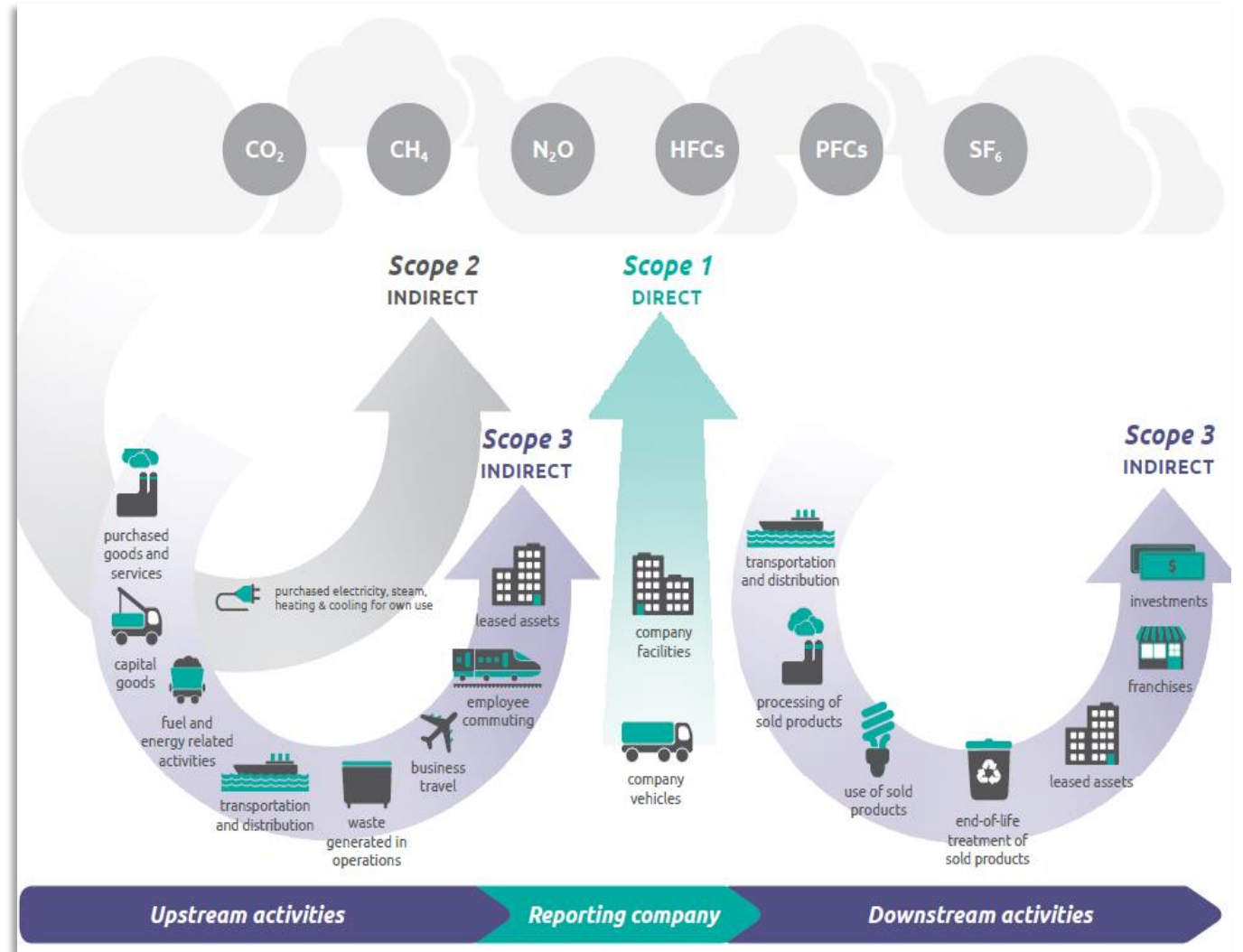
- Annually measure & report Scopes 1, 2 and 3 public portfolio emissions and progress of plan
- Public markets Scopes 1 & 2 emissions reduction targets: 22% by 2025 and 49% by 2030 + set targets for Scope 3 by 2025
- Develop interim portfolio emissions reduction targets for private markets



DISCLOSE EMISSIONS AND RISK

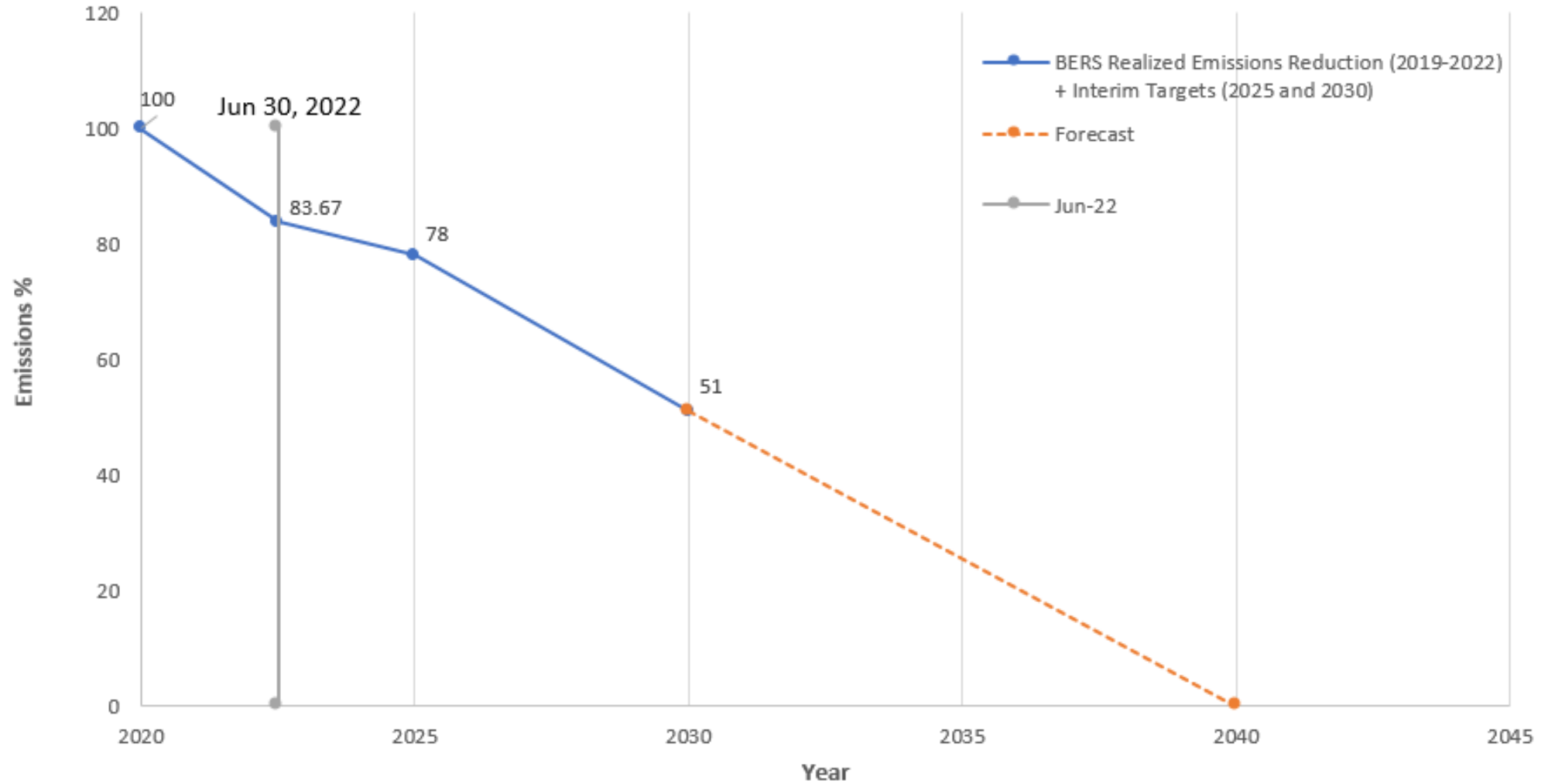
Measure and Disclose

- Annually measure and disclose GHG emissions of public equity and corporate bonds covering Scopes 1, 2 and 3 financed emissions
- Evaluate tools and data for measuring emissions of private markets
- Evaluate tools and data for assessing additional climate risks
- Annual report



DISCLOSE EMISSIONS AND RISK

BERS Interim Emissions Targets



ENGAGE FOR ALIGNMENT & ACTION

- Increase science-based targets coverage to:
 - 70% of Scopes 1 & 2 portfolio emissions by 2025
 - 90% of Scopes 1, 2 & 3 portfolio emissions by 2030
- Engage highest corporate emitters + collaborate with other institutional investors
- Aim for all managers to have net zero goals or science-based targets and plans by 2025
- Develop Just Transition assessment



MANAGER NET ZERO ALIGNMENT

Aim for all managers to have a net zero goal or science-based targets (SBTs) and implementation plan, consistent with fiduciary duty, covering, at a minimum, assets managed for the System, by June 30, 2025.

Managers should seek to:

- Cover Scopes 1 & 2 and material Scope 3 emissions of investments
- Develop plan for Scope 3 if inadequate data
- For GPs, have control investments adopt SBTs during holding period if no net zero goal

BAM to:

- Develop proposal for non-control investments, in consultation with managers
- Review proxy voting records of public markets managers
- Provide Boards with interim report in 2023 and in-depth progress report in 2024
- Recommend in 2025 potential actions for managers without targets and plans, or an acceptable alternative approach



INVEST IN CLIMATE CHANGE SOLUTIONS

Total Climate Change Solutions Investments: 2Q22 Amounts & Goals

Year	Amount (% of AUM)
2Q 2022 (invested & unfunded)	\$201 million (2.6%)
2025 goals	\$400 million (4.4%)
2035 goals	\$1.8 billion (14.4%)

Assess whether and how strategic asset allocation may be constructed to prudently increase allocations to climate solutions investments across multiple asset classes consistent with fiduciary duty and our investment objectives.

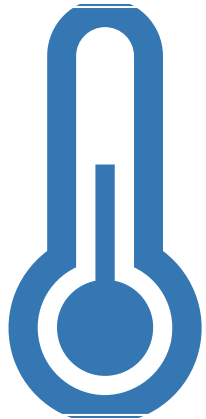


CONSIDERATION OF EXCLUSIONS



Private Markets

- Consistent with the Boards' fossil fuel divestment resolution, ask all private markets managers to exclude exploration, extraction and production of oil, gas and thermal coal or provide opt-out of such investments. If manager does not agree, Boards decide on investment consistent with fiduciary duty.



General

- If investment managers or publicly-traded companies fail to comply with the parameters to align with science-based pathways to maintain global warming to 1.5 degrees Celsius as provided in this implementation plan, Boards may consider potential actions to exclude them from our portfolio prospectively, consistent with fiduciary standards.





**PRELIMINARY FISCAL YEAR 2024
EMPLOYER CONTRIBUTIONS TO THE
NEW YORK CITY BOARD OF EDUCATION
RETIREMENT SYSTEM**

prepared by the
**New York City
Office of the Actuary
March 14, 2023**



OFFICE OF THE ACTUARY

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MAREK TYSZKIEWICZ
CHIEF ACTUARY

March 14, 2023

Board of Trustees
New York City Board of Education Retirement System
55 Water Street, 50th Floor
New York, NY 10041

Re: Preliminary Fiscal Year 2024 Employer Contribution to the New York City Board of
Education Retirement System (BERS)

Dear Members:

The Preliminary 2024 Employer Contribution for the fiscal year ending June 30, 2024 is \$235,447,894. This amount represents an increase of \$9,794,591 from the Preliminary Fiscal Year 2023 Employer Contribution provided to you in a letter dated March 8, 2022.

The actuarial assumptions and methods used to determine the Preliminary 2024 Employer Contribution have not changed from those used to determine the Preliminary 2023 Employer Contribution.

The Fiscal Year 2024 Employer Contribution is subject to potential change due to items such as, but not limited to:

- Census data refinements,
- Actuarial adjustments and/or refinements,
- Labor agreements with retroactive effective dates, and
- Actions of the New York State Legislature and Governor.

Note that this valuation does not reflect any potential cost due to *Gulino vs. Department of Education*, 96 Civ. 8414(KMW).

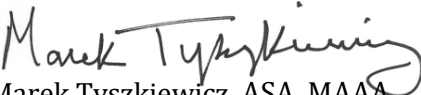
Board of Trustees
New York City Board of Education Retirement System
March 14, 2023
Page 2

The following appendices and tables are attached to this letter in support of the Preliminary 2024 Employer Contribution:

- Appendix A presents a summary of the census data and actuarial assumptions and methods used to determine the Preliminary 2024 Employer Contribution.
- Appendix B, Table B-1, presents the components of the Preliminary 2024 Employer Contribution payable to the Contingent Reserve Fund of BERS.
- Appendix B, Table B-2, presents the Preliminary 2024 Employer Contribution attributable to the Department of Education and Other Obligor of BERS.
- Appendix C presents four tables showing the components of the Preliminary 2024 Employer Contribution for each of the Obligor.
- Appendix D contains a draft Resolution to adopt the Preliminary 2024 Employer Contribution.

I, Marek Tyszkiewicz, am the Chief Actuary for, and independent of, the New York City Retirement Systems and Pension Funds. I am an Associate of the Society of Actuaries and a Member of the American Academy of 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.

If you have any questions, please contact Ms. Dolores Capone, or me.


Marek Tyszkiewicz, ASA, MAAA
Chief Actuary

MT/eh

Att.

cc: Dolores Capone, ASA, EA – New York City Office of the Actuary
Michael Hunter, ASA, EA – New York City Office of the Actuary
Sanford Rich – New York City Board of Education Retirement System
Michael Samet, FSA – New York City Office of the Actuary
Keith Snow, Esq. – New York City Office of the Actuary

Appendix A

APPENDIX A
NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

**CENSUS DATA AND ACTUARIAL ASSUMPTIONS AND METHODS USED
TO DETERMINE THE PRELIMINARY 2024
EMPLOYER CONTRIBUTION**

On January 24, 2019, the Actuary issued a Report entitled “Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2018 for the New York City Board of Education Retirement System.” The actuarial assumptions and methods described in that report are referred to as the “2019 A&M.”

On July 16, 2021, the Actuary issued a memorandum titled “Proposed Changes to Actuarial Assumptions and Methods.” The actuarial assumptions and methods described in that memorandum amend certain assumptions and methods from the 2019 A&M. This revised set of actuarial assumptions and methods is referred to as the “Revised 2021 A&M.”

The Preliminary 2024 Employer Contribution is based upon the Revised 2021 A&M, the June 30, 2022 census data, and benefit provisions and asset values as of June 30, 2022, as required under the One-Year Lag Methodology described later in this Appendix.

A. CENSUS DATA

Census data is submitted by the BERS’s administrative staff, by the participating employers’ payroll facilities, by the Office of Payroll Administration, and by the Financial Information Services Agency. This data is not audited, but is reviewed by the Office of the Actuary for consistency and reasonability.

Where applicable, June 30, 2022 salaries have been adjusted by the Actuary to reflect contract settlements with retroactive effect and the assumption of pattern bargaining. Estimates of liabilities attributable to the related additional benefits payable have been applied to the results contained herein.

A summary of the census data is shown in Table A-1 below:

TABLE A-1 CENSUS DATA USED FOR DETERMINING PRELIMINARY 2024 EMPLOYER CONTRIBUTION	
	June 30, 2022
Actives	
Number	
Tier 1	11
Tier 2	3
Tier 3 / 4	13,361
Tier 6	12,264
Total	25,639
Average Age	51.3
Average Service	9.6
Total Annual Salary	\$1,427,145,242
Terminated Nonvested	
Number	9,245
Total Member Contribution Account Balances	\$42,064,395
Deferred Vested	
Number	2,410
Average Age	52.6
Average Service	9.6
Total Last Annual Salary	\$103,264,596
Retirees	
Number	20,481
Average Age	74.0
Total Annual Retirement Benefits	\$318,685,212

B. BENEFITS

For information about the plan benefits, see the June 30, 2022 BERS Annual Comprehensive Financial Report.

C. CHAPTER AMENDMENTS

Of particular note, the employer contributions reflect the following Chapter amendments enacted during the last five years:

- **Chapter 56 of the Laws of 2022** (Chapter 56/22) reduces the Tier 6 vesting requirement from 10 years to 5 years and allows for retirement with 5 years of service, and excludes certain forms of overtime and extracurricular compensation from the salary used to determine Tier 6 Basic Member Contribution rates during the specified period from 2022 to 2024.
- **Chapter 424 of the Laws of 2021** (Chapter 424/21) expands eligibility of certain public service employees for participation in the World Trade Center Rescue, Recovery, or Clean-up Operations.
- **Chapter 89 of the Laws of 2020** (Chapter 89/20) provides death benefits to statutory beneficiaries of members whose death was a result of or was attributed to COVID-19. **Chapter 78 of the Laws of 2021** (Chapter 78/21) amends Chapter 89/20 by extending the eligibility window of these death benefits through December 31, 2022. **Chapter 783 of the Laws of 2022** (Chapter 783/22) extends the deadline for the COVID-19 Accidental Death Benefits from December 31, 2022 to December 31, 2024.
- **Chapter 266 of the Laws of 2018** (Chapter 266/18) extends the deadline to file a Notice of Participation in the World Trade Center Rescue, Recovery, and Cleanup Operations to September 11, 2022.

D. ACTUARIAL ASSUMPTIONS USED IN THE VALUATION

Following is a brief description of the significant assumptions used in the June 30, 2022 actuarial valuation to determine the Preliminary 2024 Employer Contribution.

ACTUARIAL ASSUMPTIONS USED FOR DETERMINING PRELIMINARY FISCAL YEAR 2024 EMPLOYER CONTRIBUTION	
ITEM	PRELIMINARY 2024 EMPLOYER CONTRIBUTION
Valuation Date	June 30, 2022.
Assumed Rate of Return on Investments ¹	7.00% per annum, net of Investment Expenses.
Post-Retirement Mortality	Tables proposed to and adopted by the Board of Trustees during Fiscal Year 2019 ² . Applies mortality improvement scale MP-2020 published by the Society of Actuaries.
Active Service: Withdrawal, Death, Disability	Tables proposed to and adopted by the Board of Trustees during Fiscal Year 2019 ² . Applies mortality improvement scale MP-2020 published by the Society of Actuaries to active ordinary death mortality rates and pre-commencement mortality rates for deferred vesteds.
Retirement	Tables proposed to and adopted by the Board of Trustees during Fiscal Year 2019 ² .
Tax Deferred Annuity Plan (TDA)	The difference between the assets and liabilities for annuitized accounts and non-annuitized accounts with guaranteed interest credits is reflected as an adjustment to the AVA and Normal Cost.
World Trade Center Benefits	Estimates of Certain Obligations.
Salary Increases ¹	Tables proposed to and adopted by the Board of Trustees during Fiscal Year 2019 ² . In general, Merit and Promotion Increases plus assumed General Wage Increase of 3.00% per year.
Assumed Cost-of-Living Adjustments ^{1,3}	Auto COLA – 1.50% per year. Escalation – 2.50% per year.

¹ Developed using a Consumer Price Inflation (CPI) assumption of 2.50% per year.

² See January 24, 2019 Report entitled "Proposed Changes in Actuarial Assumptions and Methods Used in Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2018 for the New York City Board of Education Retirement System" to the BERS Board of Trustees.

³ The automatic Cost-of-Living Adjustments (COLA) under Chapter 125 of the Laws of 2000 are referred to as Auto COLA. The post-retirement inflation-related benefit increases under certain Tier 3 Plans are referred to as Escalation.

E. ACTUARIAL METHODS AND AMORTIZATION SCHEDULES

1. Actuarial Cost Method

The Entry Age Normal (EAN) cost method of funding is utilized by the Actuary to calculate the Employer Contribution.

Under this method, the Present Value (PV) of Future Benefits (PVFB) of each individual included in the actuarial valuation is allocated on a level basis over the earnings (or service) of the individual between entry age and assumed exit age(s). The employer portion of this PVFB allocated to a valuation year is the Normal Cost. The portion of this PVFB not provided for at a valuation date by the PV of Future Normal Costs or future member contributions is the Accrued Liability (AL).

The excess, if any, of the AL over the Actuarial Value of Assets (AVA) is the Unfunded Accrued Liability (UAL).

Under this method, actuarial gains and losses, as they occur, reduce and increase the UAL, respectively, and are explicitly identified and amortized. Increases or decreases in obligations due to benefit changes, actuarial assumption changes, and actuarial method changes are also explicitly identified and amortized.

The explicit UALs that are developed each year are financed over fixed periods. For more information, see Page A-6.

Under EAN, the Normal Cost as a percentage of pay remains constant by individual and changes gradually over time for the entire plan as the characteristics of the group changes (e.g., more Tier 6 active members decrease the average Normal Cost as a percentage of pay).

Beginning with the June 30, 2020 actuarial valuation, the liability of the TDA as of the valuation date reflects an actuarial projection of account balances with guaranteed interest credits.

2. Actuarial Asset Valuation Method

The Actuarial Asset Valuation Method (AAVM) recognizes investment returns greater or less than expected over a period of five years.

In accordance with this method, actual Unexpected Investment Returns (UIR) are phased into the AVA at rates of 20% per year (i.e., cumulative rates of 20%, 40%, 60%, 80%, and 100% over a period of five years).

The AVA is further constrained to be within a corridor of 80% to 120% of Market Value of Assets. For assets of the Variable Annuity Program, the current Market Value is used.

The AVA is then adjusted for any difference between the assets and liabilities of the TDA.

3. One-Year Lag Methodology (OYLM)

One-Year Lag Methodology uses a June 30, XX-2 valuation date to determine Fiscal Year XX employer contributions.

This methodology requires adjustments to certain components used to determine the Fiscal Year XX employer contributions as follows:

a. Normal Cost

The normal cost as of June 30, XX-2 is rolled forward with the assumed rate of return on investments (i.e., at 7.00% for the June 30, 2022 valuation) to derive the normal cost as of December 31, XX-1.

b. UAL Payments

For determining the UAL payments for Fiscal Year XX, and to be consistent with the OYLM, the UAL as of June 30, XX-2 is adjusted by the discounted value of employer normal costs and UAL payments paid during Fiscal Year XX-1 and the discounted value of Administrative Expenses reimbursed during Fiscal Years XX-1 and XX.

4. World Trade Center (WTC) Disability Benefits Law and WTC Death Benefits Law

Obligations attributable to the WTC Disability Benefits Law and to the WTC Death Benefits Law are determined through estimation techniques for post-retirement reclassifications.

5. Amortization Methods and Schedules

a. Amortization Methods

Under EAN, each explicitly determined UAL must be amortized over an explicit time period under an amortization method.

The Initial UAL is being amortized over a closed 22-year period using Increasing Dollar Payments (IDP). Under IDP, amortization payments increase by 3.0% per year, consistent with the assumed rate of General Wage Increases. Increments to the UAL established after June 30, 2010 are amortized using Level Dollar Payments (LDP) as follows:

- i. Benefit Changes – Over the remaining working lifetimes of those impacted, unless the amortization period is determined by statute
- ii. Assumption and Method Changes – Over a closed 20-year period

iii. Actuarial Gains and Losses – Over a closed 15-year period

Under the OYLM, the number of payments is one fewer than the number of years in the amortization period (e.g., 14 payments over a closed 15-year amortization period).

b. Amortization Schedules

The UAL bases and payments are shown in Table A-2 that follows.

The total scheduled amortization payments for each fiscal year are shown in Table A-3 and Chart A-1 that follow.

TABLE A-2
SCHEDULE OF UNFUNDED ACCRUED LIABILITY BASES
(\$ Millions)

Amortization Base	Date Established	Original Amount \$	Years Amortized	FY 2024 Amortized Payment \$	Payments Remaining	OYLM UAL \$ June 30, 2022
Initial UAL	6/30/2010	1,312	22	141	9	986
(Gain)/Loss	6/30/2011	(182)	15	(22)	3	(55)
(Gain)/Loss	6/30/2012	37	15	4	4	14
(Gain)/Loss	6/30/2013	326	15	39	5	153
(Gain)/Loss	6/30/2014	84	15	10	6	46
Assumption Changes ¹	6/30/2014	166	20	17	11	120
Asset Method Change ²	6/30/2014	(275)	20	(28)	11	(200)
(Gain)/Loss	6/30/2015	128	15	15	7	79
(Gain)/Loss	6/30/2016	108	15	13	8	74
(Gain)/Loss	6/30/2017	(334)	15	(39)	9	(249)
Assumption Changes ³	6/30/2017	(222)	20	(22)	14	(188)
Method Changes ³	6/30/2017	110	20	11	14	93
(Gain)/Loss	6/30/2018	(67)	15	(8)	10	(53)
Method Change ⁴	6/30/2018	(113)	20	(11)	15	(99)
(Gain)/Loss	6/30/2019	(326)	15	(39)	11	(280)
Assumption Changes ⁵	6/30/2019	(23)	20	(2)	16	(21)
Method Changes ⁵	6/30/2019	(487)	20	(49)	16	(445)
(Gain)/Loss	6/30/2020	105	15	12	12	96
Method Change ⁶	6/30/2020	356	20	36	17	337
OWBPA ⁷	6/30/2020	18	7	4	4	13
(Gain)/Loss	6/30/2021	(352)	15	(42)	13	(336)
Chapter 56	6/30/2021	17	13	2	11	16
(Gain)/Loss	6/30/2022	(44)	15	(5)	14	(44)

¹ Change in post-retirement mortality assumptions including the change to the mortality improvement scale MP-2015.

² AVA is constrained to a corridor of 80% to 120% of the market value.

³ 2019 A&M.

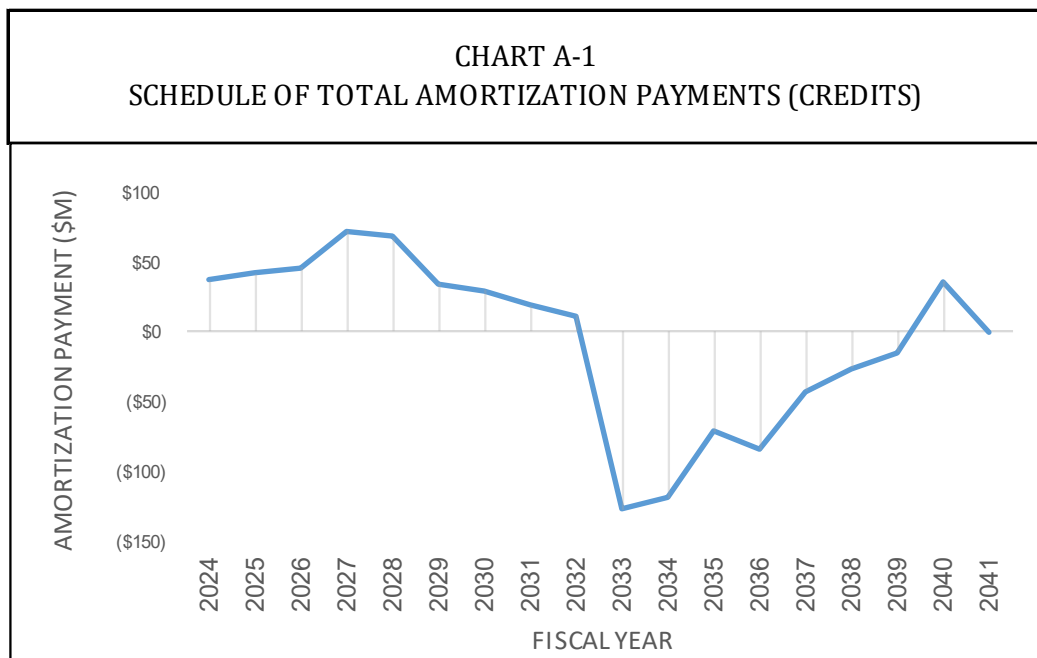
⁴ Change in method of characterizing interest credited on TDA Fixed Fund account balances.

⁵ Revised 2021 A&M.

⁶ TDA guaranteed interest credits included as an adjustment to the Actuarial Value of Assets.

⁷ Older Workers Benefit Protection Act (OWBPA).

TABLE A-3 SCHEDULE OF TOTAL AMORTIZATION PAYMENTS (CREDITS)	
Fiscal Year Ending	Amortization Payment Total (\$ Millions)
2024	37
2025	41
2026	46
2027	72
2028	68
2029	34
2030	29
2031	19
2032	11
2033	(127)
2034	(119)
2035	(72)
2036	(85)
2037	(43)
2038	(27)
2039	(15)
2040	36
2041	0



Following is a brief description of the actuarial methods used in the June 30, 2022 actuarial valuation to determine the Preliminary 2024 Employer Contribution:

ACTUARIAL METHODS USED FOR DETERMINING PRELIMINARY FISCAL YEAR 2024 EMPLOYER CONTRIBUTION	
ITEM	PRELIMINARY 2024 EMPLOYER CONTRIBUTION
Valuation Date	June 30, 2022.
Actuarial Cost Method	Entry Age Normal.
One-Year Lag Methodology	The actuarial valuation determines the employer contribution for the second following Fiscal Year.
Amortization Method for Initial UAL	Increasing Dollar Payments (3% per year).
Amortization Method for Post-2010 UALs	Level Dollar Payments.
Amortization Period:	
Benefit Changes	In general, the remaining working lifetimes of those impacted, unless the amortization period is determined by statute.
Assumption and Method Changes	Closed 20-year period.
Actuarial Gains and Losses	Closed 15-year period.
Actuarial Asset Valuation Method	The AAVM phases UIR into the AVA at a rate of 20% per year (i.e., cumulative rates of 20%, 40%, 60%, 80%, and 100% over five years). The AVA is constrained to be no more than 20% from Market Value.
Tax Deferred Annuity Plan (TDA)	The difference between the assets and liabilities for annuitized accounts and non-annuitized accounts with guaranteed interest credits is reflected as an adjustment to the AVA and Normal Cost. Projected differences due to annuitized accounts and non-annuitized accounts with guaranteed interest credits as of the valuation date are included as an adjustment to the AVA. Differences due to assumed contributions to non-annuitized accounts with guaranteed interest credits in the year following the valuation date are included as an adjustment to the Normal Cost.
WTC Disability and WTC Death Benefits Laws	Estimates of Reclassification Liabilities.
Settled Contracts Retroactive Effects	Estimate of Additional Liabilities.

6. Allocation to Obligor

By statute, employer contributions are determined for BERS in total.

For purposes of allocating the employer contributions to the Obligor, the following are determined explicitly for each Obligor:

- a. Present Value of Future Benefits
- b. Present Value of Future Salaries
- c. Entry Age Normal Accrued Liability
- d. Present Value of Future Normal Costs
- e. Present Value of Future Employee Contributions
- f. Normal Cost

Administrative Expenses are allocated to each Obligor, pro-rata, in proportion to active member valuation salaries.

Valuation Assets (defined as the AVA plus the discounted value of the normal cost and UAL payments paid during the ensuing Fiscal Year plus the discounted value of Administrative Expenses reimbursed during the two ensuing Fiscal Years) were then determined explicitly for each Obligor.

The AVA attributable to each Obligor is then adjusted for members who transferred between obligors during the prior Fiscal Year. These adjustments are based on the Accrued Liability as of the last valuation date before the date the member transferred.

The AVA for each Obligor is also adjusted for the differences between assets and liabilities of the TDA for annuitized accounts and non-annuitized accounts with guaranteed interest credits.

The components of contribution are then determined for each Obligor.

Finally, the Employer Contribution for an overfunded Obligor is limited to be no less than the Administrative Expenses allocated to that Obligor.

F. COMPONENTS OF CONTRIBUTION

A description of the components of the Preliminary 2024 Employer Contribution to the Contingent Reserve Fund follows. The components of the Preliminary 2024 Employer Contribution are shown in Table B-1. Table B-2 shows the Preliminary 2024 Employer Contribution by Obligor.

1. Contingent Reserve Fund

The Employer Contributions shown in Table B-1 are derived in accordance with Sections 13-103, 13-127, 13-638.2, and 13-705 of the Administrative Code of the City of New York (ACCNYS), as amended, and reflect Chapter amendments described in Section C above.

The Employer Contributions include the amounts due to the Group Life Insurance Plan.

The Preliminary 2024 Employer Contribution includes the payments toward the Initial UAL established on June 30, 2010, the post-2010 UALs that have been established, and the Administrative Expenses (i.e., the amount computed to reimburse BERS with principal and two years of interest for the administrative expenses paid during the second prior Fiscal Year).

For the Fiscal Year ending on June 30, 2022, the administrative expenses equaled \$35,566,000¹ which results in an Administrative Expense Contribution (including interest) of \$40,719,515 for the Preliminary 2024 Employer Contribution.

2. Group Life Insurance Plan

The amounts for the Group Life Insurance Plan are included in the Employer Contributions in Table B-1.

3. Contribution Timing

The Preliminary 2024 Employer Contribution was determined as if it were payable either in equal monthly installments during Fiscal Year 2024 or in a lump sum payment on or before December 31, 2023. If employer contributions are not made timely, the Actuary may include an additional charge for interest on such late employer contributions.

¹ Source: Office of BERS Chief Accountant.

G. RISKS AND UNCERTAINTIES

The Preliminary 2024 Employer Contribution is based on the census data currently reported as of June 30, 2022 and on the actuarial assumptions and methods adopted by the Board of Trustees on September 23, 2021.

With respect to future fiscal years, it should be noted that BERS is becoming a mature retirement system. A mature retirement system has a significant ratio of retirees to active members and, usually, of Market Value of Assets to active member payroll and of Accrued Liability to active member payroll. Consequently, given the plan's maturity, there is the potential for significant volatility in employer contributions to BERS in the future.

In addition and of particular note is the leveraging effect on the financing of the BERS Qualified Pension Plan (QPP) due to the BERS Tax Deferred Annuity (TDA) Program.

Specifically, for the majority of TDA members invested in the Fixed Fund option, their account balances are credited interest at a rate of 8.25% per annum (7.00% per annum for certain members).

The supporting TDA Fixed Fund assets are commingled with the assets of the QPP and the BERS QPP Financial Statements reflect the investment gains and losses of the combined QPP and TDA Fixed Funds and the crediting of interest on the TDA member account balances.

Thus, since the investment returns of the BERS QPP include the combined investment returns of the QPP and the TDA Program Fixed Fund assets, the impact of investment volatility on BERS employer contributions is greater than would be the case if there were no Fixed Fund component of the TDA Program. Consequently, given the Plan maturity, the TDA Program Fixed Fund asset leverage and the BERS Fixed Fund Investment Policy, there is the potential for significant volatility in employer contributions to BERS in the future.

There are a number of other risks, including investment risk, longevity risk, and inflation risk that could impact the future employer contributions and funded status of BERS. There will be much more information regarding these risks and others in the Fiscal Year 2024 Actuarial Valuation Report that will be issued following the calculation of the Final Fiscal Year 2024 Employer Contribution.

Finally, the Preliminary 2024 Employer Contribution could be revised due to items such as, but not limited to census data refinements, actuarial adjustments and refinements, labor agreements with retroactive effective dates, and actions of the New York State Legislature and Governor.

Appendix B

APPENDIX B

TABLE B-1 NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM COMPONENTS OF PRELIMINARY 2024 EMPLOYER CONTRIBUTION	
COMPONENTS OF EMPLOYER CONTRIBUTION	PRELIMINARY 2024 EMPLOYER CONTRIBUTION
Normal Cost	\$ 157,776,626
Amortization of Unfunded Accrued Liability	
- Initial Unfunded	140,549,166
- 2011 (Gain)/Loss	(21,558,572)
- 2012 (Gain)/Loss	4,365,823
- 2013 (Gain)/Loss	38,526,274
- 2014 (Gain)/Loss	9,952,844
- 2014 Assumption Change ¹	16,568,028
- 2014 Method Change ²	(27,567,113)
- 2015 (Gain)/Loss	15,178,241
- 2016 (Gain)/Loss	12,812,358
- 2017 (Gain)/Loss	(39,483,349)
- 2017 Assumption Change ³	(22,230,444)
- 2017 Method Change ³	11,007,581
- 2018 (Gain)/Loss	(7,877,140)
- 2018 Method Change ⁴	(11,267,543)
- 2019 (Gain)/Loss	(38,601,844)
- 2019 Assumption Change ⁵	(2,255,653)
- 2019 Method Change ⁵	(48,729,573)
- 2020 (Gain)/Loss	12,447,756
- 2020 TDA Method Change ⁶	35,675,656
- 2020 OWBPA	3,985,213
- 2021 (Gain)/Loss	(41,612,018)
- 2021 Chapter 56	2,266,182
- 2022 (Gain)/Loss	(5,200,120)
Total	\$ 36,951,753
Administrative Expenses	40,719,515
Interest on Late Employer Contributions	N/A
Total Amount from OBLIGORS to the New York City Board of Education Retirement System	\$ 235,447,894

See Notes to Table B-1 and Table B-2 on Page B-3.

N/A = Not Applicable.

¹ Change in post-retirement mortality assumptions including the change to the mortality improvement scale MP-2015.

² AVA is constrained to a corridor of 80% to 120% of the market value.

³ 2019 A&M.

⁴ Change in method of characterizing interest credited on TDA Fixed Fund account balances.

⁵ Revised 2021 A&M.

⁶ TDA guaranteed interest credits included as an adjustment to the Actuarial Value of Assets.

**TABLE B-2
NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
PRELIMINARY 2024 EMPLOYER CONTRIBUTION BY OBLIGOR**

OBLIGOR	PRELIMINARY 2024 EMPLOYER CONTRIBUTION
Department of Education	\$ 223,986,682
NYC School Construction Authority	\$ 11,372,622
Charter Schools	
Renaissance	\$ 79,729
KIPP	<u>8,861</u>
Subtotal	\$ 88,590
Total Amount from OBLIGORS to the New York City Board of Education Retirement System	\$ 235,447,894

Notes to Tables B-1 and B-2

The Preliminary 2024 Employer Contribution is based on the benefits provided in accordance with current provisions of law, on the Revised 2021 A&M, and on actual June 30, 2022 census data, including covered payroll projected from that date in accordance with the One-Year Lag Methodology.

It also reflects the impact of the value of the WTC Disability and Death Benefits Laws, and estimates of liabilities attributable to additional benefits payable due to contract settlements and/or pattern bargaining.

The Preliminary 2024 Employer Contribution includes an amount to fund the Group Life Insurance Plan. The present value as of June 30, 2023 of expected future payments to be paid from the Group Life Insurance Plan is \$3,865,046. If necessary, a portion of the Fiscal Year 2023 contribution should be used to true-up the current reserve balance to this amount.

Note that the Final Fiscal Year 2024 employer contribution for BERS may differ from the amounts shown in Tables B-1 and B-2 due to legislative or other changes.

Appendix C

APPENDIX C

TABLE C-1 COMPONENTS OF THE DEPARTMENT OF EDUCATION EMPLOYER CONTRIBUTION TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM AND GROUP LIFE INSURANCE PLAN	
COMPONENTS OF EMPLOYER CONTRIBUTION	PRELIMINARY 2024 EMPLOYER CONTRIBUTION
Normal Cost	\$ 150,390,609
Amortization of Unfunded Accrued Liability	35,306,693
Administrative Expenses	38,289,380
TOTAL AMOUNT FROM THE DEPARTMENT OF EDUCATION TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM	\$ 223,986,682

**TABLE C-2
 COMPONENTS OF THE SCHOOL CONSTRUCTION AUTHORITY
 EMPLOYER CONTRIBUTION TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
 AND GROUP LIFE INSURANCE PLAN**

COMPONENTS OF EMPLOYER CONTRIBUTION	PRELIMINARY 2024 EMPLOYER CONTRIBUTION
Normal Cost	\$ 7,338,083
Amortization of Unfunded Accrued Liability	1,617,281
Administrative Expenses	<u>2,417,258</u>
TOTAL AMOUNT FROM THE SCHOOL CONSTRUCTION AUTHORITY TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM	\$ 11,372,622

**TABLE C-3
 COMPONENTS OF THE RENAISSANCE CHARTER SCHOOL
 EMPLOYER CONTRIBUTION TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
 AND GROUP LIFE INSURANCE PLAN**

COMPONENTS OF EMPLOYER CONTRIBUTION	PRELIMINARY 2024 EMPLOYER CONTRIBUTION
Normal Cost	\$ 47,934
Amortization of Unfunded Accrued Liability	18,918
Administrative Expenses	12,877
TOTAL AMOUNT FROM THE RENAISSANCE CHARTER SCHOOL TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM	\$ 79,729

**TABLE C-4
 COMPONENTS OF THE KIPP CHARTER SCHOOL
 EMPLOYER CONTRIBUTION TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM
 AND GROUP LIFE INSURANCE PLAN**

COMPONENTS OF EMPLOYER CONTRIBUTION	PRELIMINARY 2024 EMPLOYER CONTRIBUTION
Normal Cost	\$ 0
Amortization of Unfunded Accrued Liability	8,861
Administrative Expenses	0
TOTAL AMOUNT FROM THE KIPP CHARTER SCHOOL TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM	\$ 8,861

Appendix D

APPENDIX D

REQUEST FOR THE BOARD OF TRUSTEES TO ADOPT THE ACTUARY'S DETERMINATION FOR THE PRELIMINARY FISCAL YEAR 2024 EMPLOYER CONTRIBUTION TO THE NEW YORK CITY BOARD OF EDUCATION RETIREMENT SYSTEM

MARCH 2023

WHEREAS, The Actuary, in a letter dated March 14, 2023, determined that the Preliminary Employer Contribution for Fiscal Year 2024 (i.e., July 1, 2023 through June 30, 2024) is \$235,447,894 to the New York City Board of Education Retirement System; and

WHEREAS, The Board of Trustees has reviewed the determination; now, therefore, be it

RESOLVED, The Board of Trustees hereby approves a Preliminary Fiscal Year 2024 Employer Contribution to the New York City Board of Education Retirement System of \$235,447,894.

Respectfully Submitted:

Sanford Rich
Executive Director

March 2023

AMENDMENT TO THE AUDIT COMMITTEE CHARTER OF THE BOARD OF EDUCATION RETIREMENT SYSTEM

WHEREAS, in January 2020, the Board established an Audit Committee and adopted an Audit Committee Charter to provide structured, systematic oversight of BERS' governance, risk management, and internal control practices; and

WHEREAS, the Board thereafter amended the Audit Committee Charter in February 2020, January 2021 and September 2022; and

WHEREAS, the Board seeks to further amend the Audit Committee Charter to: 1) amend the requirement that the Chair of the Audit Committee rotate annually to state that, in the event that no Audit Committee members volunteer to stand for election, the Committee may re-elect the incumbent; 2) state that the election of Audit Committee Chair shall occur at the second Committee meeting of the year; 3) clarify the Audit Committee's responsibilities relating to external auditors and review of financial statements; and, 4) state that the Audit Committee is empowered to review disagreements between management and internal auditors; now therefore be it

RESOLVED, that the Board hereby adopts the amended Audit Committee Charter in the form presented to the Board and attached hereto as Exhibit A.

Respectfully Submitted,

Sanford R. Rich
Executive Director

Exhibit A

Audit Committee Charter

1. STATEMENT OF PURPOSE

The purpose of the Committee is to provide structured, systematic oversight of BERS' governance, risk management, and internal control practices, by advising the Board on the adequacy of initiatives around the governance structure, risk management, system of internal controls, financial statements and reporting, oversight of internal audit activity, external auditors and other providers of assurance, compliance with applicable laws and regulations, and other assignments as the Board may deem necessary or appropriate.

2. AUTHORITY

The Audit Committee Charter (the "Charter") sets out the authority of the Committee to carry out the responsibilities established for it by the Board as articulated within the Charter.

In discharging its responsibilities, the Committee will have unrestricted access to members of management, employees, and relevant information it considers necessary to discharge its duties. The Committee also will have unrestricted access to records, data, and reports, and BERS' management and staff should cooperate with the Committee's requests. If access to the requested documents is denied due to legal or confidentiality reasons, the Committee and/or the Director of Internal Audit will pursue a mutually acceptable resolution of the matter.

The Committee is empowered to:

- a) Review any disagreements between BERS management and **internal or** external auditors regarding financial reporting and other matters.
- b) Review all audit and non-audit services performed by auditors, accountants, or other advisors.
- c) Seek counsel from the General Counsel of BERS.

3. COMPOSITION

Appointment of the members of the Committee shall occur at a general meeting of the Board. The Committee shall consist of three (3) or five (5) members of the Board, at least one (1) of whom shall be an employee member. The members should collectively possess a working knowledge of audit, finance, pension administration industry knowledge, IT, law, governance, risk and control.

For each member appointed by the Board to the Committee, the Board may designate an alternate Committee member to serve for the member's duration on the Committee in the event of the death, disability, disqualification or withdrawal of the Committee member. In the event of a Committee member's absence from a meeting of the Committee, and the absence of that Committee member's alternate, another alternate Committee member may assume all of the powers and responsibilities of said Committee member for the duration of the meeting. In such instances, the alternate Committee member shall possess all of the powers and responsibilities of said Committee member for the duration of the meeting. The alternate Committee member's presence at the meeting shall be counted for the purpose of establishing a quorum, however, in no event shall an alternate Committee member attend a meeting on behalf of more than one Committee member. Notwithstanding the foregoing, the powers and responsibilities of the Chancellor may be assumed only by a Chancellor's designee, and the powers and responsibilities of an employee member may be assumed only by that employee member's respective alternate employee member.

4. CONFLICT(S) OF INTEREST

Committee members should adhere to the highest ethical standards, consistent with their fiduciary duty as members of the Board. Potential conflicts of interest on the parts of Committee members are addressed by Chapter 68 of the New York City Charter and the Rules of the New York City Conflicts of Interest Board (COIB). Members are required to recuse themselves from any Committee activities related to the conflict of interest on a case by case basis. As members of the Board, Committee members are required to file an annual financial disclosure with the COIB.

5. ORIENTATION AND TRAINING

The Committee should receive training on the internal audit function and the Committee's role. Training specific to functional areas within BERS may be led by BERS management in that specific area as needed.

6. OPERATIONAL PROCEDURES

i. Authority of the Board of Trustees

- a) The Board shall have the power to adopt or amend the Charter.
- b) The Committee will review and assess the adequacy of the Charter as may be required. The Committee will submit proposed revisions to the Board for its approval.

ii. Audit Committee Chair

- a) The Committee Chair (the "Chair") shall **may** rotate annually and be appointed by the members of the committee.
- b) The Chair should have knowledge of changing issues within the public sector, pension administration, Enterprise Risk Management (ERM), Internal Controls, the nature of the internal audit environment, BERS' risk profile and its business priorities.
- c) If the Chair is unable to attend a meeting, the members will be polled and a substitute Chair, for the purposes of that meeting only, will be identified among those who have indicated that they will be present.
- d) **The election of the Chair shall occur at the first Committee meeting of every year.**

iii. Term

- a) The term of office for a Committee member is two (2) years.

iv. Meetings

- a) The Committee shall meet quarterly, with authority to convene additional meetings, as the Chair and/or the Director of Internal Audit may deem necessary or appropriate.
- b) The Director of Internal Audit and the Chair are required to attend all Committee meetings.
- c) Notice of Committee meetings may be given by electronic mail.
- d) The Committee shall conduct its meetings in compliance with Article 7 of the New York Public Officers Law, also known as the Open Meetings Law.
- e) The Committee may enter into executive session pursuant to Section 105 of the New York Public Officers Law, or into attorney client session as required.
- f) Members of the Committee will be provided with an agenda two weeks in advance of each meeting to allow participants adequate time to formulate questions and conduct any necessary preliminary research prior to the meeting. Committee meeting agendas shall be the responsibility of the Chair, with input from Committee members, executive management, and the Director of Internal Audit.
- g) The Committee will communicate its requirements for information, which will include the nature, extent and timing of information. Information will be provided to the Committee at least one week prior to each Committee meeting.
- h) Meetings should be conducted in accordance with Robert's Rules of Order, and minutes will be recorded and circulated to attendees for approval at the next meeting.
- i) All members of the Resource Team (defined in Section 9, below) shall make themselves available to attend meetings of the Committee upon request.

v. Quorum

- a) A majority of the members of the Committee shall constitute a quorum.
- b) In the absence of a quorum, a lesser number may adjourn the meeting.
- c) The concurrence of one employee representative and one non-employee representative shall be necessary for an act of the Committee.

7. RESPONSIBILITIES AND DUTIES OF THE AUDIT COMMITTEE

The responsibilities and duties of the Committee shall include the following:

i. Financial Statements and Reporting

- a) Report periodically to the Board on audit activities, findings and recommendations, and management's response and remediation efforts.
- b) Review the audit report of BERS' financial statements by external auditors.
- c) Review with management, the external auditors, and/or the Internal Auditor, as required, the results of all audit activities, including any difficulties encountered.
- d) Review all significant recommendations, suggestions and/or adjustments proposed by the external auditors or the Internal Auditor.
- e) Review the annual management letter provided by the external auditors for any significant deficiencies or material weaknesses in the accounting controls.

Note: Financial statements preparation and reporting by external auditors is reviewed by the NYC Audit Committee. The external auditors report annually to the full BERS Board of Trustees on the results of their audit.

ii. Fraud, Ethics and Values

- a) Oversee and challenge management and the Internal Auditor to ensure that BERS has appropriate antifraud programs and controls in place to identify potential fraud and to ensure that investigations are undertaken if fraud is suspected or detected.
- b) Ensure that appropriate action is taken against known perpetrators of fraud.
- c) Provide oversight of the mechanisms established by management to establish and maintain BERS' values and high ethical standards for all managers and staff.
- d) Review, identify and deal with any legal or ethical violations.

iii. System of Risk Management and Control

- a) Annually review BERS' risk profile.
- b) Provide oversight on significant risk exposures and internal control issues, including fraud risks, governance issues, and other matters needed or requested by senior management and the Board.
- c) Review and provide advice on the risk management policies and processes established and maintained by management.
- d) Review the assessment of any other regulatory body or consultant relating to BERS' system of risk management.
- e) Review the effectiveness of the BERS' internal control framework, including information technology security.

iv. Internal Audit Activity

- a) Review and approve the Internal Audit Charter annually to ensure it accurately reflects the purpose, authority and responsibility of the Internal Audit Department.
- b) Assure and maintain the independence and objectivity of the internal audit function through direct functional reporting by the Internal Auditor to the Committee.
- c) Provide governance over ethics or Whistleblower complaints.
- d) Review, provide input, and approve the Internal Audit Plan, objectives, performance measures, and outcomes.
- e) Ensure there are no unjustified restrictions placed on the Internal Auditor and that there is full access to all necessary documents, information and systems within BERS.
- f) Review all internal audit reports and other communications to management.
- g) Review the responsiveness and timeliness of management's follow-up activities and implementation of corrective actions.
- h) In conjunction with BERS' Executive Director, periodically review the performance of the Internal Auditor.
- i) Review the effectiveness of the Internal Audit function, including compliance with applicable standards.
- j) Ensure the internal audit activity is quality oriented and has a Quality Assurance and Improvement Program (QAIP) process administered by a qualified assurance provider.

v. Compliance

- a) Review the effectiveness of the system for monitoring compliance with applicable laws and regulations and the results of management's investigation and follow-up (including disciplinary action) of any instances of noncompliance.
- b) Review the observations and conclusions of internal and external auditors and the findings of any regulatory agencies.
- c) Obtain regular updates from management and the BERS General Counsel regarding compliance matters.

vi. Organizational Governance

- a) Review and provide advice on the governance process established and maintained within BERS and the procedures in place to ensure that the process is operating as intended.

8. COMMUNICATIONS

The Committee will report orally or in writing to the Board on all matters discussed at each Committee meeting.

9. RESOURCES

i. Resource Team

The following Resource Team will attend and participate in Committee meetings at the request of the Committee:

- a) Executive Director
- b) Director of Fiscal Operations
- c) Director of Internal Audit
- d) Legal Counsel (Law Department and/or BERS General Counsel)
- e) External Auditors

The Committee may request other parties, such as representatives from the New York City Office of the Actuary or New York City Office of the Comptroller, to attend and participate in Committee meetings as may be required.

ii. Outside Advisors

The Committee may, with the consent of the Board, retain any external advisors and consultants (collectively "Advisors") it deems necessary to carry out the Committee's responsibilities.

10. EFFECT

This Charter shall be effective immediately upon its adoption by the Board.

March 2023

**AUTHORIZATION TO THE COMPTROLLER OF THE CITY OF NEW YORK TO INVEST,
SELL AND EXCHANGE THE FUNDS OF THE RETIREMENT SYSTEM**

- WHEREAS,** in order that the receipts of monies, as and when they are credited to the fund, may be invested at the earliest possible moment, it is necessary that the Comptroller of the City of New York (the Comptroller), as custodian of the funds of the Board of Education Retirement System (BERS), be authorized to invest the available cash funds of said System, as they accumulate; now therefore be it
- RESOLVED,** that the Comptroller, as custodian of the funds of BERS, is hereby authorized to invest the funds of said System during the period of April 1, 2023 to June 30, 2023 in any investment authorized pursuant to the Administrative Code of the City of New York, the Retirement and Social Security Law, the Education Law, the Banking Law or as otherwise authorized by the laws governing the investments of said System, provided the Trustees of said System have heretofore approved such investment or hereafter approve such investment; and be it further
- RESOLVED,** that during the term of this delegation, investments in any asset class or category not previously authorized by BERS shall be made by the Comptroller only with the prior approval of the Trustees of said System; and be it further
- RESOLVED,** that the Comptroller is authorized to hold, sell, assign, transfer or dispose of any of the properties, securities or investments in which any of the funds of BERS shall have been invested, including the proceeds of such investments and any monies belonging to such fund, subject to the terms, conditions, limitations and restrictions imposed by law upon the Trustees of said System; and be it further
- RESOLVED,** that the Comptroller is authorized to execute BERS' corporate governance policy, including casting BERS' proxy votes, engaging portfolio companies and regulators, and submitting shareowner proposals that have been approved by the BERS Board of Trustees or a Committee of the Board authorized to approve shareholder proposals; and be it further
- RESOLVED,** that any termination, expiration or revocation of this delegation to invest shall not affect any binding commitment previously made by the Comptroller pursuant to such delegation and the Comptroller shall have the power to discharge fully any such binding commitment according to its terms.

Respectfully Submitted,

Sanford R. Rich
Executive Director

March 2023

AUTHORIZATION TO COMMENCE AN ASSET ALLOCATION STUDY FOR THE BOARD OF EDUCATION RETIREMENT SYSTEM

WHEREAS, the New York City Comptroller's Office, through the Bureau of Asset Management, serves as Investment Advisor to BERS; and

WHEREAS, the Board recognizes a sound asset allocation policy as a cornerstone of its fiduciary duty and a significant driver of risk adjusted returns; and

WHEREAS, it is prudent to review asset allocation policy on a regular basis; now therefore be it

RESOLVED, that the Board directs the Bureau of Asset Management, Segal Marco Advisors, and BERS Investment Strategy staff to commence an asset allocation study and provide their findings and recommendations to the Board for its consideration and action.

Respectfully Submitted,

Sanford R. Rich
Executive Director

APPROVAL OF THE NET ZERO IMPLEMENTATION PLAN

- WHEREAS,** in October 2021, the BERS Board of Trustees resolved to strive to prudently achieve net zero GHG emissions by 2040, as an aspirational goal, across the BERS investment portfolio to mitigate the systemic risks of climate change to BERS investments and the real economy, while taking into account the best available scientific knowledge and fulfilling fiduciary duty; and
- WHEREAS,** the Board adopted the Net Zero Asset Owner Commitment of the Paris Aligned Investment Initiative (PAII), allowing BERS to collaborate with and learn from other asset owners and asset managers on best practices for achieving net zero emissions; and
- WHEREAS,** the Board adopted a preliminary Climate Action Plan that required the development of a prudent implementation plan for the net zero goal; and
- WHEREAS,** the Office of the NYC Comptroller’s Bureau of Asset Management has developed a prudent implementation plan for the net zero goal consistent with the rationale and elements of guidance provided by the Board in October 2021; and
- WHEREAS,** the Board accepts the recommendations from the Bureau of Asset Management regarding the net zero implementation plan; now therefore be it
- RESOLVED,** that the Board hereby approves the net zero implementation plan as presented to the Board on March 21, 2023.

Respectfully Submitted,

Sanford R. Rich
Executive Director

March 2023

**ADOPTION OF THE ACTUARY'S DETERMINATION FOR THE PRELIMINARY FISCAL
YEAR 2024 EMPLOYER CONTRIBUTION TO THE NEW YORK CITY BOARD OF
EDUCATION RETIREMENT SYSTEM**

- WHEREAS,** the Actuary, in a letter dated March 14, 2023, determined that the Preliminary Employer Contribution for Fiscal Year 2024 (i.e., July 1, 2023 through June 30, 2024) is \$235,447,894 to the New York City Board of Education Retirement System; and
- WHEREAS,** the Board of Trustees has reviewed the determination; now therefore be it
- RESOLVED,** the Board of Trustees hereby approves a Preliminary Fiscal Year 2024 Employer Contribution to the New York City Board of Education Retirement System of \$235,447,894.

Respectfully Submitted,

Sanford R. Rich
Executive Director