



Retirement Board

**Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street,
1st Floor**

Join from PC, Mac, iPad, or Android:

<https://zoom.us/j/92058636414>

Phone one-tap:

+13052241968, 92058636414# US

Join via audio:

+1 305 224 1968 US

Webinar ID: 920 5863 6414

International numbers available: <https://zoom.us/u/abCwGsPTgT>

1. Agenda

Subject	1.1. Motion to adopt agenda
Meeting	November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category	1. Agenda
Department	Retirement Administration
Type	Action Procedural
Recommended Action	Motion to adopt agenda

2. Public Forum

3. Consent Agenda

Subject	3.1. Motion to adopt the consent agenda and take the actions indicated
Meeting	November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category	3. Consent Agenda
Department	Retirement Administration
Type	Action (Consent) Procedural

Subject **3.2. October 20, 2025 Retirement Board Meeting Minutes - DFA**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category 3. Consent Agenda
Department Department of Finance and Administration
Type Action (Consent)
Information
Minutes

Subject **3.3. 2026 Meeting Schedule - DFA**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category 3. Consent Agenda
Department Department of Finance and Administration
Type Action (Consent)

4. Approve Return of Contributions

Subject **4.1. Akimi Rovinsky, Class B \$647.10; Effective Date of Benefit: 12/01/25**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category 4. Approve Return of Contributions
Department Retirement Administration
Type Action
Recommended Action approve return of contribution for Akimi Rovinsky

Subject **4.2. Hope E. Williams, Class B \$5,827.58; Effective Date of Benefit: 12/01/25**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category 4. Approve Return of Contributions
Department Retirement Administration
Type Action
Recommended Action approve return of contribution for Hope E. Williams

Subject **4.3. Kaye E. Douglas, Class B \$12,794.09; Effective Date of Benefit: 11/01/25**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category 4. Approve Return of Contributions

Department Retirement Administration

Type Action

Recommended Action approve return of contribution for Kaye E. Douglas

Subject 4.4. Corey Hurley, Class B \$10,557.39; Effective Date of Benefit: 12/01/25

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 4. Approve Return of Contributions

Department Retirement Administration

Type Action

Recommended Action approve return of contribution for Corey Hurley

Subject 4.5. Jean-Christian Adrien, Class B \$1, 092.53; Effective Date of Benefit: 12/01/25

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 4. Approve Return of Contributions

Department Retirement Administration

Type Action

Recommended Action approve return of contribution for Jean-Christian Adrien

Subject 4.6. Jackson W. Dandridge, Class B \$17,615.10; Effective Date of Benefit: 12/01/25

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 4. Approve Return of Contributions

Department Retirement Administration

Type Action

Recommended Action approve return of contribution for Jackson W. Dandridge

Subject 4.7. Pamela A. Williams, Class B \$2,567.36; Effective Date of Benefit: 11/01/25

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 4. Approve Return of Contributions

Department Retirement Administration

Type Action

Recommended Action approve return of contribution for Pamela A. Williams

5. Approve Retirement Applications

Subject **5.1. Marcella Gange, Class B \$973.41; Effective Date of Benefit: 09/01/25; Payment Date: 09/15/25**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Marcella Gange

Subject **5.2. Melissa N. Cate, Class B \$2,690.41; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Melissa N. Cate

Subject **5.3. Garreth M. Rogers, Class B \$3,342.01; Effective Date of Benefit: 11/01/25; Payment Date: 11/15/25**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Garreth M. Rogers

Subject **5.4. Michaelene Paquette, Class B \$86.15; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25**
Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Michaelene Paquette

Subject 5.5. Carolynne E. Morris, Class A \$5,795.45; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Carolynne E. Morris

6. Administrative Update

Subject 6.1. BERS Prepaid Pension Update

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 6. Administrative Update

Department Retirement Administration

Type Discussion
Information

Subject 6.2. Proposal Summary - RFQ Actuarial Services

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 6. Administrative Update

Department Retirement Administration

Type Discussion
Information

Subject 6.2. a. Summary document

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 6. Administrative Update

Department Retirement Administration

Type Discussion
Information

Subject 6.2. b. Bid documents from respondents

Meeting November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category	6. Administrative Update
Department	Retirement Administration
Type	Discussion Information

7. Fiducient

Subject	7.1. Monthly Performance Update - October 2025
Meeting	November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category	7. Fiducient
Department	Retirement Administration
Type	Discussion Information

8. Adjournment

Subject	8.1. Motion to adjourn
Meeting	November 17, 2025 - Retirement Board Meeting - Monday, November 17, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category	8. Adjournment
Department	Retirement Administration
Type	Action Procedural
Recommended Action	Motion to adjourn



BURLINGTON RETIREMENT BOARD
BUSHOR CONFERENCE ROOM, 149 CHURCH STREET, 1ST FLOOR
MINUTES OF MEETING
October 20, 2025

1. Agenda

1. Agenda

Chair Hooper convened the meeting at 9:31 am.

Members present: Paul Olsen, Bob Hooper, Kyle Blake, David Mount and Katherine Schad (all in person);
Matt Dow, Eric Dalla Mura and Munir Kasti (all online)

Others present: Brad Kukenberger, Hayley McClenahan and Chris Rowllins (all in person); Kate Pizzi (online)

Subject	1.1. Motion to adopt agenda
Meeting	October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category	1. Agenda
Department	Retirement Administration
Type	Action Procedural
Recommended Action	Motion to adopt agenda
1.1. Motion to adopt agenda	
Motion made by Board Member Olsen, seconded by Board Member Blake, to adopt the agenda as presented. Motion passed unanimously.	

2. Public Forum

2. Public Forum

No one spoke.

3. September 15, 2025 Retirement Board Meeting Minutes

3. September 15, 2025 Retirement Board Meeting Minutes

Subject	3.1. September 15, 2025 Retirement Board Meeting Minutes - DFA
Meeting	October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor
Category	3. September 15, 2025 Retirement Board Meeting Minutes
Department	Department of Finance and Administration

Type Action
Information
Minutes

3.1. September 15, 2025 Retirement Board Meeting Minutes - DFA

4. Approve Return of Contributions

4. Approve Return of Contributions

Motion made by Board Member Blake, seconded by Board Member Mount, to approve the return of contributions as presented. Motion passed unanimously.

Subject 4.1. McKayla R. Conner-Wright, Class A \$3,001.35; Effective Date of Benefit: 11/01/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 4. Approve Return of Contributions

Department Retirement Administration

Type Action

Recommended Action approve return of contribution for McKayla R. Conner-Wright

4.1. McKayla R. Conner-Wright, Class A \$3,001.35; Effective Date of Benefit: 11/01/25

Subject 4.2. Kristin Dykstra, Class B \$3,564.23; Effective Date of Benefit: 12/01/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 4. Approve Return of Contributions

Department Retirement Administration

Type Action

Recommended Action approve return of contribution for Kristin Dykstra

4.2. Kristin Dykstra, Class B \$3,564.23; Effective Date of Benefit: 12/01/25

5. Approve Retirement Applications

5. Approve Retirement Applications

Motion made by Board Member Blake, seconded by Board Member Mount, to approve the retirement applications as presented. Motion passed unanimously.

Subject 5.1. Brian T. Pine, Class B \$1,463.50; Effective Date of Benefit: 12/01/25; Payment Date: 12/15/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Brian T. Pine

5.1. Brian T. Pine, Class B \$1,463.50; Effective Date of Benefit: 12/01/25; Payment Date: 12/15/25

Subject 5.2. Lee R. Thayer, Class A \$5,760.68; Effective Date of Benefit: 09/01/25; Effective Date of Benefit: 09/15/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Lee R. Thayer

5.2. Lee R. Thayer, Class A \$5,760.68; Effective Date of Benefit: 09/01/25; Effective Date of Benefit: 09/15/25

Subject 5.3. Michael Ahearn, Class A \$617.44; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Michael Ahearn

5.3. Michael Ahearn, Class A \$617.44; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Subject 5.4. Bonnie Johnson-Aten, Class B \$157.36; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Bonnie Johnson-Aten

5.4. Bonnie Johnson-Aten, Class B \$157.36; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Subject 5.5. Ann M. Barton, Class B \$6,183.70; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Ann M. Barton

5.5. Ann M. Barton, Class B \$6,183.70; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Subject 5.6. Todd W. Rawlings, Class B \$2,611.74; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Todd W. Rawlings

5.6. Todd W. Rawlings, Class B \$2,611.74; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Subject 5.7. Phan T. Chung, Class B \$491.14; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Phan T. Chung

5.7. Phan T. Chung, Class B \$491.14; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

Subject **5.8. Darlene P. Kehoe, Class B \$5,618.74; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25**

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 5. Approve Retirement Applications

Department Retirement Administration

Type Action

Recommended Action approve retirement application for Darlene P. Kehoe
5.8. Darlene P. Kehoe, Class B \$5,618.74; Effective Date of Benefit: 10/01/25; Payment Date: 10/15/25

6. Administrative Update

6. Administrative Update

Subject **6.1. FY25 Unaudited overview memo - DFA**

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 6. Administrative Update

Department Department of Finance and Administration

Type Communication
Discussion
Information

6.1. FY25 Unaudited overview memo - DFA

Subject **6.2. Executive Summary - RFQ for Investment Advisory Services - DFA**

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 6. Administrative Update

Department Department of Finance and Administration

Type Communication
Discussion
Information

6.2. Executive Summary - RFQ for Investment Advisory Services - DFA

Subject **6.3. All bids responding to RFQ for Investment Advisory Services - DFA**

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 6. Administrative Update

Department Department of Finance and Administration

Type Communication
Discussion
Information

6.3. All bids responding to RFQ for Investment Advisory Services - DFA

7. Fiducient

7. Fiducient

Subject 7.1. Quarterly Investment Review - Third Quarter 2025

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 7. Fiducient

Department Retirement Administration

Type Discussion
Information
Presentation

7.1. Quarterly Investment Review - Third Quarter 2025

8. Adjournment

8. Adjournment

Subject 8.1. Motion to adjourn

Meeting October 20, 2025 - Retirement Board Meeting - Monday, October 20, 2025, 9:30 AM, Bushor Conference Room, 149 Church Street, 1st Floor

Category 8. Adjournment

Department Council and Board

Type Action
Procedural

Recommended Action Motion to adjourn

8.1. Motion to adjourn

Chair Hooper adjourned the meeting at 11:08 am.



Office of the Clerk & Treasurer
City of Burlington, Vermont

<http://www.BurlingtonVT.gov/CT>
City Hall, Room 20, 149 Church Street, Burlington, VT 05401

Voice (802) 865-7000
Fax (802) 865-7014
Deaf/Hard of Hearing 711

To: Retirement Board

Re: 2026 Meeting Schedule

Start time: 9:30 pm; Meeting Location: Bushor Conference Room and ZOOM

- Monday, January 19th**
- Monday, February 16th**
- Monday, March 16th**
- Monday, April 20th**
- Monday, May 18th**
- Monday, June 15th**
- Monday, July 20th**
- Monday, August 17th**
- Monday, September 21st**
- Monday, October 19th**
- Monday, November 16th**
- Monday, December 21st**

Motion: to approve the 2026 board meeting dates as listed

Calculation of Return of Employee Contributions

Burlington Employees' Retirement System

Form A

Akimi Rovinsky

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected. As a Plan participant, you may have made post-tax contributions to the Plan. As a result, a portion of your benefit may be non-taxable. **Consult with your tax advisor if you have any questions.**

Information Used in Determination

Participant Name:	Akimi Rovinsky	Class:	B
Date of Birth:		Department:	AFSCME Local 1343
Date of Hire:	03/13/2024	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	10/17/2024	Normal Retirement Date (NRD):	05/10/2030
Beneficiary Date of Birth:	N/A	Payment Start Date:	12/01/2025
		Vesting Percentage:	0.0000%

Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2024	Contributions	\$288.98	\$288.98
06/30/2024	Interest at 2%	\$0.00	\$288.98
10/17/2024	Contributions	\$347.02	\$636.00
06/30/2025	Interest at 2%	\$5.78	\$641.78
11/30/2025	Interest at 2%	\$5.32	\$647.10

(1) Pre-Tax Employee Contributions (Taxable):	\$636.00
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):	\$11.10
(3) Total Return of Employee Contributions with Interest:	\$647.10

Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$647.10	\$647.10	0.00

Calculation of Return of Employee Contributions

Form A

Burlington Employees' Retirement System

Hope E. Williams

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected. As a Plan participant, you may have made post-tax contributions to the Plan. As a result, a portion of your benefit may be non-taxable. **Consult with your tax advisor if you have any questions.**

Information Used in Determination

Participant Name:	Hope E. Williams	Class:	B
Date of Birth:		Department:	School
Date of Hire:	09/13/2021	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	08/23/2024	Normal Retirement Date (NRD):	10/03/2061
Beneficiary Date of Birth:	N/A	Payment Start Date:	12/01/2025
		Vesting Percentage:	0.0000%

Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2022	Contributions	\$1,211.55	\$1,211.55
06/30/2022	Interest at 2%	\$0.00	\$1,211.55
06/30/2023	Contributions	\$1,637.23	\$2,848.78
06/30/2023	Interest at 2%	\$24.23	\$2,873.01
06/30/2024	Contributions	\$2,250.30	\$5,123.31
06/30/2024	Interest at 2%	\$57.46	\$5,180.77
08/23/2024	Contributions	\$495.30	\$5,676.07
06/30/2025	Interest at 2%	\$103.62	\$5,779.69
11/30/2025	Interest at 2%	\$47.89	\$5,827.58
(1) Pre-Tax Employee Contributions (Taxable):			\$5,594.38
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):			\$233.20
(3) Total Return of Employee Contributions with Interest:			\$5,827.58

Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$5,827.58	\$5,827.58	0.00

Calculation of Benefit Options

Form A

Burlington Employees' Retirement System, Class B - School

Kaye E. Douglas

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

Type of Calculation

Vested - Regular Retirement

Information Used in Benefit Determination

Participant Name:	Kaye E. Douglas	Class:	B
Date of Birth:		Department:	School
Date of Hire:	08/21/2012	Vesting Percentage:	100.0000%
Date of Termination:	10/22/2022	Normal Retirement Date (NRD):	10/16/2040
Beneficiary Date of Birth:	N/A	Payment Start Date:	11/01/2025
		Employee Contribution Balance w/ Interest as of 11/01/2025:	\$12,794.09

Earnings

Average Final Compensation*: \$31,403.79

Determination of Benefit Amount

(1) Years of Creditable Service (CS)	9.75000
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]	0.00000
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]	9.75000
(4) Years of CS in excess of 25 years	N/A

COLA Option	Full COLA
(5) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.400%
(6) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.400%
(7) Accrual Rate in excess of 25 years	0.500%
(8) Retirement Accrual Percentage = [(2) x (5)] + [(3) x (6)] + [(4) x (7)]	13.6500%
(9) Monthly Vested Benefit Payable at NRD = (8) x Average Final Compensation / 12 x Vesting Percentage	\$357.22
(10) Early Retirement Reduction Factor	1.0000
(11) Monthly Vested Benefit Payable at Normal Retirement Date = (9) x (10)	\$357.22

Benefit Options – payable at Normal Retirement Date

Form of Payment	Option Factor	Full COLA	
		Initial Benefit	Survivor's Benefit ⁽¹⁾
Straight Life Annuity	1.0941	\$390.83	**
10 Year Certain & Life Annuity	1.0000	\$357.22	\$357.22
100% Joint & Survivor Annuity	N/A	N/A	N/A
50% Joint & Survivor Annuity	N/A	N/A	N/A
100% Joint & Survivor Pop-Up Annuity	N/A	N/A	N/A
50% Joint & Survivor Pop-Up Annuity	N/A	N/A	N/A

Benefit Options – payable at Payment Start Date

Return of Employee Contributions (100% taxable)	N/A	\$12,794.09	N/A
---	-----	-------------	-----

(1) **Survivor Benefits:** for the Joint and Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

* Average is of the three highest years of base earnings

** Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

Calculation of Return of Employee Contributions

Burlington Employees' Retirement System

Form A

Corey Hurley

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected. As a Plan participant, you may have made post-tax contributions to the Plan. As a result, a portion of your benefit may be non-taxable. **Consult with your tax advisor if you have any questions.**

Information Used in Determination

Participant Name:	Corey Hurley	Class:	B
Date of Birth:		Department:	IBEW Local 300
Date of Hire:	08/21/2017	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	07/05/2021	Normal Retirement Date (NRD):	06/24/2056
Beneficiary Date of Birth:		Payment Start Date:	12/01/2025
		Vesting Percentage:	0.0000%

Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2018	Contributions	\$3,547.03	\$3,547.03
06/30/2018	Interest at 2%	\$0.00	\$3,547.03
08/10/2018	Contributions	\$657.92	\$4,204.95
06/30/2019	Interest at 2%	\$70.94	\$4,275.89
06/30/2020	Contributions	\$258.66	\$4,534.55
06/30/2020	Interest at 2%	\$85.52	\$4,620.07
06/30/2021	Contributions	\$4,861.44	\$9,481.51
06/30/2021	Interest at 2%	\$92.40	\$9,573.91
07/05/2021	Contributions	\$101.33	\$9,675.24
06/30/2022	Interest at 2%	\$191.48	\$9,866.72
06/30/2023	Interest at 2%	\$197.33	\$10,064.05
06/30/2024	Interest at 2%	\$201.28	\$10,265.33
06/30/2025	Interest at 2%	\$205.31	\$10,470.64
11/30/2025	Interest at 2%	\$86.75	\$10,557.39

(1) Pre-Tax Employee Contributions (Taxable):	\$9,426.38
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):	\$1,131.01
(3) Total Return of Employee Contributions with Interest:	\$10,557.39

Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$10,557.39	\$10,557.39	0.00

Calculation of Return of Employee Contributions

Form A

Burlington Employees' Retirement System

Jean-Christian Adrien

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected. As a Plan participant, you may have made post-tax contributions to the Plan. As a result, a portion of your benefit may be non-taxable. **Consult with your tax advisor if you have any questions.**

Information Used in Determination

Participant Name:	Jean-Christian Adrien	Class:	B
Date of Birth:		Department:	School
Date of Hire:	11/27/2023	Post-Tax Employee Contributions:	\$0.00
Date of Termination:	09/13/2024	Normal Retirement Date (NRD):	02/02/2056
Beneficiary Date of Birth:	N/A	Payment Start Date:	12/01/2025
		Vesting Percentage:	0.0000%

Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2024	Contributions	\$930.86	\$930.86
06/30/2024	Interest at 2%	\$0.00	\$930.86
09/13/2024	Contributions	\$134.07	\$1,064.93
06/30/2025	Interest at 2%	\$18.62	\$1,083.55
11/30/2025	Interest at 2%	\$8.98	\$1,092.53

(1) Pre-Tax Employee Contributions (Taxable):	\$1,064.93
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):	\$27.60
(3) Total Return of Employee Contributions with Interest:	\$1,092.53

Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$1,092.53	\$1,092.53	0.00

Calculation of Benefit Options

Form A

Burlington Employees' Retirement System, Class B - AFSCME Local 1343

Jackson W.

Dandridge

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

Type of Calculation

Vested - Regular Retirement

Information Used in Benefit Determination

Participant Name:	Jackson W. Dandridge	Class:	B
Date of Birth:		Department:	AFSCME Local 1343
Date of Hire:	05/20/2019	Vesting Percentage:	100.0000%
Date of Participation:	06/24/2019	Normal Retirement Date (NRD):	08/29/2056
Date of Termination:	09/16/2025	Payment Start Date:	12/01/2025
Beneficiary Date of Birth:		Employee Contribution Balance w/ Interest as of 12/01/2025:	\$17,615.10

Earnings

Average Final Compensation*: \$59,687.28

Determination of Benefit Amount

(1) Years of Creditable Service (CS)	6.25000
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]	0.00000
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]	6.25000
(4) Years of CS in excess of 25 years	N/A

COLA Option

Full COLA

(5) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.400%
(6) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.400%
(7) Accrual Rate in excess of 25 years	0.500%
(8) Retirement Accrual Percentage = [(2) x (5)] + [(3) x (6)] + [(4) x (7)]	8.7500%
(9) Monthly Vested Benefit Payable at NRD = (8) x Average Final Compensation/12 x Vesting Percentage	\$435.22
(10) Early Retirement Reduction Factor	1.0000
(11) Monthly Vested Benefit Payable at Normal Retirement Date = (9) x (10)	\$435.22

Benefit Options – payable at Normal Retirement Date

Form of Payment	Option Factor	Full COLA	
		Initial Benefit	Survivor's Benefit ⁽¹⁾
Straight Life Annuity	1.0941	\$476.17	**
10 Year Certain & Life Annuity	1.0000	\$435.22	\$435.22
100% Joint & Survivor Annuity	0.9074	\$394.92	\$394.92
50% Joint & Survivor Annuity	0.9920	\$431.74	\$215.87
100% Joint & Survivor Pop-Up Annuity	0.8911	\$387.82	\$387.82
50% Joint & Survivor Pop-Up Annuity	0.9897	\$430.74	\$215.37

Benefit Options – payable at Payment Start Date

Return of Employee Contributions (100% taxable)	N/A	\$17,615.10	N/A
---	-----	--------------------	-----

(1) **Survivor Benefits:** for the Joint and Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

* Average is of the five highest years of base earnings

**Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

Calculation of Return of Employee Contributions

Form A

Burlington Employees' Retirement System

Pamela A. Williams

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected. As a Plan participant, you may have made post-tax contributions to the Plan. As a result, a portion of your benefit may be non-taxable. **Consult with your tax advisor if you have any questions.**

Information Used in Determination

Participant Name:	Pamela A. Williams	Class:	B
Date of Birth:		Department:	School
Date of Hire:	08/23/2021	Post-Tax Employee Contributions:	\$0.00
Date of Participation:	09/27/2022	Normal Retirement Date (NRD):	09/27/2027
Date of Termination:	06/12/2024	Payment Start Date:	11/01/2025
Beneficiary Date of Birth:	N/A	Vesting Percentage:	0.0000%

Determination of Employee Contribution Balance with Interest

<u>Period Ending</u>	<u>Description</u>	<u>Transaction</u>	<u>Balance at End of Period</u>
06/30/2023	Contributions	\$1,267.39	\$1,267.39
06/30/2023	Interest at 2%	\$0.00	\$1,267.39
06/12/2024	Contributions	\$1,207.72	\$2,475.11
06/30/2024	Interest at 2%	\$25.35	\$2,500.46
06/30/2025	Interest at 2%	\$50.01	\$2,550.47
10/31/2025	Interest at 2%	\$16.89	\$2,567.36

(1) Pre-Tax Employee Contributions (Taxable):	\$2,475.11
(2) Interest Accrued on Employee Contributions (5.5% through 12/31/2017, 2% thereafter):	\$92.25
(3) Total Return of Employee Contributions with Interest:	\$2,567.36

Determination of Taxable Portion of Benefit

<u>Form of Payment</u>	<u>Total Benefit</u>	<u>Taxable Portion</u>	<u>Non-Taxable Portion</u>
Return of Contributions	\$2,567.36	\$2,567.36	0.00

Calculation of Benefit Options

Form A

Burlington Employees' Retirement System, Class B - Non-Union

Marcella Gange

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

Type of Calculation

Vested - Early Retirement

Information Used in Benefit Determination

Participant Name:	Marcella Gange	Class:	B
Date of Birth:		Department:	Non-Union
Date of Hire:	03/30/2015	Vesting Percentage:	100.0000%
Date of Termination:	08/20/2025	Normal Retirement Date (NRD):	01/18/2030
Beneficiary Date of Birth:		Payment Start Date:	09/01/2025
		Employee Contribution Balance w/ Interest as of 09/01/2025:	\$34,304.49

Earnings

Average Final Compensation*: \$82,874.16

Determination of Benefit Amount

(1) Years of Creditable Service (CS)	10.41667
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]	0.00000
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]	10.41667
(4) Years of CS in excess of 25 years	N/A

COLA Option

Full COLA

(5) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.400%
(6) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.400%
(7) Accrual Rate in excess of 25 years	0.500%
(8) Retirement Accrual Percentage = [(2) x (5)] + [(3) x (6)] + [(4) x (7)]	14.5833%
(9) Monthly Vested Benefit Payable at NRD = (8) x Average Final Compensation/12 x Vesting Percentage	\$1,007.15
(10) Early Retirement Reduction Factor	0.9117
(11) Monthly Vested Benefit Payable at Payment Start Date = (9) x (10)	\$918.22

Benefit Options Available

Form of Payment	Option Factor	Full COLA	
		Initial Benefit	Survivor's Benefit ⁽¹⁾
Straight Life Annuity	1.0601	\$973.41	**
10 Year Certain & Life Annuity	1.0000	\$918.22	\$918.22
100% Joint & Survivor Annuity	0.9036	\$829.70	\$829.70
50% Joint & Survivor Annuity	0.9757	\$895.91	\$447.96
100% Joint & Survivor Pop-Up Annuity	0.8883	\$815.65	\$815.65
50% Joint & Survivor Pop-Up Annuity	0.9697	\$890.40	\$445.20
Return of Employee Contributions	N/A	\$34,304.49	N/A

(1) **Survivor Benefits:** for the Joint and Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

* Average is of the three highest years of base earnings

**Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

Calculation of Benefit Options

Form A

Burlington Employees' Retirement System, Class B - Non-Union

Melissa N. Cate

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

Type of Calculation

Vested - Early Retirement

Information Used in Benefit Determination

Participant Name:	Melissa N. Cate	Class:	B
Date of Birth:		Department:	Non-Union
Date of Hire:	12/12/1994	Vesting Percentage:	100.0000%
Date of Participation:	07/01/1995	Normal Retirement Date (NRD):	12/04/2033
Date of Termination:	09/05/2025	Payment Start Date:	10/01/2025
Beneficiary Date of Birth:		Employee Contribution Balance w/ Interest as of 10/01/2025:	\$67,232.29

Earnings

Average Final Compensation*: \$99,922.32

Determination of Benefit Amount

(1) Years of Creditable Service (CS)	27.41667
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]	8.25000
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]	16.75000
(4) Years of CS in excess of 25 years	2.41667

COLA Option	Full COLA	Half COLA	No COLA
(5) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.600%	1.900%	2.200%
(6) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.600%	1.800%	2.000%
(7) Accrual Rate in excess of 25 years	0.500%	0.500%	0.500%
(8) Retirement Accrual Percentage = [(2) x (5)] + [(3) x (6)] + [(4) x (7)]	41.2083%	47.0333%	52.8583%
(9) Monthly Vested Benefit Payable at NRD = (8) x Average Final Compensation/12 x Vesting Percentage	\$3,431.36	\$3,916.40	\$4,401.44
(10) Early Retirement Reduction Factor	0.8350	0.8350	0.8350
(11) Monthly Vested Benefit Payable at Payment Start Date = (9) x (10)	\$2,865.19	\$3,270.19	\$3,675.20

Benefit Options Available

Form of Payment	Option Factor	Full COLA		Half COLA		No COLA	
		Initial Benefit	Survivor's Benefit ⁽¹⁾	Initial Benefit	Survivor's Benefit ⁽¹⁾	Initial Benefit	Survivor's Benefit ⁽¹⁾
Straight Life Annuity	1.0376	\$2,972.92	**	\$3,393.15	**	\$3,813.39	**
10 Year Certain & Life Annuity	1.0000	\$2,865.19	\$2,865.19	\$3,270.19	\$3,270.19	\$3,675.20	\$3,675.20
100% Joint & Survivor Annuity	0.8577	\$2,457.47	\$2,457.47	\$2,804.84	\$2,804.84	\$3,152.22	\$3,152.22
50% Joint & Survivor Annuity	0.9390	\$2,690.41	\$1,345.21	\$3,070.71	\$1,535.36	\$3,451.01	\$1,725.51
100% Joint & Survivor Pop-Up Annuity	0.8517	\$2,440.28	\$2,440.28	\$2,785.22	\$2,785.22	\$3,130.17	\$3,130.17
50% Joint & Survivor Pop-Up Annuity	0.9353	\$2,679.81	\$1,339.91	\$3,058.61	\$1,529.31	\$3,437.41	\$1,718.71
Return of Employee Contributions	N/A	\$67,232.29	N/A	\$67,232.29	N/A	\$67,232.29	N/A

(1) **Survivor Benefits:** for the Joint & Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

* Average is of the three highest years of base earnings

**Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

Calculation of Benefit Options

Form A

Burlington Employees' Retirement System, Class B - Non-Union

Garreth M. Rogers

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

Type of Calculation

Vested - Early Retirement

Information Used in Benefit Determination

Participant Name:	Garreth M. Rogers	Class:	B
Date of Birth:		Department:	Non-Union
Date of Hire:	11/19/1997	Vesting Percentage:	100.0000%
Date of Participation:	08/28/2000	Normal Retirement Date (NRD):	01/11/2035
Date of Termination:	10/06/2025	Payment Start Date:	11/01/2025
Beneficiary Date of Birth:		Employee Contribution Balance w/ Interest as of 11/01/2025:	\$63,741.96

Earnings

Average Final Compensation*: \$96,093.00

Determination of Benefit Amount

(1) Years of Creditable Service (CS)	25.08333
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]	5.83333
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]	19.16667
(4) Years of CS in excess of 25 years	0.08333

COLA Option	Full COLA	Half COLA	No COLA
(5) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.600%	1.900%	2.200%
(6) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.600%	1.800%	2.000%
(7) Accrual Rate in excess of 25 years	0.500%	0.500%	0.500%
(8) Retirement Accrual Percentage = [(2) x (5)] + [(3) x (6)] + [(4) x (7)]	40.0417%	45.6250%	51.2083%
(9) Monthly Vested Benefit Payable at NRD = (8) x Average Final Compensation/12 x Vesting Percentage	\$3,206.44	\$3,653.54	\$4,100.63
(10) Early Retirement Reduction Factor	0.8150	0.8150	0.8150
(11) Monthly Vested Benefit Payable at Payment Start Date = (9) x (10)	\$2,613.25	\$2,977.64	\$3,342.01

Benefit Options Available

Form of Payment	Option Factor	Full COLA		Half COLA		No COLA	
		Initial Benefit	Survivor's Benefit ⁽¹⁾	Initial Benefit	Survivor's Benefit ⁽¹⁾	Initial Benefit	Survivor's Benefit ⁽¹⁾
Straight Life Annuity	1.0330	\$2,699.49	**	\$3,075.90	**	\$3,452.30	**
10 Year Certain & Life Annuity	1.0000	\$2,613.25	\$2,613.25	\$2,977.64	\$2,977.64	\$3,342.01	\$3,342.01
100% Joint & Survivor Annuity	0.8627	\$2,254.45	\$2,254.45	\$2,568.81	\$2,568.81	\$2,883.15	\$2,883.15
50% Joint & Survivor Annuity	0.9401	\$2,456.72	\$1,228.36	\$2,799.28	\$1,399.64	\$3,141.82	\$1,570.91
100% Joint & Survivor Pop-Up Annuity	0.8573	\$2,240.34	\$2,240.34	\$2,552.73	\$2,552.73	\$2,865.11	\$2,865.11
50% Joint & Survivor Pop-Up Annuity	0.9370	\$2,448.62	\$1,224.31	\$2,790.05	\$1,395.03	\$3,131.46	\$1,565.73
Return of Employee Contributions	N/A	\$63,741.96	N/A	\$63,741.96	N/A	\$63,741.96	N/A

(1) **Survivor Benefits:** for the Joint & Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

* Average is of the three highest years of base earnings

**Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

Calculation of Benefit Options

Form A

Burlington Employees' Retirement System, Class B - Other

Michaelene Paquette

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

Type of Calculation

Regular Service

Information Used in Benefit Determination

Participant Name:	Michaelene Paquette	Class:	B
Date of Birth:		Department:	Other
Date of Hire:	10/30/1980	Vesting Percentage:	56.6667%
Date of Termination:	10/28/1986	Normal Retirement Date (NRD):	09/15/2025
Beneficiary Date of Birth:	N/A	Payment Start Date:	10/01/2025

Earnings

Average Final Compensation*: \$24,520.16

Determination of Benefit Amount

(1) Years of Creditable Service (CS)	5.66667
(2) Years of CS on or prior to 06/30/2006 [(2) + (3) is not to exceed 25 years]	5.66667
(3) Years of CS after 06/30/2006 [(2) + (3) is not to exceed 25 years]	0.00000
(4) Years of CS in excess of 25 years	N/A

COLA Option

Full COLA

(5) Accrual Rate on or prior to 06/30/2006 (not to exceed 25 years)	1.200%
(6) Accrual Rate after 06/30/2006 (not to exceed 25 years)	1.200%
(7) Accrual Rate in excess of 25 years	0.500%
(8) Retirement Accrual Percentage = [(2) x (5)] + [(3) x (6)] + [(4) x (7)]	6.8000%
(9) Monthly Vested Benefit Payable at Payment Start Date = (8) x Average Final Compensation/12 x Vesting Percentage	\$78.74
(10) Early Retirement Reduction Factor	1.0000
(11) Monthly Vested Benefit Payable at Payment Start Date = (9) x (10)	\$78.74

Benefit Options Available

Form of Payment

	Option Factor	Full COLA	
		Initial Benefit	Survivor's Benefit ⁽¹⁾
Straight Life Annuity	1.0941	\$86.15	N/A
10 Year Certain & Life Annuity	1.0000	\$78.74	\$78.74
100% Joint & Survivor Annuity	N/A	N/A	N/A
50% Joint & Survivor Annuity	N/A	N/A	N/A
100% Joint & Survivor Pop-Up Annuity	N/A	N/A	N/A
50% Joint & Survivor Pop-Up Annuity	N/A	N/A	N/A

(1) **Survivor Benefits:** for the Joint and Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

* Average is of the three highest years of base earnings

Calculation of Benefit Options

Form A

Burlington Employees' Retirement System, Class A - Police Union

Carolynne E. Morris

IMPORTANT: City of Burlington reserves the right to correct any errors in the Calculation of Benefit Options. If it is determined at any time that the information provided in this Pension Distribution Kit conflicts with the terms of the Plan, the terms of the Plan will govern. Under the law, a plan must be operated in accordance with its terms and errors must be corrected.

Type of Calculation

Vested - Early Retirement

Information Used in Benefit Determination

Participant Name:	Carolynne E. Morris	Class:	A
Date of Birth:		Department:	Police Union
Date of Hire:	07/12/2004	Vesting Percentage:	100.0000%
Date of Termination:	09/07/2025	Normal Retirement Date (NRD):	06/09/2035
Beneficiary Date of Birth:		Payment Start Date:	10/01/2025
		Employee Contribution Balance w/ Interest as of 10/01/2025:	\$214,953.39

Earnings

Average Final Compensation*: \$96,866.88

Determination of Benefit Amount

(1) Years of Creditable Service (CS)			21.16667	
(2) Years of CS on or prior to June 30, 2006 [(2) + (3) is not to exceed 25 years]			2.00000	
(3) Years of CS after June 30, 2006 [(2) + (3) is not to exceed 25 years]			19.16667	
COLA Option		Full COLA	Half COLA	No COLA
(4) Accrual Rate on or prior to June 30, 2006 (not to exceed 25 years)		2.750%	3.250%	3.800%
(5) Accrual Rate after June 30, 2006 (not to exceed 25 years)		2.750%	3.250%	3.600%
(6) Retirement Accrual Percentage = [(2) x (4)] + [(3) x (5)]		58.2083%	68.7917%	76.6000%
(7) Monthly Vested Benefit Payable at NRD = (6) x Average Final Compensation/12 x Vesting Percentage		\$4,698.71	\$5,553.03	\$6,183.34
(8) Early Retirement Reduction Factor		0.9302	0.9302	0.9302
(9) Monthly Vested Benefit Payable at Payment Start Date = (7) x (8)		\$4,370.74	\$5,165.43	\$5,751.74

Benefit Options Available

Form of Payment	Option Factor	Full COLA		Half COLA		No COLA	
		Initial Benefit	Survivor's Benefit ⁽¹⁾	Initial Benefit	Survivor's Benefit ⁽¹⁾	Initial Benefit	Survivor's Benefit ⁽¹⁾
Straight Life Annuity	1.0076	\$4,403.96	**	\$5,204.69	**	\$5,795.45	**
5 Year Certain & Life Annuity	1.0000	\$4,370.74	\$4,370.74	\$5,165.43	\$5,165.43	\$5,751.74	\$5,751.74
100% Joint & Survivor Annuity	0.9019	\$3,941.97	\$3,941.97	\$4,658.70	\$4,658.70	\$5,187.49	\$5,187.49
50% Joint & Survivor Annuity	0.9518	\$4,160.07	\$2,080.04	\$4,916.46	\$2,458.23	\$5,474.51	\$2,737.26
100% Joint & Survivor Pop-Up Annuity	0.8918	\$3,897.83	\$3,897.83	\$4,606.53	\$4,606.53	\$5,129.40	\$5,129.40
50% Joint & Survivor Pop-Up Annuity	0.9465	\$4,136.91	\$2,068.46	\$4,889.08	\$2,444.54	\$5,444.02	\$2,722.01
Return of Employee Contributions	N/A	\$214,953.39	N/A	\$214,953.39	N/A	\$214,953.39	N/A

(1) **Survivor Benefits:** for the Joint & Survivor Annuity payments, the survivor's benefit is only payable if the chosen survivor is alive upon the participant's death. If the chosen survivor is not alive, then no additional benefit is payable upon participant death. The choice of survivor may not be changed after benefit payments have commenced.

* Average is of the three highest years of base earnings

**Amount in excess (if any) of accumulated employee contributions, with interest, over payments made

Reconciliation of BERS Pension Benefits Payable to the City

Amounts are provided monthly to Fiduciant by the City of Burlington, VT. Amounts shown are as of the date the information was provided by the City and are subject to change as additional funds are posted for the previous period.

	Funds Received by the City for BERS	Expenses & Benefits Paid by the City for BERS	Misc. Adjustment	Monthly Amount due To/(From) BERS	Balance Due To/(From) BERS	Payment From BERS to the City
Beginning Balance, 7/1/2025					(5,737,200)	
July	366,642	(2,067,536)		(1,700,894)	(7,438,094)	
August	412,171	(2,167,097)		(1,754,926)	(3,455,820)	5,737,200
September	931,747	(2,102,352)	6,153	(1,164,452)	(4,620,272)	
October	2,277,565	(4,397,794)		(2,120,229)	(6,740,502)	
November						
December						
January						
February						
March						
April						
May						
FYE June 2026						
Total	3,988,125	(10,734,779)	6,153	(6,740,502)	(6,740,502)	5,737,200
ADEC per 2024 val report from USI	15,478,508					
Administrative Fees	648,000					
Additional Employer Contribution per union contracts	367,840					
Total required from City Depts to BERS	16,494,348					
Remaining Balance until Fully Funded	12,506,223					

Note: Remaining COB Department changes will be billed and booked before Jan 1, 2026



Department of Finance and Administration

City of Burlington

City Hall, 149 Church Street, Burlington, VT 05401

Voice (802) 865-7000

Fax (802) 865-7014

TO: Burlington Employees Retirement System Board
FROM: Brad Kukenberger, Director of Finance, DFA
DATE: November 17, 2025
SUBJECT: Executive Summary – Actuarial Services RFQ Responses

This memo summarizes the four vendor responses received to the Burlington Employees' Retirement System Request (BERS) for Qualifications for Actuarial Services. The purpose is to highlight major strengths, potential concerns, and considerations for narrowing to finalists for interviews.

USI Consulting Group (Incumbent)

USI is the current actuary for BERS and emphasizes continuity, deep familiarity with Burlington's plan design, and a history of providing tailored guidance. Their proposal highlights past support for plan design changes, long-term funding strategy work, and improvements in reporting clarity. They provide the PensionEdge® administration platform, offering participant self-service tools and secure data management.

Strengths:

- Most familiar with BERS's data, history, and governance processes.
- Strong performance record with timely valuations, responsive support, and clear communication.
- Full compliance with Burlington's contract requirements; no requested exceptions.
- Comprehensive administrative tools supporting both staff and participants.

Potential Concerns:

- Lead actuary (Steve Lemanski) is retiring in February 2026, creating near-term transition considerations.

Gabriel Roeder Smith & Company (GRS)

GRS is a nationally recognized actuarial firm specializing exclusively in public-sector retirement systems. They provide actuarial services to more than 1,000 governmental plans and have deep experience with statewide systems, assumption reviews, experience studies, and GASB reporting.

Strengths:

- Most specialized public-sector actuarial firm in the finalist pool.
- Strong record of Board-oriented communication and transparent reporting.
- Deep bench of actuaries and well-established internal quality controls.

Potential Concerns:

- No administrative or participant-facing technology platform.

Segal

Segal is a large national actuarial and benefits consulting firm with more than 85 years of experience. Their proposal includes a detailed valuation methodology, assumption-setting processes guided by ASOP 27, multiple review layers before report delivery, and strong public-sector credentials.

Strengths:

- Highly detailed and methodologically rigorous actuarial process.
- Strong national reputation and broad public-sector experience.
- Thorough data validation and quality-control steps.

Potential Concerns:

- Limited local presence or Vermont-specific experience.

Nyhart (A FuturePlan Company)

Nyhart offers a hybrid model combining boutique-style attention with the resources of a national actuarial platform. They highlight a local Vermont actuary and competitive pricing for OPEB valuations.

Strengths:

- Local actuary, supporting responsiveness and in-person availability.
- Competitive OPEB pricing.
- Strong client references.
- Offers participant data cleanup and reconciliation services.

Potential Concerns:

- Public-sector specialization is not as deep as GRS or Segal.

Cross-Cutting Observations:

- Public-sector specialization: GRS strongest; Segal and USI strong; Nyhart mixed.
- Continuity and incumbent performance: USI's role as the incumbent provides meaningful continuity for BERS. Their historical work has been excellent—timely, accurate, and responsive—providing a credible foundation for ongoing engagement. At the same time, the upcoming leadership transition remains an important consideration.
- Cost considerations: Cost proposals are relatively equal across the bidding firms, with minor variations in time and materials rates for ad hoc calculations
- Contract provisions: Nyhart requests modifications; USI accepts all provisions.
- Administrative capabilities: USI offers the most comprehensive participant-facing system.

Suggested Next Steps:

1. Select 2–3 Finalists
2. Conduct finalist interviews focused on transition, assumptions, communication, data cleanup, and contract exceptions.
3. Check references for timeliness, communication quality, data accuracy, and audit support.



The City of Burlington Employees' Retirement System
Board

Actuarial Services

Technical and Price RFQ

October 17, 2025

Table of Contents

Cover Letter	1
Executive Summary	3
Scope of work	10
Statement of Qualifications	20
Pricing.....	30
Subconsultants	32
Additional Services	33
Exhibits	35
Exceptions	36
Appendix 1: Segal Team Resumes	37
Appendix 2: Sample Reports.....	43

Cover Letter

A cover page including the Request for Qualifications title and lead applicant firm's name, office location, and main point of contact. If proposal includes a Team of Consultants, please clearly list each member of the proposed team, main contact, and their proposed role in the scope of work on second page.



30 Waterside Drive
Suite300
Farmington, CT 06032
segalco.com
802.777.9021
treynolds@segalco.com

October 17, 2025

Mr. Brad Kukenberger
Director of Finance
The City of Burlington Employees' Retirement System Board
149 Church Street
Burlington, VT 05408 (Clerk Treasurer's Office)

RE: Actuarial Services to The City of Burlington Employees' Retirement System Board

Dear Mr. Kukenberger:

Thank you for the opportunity to submit our response to provide independent actuarial services described in The City of Burlington Employees' Retirement System Board's (BERS Board) Request for Qualifications (RFQ). Serving the public sector is a primary focus at Segal and for our senior consulting team proposed for the BERS Board. We are a recognized industry leader, sponsoring and participating in many service and professional organizations, including the National Association of State Retirement Administrators, the National Council on Teacher Retirement, and the Public Sector Health Benefits Roundtable.

Segal's longstanding mission is to provide "trusted advice that improves lives." We offer a team with the knowledge and experience to engage with the BERS Board when and where you need us. Our proposed team's deep experience with similar public sector defined benefit plans and our cost-effective, client-focused approach will serve the BERS Board well as you move forward.

We affirm that Mr. Tim Reynolds is legally authorized to bind Segal. Mr. Reynolds will serve as the main contact and Client Relationship Manager. He lives in Waterbury, Vermont and is affiliated with our Hartford office. His contact information is included in the header, in addition to the below.

Tim Reynolds
Vice President & Senior Consultant
30 Waterside Drive
Suite300
Farmington, CT 06032
802.777.9021
treynolds@segalco.com

As required, here is a list of the team members that will serve the BERS Board.

- Tim Reynolds, CEBS
Role: Client Relationship Manager/Main Contact
- Henry Nearing, FCA, MAAA, EA
Role: Lead Pension Actuary
- Derek A. Moulton
Role: Technical Review of the Pension Work
- Josie Huang
Role: Pension Analyst
- Melanie Walker, JD
Role: Compliance Consultant

We also recognize Addendum #1, reviewed October 10, 2025.

We look forward to discussing our proposal response with you in greater detail. Please feel free to contact me directly at 802.777.9021 or treynolds@segalco.com with any questions pertaining to our response.

Sincerely,



Tim Reynolds, CEBS
Vice President & Senior Consultant

Executive Summary

We are pleased to submit this RFQ to The City of Burlington Employees' Retirement System Board (BERS Board) in response to your Request for Proposal for Actuarial Services.

Segal has been assisting public plans and plan sponsors for 85+ years. Serving the public sector is the primary focus of your proposed consulting team and is one of the backbones upon which our firm was founded. Working with Segal, you will have a partner who understands your needs. Our mission statement summarizes our approach to customer service.

We believe three main areas differentiate our proposal:

- Cost – we can deliver the annual reports at a lower and fixed cost than the incumbent provider.
- Experience – our long-standing partnerships with the Vermont Retirement System and other New England municipalities demonstrates the trust our clients place in our work and our expertise in this space.
- Consulting – most every firm will have the technical expertise to satisfy your RFQ. We believe it is our consulting, our approach to providing advice and partnering with you to understand what reports mean, what options are on the table, and establishing a long-term vision for successful management of your Plan.

Understanding the needs of the Plan

Public plans are under intense scrutiny and face considerable challenges. Working with hundreds of public sector entities gives the Segal team valuable insight into the spectrum of design characteristics and features in all types of pension and benefit plans throughout all levels of government.

Our knowledge will allow your Plan to make informed decisions in the broader context of what other jurisdictions are doing.

How we've helped other municipalities and public retirement systems

Segal has extensive experience providing actuarial services for large Public Employee Retirement Systems (PERS). PERS are under ever-increasing scrutiny, and Segal partners with public sector entities to find thoughtful and sustainable solutions that work in today's environment.

Since 2017, Segal has served as the actuaries for the Vermont Retirement Systems (VRS), including the Vermont State Employees' Retirement System, Vermont State Teachers' Retirement System and Vermont Municipal Employees' Retirement System. We are very familiar with similar retirement plans, including benefits, funding policies, funding history, member demographics and more. In addition to preparing actuarial valuations and accounting disclosures for VRS, the Segal team assisted with educating the Boards and other stakeholders

on the impact of certain risks to the plans through a comprehensive risk analysis study, worked with the Joint Fiscal Office and the Pension Benefits, Design and Funding Task Force to provide detailed analyses of potential changes to VSERS and VSTRS, and assisted staff with the creation of a new Group G within VSERS. Also, Segal helped implement a pre-funding mechanism for the post-retirement medical plans. This, along with expanded scope and reporting requirements under GASB 74/75 expanded the required retainer work as compared to prior non-funded GASB 43/45 disclosures. The team's depth of experience with VRS, and length of time working with other large public pension systems, is unmatched. We believe this expertise is a good fit for the BERS Board.

Segal has also worked with a number of cities and towns that have a pension plan in need of a funding improvement strategy. As an example, a town's pension plan was under 15% funded when the sponsor hired Segal to develop a clear funding strategy that the town could afford while also improving the funded level of their pension plan. We consulted on the advantages and disadvantages of a Pension Obligation Bond (POB), the long-term and short-term impact of possible plan changes to make the ongoing plan design more sustainable, and an overall funding strategy that the town could afford. This strategy also included working with the asset advisors to lower the long-term rate of return to a reasonable assumption, while also not putting undue strain on the town's cash flow. We recognize that funding improvement does not happen overnight, but with a clear strategy this town has improved their funded levels to about 40%, at a much lower interest rate, over a 10-year period. However, there is no specific funding strategy that works in all situations.

We look forward to partnering with the BERS Board in reviewing the current funding improvement strategy.

Our approach

Segal's longstanding mission is to provide "trusted advice that improves lives." We offer a team with the knowledge and experience to engage with you when and where you need us, and commitment to a common goal: to allow your members to thrive in their employment years as they look forward to a secure retirement.

We are a full-service consulting firm, uniquely qualified for this engagement for the following reasons:

- **Objective perspective and consulting approach:** We listen. Though our team has deep experience upon which we can draw, we understand that each client and each plan is unique. Therefore, before we make any recommendations or suggestions, we first make sure we thoroughly understand the current circumstances and desired results. We then can use our experience and skill to develop strategic solutions. Because we're not involved in the design and administration of your current plan, we have the ability to take a step back and review the merits of the current program with an unbiased view, and a fresh, new perspective. We will take the time needed to learn about your history and find out why various decisions were made. We also pride ourselves in being able to communicate actuarial concepts in layman's terms.
- **Risk consulting:** Following the market crash of 2008, a heightened focus on risk was needed, even for well-funded plans. The American Academy of Actuaries Actuarial Standards Board recently issued Actuarial Standard of Practice (ASOP) No. 51, *Assessment and*

Disclosure of Risk Associated with Managing Pension Obligations. Actuaries from Segal contributed to the development of that ASOP and we believe that good consulting requires an analysis of risks.

Through projections of future contribution rates and analysis of the cost of various changes, we are able to analyze the long-term sustainability of a retirement benefit program and help suggest potential changes, if necessary. (BERS Board) will benefit from Segal's extensive projection capabilities that we can provide.

- The BERS Board will be better prepared to understand the risks inherent in its pension programs by reviewing stochastic results that not only project the Actuarially Determined Employer Contribution (ADEC) and the funded percent over time but also provides the likelihood of achieving a given target.
- Segal has a proprietary pension forecasting program (Segal Pulse™) that you and your staff can access directly to model basic funding projections that, in the past, required preparation by your actuary. Your Retirement System staff will be able to use the results provided to monitor key metrics on an on-demand basis.
- Fully integrated ALM studies can also be provided working with your investment consultant or with Segal Marco Advisors, our investment consulting division.
- **Compliance practice:** The BERS Board will significantly benefit from the support of our extensive expertise in compliance issues compared to what other consulting firms can offer. Your compliance issues, updates to proposed changes in federal or local statutes, and any other technical administrative support will be handled by our internal compliance professionals who have experience with local statutes. Although we do not practice law, we have lawyers and paralegals on staff who can assist with drafting plan documents, amendments, and summary plan descriptions.

Compliance consulting for the BERS Board will be managed by Melanie Walker, JD. Ms. Walker has hands-on experience with the daily issues facing BERS Board staff and the types of legislative and statutory terms under which the BERS Board operates.

- **Quality commitment:** We follow a rigorous peer review process of actuarial work, consulting advice and recommendations. Our internal quality control standards require a three-stage review process for actuarial and technical work. Recognizing that communication is a necessary requirement for quality work, we will schedule regular check-in calls, particularly during the first contract year, as a forum for discussions with your staff.
- **Access to and depth of resources:** BERS Board will benefit from easy access to our actuaries, consultants and compliance teams at all times. (BERS Board) will be serviced by our Hartford, CT office, allowing us to attend special meetings or educational sessions at minimal expense. You will be able to use our extensive national resources to scale up on a cost-efficient basis whenever you need additional services.
- **Objectivity:** We operate solely to provide the best and most appropriate services to our clients that are designed to solve their unique challenges. Our fee arrangements are fully transparent. We are completely honest, upfront and unbiased – the way a business partnership should be.

We understand that “quality” is more than getting the right answer but also meeting deadlines and clear communication of results with the BERS Board.

- **Competitive pricing:** We offer the customized, hands-on service of a small firm – but backed by national research and benchmarking capabilities. This structure allows Segal to be efficient and offer our high-value services for a competitive fee.

Segal history, pension experience and culture

Segal was founded as the Martin E. Segal Company in 1939, early in the development of employee benefit plans in American industry. From the beginning, Segal has been involved in developing health and retirement programs that meet the needs of employees and employers as well as plan sponsors and participants.

Segal is a private, employee-owned benefits and investment consulting firm with over 1,100 full-time employees. Members of the Segal family include benefits specialists Segal; benefits communication specialists Segal Benz; and investment solutions specialists Segal Marco Advisors.

The firm's first services focused on consulting for group health insurance and, soon after World War II, Segal began offering retirement plan consulting, including actuarial services. By the early 1950s, our leadership in retirement consulting services for collectively bargained plans brought us national recognition when our firm was asked to help set up some of the first multiemployer pension plans under the Taft-Hartley Act. Within a few years, Segal assisted in the establishment of numerous national industry-wide pension plans. These activities aid employees of industries such as entertainment, apparel, transportation, and construction in which employees do not typically have prolonged employment with a single employer. Many widely accepted benefit practices were and are today's innovations first conceived, designed and introduced by Segal.

Our teams help a wide range of industries. No matter who you are, we can assist you.

Segal

Administration and Technology Consulting
Benefit Audit Solutions
Compensation and Career Strategies
Compliance

Health and Welfare Benefits
HR and Benefits Technology
Insurance
Organizational Effectiveness
Retirement Benefits

Segal Benz

Benefits Communication
Communication Strategy
Personalized Benefit Statements
Surveys and Focus Groups
Website and Portal Design

Segal Marco Advisors

Corporate Governance and Proxy Voting
Defined Contribution Consulting
Discretionary Investment Management
Intermediary/Advisor Solutions
Investment Consulting
OCIO (Outsourced Chief Investment Officer)

Not any solution — your solution. Personalized advice and help.

Acquisitions over the years included Sibson Consulting (acquired in 2002), Segal Marco Advisors (acquired in 2017), Segal Benz (acquired in 2019) and LRWL Inc. (acquired in 2020), which are now all members of Segal.

Today, we remain a private, employee-owned firm known for providing unbiased consulting based on the integrity, expertise, personal investment, and trusted advice of our people. We assist public entities, multiemployer funds, and public and private corporations with the full range of health and welfare, retirement and human resource-related issues.

Through our 85+-year history, we've built a firm that plan sponsors came to count on for truly personal actuarial, benefits and investment expertise aimed at one mission: delivering trusted advice that improves lives. Today, we formally operate under one name – Segal.

Pension experience

Public sector retirement systems and employers are managing through one of the most challenging environments in decades. Providing meaningful retirement benefits to participants while still being sensitive to fiscal and economic realities requires the guidance of an experienced consultant. For 70+ years, Segal has been providing actuarial and benefits consulting services to help public sector retirement clients, of all types and sizes, achieve their goals.

Today, we provide actuarial and benefits consulting services to approximately 500 public sector entities, including nearly 120 public sector retirement clients. They range in size from \$5 million to over \$50 billion and include state and local governments; special districts (such as transit, utilities, water, toll and port authorities); federal government agencies and other public organizations and entities; police and fire departments; and public schools, higher education institutions and education systems. As a national firm with more than 170 credentialed actuaries across the U.S. and Canada, Segal brings our in-depth knowledge of best practices and successful approaches used by other public sector retirement clients to augment the work we do for the City.

In the Northeast region, in addition to the State of Vermont Retirement System, we also provide comparable pension services to more than 20 Massachusetts municipalities, the University System of New Hampshire, and 6 Connecticut municipalities.

Segal's long history demonstrates an ongoing commitment to actuarial services, and we remain dedicated to total client satisfaction. We are the architects of responsive and creative solutions and share our retirement clients' commitment: to allow plan participants to thrive in their employment years and look forward to a secure retirement. Our proposed team's deep experience with similar public defined benefit plans and our cost-effective, client-focused approach is well suited to meet the BERS Board's needs.

Overall, Segal's retirement practice is known for the depth of its knowledge. Having a large number of diverse public sector clients throughout the country exposes our firm to challenges faced by other similarly situated entities nationwide. Our actuaries routinely share and disseminate information on current and previous projects to other consultants throughout the firm through e-mail, intranet, technical meetings, and seminars. As a result, the team assigned

to the BERS Board will draw upon their own personal consulting experiences and those of their peers.

We pride ourselves on being able to perform complex technical actuarial calculations and communicate those results and actuarial concepts clearly in layman's terms. In addition to delivering actuarial valuation services for large public clients, we also provide experience studies, audits and unique actuarial studies when needed like those requested by the BERS Board. Our ongoing actuarial valuation services, as well as our ability to provide special project services in a wide set of complementary and related areas, offer our clients accurate measures, disclosures of plan liabilities and other determinations that in turn drive effective Board/Trustee decision making.

With the recent challenges faced by state and local economies, the landscape for public sector pension plans has changed dramatically. We will work closely with the BERS Board as an advisor and business partner. We strive to collaboratively understand both the culture and needs of our clients. Our depth of expertise, technology, risk expertise and custom solutions will be evident assets for your long-term success. We have proven this success with many other public retirement systems across the nation.

No two plans are the same. In our consulting approach, we'll reflect that in the solutions we suggest. We may recommend:

- Forecasting plan funding requirements
- Analyzing the gap between the current state of the retirement plans and your objectives
- Identifying available options and explore alternatives for plan funding and risk mitigation
- Identifying industry changes and trends
- Gathering essential facts about current plans and participant demographics

Philosophy and culture

Segal's consulting philosophy, culture and overall approach underscore our commitment to our clients. By forming a partnership with our clients, we serve as both advisors and advocates. In addition, our work is distinguished by the highest level of professional consulting services, customized solutions, leading edge consulting and cost efficiency through technology.

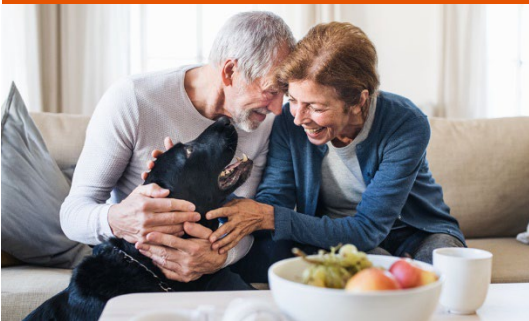
Therefore, we consider it critical for a consulting firm like Segal to have expert operational, technical, legal and financial capabilities that are both current and complete. Our company invests heavily in research, education and training so that our entire staff has the technical capabilities to serve our clients.

Martin E. Segal founded this company on a vision of fairness dedicated to providing vital benefits to working people. Today, we are technology experts, business process re-engineers, employee communications specialists, specialty insurance brokers, human resource experts, investments advisors, actuaries and consultants for retirement, health, and all types of benefit plans. We are focused on the one thing that has driven our business since its founding: a relentless commitment to the success of our clients.

Because we are experts in multiple fields, our clients place their trust in us to help them navigate what can be complex and difficult issues. They depend on us to help them make sound

decisions that have an impact on millions of lives. In a phrase: “We deliver trusted advice that improves lives.” That is Segal’s mission for being in business, which hasn’t changed in the past 85+ years.

Nor have our values changed over time. Our firm is a community of people with a single mission acting on a set of common values, as we have outlined above.



Providing trusted
advice that
improves lives

We welcome an opportunity for dialogue

In this proposal, we describe our organization and its history, the quality and timely services that we will provide to the BERS Board, the basic processes that would guide our efforts, our qualifications, client team, proposed fees and references. We would welcome the opportunity to meet with you and discuss in more detail our proposed services and approach.

We believe that Segal will make an excellent partner for the BERS Board for many years. Our team is dedicated to this engagement and look forward to meeting and working with your team.

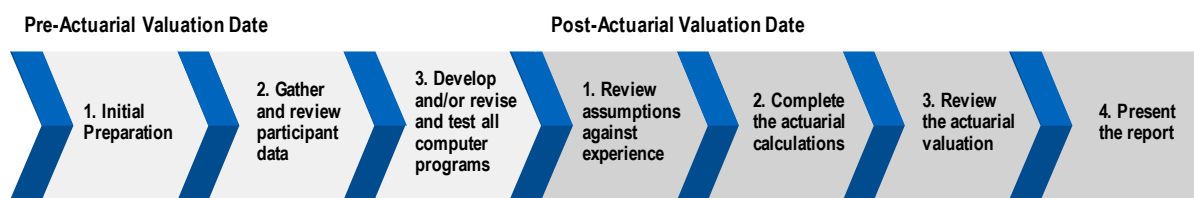
Scope of work

Evidence that the Consultant satisfies (or is capable of satisfying) necessary qualifications set forth in Section V.2 (Qualifications), above.

The actuarial firm selected will provide services including, but not limited to:

A. Annual Actuarial Valuation

1. Prepare the annual valuation of the Plan, including funded status, contribution requirements, and actuarially determined employer contribution (ADEC).



The following list presents a work schedule and methodology for the completion of an actuarial valuation. We always customize our work to your needs and recognize that certain aspects of our standard work plan may need to be modified for the BERS City's actuarial valuation. Steps 1 through 3 would generally take place before the actuarial valuation date.

- 1. Do the initial preparation:** Segal sets up files, including plan documents for all plans, previous valuations and any other relevant materials, and prepares a summary of the benefit plans and the present assumptions. We will speak with BERS Board/City staff to ensure that there is complete agreement and full understanding of the operation of the plan of benefits
- 2. Gather and review participant and financial data:** We gather participant data and run it through standard reconciliation programs to verify completeness and reasonableness. This includes complete census information on active, terminated and retired participants, as well as a complete statement of plan assets and a financial reconciliation to the prior valuation date. We then prepare and resolve any data questions or issues with BERS Board staff.
- 3. Develop and/or revise and test all computer programs:** We tailor our actuarial valuation programs specifically to the benefit provisions applicable to your Plan(s). We continuously make programming adjustments as necessary to take into account changes in benefits, contributions and actuarial assumptions. We go through extensive testing of valuation applications before, during and after processing the actual valuations to assure that the programs perform as expected.
- 4. Review assumptions against experience:** Segal assesses developing trends and analyzes actuarial gains and losses since the previous valuation. We then discuss with BERS Board/City staff, if necessary, to verify any unusual results with the Plan.
- 5. Complete the actuarial calculations:** At this stage, we run final versions of computer valuation programs and prepare work sheets and tables. We conduct a review and final review of all calculations to verify mathematical accuracy.
- 6. Review the actuarial valuation and findings:** This review encompasses the entire process, including participant and financial data preparation, calculations and programs. The actuary assumes responsibility for the completeness and correctness of the actuarial results.

- 7. Present the report and findings:** We present our actuarial valuation report to the BERS Board and meet with them to discuss the report, its findings, the reasons for changes and any other relevant matters. We then follow up with the BERS Board on any action arising from the report.

We follow the Actuarial Standard of Practice No. 27 (ASOP 27), entitled “Selection of Assumptions for Measuring Pension Obligations” to establish the assumed rate of return. This addresses acceptable methodologies for setting interest rate assumption. One of the acceptable methodologies described in ASOP 27 is the “Building- Block Method.”

Under the Building-Block Method, (i) a best-estimate range of expected future return is developed for each asset class, (ii) an average, weighted real-return range reflecting the plan’s asset allocation policy is developed, and (iii) the best-estimate real-return range is combined with the best-estimate range of expected inflation. Stochastic simulation models that take into account correlations among returns of different asset classes and inflation are frequently used to obtain the final result.

We have included a sample valuation report in **Appendix 2**.

2. Certify City and employee contribution requirements for compliance with the City Charter.

Segal will certify the City and employee contribution requirements to ensure strict compliance with the City Charter. Our actuarial team will perform a thorough review of the City’s retirement system funding policies and applicable Charter provisions.

Using the most recent actuarial valuation data, Segal will calculate the required contributions for both the City and its employees, verifying that these amounts align with the specific formulas and funding standards mandated by the Charter.

The certification process involves a detailed analysis of payroll, plan provisions, and actuarial assumptions. Segal will prepare a formal certification report that documents their methodology, findings, and any supporting calculations. This report will be presented to City officials and plan fiduciaries, serving as an official record that the contribution requirements have been met in accordance with the City Charter.

By providing this independent actuarial certification, Segal helps uphold the integrity of the retirement system, ensures transparency, and supports the City’s commitment to legal and financial compliance.

3. Provide reports in formats suitable for the BERS Board, City Council, and auditors.

Segal will deliver reports tailored to meet the specific requirements and preferences of the BERS Board, City Council, and auditors. This includes preparing clear and comprehensive presentations for the BERS Board, concise executive summaries and detailed analyses for the City Council, and technical documentation with supporting data for auditors. All reports will be formatted in accordance with each body’s established guidelines, ensuring clarity, transparency, and compliance with regulatory standards.

B. Experience Studies and Assumptions

1. Perform periodic (typically every 3–5 years) experience studies to review demographic and economic assumptions.

Segal will perform an actuarial experience study for BERS. The evaluation will be a comprehensive analysis of your experience. The report will detail the reasons behind annual variations in the contribution rates.

Segal's experience study will review the major actuarial assumptions and methods, as follows:

- **Investment return:** The estimated average net rate of return on assets over the lifetime of the System. This rate is used to discount liabilities.
- **Salary increases:** The expected annual increases to an individual's salary
- **Payroll growth:** The expected increase in total membership payroll from year to year
- **Other economic assumptions:** Underlying estimates of inflation and other assumptions unrelated to demographic experience
- **Retirement rates:** The probability of retirement at each age at which employees are eligible to retire
- **Withdrawal rates:** The probability, at each age, of leaving employment before the next birthday due to reasons other than death, disability or retirement
- **Disability incidence rates:** The probability, at each age, of leaving employment before the next birthday due to disability
- **Mortality rates:** The probability, at each age, of dying before the next birthday. This is used for in-service death for active participants and projects life expectancies for annuitants and survivors. There are separate assumptions for healthy and disabled participants.

Segal will also comment on the actuarial methods being used by BERS:

- **Actuarial cost method:** The method used to allocate the total cost into past and future components
- **Actuarial asset valuation method:** The method used to smooth investment gains and losses on the market value of assets

Experience study process

Segal typically delivers the experience study reports within eight weeks of receipt of complete data. In order to complete a comprehensive four-year experience review investigation, the City would need to provide Segal with census data covering four consecutive valuation cycles. The analyses will describe the reasons for changes in the contribution rates based on a comparison of actual changes in liabilities with expected changes according to each of the various actuarial assumptions.

Recommend updates to actuarial assumptions (mortality, retirement, termination, disability, salary increases, COLA, inflation, etc.).

Review of demographic assumptions

Segal will compile tabulations that show the distribution by age of the number of members during the five-year period "exposed" to the events of termination from employment, retirement, death, and disability. A member is considered exposed to an event if he or she meets the age and service requirements for that event. The assumed rates of occurrence for each event, used in the most recent annual actuarial valuations, are then applied to the number of members exposed to determine the number of members expected to separate from service or die for each category. If the actuarial assumptions were changed during the interim period, only the most recently adopted assumptions are used.

The actual number of members who separated due to termination from employment, retirement, death, or disability is then compared to the expected number. The results are then expressed as a ratio of actual experience over expected experience. In some instances, a high ratio is favorable for the financial experience of the system, and in other cases, a high ratio is unfavorable. Data is generally grouped by age in five-year increments to provide statistically significant results.

The results of the experience study are the basis for the actuary's recommendation of assumption changes. However, the actuary must also take into account factors that impact member behavior, such as benefit changes within the retirement system or special early retirement incentives; as well as benefits outside the plan, such as retiree medical benefits that might influence the age a member will retire. In addition, any special events that occurred during the experience period that are not likely to recur must be removed from the analysis.

In addition to comparing actual to expected experience and adjusting the results for special plan benefits, circumstances, and economic conditions, the actuary must consider future expectations of experience due to future plan changes or changes in the economy.

To summarize, the actuary's recommendation of assumptions is based on the following:

- Comparison of actual to expected experience
- Adjustment for special plan benefits, circumstances, and economic conditions
- Adjustment for future plan changes and economic conditions

Review of economic assumptions

With respect to the assumptions of inflation, cost of living (COLA) and investment return, the prior experience is less relevant and greater emphasis is given to the anticipated system experience. For this purpose, we would look to forecasts made by economists and investment consulting and investment management firms.

Review rate of inflation and assumed COLAs

With respect to the inflation and COLA assumptions, we would look to the market's expectations of inflation as reflected in the fixed income yields and forecasts of inflation from economists and other expert reports.

Review of rate of investment return

Actuarial Standard of Practice No. 27 (ASOP 27), entitled “Selection of Assumptions for Measuring Pension Obligations,” addresses acceptable methodologies for setting the interest rate assumption. One of the acceptable methodologies described in ASOP 27 is the “Building-Block Method.”

Under the Building-Block Method, (i) a best-estimate range of expected future return is developed for each asset class, (ii) an average, weighted real-return range reflecting the plan’s expected asset class mix is developed, and (iii) the best-estimate real-return range is combined with the best-estimate range of expected inflation. Stochastic simulation models that take into account correlations among returns of different asset classes and inflation are frequently used to obtain the final result.

Sources of investment data

ASOP 27 encourages the actuary to review appropriate investment data, including:

- Current yields to maturity of fixed income securities, such as government securities and corporate bonds
- Forecasts of inflation and of total returns for each asset class
- Historical investment data, including real risk-free returns, the inflation component of the return, and the real return or risk premium for each asset class
- Historical plan performance
- Historical data showing standard deviations, correlations, and other statistical measures related to historical returns of each asset class and to inflation

Other factors to be considered

ASOP 27 also advises the actuary to take into account the following factors:

- Investment policy
- Investment expenses
- Reinvestment risk
- Cash flow timing
- Investment volatility
- Benefit volatility
- Investment manager performance
- Other issues unique to the plan

3. Support the Board in setting the assumed rate of return and funding policy.

Segal will provide expert guidance to the Board in establishing an appropriate assumed rate of return and funding policy. Our team will deliver comprehensive analyses of economic and capital market forecasts, peer system comparisons, and historical fund performance. We will present scenario modeling to illustrate the impact of various assumed rates on plan funding outcomes and contribution requirements.

Segal will facilitate informed decision-making through educational sessions and clear communication of actuarial best practices, regulatory requirements, and industry trends. Throughout the process, we will collaborate closely with the Board to ensure that the adopted assumptions and policies are tailored to the plan’s unique needs, risk tolerance, and long-term sustainability goals.

C. GASB Reporting and Financial Statement Support

1. Provide information and disclosures required under GASB 67/68 and 74/75.

Segal will provide comprehensive information and disclosures as required under GASB Statements 67/68 (pension plans) and 74/75 (other post-employment benefit plans). This includes preparing all actuarial schedules, notes to financial statements, and required supplementary information (RSI) needed for your financial reporting.

Segal's team will deliver detailed reports that fully comply with these standards, ensuring transparency and accuracy in your financial disclosures. Our deliverables will be tailored to your plan's specifics and include reconciliations, sensitivity analyses, and all supporting documentation necessary to meet the reporting and audit requirements under GASB 67/68 and 74/75.

2. Work with auditors to ensure compliance and transparency.

Segal will collaborate closely with auditors to ensure both compliance and transparency in all matters related to GASB reporting and financial statements. This partnership will involve providing auditors with timely access to all relevant documentation, supporting schedules, and reconciliations required for their review. Segal will proactively address auditor inquiries, clarify complex accounting treatments, and implement best practices recommended during the audit process. Regular communication and status meetings will be held to discuss findings, resolve outstanding issues, and ensure an accurate, transparent financial reporting process that aligns with all applicable GASB standards.

D. Special Studies and Projections

1. Perform actuarial projections of funded ratio, liabilities, and contribution requirements under alternative scenarios (e.g., plan changes, investment return scenarios).

Segal will perform actuarial projections of the plan's funded ratio, liabilities, and contribution requirements under a range of alternative scenarios. This includes modeling the financial impact of potential plan changes and varying investment return assumptions. Using industry-standard actuarial software and methodologies, Segal will develop deterministic and stochastic projections to illustrate how key metrics may evolve over time. Scenarios will be customized to reflect specific plan design changes, different economic environments, and other relevant factors identified in collaboration with plan stakeholders.

The results will help inform decision-makers about the potential risks and outcomes associated with each scenario, enabling proactive management of the plan's funding strategy.

2. Provide actuarial impact analysis for proposed benefit changes or labor negotiations.

Segal will provide actuarial impact analyses for proposed benefit changes or labor negotiations by conducting detailed evaluations of the financial and demographic effects associated with each proposed modification. This process involves modeling the short- and long-term cost implications, assessing funding requirements, and quantifying the impact on plan liabilities and participant outcomes.

Segal's actuarial team will prepare comprehensive reports and presentations that clearly communicate the anticipated impact of proposed changes, supporting data-driven decision-making for stakeholders during negotiations or plan redesign discussions.

3. Assist with asset/liability studies in coordination with the City's investment advisor.

Segal will assist with asset/liability studies by working closely with the City's investment advisor to analyze the pension plan's current asset allocation, projected liabilities, and risk profile. This collaboration will include reviewing key assumptions, evaluating the impact of different funding and investment strategies, and modeling potential outcomes under various market scenarios. Segal will help interpret study results, facilitate discussions between stakeholders, and provide actionable recommendations to ensure the City's long-term financial health and the sustainability of the pension plan.

E. Board Support and Consultation

1. Attend regular meetings of the BERS Board to present results and answer questions.

Segal will attend regular meetings of the BERS Board to present their findings, share detailed results, and address any questions or concerns raised by Board members.

2. Provide fiduciary education to Board members on actuarial concepts.

Segal will provide fiduciary education to Board members on key actuarial concepts through tailored training sessions and educational materials. These sessions will cover the fundamentals of actuarial science, including how assumptions are set, the impact of funding methods, risk assessment, and interpreting actuarial reports.

Segal's approach will focus on practical application, using real-world examples relevant to the Board's responsibilities. This education will empower Board members to make informed decisions, fulfill their fiduciary duties, and engage confidently in discussions related to plan funding, benefit changes, and long-term sustainability.

3. Prepare analysis on specific issues (e.g., pension obligation bonds, benefit adjustments, funding policy alternatives).

Segal will prepare a detailed analysis on specific issues such as pension obligation bonds, benefit adjustments, and funding policy alternatives. This process will involve gathering and reviewing relevant plan data, actuarial assumptions, and historical performance metrics. Segal's team will model the financial impacts of proposed changes, including sensitivity analyses to evaluate risk and long-term sustainability.

We will provide clear, comparative projections that outline the advantages and potential drawbacks of each alternative. Our findings will be presented in an accessible format, with actionable recommendations tailored to the plan sponsor's objectives and constraints. Throughout the process, Segal will collaborate closely with stakeholders to ensure all concerns are addressed and strategic goals are met.

F. Defined Benefit Administration Services

1. Prepare benefit estimates for members (retirement, termination, disability, survivor) upon request from the Plan Administrator.

Segal can assist with the production of benefit estimates for employees. We suggest including the following sections in the document:

- Introductory letter or message
- Personalized table containing a summary of benefits costs accrued plus the employee's estimated benefit upon attaining a projected retirement age
- Brief description of the pension plan with reference to internal resources to request more information
- A disclaimer indicating that the statement is an estimate and actual benefits will be calculated upon retirement

2. Review and certify benefit calculations prepared by City staff for accuracy and compliance with plan provisions.

While the majority of benefit calculations can be straightforward, some deal with unusual fact situations. In general, we start by reviewing the benefit calculations provided to us by City staff, using the plan document, amendments since it was adopted, and summaries of the relevant provisions, noting unusual circumstances and examples of similar calculations. The benefit calculations are then reviewed by a senior member of the team for accuracy and completeness. For more complicated calculations such as QDROs that can't be completed by City staff, these are then reviewed by another credentialed actuary.

Our goal is that between the City and the actuarial staff at Segal, each benefit calculation will be reviewed by three individuals.

3. Develop and update actuarial factors and tables (e.g., early retirement reductions, optional forms, actuarial equivalence factors) in accordance with adopted assumptions.

Segal will develop and regularly update actuarial factors and tables—including early retirement reductions, optional forms of benefit, and actuarial equivalence factors—in accordance with the assumptions adopted by the plan. This process involves analyzing current demographic and economic assumptions, performing actuarial calculations, and reviewing plan provisions to ensure all factors remain consistent with industry standards and regulatory requirements. Segal's actuarial team will also monitor for changes in assumptions or plan design, making timely adjustments as needed to maintain the integrity and accuracy of the actuarial factors and tables provided to the plan.

4. Provide guidance on the interpretation and application of plan provisions to individual cases and administrative processes.

Segal will provide expert guidance on the interpretation and application of plan provisions to ensure consistent administration across individual cases and day-to-day processes. This

includes analyzing specific participant situations, clarifying ambiguous plan language, and advising on the proper implementation of rules and procedures. Segal's consultants will work closely with plan administrators to address questions as they arise, offering practical recommendations and written interpretations as needed to support compliance and efficient plan operation.

5. Assist with compliance matters to ensure benefit administration aligns with federal and state law as well as GASB requirements.

Segal will assist with compliance matters by providing expert guidance to ensure that benefit administration consistently aligns with all applicable federal and state laws, as well as GASB requirements. Our team will conduct regular reviews of plan documents, policies, and procedures to identify and address any compliance gaps. We will monitor legislative and regulatory updates, offering timely recommendations and actionable strategies to maintain ongoing compliance.

Additionally, Segal will assist with the proper implementation and documentation of benefit programs, ensuring accurate reporting and adherence to GASB standards. By leveraging our specialized knowledge and proactive approach, we help safeguard your organization from compliance risks and promote the integrity of your benefit administration processes.

6. Support the Board and City staff with ad hoc administrative needs, including QDRO reviews, benefit disputes, or member communications.

Segal will support the Board and City staff with ad hoc administrative needs by providing responsive, expert assistance as unique situations arise. This includes conducting thorough reviews of Qualified Domestic Relations Orders (QDROs) to ensure compliance with plan provisions and legal requirements, assisting in the resolution of benefit disputes through objective analysis and clear recommendations, and developing or reviewing member communications to ensure accuracy, clarity, and consistency with plan policies.

Our team is committed to being a reliable resource for the Board and City staff, delivering timely and practical solutions to support effective plan administration.

Statement of Qualifications

A Statement of Qualifications applicable to this project including the names, qualifications and proposed duties of the Consultants' staff to be assigned to this project; a listing of recent similar projects completed, including the names, titles, addresses, and telephone numbers of the appropriate persons whom the City should contact.

The following table outlines the qualifications, experience and tenure of your proposed team members. Brief profiles describing their credentials and experience follow below. We have provided detailed resumes in **Appendix 1: Segal Team Resumes**.

Your Proposed Segal Team

Team Member and role	Experience
<p>Henry P. Nearing, FCA, MAAA, EA <i>VP & Actuarial Manager</i> 30 Waterside Drive Suite 300 Farmington, CT 06032 <i>Role: Lead Pension Actuary</i></p> <p>email: hnearing@segalco.com phone: 860.678.3036</p>	<p>Henry has over 25 years of experience consulting on both corporate and public sector actuarial valuations, including annual minimum funding calculations under ERISA and Actuarially Determined Contributions (ADC), along with annual accounting calculations under FASB, GASB and IAS19.</p>
<p>Derek A. Moulton <i>Senior Consultant</i> 30 Waterside Drive Suite 300 Farmington, CT 06032 <i>Role: Technical Reviewer</i></p> <p>email: dmoulton@segalco.com phone: 860.678.3044</p>	<p>Derek has over 30 years of actuarial consulting experience working with both corporate and public sector clients. Derek reviews actuarial valuations (including annual minimum funding calculations under ERISA and Actuarially Determined Contributions (ADC)), annual accounting calculations under FASB, GASB, and IAS19, and benefit calculations. He also has experience with non-discrimination testing, retiree health valuations, and non-qualified pension plans.</p>
<p>Josie Huang <i>Senior Actuarial Associate</i> 116 Huntington Avenue Suite 901 Boston, MA 02116 <i>Role: Analyst</i></p> <p>email: jxhuang@segalco.com phone: 617,424,7367</p>	<p>Josie supports actuarial valuations, funding projections, benefit calculations and regulatory filings for multiemployer and public sector clients. Josie contributes to modeling and analysis that inform strategic decisions and ensure compliance with industry standards</p>
<p>Melanie Walker, JD <i>SVP, National Compliance Practice</i> 7951 E Maplewood Avenue Suite 327 Greenwood Village, CO 80111 <i>Role: Compliance Consultant</i></p>	<p>Melanie has provided ongoing and special project compliance services for employee benefit plans for 20 years. Her primary area of expertise is with public sector retirement plans, and she serves as a national resource for Segal in this area.</p>

Team Member and role	Experience
email: mwalker@segalco.com phone: 303.714.9942	
Tim Reynolds, CEBS <i>VP & Benefits Consultant</i> 30 Waterside Drive Suite300 Farmington, CT 06032 <i>Role: Client relationship Manager and Main Contact</i>	Tim has more than 10 years of experience managing client relationships in health and retirement benefits and is a Certified Employee Benefits Consultant by the IFEBP.
email: treynolds@segalco.com phone: 802.777.9021	

Recent projects and references

Organization Name	Contact Information
State of Vermont	Tim Duggan Director 802.828.5195 tim.dugan@vermont.gov
City of Bridgeport 999 Broad Street Bridgeport, CT 06604	Ken Flatto Finance Director/CFO (203) 576-8010
Town of North Haven 18 Church Street North Haven, CT 06473	Richard Monico Director of Administration/Procurement (203) 239-5321
Town of Hamden 2750 Dixwell Avenue Hamden, CT 06518	Rick Galarza Acting Finance Director (203) 287-7014
Boston Retirement System City Hall, Room 816 Boston, MA 02201	Timothy Smyth, Esq. Executive Officer timothy.smyth@boston.gov 617.635.2603
City of Cambridge Contributory Retirement System 125 Cambridgepark Drive, Suite 104 Cambridge, MA 02140	Chris Burns Executive Director cburns@cambridgeretirementma.gov 617.868.3401

Experience performing actuarial valuations of public plans

The following chart shows a list of our public sector retirement clients. We currently perform actuarial valuations, experience analysis reviews and general consulting services for the following complex public-sector defined benefit plans.

The Programs administered by these systems include defined benefit plans. Some systems also administer defined contribution and retiree healthcare plans:

Representative List of Segal's Public Sector Actuarial Valuation Clients (by Asset Size)

Client	Initial Contract Year	Total Membership	Asset Size
University of California Retirement System	2004	365,844	\$98.6 billion
Colorado Public Employees' Retirement Association	2018	649,581	\$64.8 billion
Public Employees' Retirement System of the State of Nevada	1974	220,687	\$64.4 billion
Illinois Teachers' Retirement System	2016	434,117	\$64.2 billion
City of Los Angeles Fire and Police Pension Plan	2006	27,620	\$31.3 billion
Police and Firemen's Retirement System of New Jersey	2020	89,070	\$27.8 billion
Orange County Employees Retirement System	2004	54,485	\$23.7 billion
Los Angeles City Employees' Retirement System	2004	61,384	\$23 billion
The Water and Power Employees' Retirement Plan of the City of Los Angeles	1999	23,148	\$17.8 billion
San Diego County Employees Retirement Association	2003	51,242	\$17.6 billion
San Bernardino County Employees' Retirement Association	2002	50,060	\$15.2 billion
Sacramento County Employees' Retirement System	2004	32,910	\$13.3 billion
Alameda County Employees' Retirement Association	2003	27,156	\$12 billion
Contra Costa County Employees' Retirement Association	2003	25,946	\$11.6 billion
Ventura County Employees' Retirement Association	2003	22,527	\$8.2 billion
Boston Retirement System	prior to 2005	46,066	\$6.8 billion
Fresno County Employees' Retirement Association	2006	21,804	\$6.6 billion
Kern County Employees' Retirement Association	2011	24,326	\$5.8 billion
Vermont Retirement Systems	2017	58,440	\$5.5 billion
Municipal Employees' Annuity and Benefit Fund of Chicago	2014	79,912	\$4.3 billion
University of Missouri Retirement, Disability and Death Benefit Plan	prior to 2005	34,234	\$3.7 billion
Sonoma County Employees' Retirement Association	2007	11,767	\$3.4 billion

Client	Initial Contract Year	Total Membership	Asset Size
Fire and Police Pension Fund, San Antonio	2003	6,976	\$3.4 billion
Los Angeles Department of Water & Power	2002	20,123	\$3.2 billion
East Bay Municipal Utility District Retirement System	2007	4,557	\$2.5 billion
City of Fresno Fire and Police Retirement System	2006	2,633	\$2.2 billion
Georgia Municipal Employees Benefit System	2005	37,448	\$2.1 billion
City of Jacksonville General Employees Retirement Plan	2010	9,348	\$2.0 billion
Dallas Police and Fire Pension System	2016	10,592	\$2.0 billion
Milwaukee County Employees' Retirement System	2017	18,142	\$2.0 billion
City of Fresno Employees Retirement System	2006	5,862	\$1.8 billion
County of Santa Clara (OPEB only)	2011	31,995	\$1.7 billion
Memphis Light, Gas and Water Division Retirement and Pension System	1999	5,260	\$1.6 billion
DeKalb County Pension Plan	1988	11,856	\$1.5 billion
Firemen's Annuity and Benefit Fund of Chicago	2020	10,154	\$1.5 billion
Fulton County Employees Retirement System	2013	3,450	\$1.4 billion
Middlesex County Retirement System	prior to 2005	17,812	\$1.4 billion
City of Atlanta General Employees' Pension Fund	1994	9,205	\$1.4 billion
City of Cambridge Contributory Retirement System	prior to 2005	5,899	\$1.3 billion
Retirement Plan for Employees of NJ Transit Bus Operations, Inc. Amalgamated Transit Union	prior to 2005	8,946	\$1.2 billion
Imperial County Employees' Retirement System	2007	4,646	\$1.2 billion
Barnstable County Retirement System	prior to 2005	8,444	\$1.1 billion
City of Birmingham Retirement and Relief System	prior to 1990	7,638	\$1.0 billion
City of Worcester Retirement System	prior to 2005	6,889	\$952 million
Government Employees' Retirement System of the Virgin Islands	1993	18,000	\$769 million
Mendocino County Employees' Retirement Association	2011	3,733	\$715.1 million
Milwaukee County Transport Employees' Pension Plan	2017	2,334	\$636 million
City of Orlando Police Officers' Pension Fund	1995	1,548	\$623 million
New Jersey Transit Non-Agreement Retirement Plan	prior to 2005	2,557	\$564 million
Massachusetts Water Resource Authority	2013	1,788	\$530 million
Essex Regional Retirement System	2018	5,960	\$525 million
Fairfax County Water Authority Retirement Plan	2015	864	\$427 million
City of Savannah Employees' Retirement Plan	prior to 1997	4,144	\$421 million
City of New Orleans Employees' Retirement System	2018	5,452	\$419 million

Client	Initial Contract Year	Total Membership	Asset Size
Park Employees' Annuity and Benefit Fund of Chicago	2012	5,615	\$415 million
Newton Contributory Retirement System	2014	3,512	\$351 million
Town of Brookline Contributory Retirement System	prior to 2005	3,915	\$309 million
City of Holyoke Retirement System	prior to 2005	2,322	\$300 million
Weld County Retirement Plan	2012	2,170	\$255 million
City of Chattanooga Fire and Police Pension Fund	1998	1,705	\$241 million
City of Atlanta General Employees' Pension Fund Employees of the Atlanta Board of Education	1994	2,734	\$230 million
City of Jacksonville Corrections Officers Retirement Plan	2010	926	\$220 million
Judicial Retirement System of Nevada	1976	225	\$210 million
Fulton-DeKalb Hospital Authority Employees' Retirement Plan	2012	6,093	\$197 million
City of Salem Retirement System	2009	1,750	\$178 million
City of Bridgeport Public Safety Plan A	prior to 2000	573	\$169 million
Employees Retirement Plan of the Town of Hamden	prior to 1992	1,104	\$167 million
Town of Wellesley Contributory Retirement System	prior to 2005	1,316	\$164 million
Retirement Plan for Employees of The Water Works and Sewer Board of the City of Birmingham	2008	972	\$163 million
Dedham Contributory Retirement System	2019	927	\$157 million
Town of Andover Retirement System	1998	1,317	\$144 million
Town of Natick Contributory Retirement System	2002	1,179	\$128 million
Chicago Housing Authority Employees' Retirement Plan	2013	1,185	\$121 million
City of Falls Church Basic Retirement Plan	2019	644	\$121 million
Boston Water and Sewer Commission	2006	722	\$114 million
Town of Belmont Retirement System	2013	1,075	\$109 million
Board of Education Employees' Pension Fund of Essex County	prior to 2005	547	\$108 million
City of Gloucester Retirement System	2012	1,105	\$107 million
City of Gainesville Retirement Plan A	2007	862	\$106 million
City of Vero Beach General Employee Retirement Plan	1998	724	\$96 million
Retirement Plan of Hampton Roads Transportation District Commission	prior to 2005	962	\$88 million
City of Bridgeport Plan B (Police)	prior to 2000	135	\$83 million
Pension Plan for General Employees of the Town of North Haven	prior to 1995	340	\$70 million
Swampscott Retirement System	2019	632	\$67 million

Client	Initial Contract Year	Total Membership	Asset Size
Town of Portsmouth, Rhode Island	2014	317	\$53 million
City of Bridgeport Plan B (Fire)	prior to 2000	74	\$44 million
City of Falls Church Police Retirement Plan	2019	81	\$40 million
City of Birmingham Firemen's and Policemen's Supplemental Pension System	prior to 1990	1,791	\$35 million
Town of North Haven Police Department Pension Plan	prior to 1995	107	\$27 million
Town of Johnston, Rhode Island Firefighters Pension System	2001	112	\$24 million
Town of Johnston, Rhode Island Police Pension System	2001	152	\$22 million
Town of North Haven Fire Department Pension Plan	prior to 1995	66	\$19 million
Town of Wolcott Board of Education	Prior to 2010	184	\$18 million
City of Birmingham Retirement and Relief System Health Department Employees	prior to 1990	44	\$16 million
Retirement Plan for Policemen of the Town of Wolcott	prior to 1995	44	\$15 million
Town of Westbrook Retirement Plan	prior to 1995	197	\$14 million
Retirement Plan for Employees of the Town of Wolcott	prior to 1995	105	\$11 million
Retirement Plan of NJ Transit Bus Operations, Inc. for Utility Workers' Union of America, Local 601 Employees	prior to 2005	38	\$7 million
Legislators' Retirement System of the State of Nevada	1976	141	\$5.4 million
University System of New Hampshire Additional Retirement Contribution Plan	2015	358	\$2.3 million
Town of Westbrook Volunteer Fire Plan	Prior to 1995	69	\$2 million
Fort Worth Police Benevolent Association	2016	1,707	\$1.6 million
Town of North Haven Volunteer Fire Plan	prior to 1995	76	\$1 million
City of Birmingham Unclassified Employees' Pension & Relief System	prior to 1990	10	\$0.7 million
Watauga County Law Enforcement Officers' Special Separation Allowance Plan	2017	45	\$0.6 million
Town of Westbrook Constables Plan	2006	11	\$0.3 million
Town of Bethany Volunteer Fire	2016	49	\$0.2 million
City of Bridgeport's Janitors' and Engineers' Retirement Fund	prior to 2005	15	\$0.0 million
Town of North Haven Elected Officials	Prior to 1995	5	\$0.0 million

Segal's experience studies

The vast majority of our consulting services agreements for public sector plans include an experience analysis on a periodic basis – usually every four to five years. The systems range in size from several million dollars to over \$50 billion. The number of tiers and plans depend upon the retirement system. The following table is a sample of our recent experience studies:

Representative List of Segal's Experience Studies Clients

System	Number of Participants	Number of Plans or Tiers	Date of Experience Study
Alameda County Employees' Retirement Association	24,642	9 tiers	2024
Chicago Housing Authority Employees' Retirement Plan	1,000	1 plan	2016
City of Atlanta General Employees' Pension Fund	7,600	3 tiers	2017
City of Atlanta General Employees' Pension Fund Employees of the Atlanta Board of Education	2,734	1 tier	2017
City of Birmingham Retirement and Relief System	7,200	1 tier	2016
City of Chattanooga Fire and Police Pension Fund	1,700	2 tiers	2020
City of Falls Church Basic Pension Plan	639	2 tiers	2021
City of Falls Church Police Pension Plan	75	1 tier	2021
City of Fresno Employees Retirement System	4,718	1 tier	2022
City of Fresno Fire and Police Retirement System	2,328	2 tiers	2022
City of Gainesville Retirement Plan A	800	2 tiers	2017
City of Jacksonville Corrections Officers Retirement Plan	1,000	1 tier	2019
City of Jacksonville General Employees Retirement Plan	10,000	1 tier	2019
City of Orlando Police Officers' Pension Fund	1,400	1 tier	2020
City of Providence	6,658	1 plan	2016
City of Savannah Employees' Retirement Plan	4,200	1 tier	2020
Colorado Public Employees' Retirement Association	631,105	5 divisions	2020
Contra Costa County Employees' Retirement Association	23,450	9 tiers	2022
Dallas Police and Fire Pension System	11,000	2 tiers	2020
DeKalb County Pension Plan	11,000	3 tiers	2018
East Bay Municipal Utility District Retirement System	4,120	3 tiers	2024
Fairfax County Water Authority Retirement Plan	857	6 tiers	2021
Fire and Police Pension Fund, San Antonio	6,400	1 tier	2019
Firemen's Annuity and Benefit Fund of Chicago	10,000	1 plan	2022
Fresno County Employees' Retirement Association	19,950	9 tiers	2022

System	Number of Participants	Number of Plans or Tiers	Date of Experience Study
Fulton County Employees Retirement System	3,600	1 tier	2017
Fulton-DeKalb Hospital Authority Employees' Retirement Plan	6,200	1 tier	2017
Georgia Municipal Employees' Retirement System	40,000	280 plans, 300 plan design options	2019
Government Employees' Retirement System of the Virgin Islands	18,000	2 tiers, 4 plan groups	2016
Illinois Teachers' Retirement System	414,430	2 tiers	2018
Illinois Teachers' Retirement System	429,137	2 tiers	2021
Imperial County Employees' Retirement System	4,098	2 tiers	2023
Kern County Employees' Retirement Association	22,106	7 tiers	2023
Los Angeles Employees' Retirement System	57,120	6 tiers	2023
Los Angeles Fire and Police	27,352	6 tiers	2023
Memphis Light, Gas and Water Division Retirement and Pension System	5,300	2 tiers	2019
Mendocino County Employees' Retirement Association	3,273	10 tiers	2023
Milwaukee County Employees' Retirement System	18,000	2 plans	2022
Municipal Employees' Annuity and Benefit Fund of Chicago	74,000	3 tiers	2018
Nevada Public Employees' Retirement System	201,954	3 tiers, 4 plan groups	2021
North Dakota Teachers' Fund for Retirement	20,000	3 tiers, 1 plan	2020
Orange County Employees' Retirement system	47,796	9 tiers	2023
Park Employees' Annuity and Benefit Fund of Chicago	7,000	2 tiers, 1 plan	2018
Park Employees' Annuity and Benefit Fund of Chicago	6,000	2 tiers, 1 plan	2013
Retirement Plan for Employees of The Water Works and Sewer Board of the City of Birmingham	900	2 tiers	2019
Sacramento County Employees' Retirement System	29,173	9 tiers	2023
San Bernardino County Employees' Retirement Association	45,342	4 tiers	2023
San Diego County Employees' Retirement Association	47,217	9 tiers	2022
Sonoma County Employees' Retirement Association	10,882	2 tiers	2024
The Water and Power Employees' Retirement Plan of the City of Los Angeles	21,911	2 tiers	2022

System	Number of Participants	Number of Plans or Tiers	Date of Experience Study
Town of Johnston, Rhode Island Fire and Police Pension Systems	170	1 tier	2017
University of California Retirement Plan	314,854	6 tiers	2023
University of Missouri Retirement, Disability and Death Benefit Plan	34,234	2 tiers	2017
Ventura County Employees' Retirement Association	19,383	6 tiers	2024
Vermont Retirement System	50,000	3 plans, multiple tiers	2020

Pricing

A copy of the Consultant's hourly rate schedule for all personnel, and project costs anticipated to be involved in the project, and a stated that said hourly rate schedule is part of the Consultant's Proposal for use in invoicing for progress payments and for extra work incurred that is not part of this RFQ. All extra work will require prior approval from the City. For sub-consultants, please list any anticipated costs for those services.

Project costs

A. Annual actuarial valuation

\$40,000 Fixed Fee

B. Experience studies and assumptions

\$20-\$40k estimated depending on scope, can be at hourly rates, a Not to Exceed or Fixed Fee depending on BERS needs.

C. GASB reporting and financial statement support

\$12,500 Fixed Fee

D. Special studies and projections

At hourly rates or can scope a project with a Not to Exceed or Fixed Fee, depending on BERS needs.

E. Board support and consultation

Attendance at regular meetings of the BERS Board to present results and answer questions, along with providing fiduciary education to Board members on actuarial concepts is included in our annual fixed fee referenced in item A above.

Analysis on specific items (pension obligation bonds, benefit adjustments, funding policy alternatives will either be charged at our hourly rates or we can scope out the project with a Not to Exceed or Fixed Fee, depending on BERS needs.

F. Defined benefit administration services

\$600 for each fully prepared benefit estimate for members upon request from the Plan Administrator

\$400 for each review of benefit calculations prepared by the City staff

QDRO reviews will charged at our hourly rates

All other items in this section are included in our annual fixed fee referenced in item A above.

In summary, we would propose a \$52,500 annual retainer that includes the required annual valuation, GASB reporting and financial statements. We would work with BERS on any additional needs outside of that annual retainer.

Hourly rates

Fees for work outside of the retainer may be based on our standard hourly time charge rates, which are shown below. We are happy to work with BERS to quote fixed fees or Not to Exceed for any special project work.

Year	Hourly Rate
Year 1	\$250-\$450
Year 2	\$260-\$460
Year 3	\$270-\$470
Year 4	\$280-\$480
Year 5	\$290-\$490
Year 6	\$300-\$500

Additional expenses which may be incurred for special project work will be included in the fee estimate. Services provided by outside vendors (e.g., design services for communication pieces) will, to the extent practicable, be billed directly to the Plan by the vendor.

Subconsultants

A list of any subconsultants the consultant plans to use. If a contract is awarded, it is assumed that any work not performed by a subconsultant on the submitted list will be performed directly by the consultant, and the consultant will not be allowed to substitute subconsultants without City permission upon showing of good cause for the substitution.

Segal can and will perform all requested services as outlined within the Scope of Work without the use of subcontractors. Our firm employs health and retirement actuaries, pharmacists, doctors, nurses, former insurance company underwriters, analysts, statisticians, communication and graphic designers, compliance attorneys and data analytics professionals, among others.

If we are selected for this contract and we identify a specialized task that is best carried out by firms specializing in that particular discipline in the local marketplace, we will engage a specialty professional small/minority and/or woman owned subcontractor to fulfill the need.

Any use of a subcontractor by Segal will be subject to Segal's subcontractor vetting process and prior approval by the BERS Board and will also be consistent with your desired objectives.

Additional Services

If the consultant identifies any additional scope of work items not listed in this RFQ that may be of benefit to the project, they can include those in the proposal as “Possible Additional Services”.

We produce a wide array of public sector plan-specific [publications](#), ranging from data analysis to frequent compliance and regulation alerts, to ensure our clients are informed and prepared, including:

[Compliance News](#), newsletters which summarize important developments affecting plan compliance, published on our website and distributed via email via timely alerts

[Consulting insights, surveys and studies](#) of interest to sponsors of public sector plans

Keeping you informed

The BERS Board will benefit from the support of Segal’s National compliance practice. We have assigned **Melanie Walker, JD**, to your consulting team. Melanie has hands-on experience with daily issues facing BERS Board staff and the types of legislative and statutory terms under which you operate.

Using our extensive experience, we will provide advice to help the BERS Board plans remain in compliance with applicable laws. We provide both comprehensive and annual compliance reviews of plan documents and operations for federal legislative and regulatory requirements, specific advice and recommendations for plan changes required to maintain compliance, and we assist administrators and legal counsel in developing plan amendments. We frequently answer questions and provide information regarding the interpretation of federal and state laws and regulations in administering plan provisions, as such apply in specific circumstances.

Segal has worked with our clients on defining and documenting administrative practices for different functional areas; mapping and reviewing core business processes and procedures; comparing actual processes to documented policies, procedures, governing rules and regulations, and industry best practices; developing administrative software requirements; and improving various operational, administrative and technological capabilities.

You will be kept informed regarding pertinent federal, legal and regulatory developments affecting the BERS Board plans. Melanie and our national compliance team monitor the release of relevant government materials and have prompt access to all official documents, such as proposed and final regulations, Revenue Rulings and bills introduced or acted on in Congress.

Segal remains very active in producing multimedia material that contributes to a wider sphere of industry knowledge while keeping our clients specifically informed of key retirement compliance news. Given the fluctuating nature of our current national retirement landscape, we maintain a close watch on the changing trends across government policies and rulings. Our goal is to cultivate an important relationship between our research expertise and consulting practices in order to provide timely information for our clients.



Our firm also conducts seminars, webinars and forum groups for our clients to discuss current topics of interest including new legal and regulatory requirements that may impact the client's benefits programs. These sessions are held both in assembled groups and as [webinars](#). The presentations and supporting materials are available on our website, segalco.com, as an educational resource.

There are no additional fees for these resources.

Exhibits

Signed Livable Wage, Outsourcing and Union Deterrence Certifications with the Proposals, Exhibits D-F.

Certification of Agreement to Comply with the City of Burlington's Livable Wage Ordinance

I, Tim Reynolds, CEBS, on behalf of The Segal Company (Eastern States), Inc. d/b/a Segal ("the Contractor"), in connection with a contract for Actuarial Services

services to be provided to the City of Burlington ("the City"), hereby certify, under oath, that the Contractor (and any of its subcontractors or subgrantees under this contract) shall comply with the City's Livable Wage Ordinance ("LWO"), B.C.O. 21-80 et seq., and that:

- (1) The Contractor shall pay all "covered employees" as defined by the LWO (including covered employees of subcontractors or subgrantees) a livable wage (as determined, or adjusted, annually by the City's chief administrative officer), and shall provide required paid time off for the term of the contract (*or the duration of the contracted project*);
 - (a) Employees are entitled to 12 days of paid time off per year, which may be prorated subject to B.C.O. Sec. 21-82(c); and
 - (b) For a covered employer that provides employer assisted health care, the livable wage shall be at least \$19.90 per hour; and
 - (d) For a covered employer that does not provide employer assisted health care, the livable wage shall be at least \$22.11 per hour.
- (2) The Contractor shall post a notice regarding the applicability of the LWO in the workplace or in other locations where covered employees normally work, and where such notice can be readily seen;
- (3) Upon request of the City's chief administrative officer, the Contractor, for itself and, as applicable, for any of its subcontractors or subgrantees, shall provide payroll records, health insurance enrollment records, and other relevant documentation, as deemed necessary by the chief administrative officer, within ten (10) business days from receipt of the City's request;
- (4) The Contractor shall cooperate in any investigation conducted pursuant to the LWO by the City's designated accountability monitors or the City's Office of City Attorney & Corporate Counsel;
- (5) The Contractor shall not retaliate, nor allow any of its subcontractors or subgrantees to retaliate, against an employee or other person because such employee or person has exercised rights or is planning to exercise rights protected under the LWO, or has cooperated in an investigation conducted pursuant to the LWO;
- (6) The Contractor is required to insert in all subcontracts the requirements of the LWO. The Contractor is liable for violations of the LWO committed by its covered subcontractors.

By signing below, I certify under the pains and penalties of perjury that I have personal knowledge of the foregoing or have made a reasonable inquiry therein, and that to the best of my knowledge and belief, the foregoing is true and correct. (See 13 V.S.A. 2904(b).)

Date: 10/17/2025

By: 
Contractor, or its duly authorized agent

IMPORTANT NOTE: Effective January 1, 2025, for covered employees not under a labor agreement and not working under an agreement subject to Davis-Bacon Act compliance for highway or heavy construction, if the contract or grant amount, inclusive of amendments, is \$50,000 or greater, the vendor is required to certify payroll with each invoice. An acceptable form of certification is attached. Backup documentation may be requested in connection with random compliance audits. Certification of subcontractor or subconsultant payroll is required only upon request.

ATTACHMENT E

Certification of Compliance with the City of Burlington's Outsourcing Ordinance

I, Tim Reynolds, on behalf of The Segal Company (Eastern States), Inc. d/b/a Segal

(Contractor) and in connection with the

Actuarial Services Contract[project],

hereby certify under oath that (1) Contractor shall comply with the City of Burlington's Outsourcing Ordinance (Ordinance §§ 21-90 – 21-93); (2) as a condition of entering into this contract or grant, Contractor confirms that the services provided under the above-referenced contract will be performed in the United States or Canada.

Dated at Waterbury, Vermont this 17 day of October, 2025.


By: 

Duly Authorized Agent

Certification of Compliance with the City of Burlington's
Union Deterrence Ordinance

I, Tim Reynolds, on behalf of The Segal Company (Eastern States), Inc. d/b/a Segal (Contractor) and in connection with Actuarial Services Contract (City contract/project/grant), hereby certify under oath that Segal (Contractor) has not advised the conduct of any illegal activity, and it does not currently, nor will it over the life of the contract advertise or provide union deterrence services in violation of the City's union deterrence ordinance.

Dated at Waterbury, Vermont this 17 day of October, 2025.

By: 
Duly Authorized Agent

Exceptions

If the consultant objects to provisions of the City's standard contract (Exhibit C and C-1), identify those objections in the response.

Exceptions to City of Burlington Employees' Retirement System Request for Qualifications (RFQ)

Attachment C Burlington Standard Contract Conditions for Consultants

5. PLANS, RECORDS, AND AVAILABLE DATA: The City agrees to make available, at no charge, for the Consultant's use all available data related to the Contract including any preliminary plans, maps, drawings, photographs, reports, traffic data, calculations, EDM, valuable papers, topographic survey, utility location plats, or any other pertinent public records. [Consultant will have the right to reasonably rely on the accuracy and completeness of City Information and will have no responsibility for independently verifying or checking City Information for accuracy or completeness. City will notify Consultant promptly upon gaining knowledge of any material change to City Information. City acknowledges and agrees that Consultant shall have no liability for errors resulting from latent defects in city Information or City's failure to notify Consultant of changes to City Information.](#)

11. INSPECTION OF WORK: The City shall, at all times, have access to the Consultant's work for the purposes of inspection, accounting, and auditing, and the Consultant shall provide whatever access is considered necessary to accomplish such inspections, [upon reasonable notice and during normal business hours](#). At any time, [upon reasonable notice and during normal business hours](#), the Consultant shall permit the City or representative for the City the opportunity to inspect any plans, drawings, estimates, specifications, or other materials prepared or undertaken by the Consultant pursuant to the Contract, as well as any preparatory work, work-in-progress, or completed work at a field site, where applicable. Conferences, visits to a site, or an inspection of the work, may be held at the request of any involved party or by representatives of the City.

25. RETURN OF MATERIALS: Consultant agrees that at the expiration or termination of this Contract, it shall return to City all materials provided to it during its engagement on behalf of City. [Notwithstanding the foregoing, Consultant may retain copies of all materials for archival purposes related to memorializing the Services and complying with its then-existing document retention and business continuity programs. Consultant will maintain all materials in accordance with its obligations under this Agreement until all copies are destroyed in accordance with Consultant's document retention policy.](#)

27. OWNERSHIP OF THE WORK: ~~The Consultant agrees that the ownership of all studies, data sheets, survey notes, subsoil information, drawings, tracings, estimates, specifications, proposals, diagrams, calculations, EDM and other material prepared or collected by the Consultant, hereafter referred to as "instruments of professional service", shall become the~~

property of the City as they are prepared and/or developed during execution of the Contract. The Consultant agrees to allow the City access to all "instruments of professional service" at any time. The Consultant shall not copyright any material originating under the Contract without prior written approval of the City. No publications or publicity of the work, in part or in total, shall be made without the express written agreement of the City, except that Consultant may in general terms use previously developed instruments of professional service to describe its abilities for a project in promotional materials. **OWNERSHIP OF DELIVERABLES:** City acknowledges that, in providing the Services, Consultant will distribute or make available certain propriety materials ("Consultant's Propriety Information"), including, but not limited to, publications, software, know-how, techniques, methodologies and report formats. Except to the extent that they are or incorporate Consultant's Propriety Information, all documents, data, and other tangible materials authored or prepared and delivered by Consultant to City under the terms of this Agreement (collectively, the "Deliverables"), are the sole and exclusive property of City, once paid for by City. To the extent that Consultant's Propriety Information is incorporated into such Deliverables, City will have a perpetual, fully paid, non-exclusive, non-transferable and non-sub-licensable right to use, copy, and modify Consultant's Propriety Information as part of the Deliverables internally and for their intended purpose. Consultant will not have any responsibility or liability for use of any Deliverable in any manner other than for the intended purpose.

Formatted: Font: Bold

39. ASSIGNMENT: Consultant shall not sublet or assign this Work, or any part of it, without the written consent of the City. Notwithstanding the foregoing, Contractor may assign its rights or delegate performance to one of its affiliates that is wholly-owned by the same parent company and operating under the same trade name; provided that there is no change in primary personnel performing services or to the Consultant's ownership structure. If any subconsultant is approved, Consultant shall be responsible and liable for all acts or omissions of that subconsultant for any Work performed. If any subconsultant is approved, Consultant shall be responsible to ensure that the subconsultant is paid as agreed and that no lien is placed on any City property.

43. ARM'S LENGTH: This Contract has been negotiated at arm's length, and any ambiguity in any of its terms or provisions shall be interpreted in accordance with the intent of the Parties and not against or in favor of either the City or Consultant.

Attachment C-1 Insurance and Indemnification

INSURANCE: Prior to beginning any work, the Contractor shall obtain the following insurance coverage from an insurance company registered and licensed to do business in the State of Vermont and having an A.M. Best insurance rating of at least A-, financial size category VII or greater (www.ambest.com). The certificate of insurance coverage shall be documented on forms acceptable to the City. Compliance with minimum limits and coverage, evidenced by a certificate of insurance showing policies and carriers that are acceptable to the City, must be received prior to the Effective Date upon execution of the Contract. If this Contract extends to more than one year, evidence of continuing coverage must be submitted to the City on an annual basis. Copies of any insurance policies may be required.

The Contractor is responsible to verify and confirm in writing to the City that: (i) all subcontractors must comply with the same insurance requirements as the Contractor; (ii) all work activities related to the Contract shall meet minimum coverage and limits; and (iii) all coverage shall include adequate protection for activities involving hazardous materials.

No warranty is made that the coverage and limits listed herein are adequate to cover and protect the interests of the Contractor for the Contractor's operations. These are solely minimums that have been developed and must be met to protect the interests of the City.

A. Commercial General Liability: With respect to all operations performed by the Contractor, subcontractors, agents or workers, it is the Contractor's responsibility to ensure that commercial general liability insurance coverage, covering bodily injury and property damage, on an occurrence form, provides all major divisions of coverage including, but not limited to:

1. Premises Operations
2. Independent Contractors' Protective
3. Products and Completed Operations
4. Personal Injury Liability
5. Medical Expenses

Coverage limits shall not be less than:

1. General Aggregate \$2,000,000
2. Products-Completed/Operations ~~\$2,000,000~~ included in general aggregate
3. Personal & Advertising Injury \$1,000,000
4. Each Occurrence \$1,000,000
5. Damage to Rented Premises \$ 250,000
6. Med. Expense (Any one person) \$ 5,000

B. Workers' Compensation/Employer Liability: With respect to all operations performed, the Contractor shall carry workers' compensation insurance in accordance with the laws of the State of Vermont and ensure that all subcontractors carry the same workers' compensation insurance for all work performed by them under this contract. Minimum limits for Employer's Liability:

1. Bodily Injury by Accident: \$500,000 each accident
2. Bodily Injury by Disease: \$500,000 policy limit, \$500,000 each employee

For contracts involving work of any kind or nature on Lake Champlain, Workers' Compensation/Employer's Liability policy shall include a Maritime Endorsement (USL&H).

C. Automobile Liability: The Contractor shall carry commercial automobile liability insurance covering all motor vehicles, including ~~owned~~, non-owned and hired, used in connection with the Contract. Each policy shall provide coverage with a limit not less than: \$1,000,000 - Combined Single Limit for each occurrence.

D. Professional Liability/Errors & Omissions:

1. General: The Contractor shall carry appropriate professional liability insurance covering errors and omissions made during their performance of contractual duties with the following minimum limits:

- (a) \$2,000,000 - Annual Aggregate/Policy Limit
- (b) \$1,000,000 - Per Claim/Occurrence

2. Deductibles: The Contractor is responsible for any and all deductibles.

3. Coverage: The Contractor shall maintain continuous professional liability coverage for the period of the Contract and for a period of ~~five~~ three years following substantial completion of construction.

E. [Special Coverages, if applicable to the services being provided under this contract]

- a. Cyber liability, including privacy liability: \$1,000,000
- b. Technology Errors & Omissions Liability: \$1,000,000
- c. Builders' Risk or Installation Floater: Value of project or contract
- d. Garagekeeper's Liability - \$500,000 (minimum)
- e. Sexual Misconduct - \$1,000,000
- f. Employee Dishonesty Coverage, including third party (client) coverage
- g. Marine (protection and indemnity) liability - \$1,000,000
- h. Pollution Liability (Contractor's) – Included or \$1,000,000
- i. Valuable Papers & Records Insurance: The Contractor shall carry valuable papers insurance in a form and amount sufficient to ensure the restoration or replacement of any plans, drawings, field notes, or other information or data relating to the work, whether supplied by the City or developed by the Contractor, sub-contractor, worker, or agent, in the event of loss, impairment, or destruction. Such coverage shall remain in force until the final plans as well as all related materials have been delivered by the Contractor to, and accepted by, the City. Unless otherwise provided, Valuable Papers and Records Insurance shall provide coverage on an "individual occurrence" basis with limits in the amount of one hundred and fifty thousand dollars (\$150,000) when the insured items are in the Contractor's possession, and in the amount of forty thousand dollars (\$40,000) regardless of the physical location of the insured items.

F. Umbrella/Excess Liability:

1. \$ __,000,000 Each Event Limit
2. \$ __,000,000 General Aggregate Limit
3. Umbrella/Excess Liability is excess above Commercial General Liability, Automobile Liability, and Workers' Compensation/Employer Liability.

All policies shall be endorsed to Contractor shall provide the City thirty (30) days' notice of cancellation. Each policy (except workers compensation/employers' liability and errors & omissions/professional liability) shall be endorsed to name the City and its officers, employees, agents, successors, and assigns as additional insureds on a primary, non-contributory basis. Each policy (except errors & omissions/professional liability) shall be endorsed to waive subrogation against the City.

INDEMNIFICATION:

To the fullest extent allowed by law, the Contractor shall indemnify, defend, and hold harmless the City and its officers and employees from liability and claims, suits, fines, penalties, expenses (including reasonable attorneys' fees and costs), losses, liens, judgments, and damages of any kind or nature whatsoever (collectively, "Claims") arising as a result of the Contractor's acts and/or omissions to the extent resulting from negligence, willful misconduct or fraud by the Contractor in the performance this Contract.

Notwithstanding the foregoing, with respect to Professional Negligence (defined below), (i) the

Contractor shall not have a defense duty to the City or its officers and employees; and (ii) the Contractor's duty to indemnify and hold harmless the City and its officers and employees shall be limited to the extent of the Contractor's actual fault; provided, however, that the Contractor's indemnification obligation with respect to Professional Negligence shall include the obligation to reimburse defense costs in the event and to the extent such costs are incurred and paid by the City as the proximate cause of said Professional Negligence.

| Appendix 1: Segal Team Resumes

Tim Reynolds, CEBS
*Vice President and Benefits Consultant,
Hartford*

Project Role: Client Relationship Manager & Main Contact



Expertise

Tim is a Vice President and Benefits Consultant for Segal's East Region. He is affiliated with Segal's Hartford office. He has more than 10 years of experience in employee benefits and healthcare delivery.

Professional background

Prior to joining Segal, Tim was a Regional Vice President for Client and Care Team Experience at Marathon Health, a leading provider in employer sponsored healthcare services. He was responsible for healthcare delivery operations, client success and relationship management for 25+ organizations, including professional service firms, manufacturing companies, public sector plans and multiemployer plans.

Previously, he worked for AllEarth Renewables, Utility Risk Management Corporation and Craftsbury Outdoor Center.

Education/professional designations

Tim graduated from Middlebury College (Middlebury, VT) *cum laude* with a BA in Geography and Chinese. He earned the Certified Employee Benefits Specialist (CEBS) designation from the International Foundation of Employee Benefit Plans and the Wharton School of the University of Pennsylvania.

Tim Reynolds, CEBS
TReynolds@segalco.com
segalco.com

Henry P. Nearing, MAAA, EA
*Vice President and Actuarial Manager,
Hartford*

Project Role: Lead Pension Actuary



Expertise

Henry is a Vice President and the Actuarial Manager in Segal's Hartford office with over 25 years of retirement consulting experience working with both corporate and public sector clients. As a consulting actuary, he provides actuarial services to various clients that cover a broad range of sizes and funded levels. Henry's expertise includes reviewing and consulting on actuarial valuations, including annual minimum funding calculations under ERISA and Actuarially Determined Contributions (ADC), along with annual accounting calculations under FASB, GASB and IAS19. In addition to helping clients investigate the merits and impact of changes to pension plan design and pension funding strategy, Henry performs analysis and provides advice regarding Pension Risk Transfers (annuity purchases and lump sum windows), plan terminations and nonqualified DB/DC pension plans. Additional client-facing responsibilities include assisting with union negotiations, plan administration and regulatory compliance.

Education/professional designations

Henry received a BS in Mathematics from the State University of New York at Albany. He is a member of the American Academy of Actuaries, an Enrolled Actuary and has served on multiple internal actuarial and technical committees.

Publications/speeches

Henry has been a speaker at the company's annual Technical Actuarial Meeting and has designed and conducted several educational training sessions for various client needs.

Henry P. Nearing, MAAA, EA
hnearing@segalco.com
860.678.3036
segalco.com

Derek A. Moulton

Senior Consultant, Hartford

Project Role: Technical Reviewer



Expertise

Derek is a Senior Consultant in Segal's Hartford office. He has over 30 years of actuarial consulting experience working with both corporate and public sector clients. Derek reviews actuarial valuations (including annual minimum funding calculations), annual expense and disclosure calculations, and benefit calculations. He also has experience with non-discrimination testing, retiree health valuations, non-qualified pension plans and International Accounting Standards.

Professional background

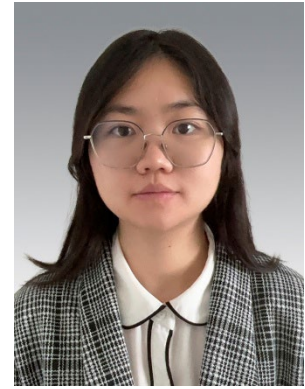
Prior to joining Segal, Derek worked as a Senior Actuarial Analyst with another national consulting firm.

Education/professional designations

Derek received a BS in Applied Actuarial Mathematics from Bryant University (Smithfield, RI). He received Segal's Quality Star Award for 2023, recognizing colleagues who perform work of the highest quality and provide stellar client service.

Derek A. Moulton
dmoulton@segalco.com
860.678.3044
segalco.com

Xiaofeng “Josie” Huang
Senior Actuarial Associate, Boston
Project Role: Analyst



Expertise

Josie is a Senior Actuarial Associate in the Retirement practice in Segal’s Boston office. She supports actuarial valuations, funding projections, benefit calculations and regulatory filings for multiemployer and public sector clients. Josie contributes to modeling and analysis that inform strategic decisions and ensure compliance with industry standards.

Education/professional designations

Josie received a BA in Actuarial Science from Baruch College (NY, NY). She is currently pursuing an Associate designation from the Society of Actuaries..

Xiaofeng (Josie) Huang
jxhuang@segalco.com
617,424,7367
segalco.com

Melanie Walker, JD
*Senior Vice President, National Compliance
Practice, Denver*

Project Role: Compliance Consultant



Expertise

Melanie is a Senior Vice President in Segal's National Compliance Practice, based in the firm's Denver office. She has provided ongoing and special project compliance services for employee benefit plans for 20 years. Her primary area of expertise is with public sector retirement plans, and she serves as a national resource for Segal in this area. Melanie's specialized expertise includes:

- Performing comprehensive compliance reviews for public sector defined benefit and defined contribution plans
- Analyzing, drafting and reviewing governing plan documents such as state/local statutes, administrative rules and policy manuals
- Researching and analyzing statutory, regulatory and agency guidance on tax rules and employee benefit laws
- Providing advice and training on fiduciary rules and plan governance structure
- Consulting with public entities on retiree health plan design and funding options
- Assisting public plans with administrative and operational issues relating to plan design and plan reform

Professional background

Prior to joining Segal, Melanie worked in employment law at a firm in Denver.

Education/professional designations

Melanie received a BA in Political Science and International Affairs with an area of concentration in the former Soviet Union at the University of Colorado at Boulder and a JD from the University of Colorado School of Law. She is a licensed attorney in the State of Colorado.

Melanie is an active member of the National Association of Public Pension Attorneys (NAPPA), where she serves on the Tax & Benefits Committee. She is also a member of the National Association of Government Defined Contribution Administrators (NAGDCA) where she currently serves on the legislative committee.

Publications/speeches

Melanie frequently authors publications for distribution to Segal's public sector clients and has written articles for the NAPPA and NAGDCA newsletters. She is also a frequent speaker on public sector benefits issues, including teaching a course on the fundamentals of employee benefit plans for the International Foundation of Employee Benefit Plans and providing regulatory updates at NAGDCA conferences.

Melanie Walker, JD
mwalker@segalco.com
303.714.9942
segalco.com

| Appendix 2: Sample Reports

Sample Town Pension Plan

Actuarial Valuation and Review as of July 1, 2023

SAMPLE

This report has been prepared at the request of the Retirement Board to assist in administering the Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Retirement Board and may only be provided to other parties in its entirety, unless expressly authorized by Segal. The measurements shown in this actuarial valuation may not be applicable for other purposes.

© 2024 by The Segal Group, Inc.

Segal

March 6, 2024

Mr. John Doe
Sample Town Pension Plan
123 Apple Street
Sample Town, CT 06000

Dear John:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2023. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year ending June 30, 2024.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board of Trustees to assist in administering the Sample Town Pension Plan. The census information and financial information on which our calculations were based was prepared by the staff of the Plan. That assistance is gratefully acknowledged.

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or 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.

The actuarial calculations were directed under the supervision of Henry P. Nearing, FCA, MAA, EA. He is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Pension Board based upon our analysis and recommendations. In our opinion,

Mr. John Doe
March 6, 2024
Page 3

the assumptions are reasonable and take into account the experience of the Plan and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal

Sara Monde
Senior Consultant

Henry P. Nearing, FCA, MAAA, EA
Vice President and Consulting Actuary

SAMPLE

Table of Contents

Section 1: Actuarial Valuation Summary

Purpose and basis	3
Valuation highlights.....	4
Changes from prior valuation	5
Risk	5
GASB	6
Summary of key valuation results	7
Important information about actuarial valuations.....	9

Section 2: Actuarial Valuation Results

Participant information	11
Financial information.....	16
Actuarial experience	20
Actuarially determined contribution	25
Schedule of funding progress through June 30, 2023	27
Low-Default-Risk Obligation Measure (LDRM).....	29
Risk	30

Section 3: Supplemental Information

Exhibit A: Table of plan demographics.....	33
Exhibit B: Participants in active service as of June 30, 2023.....	34
Exhibit C: Reconciliation of participant data	35
Exhibit D: Summary statement of income and expenses on a market value basis	36
Exhibit E: Development of the fund through June 30, 2023.....	37

Table of Contents

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models 38

Exhibit 2: Summary of plan provisions 43

Appendix A: Definition of Pension Terms 45

SAMPLE

Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the Sample Town Pension Plan as of July 1, 2023. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Town;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of July 1, 2023, provided by the Town;
- The assets of the Plan as of June 30, 2023, provided by the Town;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions including employee terminations, retirement, death, and
- The funding policy adopted by the Town.

Certain disclosure information required by GASB Statements No. 67 and 68 as of July 1, 2023 for the Plan is provided in a separate report.

Section 1: Actuarial Valuation Summary

Valuation highlights

1. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. The funding policy adopted by the Town does not meet this standard.
2. Actual contributions made during the year ending June 30, 2024 of \$ 21,464,439 were 100% of the actuarially determined contribution (ADC). In the prior year, actual contributions were 100% of the prior year ADC.
3. The actuarial loss of \$10,332,722, or 1.96% of actuarial accrued liability, is due to an investment loss of \$7,673,949, or 1.45% of actuarial accrued liability, and a loss from sources other than investments of \$2,658,773, or .51% of the actuarial accrued liability prior to reflection of assumption changes. This non-investment loss was primarily due to more than expected new retirees and a newly collecting alternate payee.
4. The rate of return on the market value of assets was 8.65% for the year ending June 30, 2023. The return on the actuarial value of assets was 3.95% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 7.20%. Given the low fixed income interest rate environment, target asset allocation and expectations of future investment returns for various asset classes, we advise the Board to continue to monitor actual and anticipated investment returns relative to the assumed long-term rate of return on investments of 7.15%.
5. The actuarial value of assets is 105.10% of the market value of assets. The investment experience in the past years has only been partially recognized in the actuarial value of assets. As the deferred net loss is recognized in future years, the cost of the Plan is likely to increase unless the net loss is offset by future experience. The recognition of the market gains/losses of \$11,678,556 will also have an impact on the future funded ratio. If the net deferred losses were recognized immediately in the actuarial value of assets, the ADC would increase from 75.2% to about 76.3% of projected pay.
6. The following actuarial assumptions were changed with this valuation:
 - a. The net investment return assumption was lowered from 7.20% to 7.15%.
 - b. Mortality for males was projected an additional year using Scale BB.

As a result of these plan changes, the normal cost increased by \$23,800 and the actuarial accrued liability increased by \$4,059,321. The total impact was an increase in the ADC of \$236,329.

Section 1: Actuarial Valuation Summary

Changes from prior valuation

7. The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 45.27%, compared to the prior year funded ratio of 46.61%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio is 43.08%, compared to 42.55% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of the plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.
8. The ADC for the upcoming year is \$24,525,699, an increase of \$1,624,171 from last year. The contribution as a percentage of projected pay increased from 71.76% of projected pay to 75.17% of projected pay.
9. The unfunded actuarial accrued liability is \$290,890,791, which is an increase of \$15,292,284 since the prior valuation.

Risk

10. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2023. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2023 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
11. Since the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition, but have included a brief discussion of some risks that may affect the Plan in *Section 2*. A more detailed assessment would provide the Board with a better understanding of the inherent risks and could be important for the Plan because:
 - a. The Plan's assets are quickly diminishing.
 - b. Relatively small changes in investment performance can produce large swings in the unfunded liabilities.
 - c. Inactive and retired participants account for most of the Plan's liabilities, leaving limited options for reducing costs in the event of adverse experience.
 - d. The Board have not had a detailed risk assessment in several years.

Section 1: Actuarial Valuation Summary

GASB

12. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution under the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and pension expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the Plan's and employer's financial statements as of June 30, 2023, will be provided separately.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Valuation Result	Current	Prior
Contributions for fiscal year beginning	July 1, 2024	July 1, 2023
• Actuarially determined contributions	\$24,525,699	\$22,901,528
• Actuarially determined contributions as a percent of projected pay	75.17%	69.50%
Actuarial accrued liability for plan year beginning	July 1, 2023	July 1, 2022
• Retired participants and beneficiaries	\$400,153,392	377,320,167
• Inactive vested participants	4,409,669	5,501,804
• Inactive participants due a refund of employee contributions	399,531	470,045
• Active participants	126,570,713	132,891,839
• Total	531,533,305	516,183,855
• Normal cost including administrative expenses for plan year beginning July 1	6,047,109	6,058,848
Assets for plan year beginning July 1		
• Market value of assets (MVA)	\$228,963,958	\$219,631,604
• Actuarial value of assets (AVA)	240,642,514	240,585,348
• Actuarial value of assets as a percentage of market value of assets	105.10%	109.54%
Funded status for plan year beginning July 1		
• Unfunded/(overfunded) actuarial accrued liability on market value of assets	\$302,569,347	\$296,552,251
• Funded percentage on MVA basis	43.08%	42.55%
• Unfunded/(overfunded) actuarial accrued liability on actuarial value of assets	\$290,890,791	\$275,598,507
• Funded percentage on AVA basis	45.27%	46.61%
• Amortization period on an AVA basis	20	21

Section 1: Actuarial Valuation Summary

Valuation Result	Current	Prior
Key assumptions		
• Net investment return	7.15%	7.20%
• Inflation rate	3.25%	3.25%
Demographic data for plan year beginning July 1		
• Number of retired participants and beneficiaries	802	780
• Number of inactive vested participants	39	43
• Number of inactive participants due a refund of employee contributions	0	0
• Number of active participants	337	356
• Average compensation	\$93,764	\$89,644

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant information	An actuarial valuation for a plan is based on data provided to the actuary by the Town. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the Town. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

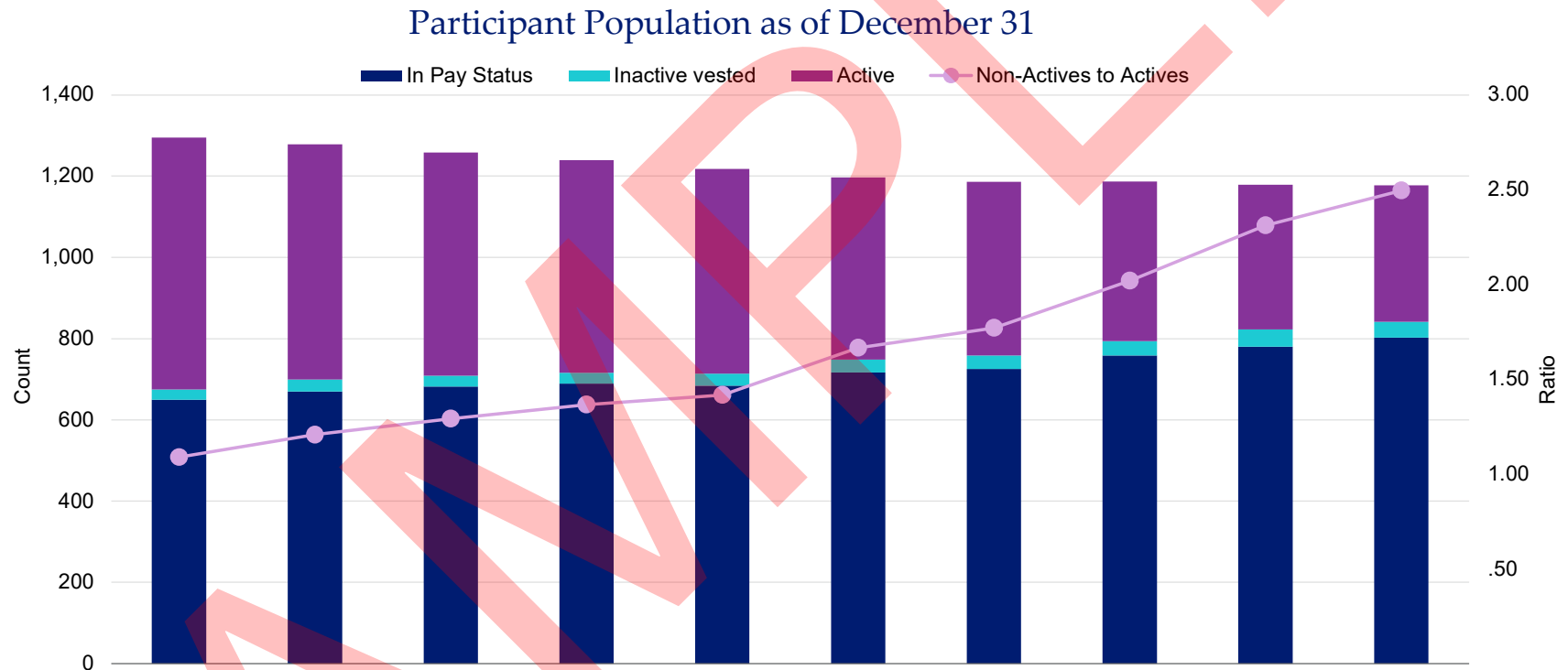
The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Town. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If the Town is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan provisions, but they may be subject to alternative interpretations. The Town should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Town upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: Actuarial Valuation Results

Participant information



Legend	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
In Pay Status	650	670	682	689	684	717	725	758	780	802
Inactive Vested*	25	29	27	27	30	31	33	36	43	39
Active	620	579	549	524	504	449	428	393	356	337
Ratio	1.09	1.21	1.29	1.37	1.42	1.67	1.77	2.02	2.31	2.50

* Excluding terminated participants due a refund of employee contributions.

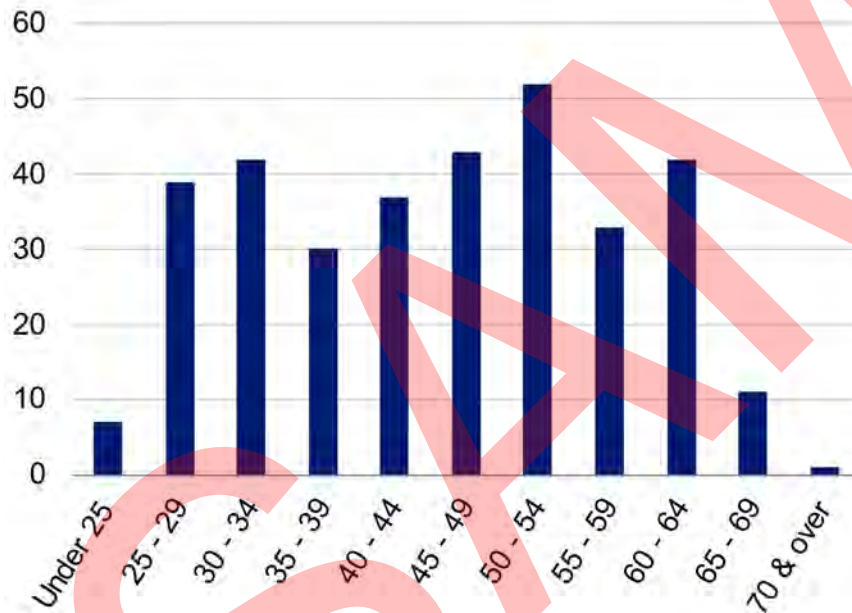
Section 2: Actuarial Valuation Results

Active participants

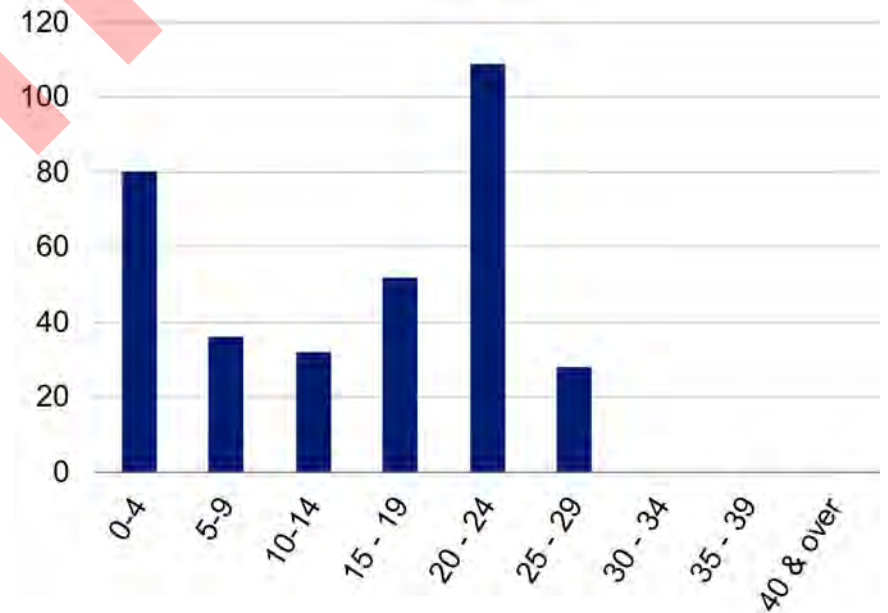
As of June 30,	2023	2022	Change
Active participants	337	356	-5.3%
Average age	45.8	46.8	-1.0
Average years of benefit service	14.4	15.0	-0.5
Average compensation	\$93,764	\$89,644	4.6%

Distribution of Active Participants as of June 30, 2023

Actives by Age



Actives by Years of Benefit Service



Section 2: Actuarial Valuation Results

Inactive participants

- In this year's valuation, there were 39 inactive participants with a vested right to a deferred or immediate vested benefit.
- In addition, there were 65 inactive participants entitled to a return of their employee contributions.

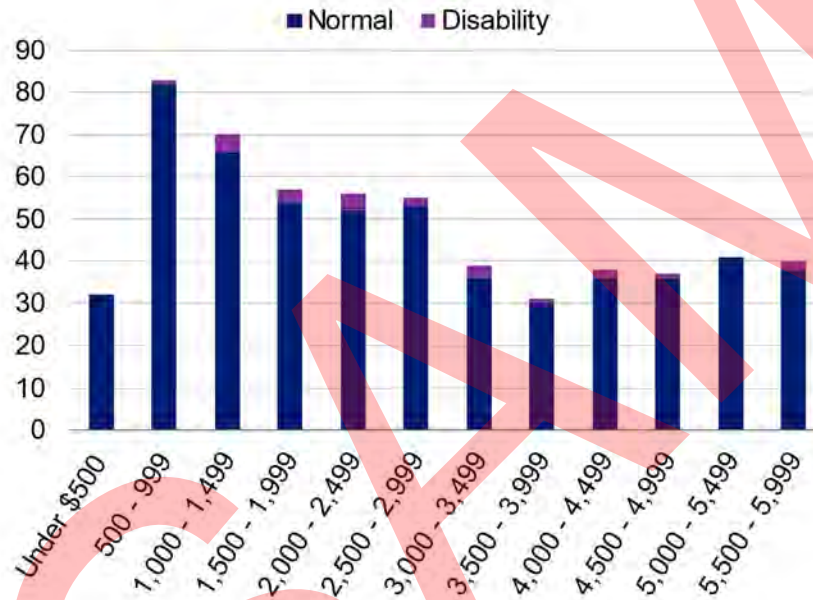
Section 2: Actuarial Valuation Results

Retired participants and beneficiaries

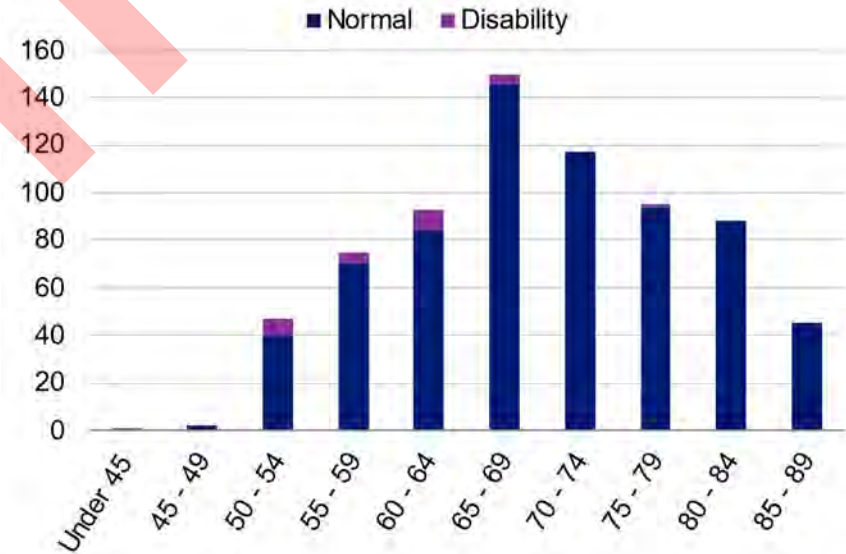
As of June 30,	2023	2022	Change
Retired participants	734	710	3.4%
Beneficiaries	68	70	-2.9%
Average age	70.8	70.6	0.2
Average amount	\$3,519	\$3,430	2.6%
Total monthly amount	2,821,926	2,675,475	5.5%

Distribution of Retired Participants and Beneficiaries as of June 30, 2023

By Type and Monthly Amount



By Type and Age



Section 2: Actuarial Valuation Results

Historical plan population

Participant Data Statistics: 2014– 2023

Active Participants versus Retired Participants and Beneficiaries Participants

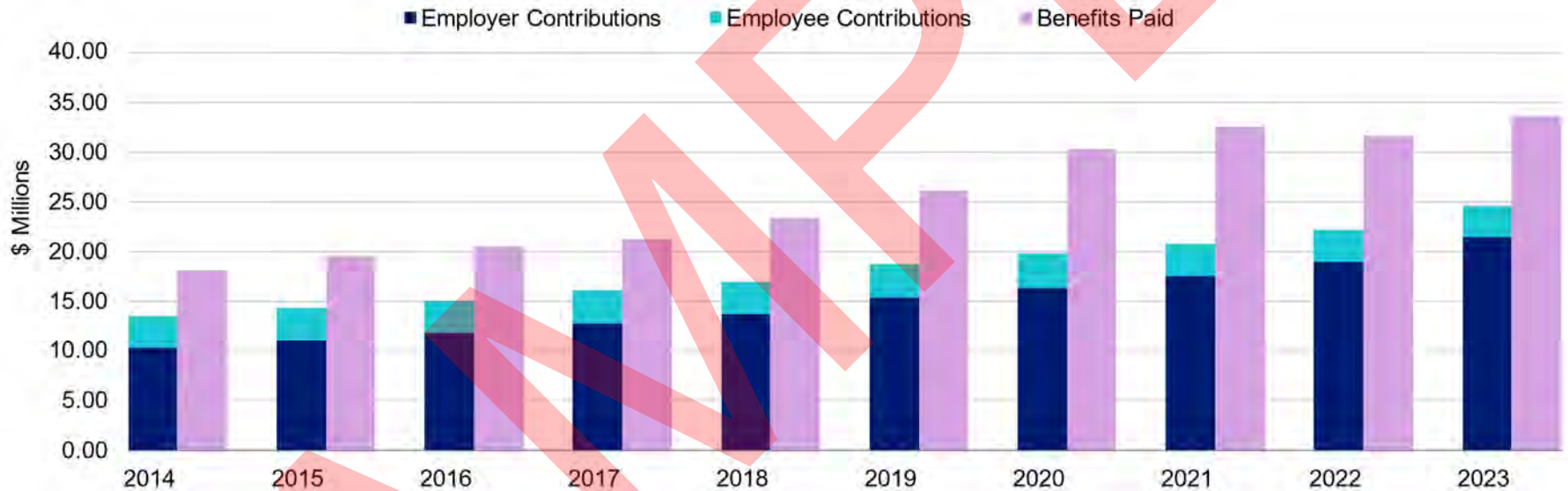
Year Ended June 30	Active Participants Count	Active Participants Average Age	Active Participants Average Service	Retired Participants and Beneficiaries Count	Retired Participants and Beneficiaries Average Age	Retired Participants and Beneficiaries Average Monthly Amount
2014	620	49.2	14.4	650	71.2	2,507
2015	579	49.2	14.7	670	71.1	2,608
2016	549	49.2	15.2	682	70.4	2,700
2017	524	49.6	15.9	689	70.8	2,782
2018	504	49.9	16.3	684	71.0	2,880
2019	449	50.1	16.2	717	69.7	3,138
2020	428	49.7	16.1	725	69.2	3,252
2021	393	48.3	15.5	758	69.2	3,328
2022	356	46.8	15.0	780	70.6	3,430
2023	337	45.8	14.4	802	70.8	3,519

Section 2: Actuarial Valuation Results

Financial information

Retirement plan funding anticipates that, over the long term, both contributions (less administrative expenses) and investment earnings (less investment fees) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components.

Comparison of Contributions Made with Benefits and Expenses Paid
for Years Ended June 30, 2014 - 2023



Section 2: Actuarial Valuation Results

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Pension Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Determination of Actuarial Value of Assets for Year Ended June 30, 2023

Step	Original Amount ¹	Percent Deferred ²	Unrecognized Amount ³	Amount
1. Market value of assets, June 30, 2023				\$228,963,958
2. Calculation of unrecognized return				
a. Year ended June 30, 2023	\$3,109,909	80%	\$2,487,927	
b. Year ended June 30, 2022	-44,061,969	60%	-26,437,182	
c. Year ended June 30, 2021	41,351,663	40%	16,540,666	
d. Year ended June 30, 2020	-21,349,837	20%	-4,269,967	
e. Year ended June 30, 2019	-9,876,170	0%	0	
f. Total unrecognized return				-\$11,678,556
3. Preliminary actuarial value: (1) - (2f)				240,642,514
4. Adjustment to be within 20% corridor				0
5. Final actuarial value of assets as of June 30, 2023: (3) + (4)				\$240,642,514
6. Actuarial value as a percentage of market value: (5) ÷ (1)				105.1%
7. Amount deferred for future recognition: (1) - (5)				-\$11,678,556

¹ Total return minus expected return on a market value basis.

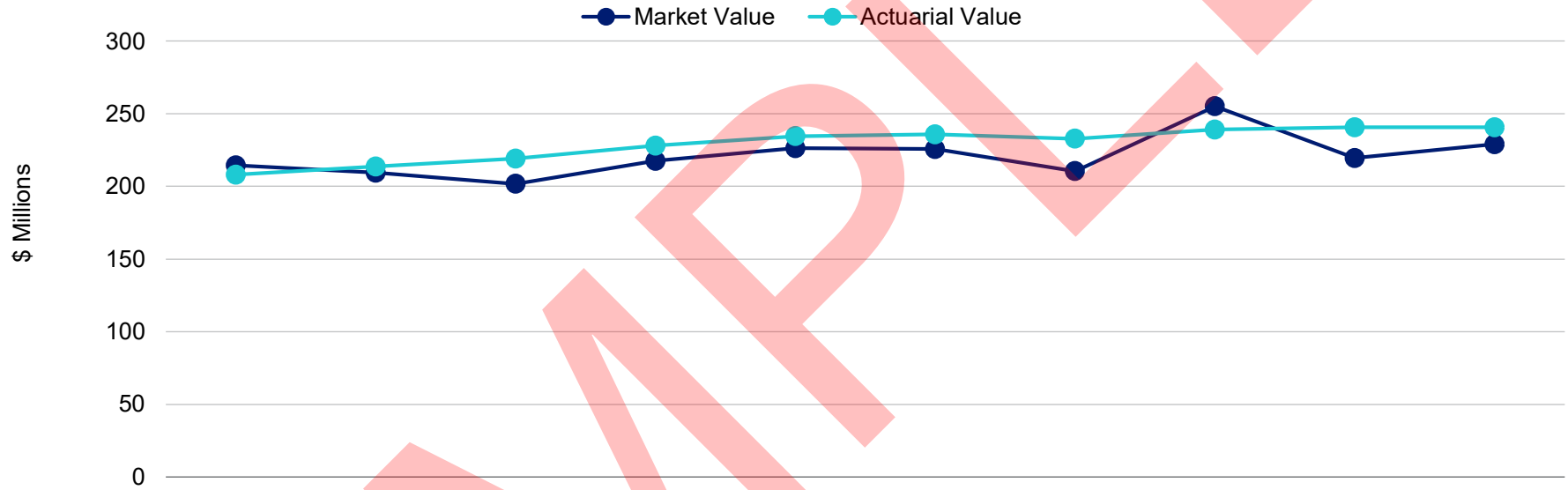
² Percent deferred applies to the current valuation year.

³ Recognition at 20% per year over five years.

Section 2: Actuarial Valuation Results

Asset history for years ended June 30

Actuarial Value of Assets vs Market Value of Assets



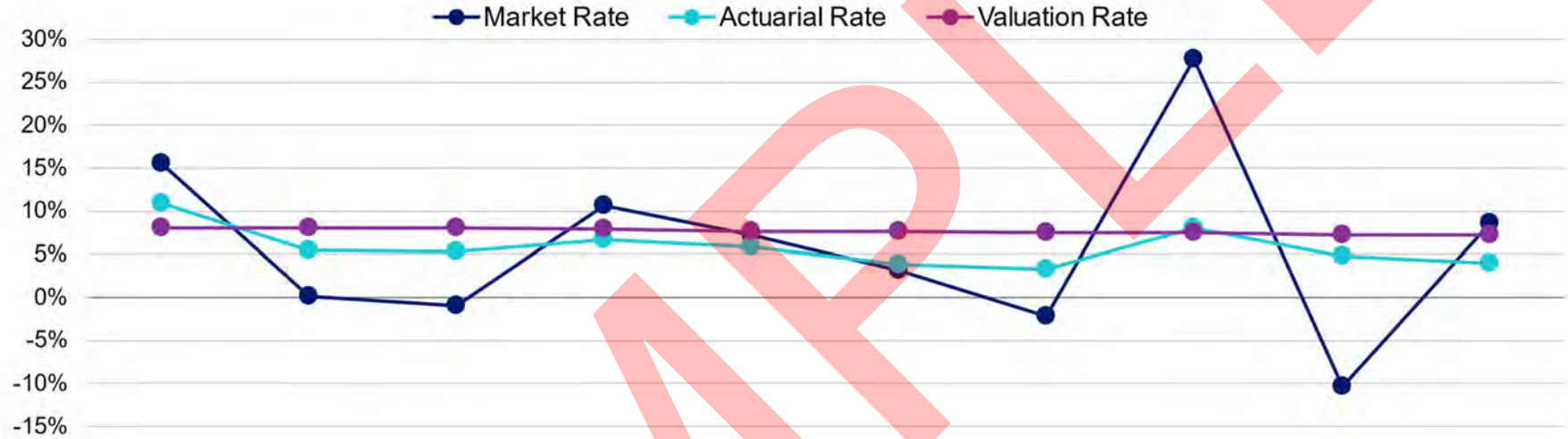
Legend	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
■ Actuarial value*	\$208.02	\$213.70	\$219.06	\$228.14	\$234.58	\$235.76	\$232.80	\$239.06	\$240.59	\$240.64
■ Market value*	214.46	209.40	201.76	217.55	226.33	225.75	210.49	255.19	219.63	228.96
Ratio	0.97	1.02	1.09	1.05	1.04	1.04	1.11	0.94	1.10	1.05

* In \$ millions

Section 2: Actuarial Valuation Results

Historical investment returns

Market and Actuarial Rates of Return for Years Ended June 30



Legend	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
■ Market rate	15.55%	0.14%	-0.94%	10.60%	7.20%	3.16%	-2.13%	27.72%	-10.35%	8.65%
■ Actuarial rate	10.91%	5.38%	5.25%	6.65%	5.82%	3.81%	3.29%	8.05%	4.77%	3.95%
■ Assumed rate	8.00%	8.00%	8.00%	7.90%	7.65%	7.60%	7.55%	7.50%	7.25%	7.20%

Average Rates of Return	Actuarial Value	Market Value
Most recent five-year average return:	4.76%	4.65%
Most recent ten-year average return:	5.87%	5.43%
Most recent 15-year average return:	5.37%	5.89%

Section 2: Actuarial Valuation Results

Actuarial experience

- Assumptions should consider experience and should be based on reasonable expectations for the future.
- Each year actual experience is compared to that projected by the assumptions. Differences are reflected in the actuarial valuation.
- Assumptions are not changed if experience is believed to be a short-term development that will not continue over the long term. On the other hand, if experience is expected to continue, assumptions are changed.

Actuarial Experience for Year Ended June 30, 2023

Assumption	Amount
1. Gain/(loss) from investments ¹	-\$7,673,949
2. Gain/(loss) from administrative expenses	11,654
3. Net gain/(loss) from other experience	-2,670,427
4. Net experience gain/(loss): 1 + 2 + 3 +4	-\$10,332,722

¹ Details on next page

Section 2: Actuarial Valuation Results

Investment experience

Actuarial planning is long term. The obligations of a pension plan are expected to continue for the lifetime of all its participants.

The assumed long-term rate of return of 7.15% considers past experience, the asset allocation policy of the Board and future expectations.

Investment Experience Year Ended June 30, 2023 vs. Year Ended June 30, 2022

Investment	YE 2023 Market Value	YE 2022 Actuarial Value	YE 2022 Market Value	YE 2022 Actuarial Value
1. Net investment income	\$18,590,105	\$9,314,917	-\$25,910,316	\$11,172,922
2. Average value of assets	215,002,729	235,956,473	250,367,633	234,238,139
3. Rate of return: 1 ÷ 2	8.65%	3.95%	-10.35%	4.77%
4. Assumed rate of return	7.20%	7.20%	7.25%	7.25%
5. Expected investment income: 2 x 4	15,480,196	16,988,866	18,151,653	16,982,265
6. Investment gain/(loss): 1 – 5	\$3,109,909	-\$7,673,949	-\$44,061,969	-\$5,809,343

Section 2: Actuarial Valuation Results

Non-investment experience

Administrative expenses

Administrative expenses for the year ended June 30, 2023 totaled \$189,129, as compared to the assumption of \$200,000. This resulted in an experience gain of \$11,654 for the year, including an adjustment for interest.

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among participants
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary increases (greater or smaller than projected)

The net loss from this other experience for the year ended June 30, 2023 amounted to \$2,670,427, which is 0.5% of the actuarial accrued liability.

Section 2: Actuarial Valuation Results

Actuarial assumptions

- The assumption changes reflected in this report are:
 - The net investment return assumption was lowered from 7.20% to 7.15%.
 - Mortality for males was projected an additional year using Scale BB.

These changes increased the actuarial accrued liability by 0.77%% and increased the normal cost by 0.41%.

Details on actuarial assumptions and methods are in *Section 4, Exhibit I.*

Plan provisions

There were no changes in plan provisions since the prior valuation.

Details on actuarial assumptions and methods are in *Section 4, Exhibit II.*

Section 2: Actuarial Valuation Results

Unfunded/(overfunded) actuarial accrued liability

Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 2023

Unfunded/(Overfunded) Actuarial Accrued Liability	Change	Amount
1. Unfunded/(overfunded) actuarial accrued liability at beginning of year		\$275,598,507
2. Normal cost at beginning of year		6,058,848
3. Total expected contributions		-24,553,993
4. Interest on 1, 2 & 3		19,395,386
5. Expected unfunded/(overfunded) actuarial accrued liability		\$276,498,748
6. Changes due to:		
a. Net experience (gain)/loss	\$10,332,722	
b. Assumptions	4,059,321	
c. Funding method	0	
d. Plan provisions	0	
e. Contribution (gain)/loss	0	
Total changes		\$14,392,043
7. Unfunded/(overfunded) actuarial accrued liability at end of year		\$290,890,791

Section 2: Actuarial Valuation Results

Actuarially determined contribution

The actuarially determined contribution is equal to the employer normal cost payment and a payment on the unfunded/(overfunded) actuarial accrued liability. As of July 1, 2023, the actuarially determined contribution is \$24,525,699, or 75.17% of projected pay.

The unfunded actuarial accrued liability is amortized with 3.25% annual increases in the payments. This methodology is generally tied to payroll with the contribution expected to remain constant as a percentage of pay. However, payroll is partially closed to new entrants.

Actuarially Determined Contribution

Contribution	2023 Amount	2023 Percent of Projected Pay	2022 Amount	2022 Percent of Projected Pay
1. Total normal cost	\$5,847,109	17.92%	\$5,858,848	18.36%
2. Administrative expenses	200,000	0.61%	200,000	0.63%
3. Expected employee contributions	-2,513,816	-7.71%	-2,496,497	-7.82%
4. Employer normal cost: (1) + (2) + (3)	\$3,533,293	10.83%	\$3,562,351	11.16%
5. Actuarial accrued liability	\$531,533,305		\$516,183,855	
6. Actuarial value of assets	240,642,514		240,585,348	
7. Unfunded/(overfunded) actuarial accrued liability: (5) - (6)	\$290,890,791		\$275,598,507	
8. Payment on unfunded/(overfunded) actuarial accrued liability	20,877,574	63.99%	19,223,400	58.34%
9. Actuarially determined contribution: (8) + (10) + (11)	\$23,753,704	72.81%	\$22,180,657	69.50%
10. Projected pay	\$32,625,560		\$31,913,351	
11. Actuarially Determined Contribution for fiscal years ending June 30, 2025 and June 30, 2024 ¹ : adjusted with 3.25% interest	\$24,525,699	75.17%	\$22,901,528	71.76%

Based on the current funding methodology, the Actuarially Determined Contribution is expected to increase and the funded ratio is expected to increase. The unfunded actuarial accrued liability is expected to be fully amortized by 2044, assuming all assumptions are realized and contributions are made in accordance with the funding policy.

The current funding methodology is intended to result in predictable employer contributions that eliminate the unfunded actuarial accrued liability within 20 years, thereby providing benefit security to plan participants while balancing the needs of current and future contributors to the plan.

¹ Actuarially determined contributions are assumed to be paid at the beginning of every year.

Section 2: Actuarial Valuation Results

Reconciliation of actuarially determined contribution

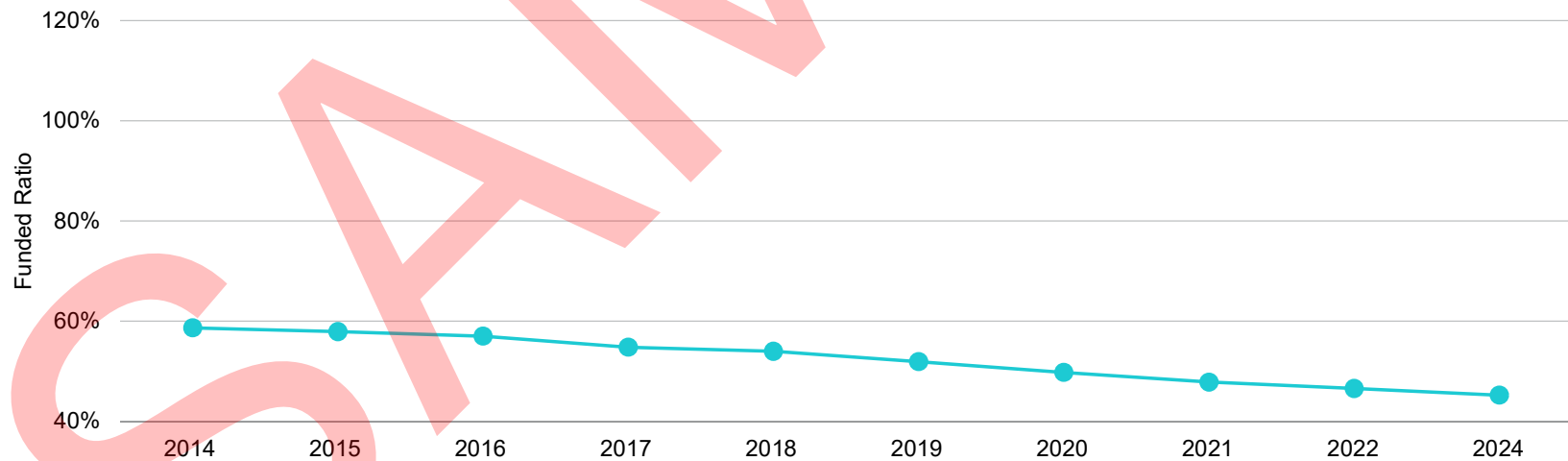
Reconciliation of Actuarially Determined Contribution from July 1, 2023 to July 1, 2024

Step	Amount	Percent of Projected Pay
1. Actuarially determined contribution as of July 1, 2023	\$22,901,528	69.50%
2. Effect of plan amendment(s)	-29	-0.00%
3. Effect of change in asset method	0	0.00%
4. Effect of expected change in amortization payment due to payroll growth	624,761	1.90%
5. Effect of change in amortization period	0	0.00%
6. Effect of change in administrative expense assumption	0	0.00%
7. Effect of change in other actuarial assumptions	236,329	0.72%
8. Effect of contributions (more)/less than actuarially determined contribution	73,199	0.22%
9. Effect of investment (gain)/loss	552,898	1.68%
10. Effect of other gains and losses on accrued liability	191,561	0.58%
11. Net effect of other changes, including composition and number of participants	-54,548	-0.17%
12. Total change	\$1,624,171	4.93%
13. Total change in percentage due to payroll change		0.74%
14. Actuarially determined contribution as of July 1, 2024	\$24,525,699	75.17%

Section 2: Actuarial Valuation Results

Schedule of funding progress through June 30, 2023

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Compensation (c)	UAAL as a Percentage of Covered Compensation [(b) – (a)] / (c)
07/01/2014	\$208,021,544	\$354,218,887	\$146,197,343	58.73%	\$40,940,891	357.09%
07/01/2015	213,702,418	368,914,089	155,211,671	57.93%	40,058,612	387.46%
07/01/2016	219,060,456	384,162,998	165,102,542	57.02%	38,956,281	423.81%
07/01/2017	228,138,043	415,902,626	187,764,583	54.85%	38,497,587	487.73%
07/01/2018	234,578,607	434,547,482	199,968,875	53.98%	38,122,760	524.54%
07/01/2019	235,759,401	453,661,398	217,901,997	51.97%	34,593,008	629.90%
07/01/2020	232,801,612	467,435,036	234,633,424	49.80%	33,645,319	697.37%
07/01/2021	239,063,851	499,625,045	260,561,194	47.85%	33,587,358	775.77%
07/01/2022	240,585,348	516,183,855	275,598,507	46.61%	31,913,351	863.58%
07/01/2023	240,642,514	531,533,305	290,890,791	45.27%	31,598,605	920.58%



Section 2: Actuarial Valuation Results

History of employer contributions

History of Employer Contributions: 2016– 2025

Actuarially Determined Employer Contribution (ADC) versus Actual Employer Contribution (AEC)

Year Ended June 30	ADC Amount	ADC Percentage of Covered Compensation	AEC Amount	AEC Percentage of Covered Compensation	Percent Contributed
2016	\$11,879,286	28.10%	\$11,856,283	28.05%	99.81%
2017	12,737,344	30.80%	12,738,134	30.80%	100.01%
2018	13,706,771	34.08%	13,706,771	34.08%	100.00%
2019	15,430,438	38.82%	15,430,456	38.82%	100.00%
2020	16,416,732	41.71%	16,414,737	41.70%	99.99%
2021	17,508,860	49.02%	17,508,860	49.02%	100.00%
2022	18,964,310	54.59%	18,964,310	54.59%	100.00%
2023	21,464,439	61.89%	21,464,439	61.89%	100.00%
2024	22,901,528	69.50%	--	--	--
2025	24,525,699	75.17%	--	--	--

Section 2: Actuarial Valuation Results

Low-Default-Risk Obligation Measure (LDRM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDRM) when performing a funding valuation. The LDRM presented in this report is calculated using the same methodology and assumptions used to determine the Actuarial Accrued Liability (AAL) used for funding, except for the discount rate. The LDRM is required to be calculated using “a discount rate...derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.”

The LDRM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in December of the measurement period, by The Bond Buyer (www.bondbuyer.com), is 3.65% for use effective June 30, 2023. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDRM is not used to determine a plan's funded status or Actuarially Determined Contribution. The plan's expected return on assets, currently 7.15%, is used for these calculations.

As of June 30, 2023, the LDRM for the system is \$600,000,000. The difference between the plan's AAL of \$531,533,305 and the LDRM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the plan's diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDRM with respect to the funded status of the plan, plan contributions, and the security of participant benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the Actuarially Determined Contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

Section 2: Actuarial Valuation Results

Risk

The actuarial valuation results are dependent on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions.

We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition but have included a brief discussion of some risks that may affect the Plan.

- Economic and Other Related Risks. Potential implications for the Plan due to the following economic effects (that were not reflected as of the valuation date) include:
 - Volatile financial markets and investment returns lower than assumed
 - High inflationary environment impacting salary increases and COLAs
 - Lingering direct and indirect effects of the COVID-19 pandemic
- Investment Risk (the risk that returns will be different than expected)

If the actual return on market value for the prior plan year were 1% different (either higher or lower), the unfunded actuarial liability would change by 0.74%, or about \$2,150,027, disregarding the asset smoothing method.

Since the Plan's assets are much larger than contributions, investment performance may create volatility in the actuarially determined contribution requirements. For example, for the prior plan year, if the actual return on market value were 1% different, the actuarially determined contribution would increase or decrease by \$149,453, disregarding the effects of the 5-year phase-in of investment gains and losses.

The market value rate of return over the last 10 years has ranged from a low of -10.35% to a high of 27.72%.

- Longevity Risk (the risk that mortality experience will be different than expected)

The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution.
- Contribution Risk (the risk that actual contributions will be different from actuarially determined contribution)

The Plan's funding policy requires payment of the actuarially determined contribution. As long as this policy is adhered to, contribution risk is negligible.

Section 2: Actuarial Valuation Results

- Demographic Risk (the risk that participant experience will be different than assumed)

Examples of this risk include:

- Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.
- More or less active participant turnover than assumed.
- There are external factors including legislative or financial reporting changes that could impact the Plan’s funding and disclosure requirements. While we do not assume any changes in such external factors, it is important to understand that they could have significant consequences for the Plan.
- Actual Experience Over the Last Ten Years

Past experience can help demonstrate the sensitivity of key results to the Plan’s actual experience. Over the past six years: The non-investment gain(loss) for a year has ranged from a loss of \$9,107,364 to a gain of \$1,088,047.

Plan Year Ended	Investment Gain/(Loss)	All Other Gains and (Losses)
2018	-1,707,124	1,088,047
2019	-10,766,258	-4,234,738
2020	-21,239,602	-3,204,957
2021	41,351,663	-9,107,364
2022	-44,061,969	-3,090,624
2023	3,109,909	-2,658,773

- The funded percentage on the actuarial value of assets has ranged from a low of 45.3% to a high of 58.7% since 2014.
- Maturity Measures
As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan’s asset allocation is aligned to meet emerging pension liabilities.
Currently the Plan has a non-active to active participant ratio of 2.50.
For the prior year, benefits paid were \$9,257,751 more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return.
- Detailed Risk Assessment

Section 2: Actuarial Valuation Results

- A more detailed assessment of the risks would provide the Board with a better understanding of the risks inherent in the Plan. This assessment may include scenario testing, sensitivity testing, stress testing, and stochastic modeling.
- A detailed risk assessment could be important for the Plan because:
 - The Plan's assets are quickly diminishing as benefit and expense outflow is far greater than contribution and investment income.
 - Relatively small changes in investment performance can produce large swings in the unfunded liabilities.
 - The Plan's asset allocation has potential for a significant amount of investment return volatility.
 - Inactive and retired participants account for most of the Plan's liabilities, leaving limited options for reducing plan costs in the event of adverse experience.
 - The Board has not had a detailed risk assessment in several years.

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Category	Year Ended June 30, 2023	Year Ended June 30, 2022	Change From Prior Year
Active participants in valuation:			
• Number	337	356	-5.3%
• Average age	45.8	46.8	-1.0
• Average years of benefit service	14.4	15.0	-0.6
• Average compensation	\$93,764	\$89,644	4.6%
• Account balances	30,941,273	32,083,021	-3.6%
• Total active vested participants	213	246	-13.4%
Inactive participants			
• Inactive vested participants	38	42	-9.5%
• Inactive nonvested participants due a refund	65	67	-3.0%
Beneficiaries with rights to a deferred benefit	1	1	0.0%
Retired participants:			
• Number in pay status	707	683	3.5%
• Average age	70.4	70.3	0.1
• Average monthly benefit	\$3,661	\$3,573	2.5%
Disabled participants:			
• Number in pay status	27	27	0.0%
• Average age	58.8	57.8	1.0
• Average monthly benefit	\$3,363	\$3,315	1.4%
Beneficiaries:			
• Number in pay status	68	70	-2.9%
• Average age	79.7	79.1	0.6
• Average monthly benefit	\$2,101	\$2,079	1.1%

Section 3: Supplemental Information

Exhibit B: Participants in active service as of June 30, 2023 by age and years of benefit service

Years of Benefit Service

Age	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	7	7	0	0	0	0	0	0	0	0
25 - 29	39	34	5	0	0	0	0	0	0	0
30 - 34	42	22	16	4	0	0	0	0	0	0
35 - 39	30	10	5	15	0	0	0	0	0	0
40 - 44	37	3	6	5	10	12	1	0	0	0
45 - 49	43	1	2	2	9	26	3	0	0	0
50 - 54	52	3	2	1	10	23	13	0	0	0
55 - 59	33	0	0	2	9	16	6	0	0	0
60 - 64	42	0	0	3	11	26	2	0	0	0
65 - 69	11	0	0	0	3	5	3	0	0	0
70 & over	1	0	0	0	0	1	0	0	0	0
Total	337	80	36	32	52	109	28	0	0	0

Section 3: Supplemental Information

Exhibit C: Reconciliation of participant data

	Active Participants	Inactive Vested Participants	Inactive Non-Vested Participants*	Deferred Beneficiaries	Disableds	Retired Participants	Beneficiaries	Total
Number as of July 1, 2022	356	42	67	1	27	683	70	1,246
New participants	18	N/A	1	1	N/A	N/A	N/A	20
Terminations — with vested rights	-7	7	0	0	0	0	0	0
Terminations — without vested rights	-2	N/A	2	0	N/A	N/A	N/A	0
Retirements	-28	-10	0	-1	N/A	39	N/A	0
Died with beneficiary	0	0	0	0	0	-3	3	0
Died without beneficiary	-1	0	0	0	0	-13	-5	-19
Lump sum cash-outs	-2	0	-3	0	0	0	0	-5
Rehire	3	-1	-2	0	N/A	0	N/A	0
Data adjustments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>
Number as of July 1, 2023	337	38	65	1	27	707	68	1,243

* Due a refund of employee contributions

Section 3: Supplemental Information

Exhibit D: Summary statement of income and expenses on a market value basis

Year Ended June 30, 2023 versus Year Ended June 30, 2022

Item	Income and Expenses	Assets as of YE 2023	Income and Expenses	Assets as of YE 2022
Net assets at market value at the beginning of the year		\$219,631,604		\$255,193,345
Contribution and other income:				
Employer contributions	\$21,464,439		\$18,964,310	
Employee contributions	3,089,554		3,184,721	
Total contribution income		\$24,553,993		\$22,149,031
Other income		\$0		\$0
Investment income:				
Investment income	\$18,590,105		-\$25,910,316	
Less investment fees	0		0	
Net investment income		\$18,590,105		-\$25,910,316
Total income available for benefits		\$43,144,098		-\$3,761,285
Less benefit payments and administrative expenses:				
Administrative expenses	-\$189,129		-\$187,309	
Benefit Payments	-33,622,615		-31,613,147	
Net benefit payments and administrative expenses		-\$33,811,744		-\$31,800,456
Change in market value of assets		\$9,332,354		-\$35,561,741
Net assets at market value at the end of the year		\$228,963,958		\$219,631,604

Section 3: Supplemental Information

Exhibit E: Development of the fund through June 30, 2023

Year Ended June 30	Employer Contributions	Employee Contributions	Other Income	Net Investment Return*	Admin. Expenses	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2014	\$10,251,091	\$3,233,330	\$0	\$29,182,221	\$203,350	\$18,169,153	\$214,455,200	\$208,021,544	97.0%
2015	11,045,908	3,284,777	0	305,830	175,370	19,519,299	209,397,046	213,702,418	102.1%
2016	11,856,283	3,182,165	0	-1,933,877	202,385	20,542,906	201,756,326	219,060,455	108.6%
2017	12,738,134	3,398,227	0	21,112,964	203,873	21,252,122	217,549,656	228,138,041	104.9%
2018	13,706,771	3,288,013	0	15,430,952	211,022	23,431,176	226,333,194	234,578,607	103.6%
2019	15,430,456	3,285,398	0	7,035,503	193,141	26,145,083	225,746,327	235,759,401	104.4%
2020	16,414,737	3,446,410	0	-4,704,328	181,217	30,231,955	210,489,974	232,801,612	110.6%
2021	17,508,860	3,306,953	0	56,688,952	215,509	32,585,885	255,193,345	239,063,851	93.7%
2022	18,964,310	3,184,721	0	-25,910,316	187,309	31,613,147	219,631,604	240,585,348	109.5%
2023	21,464,439	3,089,554	0	18,590,105	189,129	33,622,615	228,963,958	240,642,514	105.1%

* On a market basis, net of investment fees

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

Current data is reviewed in conjunction with each annual valuation. Assumption changes are listed at the end of this exhibit.

Net investment return

7.15%. The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes as provided by Segal Marco Advisors, as well as the Plan's target asset allocation.

Salary increases

N/A

Payroll growth

N/A

Cost-of-living adjustments

N/A

Mortality rates

PubS-2010, Amount-weighted, projected generationally with Scale MP-2021. (Previously, RP-2006, projected generationally with Scale MP-2021)

The underlying tables with the generational projection to the ages of participants as of the measurement date do not reasonably reflect the mortality experience of the Plan as of the measurement date. However, the number of deaths is too small to be statistically credible.

Section 4: Actuarial Valuation Basis

These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

The mortality rates were based on historical and current data, adjusted to reflect estimated future experience and professional judgment.

Annuitant mortality rates

Rate (%)^{*}

Age	Healthy Male	Healthy Female	Disabled Male	Disabled Female	Contingent Survivors Male	Contingent Survivors Female
55	0.31	0.26	0.48	0.46	0.82	0.45
60	0.51	0.45	0.74	0.70	1.01	0.62
65	0.88	0.77	1.19	1.06	1.38	0.90
70	1.57	1.33	1.91	1.61	2.13	1.35
75	2.83	2.30	3.24	2.44	3.38	2.15
80	5.10	3.96	5.60	3.96	5.36	3.57
85	9.14	6.84	9.21	6.84	8.74	6.32
90	15.86	11.82	15.86	11.82	14.42	11.33

^{*} Mortality rates shown for base table.

Section 4: Actuarial Valuation Basis

Termination rates before retirement

Rate (%)

Age	Mortality* Male	Mortality* Female	Disability	Withdrawal†
20	0.04	0.02	0.09	24.30
25	0.04	0.02	0.13	19.50
30	0.04	0.03	0.17	15.50
35	0.05	0.04	0.22	12.10
40	0.06	0.05	0.33	9.40
45	0.08	0.07	0.54	7.30
50	0.12	0.09	0.91	5.60
55	0.18	0.12	1.51	0.00
60	0.26	0.17	2.44	0.00

The withdrawal rates are the Small (1,000 lives or less) Plan Age Tables from the 2003 SOA Pension Plan Turnover Study

The withdrawal rates and disability rates are reasonable based on historical and current demographic data, adjusted to reflect estimated future experience.

Retirement rates

Age 65 with 20 years of service

Retirement age (inactives)

Age 65

* Mortality rates shown for base table.

† Withdrawal rates do not apply at or beyond age 55.

Section 4: Actuarial Valuation Basis

Percent married (actives)

85% of males, 75% of females

Percent married (current retirees)

Actual

Age of spouse

Spouses of male participants are female and three years younger and spouses of female participants are male and three years older.

Benefit election

Married participants are assumed to elect the 50% joint and survivor form of payment and non-married participants are assumed to elect a life annuity.

The benefit elections were based on historical and current data, adjusted to reflect the plan design, estimated future experience and professional judgment.

Administrative expenses

\$5,000 added to the annual normal cost (previously, \$4,000)

Actuarial value of assets

At market value.

Actuarial cost method

Entry Age Actuarial Cost Method. Entry Age is the age at the time the participant commenced employment. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service.

Section 4: Actuarial Valuation Basis

Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Justification for change in actuarial assumptions

Based on past experience and future expectations, the following actuarial assumptions were changed:

The mortality assumption was updated to the PubS-2010 tables from the RP-2006 tables.

The administrative expense assumption was increased to \$5,000 from \$4,000 for the year beginning July 1, 2023.

Section 4: Actuarial Valuation Basis

Exhibit 2: Summary of plan provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan year

July 1 through June 30

Plan status

Ongoing

Normal retirement

Age Requirement	65
Service Requirement	20 years
Amount	\$25 per month times years of service. The maximum benefit is \$500 per month

Early retirement

None

Disability

Age Requirement	None
Service Requirement	None
Amount	\$25 per month times years of service. The maximum benefit is \$500 per month

Disability must be permanent and total and sustained as a result of the performance of fire duties. The monthly benefit is payable on the first day of the month following the establishment of permanent and total disability.

Section 4: Actuarial Valuation Basis

Vesting

Service Requirement	20 years
Amount	Normal pension accrued payable at Normal Retirement Date

Post-retirement death benefit(s)

Age Requirement	65
Husband and Wife	Receiving a normal retirement benefit or disability benefit
Amount	50% of the benefit the participant was receiving payable to his or her surviving spouse until death or remarriage, or to children until age 18. If the surviving spouse is more than three years younger than the participant, the benefit payable to the spouse shall be reduced by 0.5% for each year the spouse is more than three years younger.

Years of service

One year of service credit if 100 or more points are earned in a plan year. Points are earned for the performance of Fire Duties in each Plan Year in accordance with Schedule A of the Pension Plan. Periods of service prior to the attainment of age 18 or after attaining age 70 are not counted as years of service.

Participation

All volunteer firefighters who were active on August 10, 1993 are eligible to participate in the plan as of July 1, 1994. For all other volunteer firefighters, age on the first day of duty must be less than 45 and must be among the 80 active volunteer firefighters with the most service.

Changes in plan provisions

There have been no changes in plan provisions since the last valuation

Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Actuarial Present Value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial cost method	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial gain or loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial present value	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Appendix A: Definition of Pension Terms

Term	Definition
Actuarial present value of future benefits	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan, as well as Actuarially Determined Contributions.
Actuarial value of assets	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially determined contribution	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization payment	The portion of the pension plan contribution, or ADC, that is intended to pay off the Unfunded Actuarial Accrued Liability.
Assumptions or actuarial assumptions	The estimates upon which the cost of the Plan is calculated, including: Investment return — the rate of investment yield that the Plan will earn over the long-term future; Mortality rates — the rate or probability of death at a given age for employees and retirees; Retirement rates — the rate or probability of retirement at a given age or service; Disability rates — the rate or probability of disability retirement at a given age; Withdrawal rates — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; Salary increase rates — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.

Appendix A: Definition of Pension Terms

Term	Definition
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See Open Amortization Period.
Decrements	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer normal cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the Actuarial Value of Assets (AVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the AVA.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment return	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Net Pension Liability (NPL)	The Net Pension Liability is equal to the Total Pension Liability minus the Plan Fiduciary Net Position.
Normal cost	The portion of the Actuarial Present Value of Future Benefits and expenses, if applicable, allocated to a valuation year by the Actuarial Cost Method. Any payment with respect to an Unfunded Actuarial Accrued Liability is not part of the Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of member contributions and employer Normal Cost unless otherwise specifically stated.
Open amortization period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the Amortization Period.

Appendix A: Definition of Pension Terms

Term	Definition
Plan Fiduciary Net Position	Market value of assets.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total Pension Liability (TPL)	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded actuarial accrued liability	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus or an Overfunded Actuarial Accrued Liability.
Valuation date or actuarial valuation date	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.
Valuation value of assets	The Actuarial Value of Assets reduced by the value of non-valuation reserves.

Town of Pension Plan

**Governmental Accounting Standards Board Statement
No. 68 (GASB 68) Accounting Valuation as of June 30, 2023**



This report has been prepared at the request of the Retirement Board to assist the sponsors of the Plan in preparing their financial reports for their liabilities associated with the Town Pension Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Retirement Board and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

Copyright © 2023 by The Segal Group, Inc. All rights reserved.

Segal



30 Waterside Drive, Suite 300
Farmington, CT 06032-3069
segalco.com
T 860.678.3000

October 1, 2024

Sample
Town of ABC
1 Main Street

Dear :

We are pleased to submit this Governmental Accounting Standards Board Statement No. 68 (GASB 68) Accounting Valuation as of June 30, 2023 for the Town Pension Plan. It contains various information that will need to be disclosed in order to comply with GASB 68. Please refer to the Town Pension Plan Actuarial Valuation and Review as of July 1, 2022, dated April 19, 2023, for the data, assumptions, and plan of benefits underlying these calculations.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in preparing their financial reports for their liabilities associated with the Pension Plan. The census and financial information on which our calculations were based were provided by the Town and Aetna. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were completed under my supervision. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in my opinion, the assumptions as approved by the Retirement Board are reasonably related to the experience of and the expectations for the Plan. In addition, in my opinion, the combined effect of these assumptions is expected to have no significant bias.

I look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

Henry P. Nearing, FCA, EA, MAAA
Vice President and Consulting Actuary

Table of Contents

Section 1: Actuarial Valuation Summary	4
Purpose and basis	4
Highlights of the valuation	4
Summary of key valuation results	5
Important information about actuarial valuations	6
Section 2: GASB Information	8
General information about the pension plan	8
Exhibit 1 - Net Pension Liability	9
Exhibit 2 - Schedule of changes in Net Pension Liability – Last two fiscal years	12
Exhibit 3 - Schedule of employer contributions	14
Exhibit 4 - Pension expense	16
Appendix.....	23
Appendix A: Definition of Terms.....	23

Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statements No. 68 (GASB 68) as of June 30, 2023. This report is based on financial information as of June 30, 2023 and the Actuarial Valuation and Review as of July 1, 2022, which reflects:

- The benefit provisions of the Town Pension Plan, as administered by the Board;
- The characteristics of covered active participants, inactive participants, and retired participants and beneficiaries as of July 1, 2022, provided by the Town and Aetna;
- The assets of the Plan as of June 30, 2023, provided by the Town;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the July 1, 2022 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.as detailed in the July 1, 2022 valuation.

Highlights of the valuation

1. The Net Pension Liability (NPL) measured as of June 30, 2023 and June 30, 2022 was determined based upon the results of actuarial valuations as of July 1, 2022 and July 1, 2021, respectively.
2. The NPL is equal to the difference between the Total Pension Liability (TPL) and the Plan Fiduciary Net Position (FNP). The Plan Fiduciary Net Position is equal to the market value of assets, and, therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAL) on a market value basis. The NPL increased from \$286,943,555 as of June 30, 2022 to \$295,832,790 as of June 30, 2023 and the Plan Fiduciary Net Position as a percent of the TPL increased from 44.72% to 45.23%.
3. The discount rate used to measure the TPL and NPL was 7.20% as of June 30, 2023 and 7.25% as of June 30, 2022. We believe a discount rate of 6.50% to 7.00% range may be more appropriate.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Reporting Date for Employer under GASB 68		June 30, 2023	June 30, 2022
Measurement Date		June 30, 2023	June 30, 2022
Disclosure elements:	<ul style="list-style-type: none"> Total Pension Liability Plan Fiduciary Net Position Net Pension Liability Pension expense 	\$540,147,639 244,314,849 295,832,790 43,244,785	\$519,061,507 232,117,952 286,943,555 37,707,269
Schedule of contributions:	<ul style="list-style-type: none"> Actuarially determined contributions Actual contributions Contribution deficiency / (excess) 	\$21,464,439 21,464,439 --	\$18,964,310 18,964,310 --
Demographic data (as of July 1, 2022):	<ul style="list-style-type: none"> Number of retired members and beneficiaries Number of vested terminated members¹ Number of active members 	780 43 356	758 36 393
Key assumptions:	<ul style="list-style-type: none"> Investment rate of return Inflation rate 	7.20% 3.25%	7.25% 3.25%

¹ Excludes terminated vested participants due a refund of employee contributions (67 as of July 1, 2022)

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the Town. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the market value of assets as of the valuation date, as provided by the Town.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.
Actuarial models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The actuarial valuation is prepared at the request of the Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement of the Plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the Plan will be determined by the actual benefits and expenses paid and the actual investment experience of the Plan.

Actuarial results in this report are not rounded, but that does not imply precision.

If the Town is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of the Town Pension Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Town Pension Plan.

Section 2: GASB Information

General information about the pension plan

Plan membership. At July 1, 2022, pension plan membership consisted of the following:

Retired participants or beneficiaries currently receiving benefits	780
Inactive participants with a vested right to a deferred or immediate benefit ¹	43
Active members	<u>356</u>
Total	1,179

¹ Excludes terminated vested participants due a refund of employee contributions (67 as of July 1, 2022).

Section 2: GASB Information

Exhibit 1 - Net Pension Liability

Reporting date for employer under GASB 68	June 30, 2023	June 30, 2022
Measurement date	June 30, 2023	June 30, 2022
Components of the Net Pension Liability		
Total Pension Liability	\$540,147,639	\$519,061,507
Plan Fiduciary Net Position	244,314,849	232,117,952
Net Pension Liability	295,832,790	286,943,555
Plan Fiduciary Net Position as a percentage of the Total Pension Liability ¹	45.23%	44.72%

¹ These funded percentages are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

Actuarial assumptions. The TPL as of June 30, 2023, which was determined based on the results of an actuarial valuation as of July 1, 2022, used the following actuarial assumptions, applied to all periods included in the measurement:

Wage inflation	3.25%
Pay increases (based on age)	General, Dispatcher and Paraprofessional Employees: 2.50% - 9.00% Police Employees: 3.00% - 20.00% Fire Employees: 4.50% - 22.00%
Net investment rate of return	7.20% (previously, 7.25%)
COLA	Maximum annual amount allowed under the plan provisions is assumed for future years
Mortality	Male: RP-2000 combined healthy table with blue collar adjustment projected 25 years with scale BB Female: Separate RP-2014 Tables projected generationally with Scale MP-2021

Detailed information regarding all actuarial assumptions can be found in the July 1, 2022 Actuarial Valuation and Review.

Section 2: GASB Information

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and adding expected inflation. The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, before investment expenses, used in the derivation of the long-term expected investment rate of return assumption are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equity	35.00%	9.31%
International developed equity	20.00%	9.61%
Emerging markets equity	5.00%	11.11%
REITs	5.00%	6.01%
Core fixed income	<u>35.00%</u>	4.01%
Total	100.00%	

Discount rate. The discount rate used to measure the TPL was 7.20% as of June 30, 2023 and 7.25% as of June 30, 2022. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the Plan FNP was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2023 and June 30, 2022.

Section 2: GASB Information

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the Net Pension Liability of Pension Plan as of June 30, 2023 calculated using the discount rate of 7.20%, as well as what the Town Pension Plan's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.20%) or 1-percentage-point higher (8.20%) than the current rate.

	1% Decrease (6.20%)	Current Discount Rate (7.20%)	1% Increase (8.20%)
Net Pension Liability as of June 30, 2023	\$355,819,498	\$295,832,790	\$245,745,959

Section 2: GASB Information

Exhibit 2 - Schedule of changes in Net Pension Liability – Last two fiscal years

Reporting date for employer under GASB 68	June 30, 2023	June 30, 2022
Measurement date	June 30, 2023	June 30, 2022
Total Pension Liability		
Service cost	\$5,774,811	\$5,635,134
Interest	36,884,701	35,821,473
Change of benefit terms	0	66,691
Differences between expected and actual experience	6,986,948	4,329,529
Changes of assumptions	3,603,307	16,392,380
Benefit payments, including refunds of member contributions	<u>-32,163,635</u>	<u>-30,336,404</u>
Net change in Total Pension Liability	\$21,086,132	\$31,908,803
Total Pension Liability – beginning	<u>519,061,507</u>	<u>487,152,704</u>
Total Pension Liability – ending	\$540,147,639	\$519,061,507
Plan Fiduciary Net Position		
Contributions – employer	\$21,464,439	\$18,964,310
Contributions – employee	3,089,554	3,184,721
Net investment income	19,995,668	-27,385,400
Benefit payments, including refunds of member contributions	-32,163,635	-30,336,404
Administrative expense	<u>-189,129</u>	<u>-187,309</u>
Net change in Plan Fiduciary Net Position	\$12,196,897	-\$35,760,082
Plan Fiduciary Net Position – beginning	<u>232,117,952</u>	<u>267,878,034</u>
Plan Fiduciary Net Position – ending	\$244,314,849	\$232,117,952
Net Pension Liability – ending	\$295,832,790	\$286,943,555
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	45.23%	44.72%
Covered payroll	\$31,913,351	\$33,587,358
Plan Net Pension Liability as percentage of covered payroll	926.99%	854.32%
DROP account	\$15,350,891	\$12,486,348
Discount rate at end of year	7.20%	7.25%
Dollar-weighted rate of return	8.76%	-10.39%

Section 2: GASB Information

Notes to Schedule:

Changes in actuarial assumptions	<i>Net Investment Return: 7.20% (previously, 7.25%)</i> <i>Mortality: Mortality for males was projected an additional year using Scale BB.</i> <i>Interest Crediting Rate on Employee Money: 3.00% per year (previously, 2.00% per year)</i>
Changes in plan provisions	<i>None</i>

Section 2: GASB Information

Exhibit 3 - Schedule of employer contributions

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2014	\$10,186,709	\$10,251,091	-\$64,382	\$40,450,971	25.34%
2015	11,045,908	11,045,908	--	40,940,891	26.98%
2016	11,879,286	11,856,283	23,003	40,058,612	29.60%
2017	12,737,344	12,738,134	-790	38,956,281	32.70%
2018	13,706,771	13,706,771	--	38,497,587	35.60%
2019	15,430,438	15,430,456	-18	38,122,760	40.48%
2020	16,416,732	16,414,737	1,995	34,593,008	47.45%
2021	17,508,860	17,508,860	--	33,645,319	52.04%
2022	18,964,310	18,964,310	--	33,587,358	56.46%
2023	21,464,439	21,464,439	--	31,913,351	67.26%

See accompanying notes to this schedule on next page.

Section 2: GASB Information

Notes to Schedule:

Methods and assumptions used to establish “actuarially determined contribution” for the fiscal year beginning July 1, 2022:

Valuation date	Actuarially determined contribution for year ended June 30, 2023 was determined with the July 1, 2021 actuarial valuation.
Actuarial cost method	Entry Age Actuarial Cost Method
Amortization method	Payments increasing 3.25% per year
Remaining amortization period	22 years remaining as of July 1, 2021
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a five-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 20% of the market value of assets.
Actuarial assumptions:	
Investment rate of return	7.25% (previously, 7.50%)
Projected pay increases (based on age)	General Dispatcher and Paraprofessional Employees: 2.50% - 9.00% Police Employees: 3.00% - 20.00% Fire Employees: 4.50% - 22.00%
COLA	Maximum annual amount allowed under the plan provisions is assumed for future years
Other assumptions	Same as those used in the July 1, 2021 funding actuarial valuation.

Section 2: GASB Information

Exhibit 4 - Pension expense

Reporting date for employer under GASB 68	June 30, 2023	June 30, 2022
Measurement date	June 30, 2023	June 30, 2022
Components of pension expense		
Service cost	\$5,774,811	\$5,635,134
Interest	36,884,701	35,821,473
Current-period benefit changes	- -	66,691
Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability	2,434,477	1,472,629
Expensed portion of current-period changes of assumptions	1,255,508	5,575,639
Member contributions	-3,089,554	-3,184,721
Projected earnings on pension plan investments	-16,545,846	-19,776,802
Expensed portion of current-period differences between actual and projected earnings on pension plan investments	-689,966	9,432,442
Administrative expense	189,129	187,309
Recognition of beginning of year deferred outflows of resources as pension expense	24,975,800	10,552,312
Recognition of beginning of year deferred inflows of resources as pension expense	<u>-7,944,275</u>	<u>-8,074,837</u>
Pension expense	\$43,244,785	\$37,707,269

Section 2: GASB Information

Deferred outflows of resources and deferred inflows of resources

Reporting date for employer under GASB 68	June 30, 2023	June 30, 2022
Measurement date	June 30, 2023	June 30, 2022
Deferred outflows of resources		
Changes of assumptions	\$7,617,351	\$11,511,138
Net difference between projected and actual earnings on pension plan investments	14,483,951	25,881,493
Difference between expected and actual experience in the Total Pension Liability	<u>5,967,127</u>	<u>3,566,909</u>
Total deferred outflows of resources	\$28,068,429	\$40,959,540
Deferred inflows of resources		
Changes of assumptions	\$0	\$0
Net difference between projected and actual earnings on pension plan investments	0	0
Difference between expected and actual experience in the Total Pension Liability	<u>0</u>	<u>0</u>
Total deferred inflows of resources	\$0	\$0
Deferred outflows of resources and deferred inflows of resources related to pension will be recognized as follows:		
Reporting date for employer under GASB 68 year ended June 30:		
2023	N/A	\$17,031,525
2024	\$16,007,431	13,007,410
2025	4,008,486	1,488,165
2026	8,742,476	9,432,440
2027	-689,964	0
Thereafter	0	0

Note: Average expected remaining service is 2.87 years as of July 1, 2022, the beginning of the measurement period ending June 30, 2023.

Section 2: GASB Information

Schedule of recognition of change in total Net Pension Liability

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience on Total Pension Liability

Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Expected and Actual Experience	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2019	-\$1,282,568	3.34	-\$130,562	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	1,870,126	3.12	599,399	71,929	0	0	0	0	0	0
2021	1,853,470	3.05	607,695	607,695	30,385	0	0	0	0	0
2022	4,329,529	2.94	1,472,629	1,472,629	1,384,271	0	0	0	0	0
2023	6,986,948	2.87	N/A	<u>2,434,477</u>	<u>2,434,477</u>	<u>2,117,994</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase / (decrease) in pension expense			N/A	\$4,586,730	\$3,849,133	\$2,117,994	\$0	\$0	\$0	\$0

Section 2: GASB Information

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of Assumption Changes

Reporting Date for Employer under GASB 68 Year Ended June 30	Assumption Changes	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2019	\$5,954,977	3.34	\$606,196	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2020	2,519,980	3.12	807,686	96,922	0	0	0	0	0	0
2021	1,735,525	3.05	569,025	569,025	28,450	0	0	0	0	0
2022	16,392,380	2.94	5,575,639	5,575,639	5,241,102	0	0	0	0	0
2023	3,603,307	2.87	N/A	<u>1,255,508</u>	<u>1,255,508</u>	<u>1,092,291</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net increase / (decrease) in pension expense			N/A	\$7,497,094	\$6,525,060	\$1,092,291	\$0	\$0	\$0	\$0

Section 2: GASB Information

Increase / (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Projected and Actual Earnings on Pension Plan Investments

Reporting Date for Employer under GASB 68 Year Ended June 30	Differences between Projected and Actual Earnings	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	Thereafter
2018	\$1,063,942	5.00	\$212,790	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	11,572,421	5.00	2,314,484	2,314,484	0	0	0	0	0	0
2020	24,175,185	5.00	4,835,037	4,835,037	4,835,037	0	0	0	0	0
2021	-39,721,375	5.00	-7,944,275	-7,944,275	-7,944,275	-7,944,275	0	0	0	0
2022	47,162,202	5.00	9,432,442	9,432,440	9,432,440	9,432,440	9,432,440	0	0	0
2023	-3,449,822	5.00	<u>N/A</u>	<u>-689,966</u>	<u>-689,964</u>	<u>-689,964</u>	<u>-689,964</u>	<u>-689,964</u>	<u>0</u>	<u>0</u>
Net increase / (decrease) in pension expense			N/A	\$7,947,720	\$5,633,238	\$798,201	\$8,742,476	-\$689,964	\$0	\$0

Section 2: GASB Information

Total Increase / (Decrease) in Pension Expense

Reporting Date for Employer under GASB 68 Year Ended June 30	Total Increase / (Decrease) in Pension Expense	2022	2023	2024	2025	2026	2027	2028	Thereafter
2018	\$20,964,802	\$212,790	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2019	16,244,830	2,790,118	2,314,484	0	0	0	0	0	0
2020	28,565,291	6,242,122	5,003,888	4,835,037	0	0	0	0	0
2021	-36,132,380	-6,767,555	-6,767,555	-7,885,440	-7,944,275	0	0	0	0
2022	67,884,111	16,480,710	16,480,708	16,057,813	9,432,440	9,432,440	0	0	0
2023	7,140,433	<u>N/A</u>	<u>3,000,019</u>	<u>3,000,021</u>	<u>2,520,321</u>	<u>-689,964</u>	<u>-689,964</u>	<u>0</u>	<u>0</u>
Net increase / (decrease) in pension expense		N/A	\$20,031,544	\$16,007,431	\$4,008,486	\$8,742,476	-\$689,964	\$0	\$0

Section 2: GASB Information

Schedule of reconciliation of Net Pension Liability

Reporting Date for Employer under GASB 68	June 30, 2023	June 30, 2022
Measurement Date	June 30, 2023	June 30, 2022
Beginning Net Pension Liability	\$286,943,555	\$219,274,670
Pension expense	43,244,785	37,707,269
Employer contributions	-21,464,439	-18,964,310
New net deferred inflows/outflows	4,140,414	51,403,401
Recognition of prior deferred inflows/outflows	<u>-17,031,525</u>	<u>-2,477,475</u>
Ending Net Pension Liability	\$295,832,790	\$286,943,555

Appendix

Appendix A: Definition of Terms

Definitions of certain terms as they are used in Statement No. 68. The terms may have different meanings in other contexts.

Active employees	Individuals employed at the end of the reporting or measurement period, as applicable.
Actual contributions	Cash contributions recognized as additions to a pension Plan Fiduciary Net Position.
Actuarial present value of projected benefit payments	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial valuation	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial valuation date	The date as of which an actuarial valuation is performed.
Actuarially determined contribution	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad hoc cost-of-living adjustments (Ad Hoc COLAs)	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad hoc postemployment benefit changes	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Agent employer	An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan.
Agent multiple-employer defined benefit pension plan (agent pension plan)	A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees.
Allocated insurance contract	A contract with an insurance company under which related payments to the insurance company are currently used to purchase immediate or deferred annuities for individual employees. Also may be referred to as an annuity contract.
Automatic cost-of-living adjustments (Automatic COLAs)	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to

	another variable (such as an increase in the consumer price index).
Automatic postemployment benefit changes	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Closed period	A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth.
Collective deferred outflows of resources and deferred inflows of resources related to pensions	Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability.
Collective Net Pension Liability	The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation.
Collective pension expense	Pension expense arising from certain changes in the collective Net Pension Liability.
Contributions	Additions to a pension Plan Fiduciary Net Position for amounts from employers, non-employer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources.
Cost-of-living adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-sharing employer	An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan.
Cost-sharing multiple employer defined benefit pension plan (Cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered payroll	The payroll of employees that are provided with pensions through the pension plan.
Deferred retirement option program (DROP)	A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period.
Defined benefit pension plans	Pension plans that are used to provide defined benefit pensions.

Defined benefit pensions	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement No. 68.)
Defined contribution pension plans	Pension plans that are used to provide defined contribution pensions.
Defined contribution pensions	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount rate	The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: 1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan Fiduciary Net Position is projected (under the requirements of Statement No. 68) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry age actuarial cost method	A method under which the actuarial present value of the projected benefits of each individual included in an 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 portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive employees	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Measurement period	The period between the prior and the current measurement dates.
Multiple-employer defined benefit pension plan	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL)	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.

Non-employer contributing entities	Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of Statement No. 68, employees are not considered non-employer contributing entities.
Other postemployment benefits	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension plans	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan members	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment	The period after employment.
Postemployment benefit changes	Adjustments to the pension of an inactive employee.
Postemployment healthcare benefits	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected benefit payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public employee retirement system	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real rate of return	The rate of return on an investment after adjustment to eliminate inflation.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single employer	An employer whose employees are provided with pensions through a single-employer defined benefit pension plan.
Single-employer defined benefit pension plan (Single-employer pension plan)	A defined benefit pension plan that is used to provide pensions to employees of only one employer.

Special funding situations	<p>Circumstances in which a non-employer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists:</p> <ol style="list-style-type: none"> 1. The amount of contributions for which the non-employer entity legally is responsible is not dependent upon one or more events or circumstances unrelated to the pensions. 2. The non-employer entity is the only entity with a legal obligation to make contributions directly to a pension plan.
Termination benefits	<p>Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.</p>
Total Pension Liability (TPL)	<p>The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement No. 68.</p>

Town Pension Plan Statement of Benefits as of July 1, 2023

As you know, the Town's Retirement Plan is designed to provide you and your family with a measure of financial security when you retire. In order to assist you in planning for your retirement, the Retirement Board is pleased to present you with this personalized benefit statement of your **estimated** retirement benefits from the Plan.

Personal Data

<i>Name</i>	LastName, FirstName
<i>Social Security Number</i>	xxx-xx-1234
<i>Sex</i>	F
<i>Date of Birth</i>	01/01/1962
<i>Date of Entry</i>	01/01/2000
<i>Assumed Retirement Date</i>	04/01/2025
<i>Beneficiary</i>	FirstName LastName
<i>Group</i>	Board of Education

Compensation and Contribution Information

- Your earnings during the plan year ended June 30, 2023 are \$55,670
- Your contributions during the plan year ended June 30, 2023 are \$ 5,010
- Your accumulated post-tax employee contributions to date without interest are \$ 1,000
- Your accumulated post-tax employee contributions to date with interest are \$ 1,000
- Your accumulated pre-tax employee contributions to date without interest are \$75,803
- Your accumulated pre-tax employee contributions to date with interest are \$95,130

Your Estimated Retirement Benefit

As of July 1, 2023:

- Your annual projected retirement benefit at your assumed retirement date assuming no future pay increases is **estimated** to be: \$30,200
- Of the above projected amount, you have accrued an annual retirement benefit of: \$26,300 (**estimated** based on highest 36 consecutive months of pay)
- Based on 21 vesting credit(s), you are 100% vested in this accrued benefit.

For plan years ending prior to July 1, 2015, employee accumulations were credited with interest at 4%. For the 2015-2016 plan year, employee accumulations were credited with interest at 0%. Effective July 1, 2016, the rate was changed to 120% of the Federal Midterm rate in effect for the July at the beginning of the plan year. The rate for 2023-2024 is 4.62%.

All benefits described here are subject to the actual terms and conditions of the Retirement Plan in effect when application for payment is made at the time of your retirement. In addition, no provision has been made in this statement for future salary increases or adjustments for lump sum payment that is eligible for inclusion. This benefit statement is for your information only and is not a legally binding document. While reasonable measures have been taken to ensure that this benefit statement is accurate, errors can and sometimes do occur. If you have any questions about the Retirement Plan, or find an error in your personal data, please contact Town EE in the Human Resources Department at (860) 555-2555. If you wish to change your beneficiary, please complete a beneficiary card and return to Town EE. Beneficiary cards are available in Human Resources. **The Town reserves the right to correct any errors that may be in this statement.**

City of Burlington Employees' Retirement System



Request for Qualifications for Actuarial Services October 17, 2025

Submitted by: Gabriel, Roeder, Smith & Company
One Towne Square, Suite 800
Southfield, Michigan 48076
www.grsconsulting.com

Craig Graby, EA, FCA, MAAA
Phone: 800.521.0498, Ext. 7507
248.226.7507 (Direct Dial)
Email: craig.graby@grsconsulting.com



Table of Contents

Section	Page
Transmittal Letter	-
I Qualifications	1
II Scope of Work	4
Subconsultants	21
Possible Additional Services	21
III Cost Proposal	22
IV Contract Objections	23
V Required Forms	-

Appendices

A Team Member Biographies
B GRS Technology Tools
C GRS' Client Lists
D GRS' Certificate of Insurance



October 17, 2025

Mr. Brad Kukenberger, Director of Finance
City of Burlington
Clerk Treasurer's Office
149 Church Street
Burlington, Vermont 05408

Re: GRS' Response to the Request for Qualifications for Actuarial Services

Dear Mr. Kukenberger:

Gabriel, Roeder, Smith & Company (GRS) is pleased to have the opportunity to submit a Proposal for actuarial services to the City of Burlington Employees' Retirement System (BERS). The attached Proposal sets forth our understanding of the work to be performed and the qualifications and capabilities of the consultants and resources of GRS.

GRS offers the BERS an actuarial and benefits consulting firm that has unmatched expertise on the challenges facing public sector retirement systems. As a firm, GRS specializes in public sector retirement systems, has a nationally recognized reputation, a renowned research center that specializes in public employee retirement issues, and a clear understanding of the national, state, and local political and legislative environments. The far-ranging locations of our clients and the long association we have enjoyed with them attest to the quality of our services. We have been associated with more than half of our clients for at least 30 years, many of our clients for more than 50 years, and some for more than 85 years.

Our extensive actuarial and consulting experience with hundreds of public sector benefit plans, together with our close contact with the major groups concerned with public employee retirement, will be of special value to the BERS and staff.

We believe that GRS' proposed client service team is unmatched by any of our competitors. We have assembled a GRS team that is the perfect match for the BERS. The consultants that we are proposing have extensive experience providing actuarial consulting to public sector retirement systems across the country which brings a national perspective to their consulting.

There are four key qualification areas to look for in your actuarial firm. Our Proposal will demonstrate GRS' qualifications in each of these four areas:

Knowledge of the Issues and the Services – Our 85+ year reputation as experts who provide sound, technically proficient, independent advice is evidenced by the more than 1,000 public sector clients we serve, of which the majority have been clients for more than 30 years. We believe GRS retains clients for long periods of time because we consistently demonstrate knowledge, expertise, timeliness and capabilities that exceed those of our competitors.

Communication – Given the vast experience and expertise of our client service team, we believe strongly that we will be able to communicate effectively with the BERS staff and Board. Our work often requires us to speak in front of governing bodies, such as legislatures and city councils, as well as in front of labor and other employee groups. We communicate our results and recommendations in clear, jargon-free terms to maximize understanding by all parties.

Depth in the Issues – The BERS will want the benefit of knowing what other similar public retirement systems are doing and currently experiencing, not only in the region, but across the country, as well. In particular, we can provide the City with knowledge and consulting on the emerging financial and benefit related trends, and the ways in which the System can prepare and respond to these issues as they emerge. GRS is uniquely qualified to fill this role. We serve more public sector retirement systems than any other firm.


Sound and Integrated Approach – Our consulting team’s depth of expertise in retirement benefit consulting results from strong actuarial science credentials, many years of experience with benefit related government finance issues, specific experience with public sector clients similar to the BERS, and access to GRS’ state-of-the-art technology and research resources. We will work with the City and the System to bring forward solutions that respect the interests of the members, the employers, and other stakeholders.

If we are awarded this engagement, we intend to negotiate in good faith with BERS to reach an agreement on contract terms as expeditiously as possible. As the nation’s largest provider of actuarial services to public entities, we have negotiated mutually acceptable contract terms with our other clients in support of similar opportunities. We expect to also successfully reach agreement with BERS on acceptable contract terms for this opportunity.

We would be delighted to serve the City of Burlington Employees’ Retirement System and are confident that you will be pleased with our responsiveness and the quality of our work.

If you have any questions or need additional information, please feel free to contact us.

Respectfully submitted,
Gabriel, Roeder, Smith & Company


Craig Graby, EA, FCA, MAAA



SECTION I

QUALIFICATIONS

Qualifications

GRS satisfies the necessary qualifications set forth in Section V.2 as demonstrated below:

Founded in 1938, Gabriel, Roeder, Smith & Company (GRS) is a national actuarial and benefits consulting firm. GRS is dedicated to bringing clients innovative, sustainable solutions that the firm helps put into action. The firm supports the long-term success of pension, OPEB, and health and welfare benefit plans. Associates deliver high-quality services that reflect GRS' core values, which include professionalism and ethics in all aspects of business. The firm attracts the best talent in the industry by providing a collaborative work environment that respects the diversity and professional aspirations of our associates.

GRS has more public plan consulting experience than any other firm in the nation. We have been in business for more than 85 years and have over 1,000 public sector clients. Most of our clients have multiple benefit structures and employer groups; therefore, it is unlikely that there is any public sector benefit design or funding issue that GRS has not already helped another client manage or solve.

We have been associated with more than half of our clients for at least 30 years, many for more than 50 years, and some for over 85 years. We believe that our clients' long association with our company results from our focus on technological innovation, research, and employee professional growth efforts solely attentive on managing the challenges faced by benefit plans. ***GRS' public pension and OPEB client lists are provided in Appendix C.***

GRS is uniquely qualified to serve the City of Burlington Employees' Retirement System because we are a stable, proven, experienced firm. ***GRS is the only firm that has been dedicated to serving public sector plans since its inception.*** Public sector work is not a sideline for our primary work, it is our primary work. Because we specialize in public retirement consulting on a national basis and work on hundreds of plans in 30 states, we have consultants who work on virtually every existing plan structure in the country. If a question arises that your consulting team cannot answer from direct experience, your team can easily find a colleague with direct experience who can assist in dealing with the matter.

GRS has at least five advantages that are undisputable.

- GRS has the largest and most diverse public sector client base, both based on region and size.
- GRS has the most actuaries dedicated to public sector retirement systems.
- GRS has constantly invested significant resources in the public sector actuarial community.
- GRS has a proven track record of a commitment to public sector advocacy through research, communication, and support for national organizations.
- GRS has its own technology department and products, specially designed for public sector retirement systems.



Our People and the BERS Client Service Team

GRS provides the public sector with the best public pension and OPEB consulting talent available in the industry. Our consultants have many years of experience on a variety of accounts and have national reputations for their consulting abilities. We have 63 credentialed actuaries, many of whom have spent their entire career at GRS. Of those, 34 are Associates of the Society of Actuaries, 20 are Fellows of the Society of Actuaries, and 41 are Enrolled Actuaries.

Listed below is the proposed team for the BERS:

Primary Actuary and Main Contact:	Craig Graby, EA, FCA, MAAA
Secondary Actuary:	Heidi G. Barry, ASA, FCA, MAAA
Support Actuary:	Kevin Noelke, ASA, FCA, MAAA

Craig Graby is the proposed Lead Actuary and main contact for the BERS. Craig is a Senior Consultant associated with GRS' Midwest Region and primarily serves clients in Pennsylvania and the Washington, DC area. He has more than 30 years of actuarial and benefits consulting experience. Craig specializes in public sector benefit plans sponsored by federal, state, and county governments. He also has experience working with church plan clients.

Heidi G. Barry will serve as Secondary Actuary for the BERS. Heidi is a Senior Consultant and Team Leader in GRS' Southfield, Michigan office. She has more than 24 years of actuarial and consulting experience with public employee retirement systems. Heidi has worked with public retirement plans in Michigan, Arkansas, New Hampshire, Florida, Missouri, Illinois and Virginia.

Kevin T. Noelke will serve as Support Actuary for the BERS. Kevin is a consultant and actuary in GRS' Southfield, Michigan office. He has more than 14 years of actuarial and consulting experience with statewide, local government benefit plans and church programs. Kevin works with plans in Florida, Illinois, Maryland, Michigan, Minnesota, Missouri, New Hampshire and Rhode Island.

Resumes for Craig, Heidi and Kevin are provided in Appendix A.

A list of projects similar in size and scope to BERS for whom GRS provides actuarial and consulting services is provided on the following page.



References

City of Manchester Employees' Contributory Retirement System

Ms. Melanie Murray, Executive Director
1045 Elm Street – Suite 403
Manchester, New Hampshire 03101-1824
Telephone: 603.624.6506
Email: mmurray@manchesterretirement.org

City of Troy Employees Retirement System

City of Troy Retiree Health Care Plan

Mr. Rob Maleszyk, CPA Chief Financial Officer
500 W. Big Beaver
Troy, Michigan 48084
Telephone: 248.524.3330
Email: Robert.Maleszyk@troymi.gov

City of Ferndale Employees Retirement System

City of Ferndale Policemen and Firemen System

City of Ferndale Other Postemployment Benefits Plan

Mr. Dan Jacey, Human Resources Director
300 East Nine Mile Road
Ferndale, Michigan 48220
Telephone: 248.546.2378
Email: djacey@ferndalemi.gov



SECTION II

SCOPE OF WORK

Scope of Work

We understand the City of Burlington Employees' Retirement System Board is seeking a qualified actuarial firm to provide independent actuarial services to ensure the Retirement Plan is managed in compliance with applicable standards, accurately reflects the City's obligations, and remains financially sustainable.

GRS and the proposed client service team have significant experience directly relevant to the scope of services. We will provide the following services and deliverables, including but not limited to:

A. Annual Actuarial Valuation

- 1. Prepare the annual valuation of the Plan, including funded status, contribution requirements, and actuarially determined employer contribution (ADEC).**
- 2. Certify City and employee contribution requirements for compliance with the City Charter.**
- 3. Provide reports in formats suitable for the BERS Board, City Council, and auditors.**

Based on our experience with 43 statewide retirement systems and 1,000 local governments, we provide more year end reporting for public sector clients than any other consulting firm in the country. Virtually all of the statewide systems we work on, as well as local municipalities, require timely and accurate information for the system's annual financial report.

This information is typically needed within a month or two after the close of the fiscal year. This requires reconciling the valuation data, producing data schedules, reviewing financial information, computing actuarial liabilities and contribution requirements as well as providing the various disclosure requirements all in a short period of time. Since all of our valuation software and technology tools have been designed specifically for public sector clients, we have the capability of providing all of the necessary information for year-end reporting in a fast and efficient manner.

Our consultants strive to deliver reports that are easily understood by all stakeholders. Our clients have told us that this is one of our strengths. We understand that our reports are subject to public disclosure and review. Therefore, you can be confident that our work will always include clear explanations and disclosures, in layperson terms, of the methods and assumptions used in our calculations. In addition, our goal is to always minimize the use of technical jargon. To the extent that we must use terms common to the industry, we provide concise explanations of these terms, in either glossaries or within the body of the report.

To reinforce understanding of the results and the impact of policy options, our reports include graphic representations of the information, such as charts and tables.

In presentations we use the same approaches, and we endeavor to explain technical concepts and to respond to Board questions in a clear and concise manner rather than presenting page after page of numbers.

Our reports are individually designed to meet the client's needs. We will work with the Board and the City to design reports that meet your particular needs.



Pension Valuation Approach

Listed below is the basic approach we would use in performing the funding valuation reports for the System. Please see our proposed detailed work plan on page 7.



Hold Planning Meeting

We will have a meeting with the BERS soon after we receive notification that we have been selected to provide actuarial consulting services. We believe that meeting with you upfront to clarify the deliverables is critical to developing a strong working relationship. We will discuss any special concerns that you may have. GRS will review with the Board/Staff the flow of events for the valuations and make note of important dates and issues to be addressed in the valuations. We will discuss the methods and assumptions used in the previous year's valuation and recommend any changes, as needed. The result of the meeting is a work plan for the upcoming valuation process. We will hold annual planning meetings via conference call, as needed.



Review Current Plan Provisions

GRS will review State statutes, actuarial standards, and request and review information such as plan documents, summary plan descriptions, bargaining agreements, and other communications to active and retired members, in order to evaluate the nature of the pension benefits of System members.



Perform Replication Valuations

GRS will request census data files and assumption tables used in the previous year's valuations from the former actuary. We will perform a replication valuation of the previous year's valuation. We consider the replication valuation a standard practice and crucial to understanding the intricacies of the system. This parallel valuation also serves as an "audit" in that it replicates the work of the prior actuary and will highlight any exceptions in the valuation process that may merit discussion.



Request Member Data

GRS will request data files including records on each person who is actively participating in the plan as of the valuation date, receiving a benefit as of the valuation date, or who retains a right to future benefits. We request that the census information be provided electronically, in Access, Excel, or some other format. GRS and the Board/Staff will discuss and decide upon a secure method of data transmission, for example, with a secure FTP site (file transfer protocol). **GRS has 1,000 public sector clients and has never had a breach of confidential information in its entire history, which dates back to 1938.**



Prepare Data

Once data has been received, it is checked for general reasonableness, and compared with the prior year. Selected individual cases are reviewed in detail to ensure that the data changed as expected from year to year. GRS utilizes its Data Analysis tool that helps with the manipulation and analysis of valuation data. For example, we would confirm that active member test cases had an increase in service and that their reported pay amounts compare well between the two years. Retirees would be checked to confirm that they received the proper COLA, if applicable. Issues found by the reasonableness check that could impact the valuation results are then sent to the client for their input. Once staff has provided a reasonable check of the information provided, GRS will prepare the data for the valuations.



Receive Financial Data

We will request asset data from the plan in order to calculate actuarial value of assets, unfunded actuarial accrued liability, funded ratio, and contribution rates for the systems. We will review the information for reasonableness, including comparing the asset return against market indices and comparing the contributions and benefit payments against projected amounts. We will reconcile differences with the investment manager or plan staff.

Pension Valuation Approach - Concluded



Produce Valuation Results

Once the data files are ready for use, they will be run through our valuation programs to produce initial results. The results will be thoroughly checked, and costs and liabilities will be developed along with the contribution rate. The valuations will compare the actuarial assumptions and actual experience of the plan each year. Any unusual or unexpected results are discussed immediately with the Board/Staff.



Prepare Reports

The valuation reports will then be drafted. The format is normally consistent from year to year for ease of use. At the initial planning meeting, we will discuss report content and format to ensure all the necessary information is provided.



Present Reports

The annual reports will be prepared and forwarded to the BERS Staff. We will then schedule a meeting to present the reports to the Retirement Board. At this meeting, we will highlight the most important valuation results and any trends emerging from the current and prior years' results. We will also inform the Retirement Board of the latest developments in the public sector benefits field as they apply to the BERS.

On the following page is a suggested work plan for completion of the actuarial valuations.

GRS' Proposed Detailed Pension Work Plan

	Task Description	Responsibility		Due Date*
		GRS	BERS	
Planning Meeting	Meeting with the BERS and team regarding scope of actuarial services	✓	✓	
Transition	Commence Parallel Valuation			
	GRS requests the following information from the prior actuary <ul style="list-style-type: none"> ▪ Valuation-ready data ▪ Historical reports and documents 	✓	✓	
	Replicate Valuation Results			
	<ul style="list-style-type: none"> ▪ Write and test valuation programs ▪ Run parallel valuations and confirm discrepancies with prior actuary ▪ Submit and discuss replication results with the System 	✓		
Data	Census Data			
	<ul style="list-style-type: none"> ▪ Receipt of census data from System 		✓	
	<ul style="list-style-type: none"> ▪ Review and load data and email questions to the System 	✓		
	<ul style="list-style-type: none"> ▪ Data answers received from System 		✓	
	<ul style="list-style-type: none"> ▪ Load data answers, finalize data and prepare schedule 	✓		
	Financial Data			
	<ul style="list-style-type: none"> ▪ Receipt of financial statements from System 		✓	
	<ul style="list-style-type: none"> ▪ Assets entered and reviewed 	✓		
Valuation	Calculations and Programs			
	<ul style="list-style-type: none"> ▪ Test Life program check 	✓		
	<ul style="list-style-type: none"> ▪ Test Life program review 	✓		
	<ul style="list-style-type: none"> ▪ Financing work papers input 	✓		
	<ul style="list-style-type: none"> ▪ Financing work papers review 	✓		
	<ul style="list-style-type: none"> ▪ Run gain/loss programs and analyze 	✓		
	<ul style="list-style-type: none"> ▪ Review gain/loss by source 	✓		
	Report			
	<ul style="list-style-type: none"> ▪ Draft valuation report 	✓		
	<ul style="list-style-type: none"> ▪ Valuation report review 	✓		
	<ul style="list-style-type: none"> ▪ Consultant final review of valuation report 	✓		
	Deliverable Schedule			
	<ul style="list-style-type: none"> ▪ Draft report to System 	✓		
	<ul style="list-style-type: none"> ▪ Final report to System 	✓		
<ul style="list-style-type: none"> ▪ Presentation of report to Board 	✓			

* Due dates will be finalized at the planning meeting.



B. Experience Studies and Assumptions

- 1. Perform periodic (typically every 3–5 years) experience studies to review demographic and economic assumptions.**
- 2. Recommend updates to actuarial assumptions (mortality, retirement, termination, disability, salary increases, COLA, inflation, etc.).**
- 3. Support the Board in setting the assumed rate of return and funding policy.**

GRS will conduct an experience review every 3-5 years as requested by BERS. Pension plans require a long-term financing program, but the future cannot be predicted with precision. Therefore, periodic adjustments to the financing program lead to better measurements as the demographic and financial environments inevitably change. Experience studies provide a basis for evaluating assumptions and revising them to better measure a plan's financial progress. We have helped clients refine these measurements to enhance the quality of funding recommendations, develop more level funding patterns, and ensure that inputs for benefit cost proposals are up-to-date.

We perform experience studies including the review of demographic and economic assumptions for most of our clients on a regular basis. These studies are an important part of the actuarial services provided to our retirement system clients. Given our large public sector client base and our extensive experience, we offer a special advantage in this area.

In order to perform the valuation, assumptions must be made regarding the future experience of the System with regard to the following risk areas:

- Rates of withdrawal of active members
- Rates of disability among active members
- Patterns of salary increases to active members
- Rates of retirement among active members
- Rates of mortality among active members, retirees, and beneficiaries
- Long-term rates of investment return

In conducting experience studies, actuaries generally use data over a period of several years. This is necessary in order to gather enough data so that the results are statistically significant. In addition, if the study period is too short, the impact of the current economic conditions may lead to misleading results.

It is known, for example, that the health of the general economy can impact salary increase rates and withdrawal rates. Using results gathered during a short-term boom or bust will not be representative of the long-term trends in these assumptions.

Also, the adoption of legislation, such as plan improvements or changes in salary schedules, will sometimes cause a short-term distortion in the experience. For example, if an early retirement window was opened during the study period, we would typically see a short-term spike in the number of retirements followed by a dearth of retirements for the following two-to-four years. Using a longer period prevents giving too much weight to such short-term effects.

On the other hand, using a much longer period could water down real changes that may be occurring, such as mortality improvement or a change in the ages at which members retire.



Based upon actuarial audits we have performed on the work of other actuaries, we are convinced that the experience study we provide clients is one of the highest quality reports being done in the industry. Other studies we have seen by well-known actuaries display a much smaller amount of data and recommendations without providing the amount of foundation that we do.

Approach to Actuarial Assumptions

GRS places a high level of importance on assisting our clients with selecting actuarial assumptions that will best match future experience. Appropriate assumptions result in better valuation results, and can reduce some of the inherent volatility in year-to-year contribution requirements. Also, our actuaries understand the importance of the actuarial standards created by our profession regarding the assumption selection process and we follow them diligently.

Demographic Assumptions

We pay special attention to the correlation of demographic experience with the benefits and features provided by the retirement plan. Because of the flexibility of our actuarial valuation software, we can easily accommodate more complex assumptions for pay increases, withdrawals, retirements, etc., that vary by age, service, or both should such correlations exist.

Although prior experience is an important factor used in the selection of actuarial assumptions, it is not the only factor. We believe it is important to also incorporate knowledge of current economic and workplace conditions, general employee behavior trends and any other factors that might indicate that future experience may differ from recent past experience.

Economic Assumptions

The selection of economic assumptions (for example, investment return, price inflation and long-term wage growth) for valuation purposes is covered under Actuarial Standard of Practice No. 27. This standard requires the actuary to identify a reasonable assumption that is appropriate for the purpose of the measurement. The general process for selecting an economic assumption is to identify the components of the assumption, evaluate relevant data, consider factors specific to the measurement, and consider other general factors.

Under this process, for the assumed rate of return GRS actuaries may recommend a price inflation assumption and take into account expected real returns separately for each asset class, such as fixed-income investments or equity, and then develop a weighted average return estimate based on the asset allocation of the fund. Finally, GRS actuaries may make adjustments to the expected return to reflect factors such as reinvestment risk, manager performance, investment expenses and administrative expenses, and a provision for adverse deviation in developing the recommendation for the Board.

While the methodology used to formulate a pension fund's investment return assumption generally does not differ from client to client, the actual recommendation for this assumption may. Differences from client to client may depend on the following factors:

- The pension fund's current (or anticipated) asset allocation strategy;
- The factors previously described, such as reinvestment risk, manager performance, investment expenses and administrative expenses; and



- The pension fund decision makers' tolerance for risk (i.e., whether the assumption should include a specific provision for adverse deviation).

We believe the pension fund's decision makers have the ultimate say regarding this assumption. GRS would be comfortable with, and find appropriate, any actuarial investment rate assumption that can be reasonably anticipated to fall within a relatively narrow range of the process and factors previously described.

After performing the analysis described above, GRS presents the results of our study, which include recommendations for each significant assumption and the corresponding effect on required contributions.

The following is our plan for completing the experience study. Some steps will depend on the form in which data can be supplied, and may need to change once we have more information.

- 1  Review former actuary's last experience study to gain a better understanding of judgments that were made at that time.
- 2  Discuss events of the previous 5 years with staff in order to determine if there have been one-time events that may have an effect on the judgments we will need to make in connection with the experience study.
- 3  Review structure of assumptions for potential changes and discuss with staff. For example, timing of decrements within the year, timing of pay increases, treatment of service purchases, option factor subsidies, and the like. It is also important to understand how the data is presented, particularly regarding retirement and disability.
- 4  Request full valuation data sets for years ending June 30, 2022 and 2025 from the prior actuary or from the System.
- 5  Push each year's data set through valuation and gain loss systems in order to obtain normalized data for input into the experience study program. Verify that the census counts produced by programs match those of the former actuary to within acceptable tolerances.
- 6  Run experience study program on normalized data.
- 7  Determine assumption structure that provides the best fit to the data (vector format, select and ultimate, matrix type, age based, service based). This may vary by decrement.
- 8  Review economic information. Discuss outlook with staff and investment consultant.
- 9  Select inflation assumption, payroll growth assumption, and interest rate scenarios within a range that meets actuarial standards of practice and that is compatible with general expectations and the practices of similar systems. Data on other systems is available from the Public Pension Coordinating Council and of course from GRS' own clients.
- 10  Review option factors, service purchase factors and all other factors and loads for actuarial equivalence based upon the new assumptions. Recommend new factors or adjust valuation program as needed to ensure that actuarial equivalence is properly accounted for.
- 11  Review all proposed changes with staff. Seek staff input on assumptions. On occasion we have found that Retirement System Staff can provide insights that go well beyond the raw numbers from the study. We want to be sure that our assumptions are estimating a likely future, and not just trying to recreate the past.
- 12  Produce computer runs illustrating the effect of all assumption changes.
- 13  Prepare draft report for staff review.
- 14  Incorporate staff comments into final report. Deliver and present report in accordance with staff and Board expectations.

C. GASB Reporting and Financial Statement Support

1. Provide information and disclosures required under GASB 67/68 and 74/75.
2. Work with auditors to ensure compliance and transparency.

With regard to GASB Statements No. 67, No. 68, No. 74 and No. 75, GRS has been an industry leader of this effort, from providing feedback to GASB Board Members, conducting webinars and education sessions on the new standards to actually performing the calculations for many of our clients. GRS will work with auditors to provide the BERS with the required information in order to comply with these standards.

GASB Statement No. 67 and No. 68 Approach

Listed below is the basic approach we would follow in preparing the GASB Statement No. 67 and GASB Statement No. 68 reports



Confirm Discount Rate

Perform projections to determine whether there is a crossover date and, if necessary, calculate the single discount rate to be used for GASB Statement No. 67 and No. 68, if required.



Calculate Liabilities

Calculate the total pension liabilities using the entry age normal cost method (as required by GASB), using the GASB Statement No. 67 and GASB Statement No. 68 blended discount rate (if applicable), as of the measurement date. We will also calculate liabilities for the sensitivity analysis based on a discount rate of +1% and -1% from the single discount rate.



Prepare GASB Statement No. 67 and 68 Actuarial Valuation Reports

After the total pension liability for the plan is calculated, the GASB schedules are produced and thoroughly checked, and the GASB Statement No. 67 and 68 actuarial valuation report will be drafted. (At the initial planning meeting we will discuss the GASB actuarial valuation report content and format to ensure all the necessary information is provided and in the preferred format.) For many clients, we include a comparison of the funding actuarial valuation results and the GASB actuarial valuation results as part of the valuation presentation meeting.

Our proposed detailed work plan for completion of the GASB actuarial valuations is provided on page 14.

GASB Statement No. 74 and No. 75 Approach

Listed below is the basic approach we would follow in preparing the GASB Statement No. 74 and GASB Statement No. 75 reports



Confirm Discount Rate

Perform projections to determine whether there is a crossover date and, if necessary, calculate the single discount rate to be used for GASB Statement No. 74 and No. 75, if required.



Calculate Liabilities

Calculate the total OPEB liabilities using the entry age normal cost method (as required by GASB), using the GASB Statement No. 74 and GASB Statement No. 75 blended discount rate (if applicable), and projecting liabilities from the actuarial valuation date to the measurement date. We will also calculate liabilities for the sensitivity analysis based on a discount rate of +1% and -1% from the single discount rate and a trend rate of +1% and -1% from the current trend rate.



Prepare GASB Statement No. 74 and 75 Actuarial Valuation Reports

After the total OPEB liability for each of the plans is calculated, the GASB schedules are produced and thoroughly checked, and the GASB Statement No. 74 and 75 actuarial valuation report will be drafted. (At the initial planning meeting we will discuss the GASB actuarial valuation report content and format to ensure all the necessary information is provided and in the preferred format.) For many clients, we include a comparison of the funding actuarial valuation results and the GASB actuarial valuation results as part of the valuation presentation meeting.

Our proposed detailed work plan for completion of the GASB actuarial valuations is provided on the following page.

GRS' Proposed Detailed GASB 67/68 and GASB 74/75 Work Plan

Task Description		Responsibility		Due Date*
		GRS	System	
Planning Meeting	Meeting with the BERS and team regarding timing and deliverables	✓	✓	
Valuation	Commence Parallel Valuation			
	GRS requests the following information from the prior actuary <ul style="list-style-type: none"> ▪ Valuation-ready data ▪ Historical reports and documents 	✓	✓	
	Replicate Valuation Results	<ul style="list-style-type: none"> ▪ Write and test valuation programs ▪ Run parallel valuations and confirm discrepancies with prior actuary ▪ Submit and discuss replication results with the System 	✓	
Data	Data			
	<ul style="list-style-type: none"> ▪ Receipt of provision data from System 		✓	
	<ul style="list-style-type: none"> ▪ Review and email questions to the System 	✓		
	<ul style="list-style-type: none"> ▪ Receipt of financial statements from the System 		✓	
	<ul style="list-style-type: none"> ▪ Assets entered and reviewed 	✓		
	<ul style="list-style-type: none"> ▪ Receipt of component unit information from System ▪ Review of component unit information from System 		✓	
Valuation	Calculations and Programs			
	<ul style="list-style-type: none"> ▪ Test Life program and projection check 	✓		
	<ul style="list-style-type: none"> ▪ Test Life program and projection review 	✓		
	<ul style="list-style-type: none"> ▪ Financing work papers input 	✓		
	<ul style="list-style-type: none"> ▪ Financing work papers review 	✓		
	Report			
	<ul style="list-style-type: none"> ▪ Draft valuation report 	✓		
	<ul style="list-style-type: none"> ▪ Valuation report review 	✓		
	<ul style="list-style-type: none"> ▪ Consultant final review of valuation report 	✓		
	Deliverable Schedule			
<ul style="list-style-type: none"> ▪ Draft report to the System ▪ Final report to the System 	✓			

* Due dates will be finalized at the planning meeting.



D. Special Studies and Projections

1. Perform actuarial projections of funded ratio, liabilities, and contribution requirements under alternative scenarios (e.g., plan changes, investment return scenarios).
2. Provide actuarial impact analyses for proposed benefit changes or labor negotiations.
3. Assist with asset/liability studies in coordination with the City's investment advisor.

Projections

We provide cash flow projections for many of our clients upon request. We offer both open and closed group projections or projections that vary certain parameters. GRS Foresight™, our projection technology, has the ability to efficiently test various funding policies or strategies, along with ranges of actuarial assumptions, to improve the sustainability of the retirement system. The software is a true advancement in the area of public pension projection technology. More information on our technology services is provided in Appendix B.

Actuarial Impact Analyses

As the business environment in the public sector evolves, the need to evaluate different benefit and cost scenarios becomes imperative. Our actuarial work provides the technical information needed in order to help you understand the outcomes of different scenarios, while our benefit design consulting provides assistance with goal setting and guidance on which plan features will best meet those goals.

GRS is distinguished from its competitors because of its unparalleled depth of experience addressing policy and legal issues related to public employee retirement systems across the nation. GRS can assist the BERS staff in analyzing proposed benefit changes. We can also assist BERS in developing specific strategies for resolving any policy or administrative problems associated with implementing new benefit proposals.

We routinely assist our clients by providing timely financial impact estimates of benefit proposal changes. Because of our extensive background in the public sector, we are aware of the pressures that can arise when benefit proposals must be evaluated during legislative sessions, collective bargaining, or budgeting and planning. We can also conduct this same type of analysis for changes in pension accounting standards under consideration by the Governmental Accounting Standards Board (GASB).

We are prepared to expend every resource to meet required deadlines. We are known for our responsiveness and the quality of our work. GRS can deliver on time while always following generally accepted actuarial standards in all of our work.

The general process we follow in conducting financial impact studies follows:

- Upon receipt of each request, GRS will first review the benefit change and consult with the system's staff members to the extent needed to clarify technical questions with respect to the proposed change under consideration.
- Once we fully understand the proposed change, we will assess whether computer valuation runs are required, or if sufficient "building blocks" are already available from the valuation or from other cost studies. If the building blocks approach is appropriate, we will use it. This approach will only be used on studies where this method would produce results that are substantially equal to the results that would be produced by new valuation runs.



- If the building block approach is not appropriate, we would make and test any required programming changes and select any subset of data that is necessary for the study. For example, some assumption changes may be required and/or only a subset of data might be necessary (such as an early retirement window or a service purchase provision).
- Next we would analyze and review the results for reasonableness and consistency with prior cost studies.
- We will then confer and meet (as needed) with the system regarding both the short and the long term effect of the proposed changes.
- GRS will also discuss with the system any potential policy or administrative problems associated with implementing the new benefit proposals.
- Finally, GRS will assist the system in preparing presentation material designed to assist policy makers in their evaluation of the financial, policy and administrative implications of the proposed changes.

Asset/Liability Studies

We offer in-depth expertise in asset liability studies and have served numerous other systems in this capacity. For any future study, GRS will provide any assistance requested by BERS. GRS has worked with numerous nationally recognized investment consultants and can provide them with the necessary valuation output to perform a robust asset/liability study. In addition, our capital market assumption modeler can be useful in connection with asset/liability studies by comparing expected future returns on Retirement System assets under the capital market assumptions used by several different investment consulting firms. This can inform the selection of modelling parameters.

E. Board Support and Consultation

1. Attend regular meetings of the BERS Board to present results and answer questions.
2. Provide fiduciary education to Board members on actuarial concepts.
3. Prepare analysis on specific issues (e.g., pension obligation bonds, benefit adjustments, funding policy alternatives).

As lead consultant, Craig Graby will attend the meetings of the BERS Board to present results and answer questions. The secondary consultant, Heidi Barry, will be available to attend the meetings should Craig be unavailable. Given our large Midwest Region office with numerous experienced public sector actuaries, someone is always available in the event of an emergency or other circumstance involving the lead consultant.

GRS can provide educational discussions/presentations with the Board, BERS staff or any other group as requested by the Board.

In these challenging times, benefit plan trustees' and plan sponsors' access to education and training is invaluable. Many excellent avenues are available to pursue the knowledge you need to make the decisions you are responsible for. GRS is proud to be among those resources. Our education and training program is delivered through webinars and on-site sessions. The method, location, and time are based on your needs. You can customize your training by opting for an entire category of sessions or specific sessions from different categories. For more information or to schedule training, please contact Craig Graby. Listed below are topics from our educational syllabus.

Focus on the Fundamentals

Pension & OPEB Basics

This is the perfect first seminar for those who may be new to defined benefit programs. It will give the attendee a good foundation for future sessions. Attendees can opt to have GRS cover both pension and OPEB or just one topic area. During this presentation we will define and explain DB plan structures used in the public sector; review how DB structures differ from DC structures; provide a high-level review of pension and OPEB accounting standards; review commonly used actuarial and benefit design terms, discuss types of pension and OPEB funding vehicles, and described various types of studies (experience, asset/liability, and actuarial audits) used in defined benefit work.

Intermediate Pension Actuarial Concepts

This presentation covers actuarial and funding concepts associated with defined benefit pension plans. This presentation will help the attendee understand the pension valuation report by explaining actuarial mathematics related to the basic funding equation, contribution rate, concept of present value, the funded ratio, and actuarial assumptions. The presentation will include examples of how plans are valued and funded using these concepts.

Intermediate OPEB Actuarial Concepts

This presentation covers actuarial and funding concepts associated with OPEB programs. This presentation will help the attendee understand the OPEB valuation report by explaining actuarial mathematics related to the basic funding equation, contribution rate, concept of present value, the funded ratio, per capita rate development, implicit rate subsidy, and actuarial assumptions. The presentation will include examples of how plans are valued and funded using these concepts.



Beyond the Fundamentals

Stress Testing: How to Use Quantitative Analysis to Optimize System-Wide Policies

Stress testing is a simulation technique used on asset and liability portfolios to determine the impact of certain economic scenarios. Risk can have a cost, but it can also create opportunity. Multiple scenarios or stochastic modeling, sometimes referred to as scenario testing or sensitivity analysis, should be geared towards the actual decisions that can be made to appropriately and reasonably manage risk, and to optimize policies. This presentation will cover how these techniques were employed by pension funds and offer a framework for similar strategies that other pension funds could use.

Role of Actuarial Audits in Due Diligence

Actuarial audits serve an important role in ensuring sound funding for public pension plans. The presentation begins with a review of the purpose, timing and need for actuarial audits and their role in due diligence. The remainder of the presentation covers the types of actuarial audits available and a description of the findings you can expect from each.

Emerging and Evolving Trends

Risk Management in the Face of a Changing Economic Environment

Prior to the release of ASOP 51 (Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions), pension Standards of Practice focused on funding. While risk management analysis, e.g., projections and scenario modeling, occurred prior to ASOP 51, the new Standard outlines specific areas of risk for investigation, including investment risk. The positive investment return environment of recent years provides a scenario where the application of ASOP 51 is not only required for the actuary, but relevant in terms of funding policy for the fiduciary.

During this session, we will first lay the foundation for discussion by identifying the primary users of risk measurement information, key features of ASOP 51, and sources of risk, along with how each source is measured. We will then discuss the trade-offs that exist between different risks and the lessons learned by public employee retirement systems as investment markets have gone from Bear to Bull and back over the years. The session will conclude by providing examples of methods that public sector retirement systems are using to manage risk.

Measuring Pension Risk: It's Not Just for the Actuary

The Actuarial Standards Board (ASB) has adopted an Actuarial Standard of Practice (ASOP No. 51) for pension valuations that would provide guidance to actuaries on the measurement of risk associated with pension obligations and actuarially determined contributions. The ASB's Pension Committee describes risk as "the potential for future deviation of actual results from expectations derived from actuarial assumptions." As such, the ASOP requires that actuaries provide an assessment of the significant risks associated with the measures. The ASOP also covers guidance on the methods the actuary should consider for assessing risk.

While the ASOP impacts the work of the actuary, it is important that retirement system trustees and sponsors gain a good understanding of these risks and how they can affect various funding policy decisions. In addition, understanding the role of and need for each risk assessment method is likely to be a subject of discussion and determination between the actuary and client.

During this session, the presenter will explain the significant risks that may affect the plan's financial condition, which includes investment risk, asset/liability mismatch risk, interest rate risk, longevity risk, and other risks that may have a material effect as determined by the actuary. A discussion of the methods to be used to measure the risks and their role in the assessment process will also be covered. These methods include stress tests, scenario tests, sensitivity tests, and stochastic modeling.



Mortality Rates in the Public Sector

In 2018, the Society of Actuaries (SOA) published new mortality tables based exclusively on public employee retirement system (PERS) data. The SOA published separate tables for General Employees, Public Safety, and Teachers. The tables reflect lower mortality rates for public sector DB plan members compared to private sector DB plan members. This presentation will help PERS understand implementation issues and review the potential implications of the new tables.

Long-Term Policy Considerations with an Aging Population

Understanding the implications of an aging population can help public employee retirement systems address the ever-changing demands of the public sector workforce. This presentation lays the foundation for the changes in life expectancy and the challenges this places on the funding of retirement programs. The presentation will cover: 1) sustainability in the face of changing demographics; 2) the way plans may address changes in the workforce through design; and 3) how to use actuarial assumptions and methods to stay “ahead of the curve.”

As requested by BERS, GRS will prepare analysis on specific issues such as pension obligation bonds, benefit adjustments, and funding policy alternatives.

GRS will provide additional consulting services or develop reports which are not specifically listed in this scope of work, as requested by BERS.

Our continuing objective is to remain a trusted advisor to clients and to continue to partner with them as risk managers and subject matter experts. We view the provision of consulting services as making our clients' lives easier and providing them with complete information such that they will be able to make informed decisions, and anticipate events that may impact this process. A key building block to our approach is the integration of pension funding and accounting into overall business and financial plans (as compared to merely “running the numbers”).

GRS emphasizes accountability, transparency, education, risk management and honesty in its work for clients. We will make sure decision makers are able to base their decisions on broad understanding of not only the top line numbers, but their limitations, their risks, what strategies have been implemented and how the System will react in adverse scenarios.

We will also hold ourselves accountable to previous estimates and provide transparent discussions on either (1) how consistent the new information is, or (2) why the new information is different.

As your partner, we view our relationship with BERS as a dynamic process in which both GRS and BERS take an active role. Our research and consulting philosophy rests on these fundamental principles. Our philosophy and approach brings BERS a broad strategic perspective to your retirement needs and the highest quality actuarial services available in the industry.



F. Defined Benefit Administration Services

1. Prepare benefit estimates for members (retirement, termination, disability, survivor) upon request from the Plan Administrator.
2. Review and certify benefit calculations prepared by City staff for accuracy and compliance with plan provisions.
3. Develop and update actuarial factors and tables (e.g., early retirement reductions, optional forms, actuarial equivalence factors) in accordance with adopted assumptions.
4. Provide guidance on the interpretation and application of plan provisions to individual cases and administrative processes.
5. Assist with compliance matters to ensure benefit administration aligns with federal and state law as well as GASB requirements.
6. Support the Board and City staff with ad hoc administrative needs, including QDRO reviews, benefit disputes, or member communications.

GRS has over 35 years of experience helping defined benefit pension plans with their administrative responsibilities. We deliver plan administration solutions that fit your needs and budget.

GRS will provide on-going consulting services to assist the Plan in the effective administration of the retirement system. Our continuing objective is to remain a trusted advisor to clients and to continue to partner with them as risk managers and subject matter experts. We view the provision of consulting services as making our clients' lives easier and providing them with complete information such that they will be able to make informed decisions, and anticipate events that may impact this process.

We perform thousands of benefit calculations for our clients in compliance with their plan provisions. We will assist the Plan Administrator in preparing benefit estimates and reviewing and certifying benefit calculations for City staff. This may involve providing guidance on the interpretation and application of plan provisions and administrative processes. We understand the importance of federal and state compliance matters related to benefit administration.

GRS will provide BERS with actuarial tables and factors, as needed. GRS has developed actuarial factors and tables for many of our clients. In particular, we have the technical ability to develop a standalone application to utilize the tables or to provide factors (such as mortality rates) to update a current system. Samples include service purchase factors, conversion factors between plan structures, option factor tables or spreadsheets for annuitants for survivor coverage, present value calculations or factors including reserve transfer amounts and tables required for IRC Section 415 limitation calculations. GRS also assists clients in programming their internal systems to calculate various factors as needed and to provide preliminary screening for IRC Section 415.

We will support the Board and City staff with ad hoc administrative needs, including QDRO reviews, benefit disputes, or member communications. In fact, we perform many QDRO calculations and actuarial certifications on a regular basis. We have extensive experience in this area. GRS was integrally involved in the drafting of the original legislation in Michigan which became effective June 27, 1991 related to EDRO/DRO calculations.

GRS has also successfully implemented PensionSoft systems for numerous employee groups and benefit structures, including general employees, police officers, and firefighters.



Subconsultants

We will not use a subcontractor on this project. We partner with firms only in cases when either GRS or the partner bring a specialized set of services or skills, not otherwise available at the firm. For public sector pension and OPEB work we do not use subcontractors.

By not partnering with another firm, our client is assured that Professional Standards and our internal Code of Ethics policies will be enforced. Additional benefits for the client include:

- Our quality and peer review process are under our control. When our work is audited by other firms, those firms will not be engaged in providing services for this engagement.
- You can be assured that our advice is only our own and unbiased towards all stakeholders and is not in any way influenced by another firm.
- Our clients can be assured that GRS will only provide services that it is qualified to provide.
- We are a fee for service firm (we bill based on time and expense incurred). Our clients can be assured that our advice is impartial since we do not receive any revenue other than for work completed and delivered to our client.

Possible Additional Services

The following are services we provide that may not be offered by other consulting firms:

- Our research department, directed by Mary Ann Vitale, along with our research partnership with the Groom Law Group.
- GRS' projection technology software suite Foresight™, which is used to help clients with pension redesign, funding, and pension risk management.
- 415 screening tools and testing.
- Client option factor tools.
- Pension administration software consulting (PensionSoft or other software products).

Your GRS team is well prepared to provide special projects, including, but not limited to:

- Risk analysis;
- Assisting with the development of funding policy (or other policies that involve actuarial consulting);
- Providing support to other vendors, such as legal counsel, accountants/auditors, investment consultants, etc.;
- Benefit design;
- Projections;
- Member education;
- Legislative education; and
- Other actuarial projects.

With over 1,000 clients, we provide actuarial and benefits consulting services to more public sector clients than any other firm in the country. As such, there are very few, if any, special projects that we have not seen before. We are able to draw from these prior experiences to provide any special projects requested in an efficient and timely manner.



SECTION III

COST PROPOSAL

Cost Proposal

The costs for the services and deliverables identified in Sections A, B, and C of the Scope of Work are:

	FYE 2026 Fee	FYE 2027 Fee	FYE 2028 Fee
BERS – Annual Funding Valuation	\$35,000	\$36,000	\$37,000
Experience Study (one during 3-year contract period)	n/a	n/a	\$35,000
GASB Statement No. 67/68 Services for BERS	\$10,000	\$11,000	\$12,000
Basic Retainer OPEB Services	\$10,000	\$11,000	\$12,000

The above fees include one in person meeting and up to 20 retirement estimates or calculations.

The costs for the services and deliverables identified in Sections D, E, and F of the Scope of Work (except for the meetings and retirement estimates and calculations as noted in the fixed fees above) are based on an hourly rate schedule as shown below:

	FYE 2026 Hourly Consulting Fees
Senior Consultants/Actuaries	\$400
Consultants/Actuaries	\$375
Analysts	\$250
Clerical	\$130

The cost of any requested project can be quoted ahead of time as a fixed fee if the City wishes. Hourly rates beyond FY26 are generally increased for inflation and will be communicated to the City.

SECTION IV

CONTRACT OBJECTIONS

Contract Objections

If we are awarded this engagement, we will negotiate in good faith with the City of Burlington to reach an agreement on contract terms as expeditiously as possible. As the nation's largest provider of actuarial services to public entities, we have negotiated mutually acceptable contract terms with our other clients in support of similar actuarial opportunities. We expect to also successfully reach agreement with the City of Burlington on acceptable contract terms for this opportunity.

GRS respectfully requests the following contract terms.

Section 11 – Inspection of Work – Since this engagement involves consulting services rather than the preparation of material goods, we believe this section is not applicable and should be removed. GRS is certainly agreeable to providing access to accounting and/or billing records for the services provided under this RFP. Please note that incomplete actuarial work would consist primarily of proprietary information such as source code or spreadsheets and, further, would be of no value to the City.

Section 24 – Failure to Comply with Time Schedule – GRS suggests that changes are needed to this section to reflect the type of services being performed under this RFP. We would suggest that a refund be given if the City is not satisfied with the work done under the RFP since the City cannot effectively “take control of the work” or “direct the activities of the Consultant.”

Section 27 – Ownership of the Work – GRS requests that this section exclude GRS' proprietary information such as source code, spreadsheets and workpapers.

Section 28 – Proprietary Rights – Since this engagement involves consulting services rather than preparation of material goods, we believe this section is not applicable and should be removed.

Attachment C-1 Insurance and Indemnification – GRS requests that the City accept GRS' standard insurance coverage. Please see Appendix D for a copy of our insurance.

GRS requests to add the following redlined language to this section

To the fullest extent allowed by law, the Contractor shall indemnify, defend, and hold harmless the City and its officers and employees from liability and claims, suits, fines, penalties, expenses (including **reasonable** attorneys' fees and costs), losses, liens, judgments, and damages of any kind or nature whatsoever (collectively, “Claims”) arising as a result of the Contractor's **grossly negligent** acts **and/or omissions** in the performance this Contract.

Notwithstanding the foregoing, with respect to Professional Negligence (defined below), (i) the Contractor shall not have a defense duty to the City or its officers and employees; and (ii) the Contractor's duty to indemnify and hold harmless the City and its officers and employees shall be limited to the extent of the Contractor's actual fault; provided, however, that the Contractor's indemnification obligation with respect to Professional Negligence shall include the obligation to reimburse **reasonable** defense costs in the event and to the extent such costs are incurred and paid by the City as the proximate cause of said Professional Negligence.



In addition, we ask that you consider a reasonable limitation on the indemnification provided (limitation of liability), such as, five (5) times the fees charged under this contract.

In return, we would offer an additional fee discount of 5% to the final negotiated price. These limitations assist us in keeping insurance costs down, and in turn, our fees down.



SECTION V

REQUIRED FORMS

- Exhibit D Livable Wage Certification
- Exhibit E Outsourcing Certification
- Exhibit F Union Deterrence Certifications


Certification of Agreement to Comply with the City of Burlington’s Livable Wage Ordinance

I, Christine Scheer, on behalf of Gabriel, Roeder, Smith & Company ("the Contractor"), in connection with a contract for actuarial services to be provided to the City of Burlington ("the City"), hereby certify, under oath, that the Contractor (and any of its subcontractors or subgrantees under this contract) shall comply with the City's Livable Wage Ordinance ("LWO"), B.C.O. 21-80 et seq., and that:

- (1) The Contractor shall pay all “covered employees” as defined by the LWO (including covered employees of subcontractors or subgrantees) a livable wage (as determined, or adjusted, annually by the City’s chief administrative officer), and shall provide required paid time off for the term of the contract (*or the duration of the contracted project*);
 - (a) Employees are entitled to 12 days of paid time off per year, which may be prorated subject to B.C.O. Sec. 21-82(c); and
 - (b) For a covered employer that provides employer assisted health care, the livable wage shall be at least \$19.90 per hour; and
 - (d) For a covered employer that does not provide employer assisted health care, the livable wage shall be at least \$22.11 per hour.
- (2) The Contractor shall post a notice regarding the applicability of the LWO in the workplace or in other locations where covered employees normally work, and where such notice can be readily seen;
- (3) Upon request of the City’s chief administrative officer, the Contractor, for itself and, as applicable, for any of its subcontractors or subgrantees, shall provide payroll records, health insurance enrollment records, and other relevant documentation, as deemed necessary by the chief administrative officer, within ten (10) business days from receipt of the City’s request;
- (4) The Contractor shall cooperate in any investigation conducted pursuant to the LWO by the City’s designated accountability monitors or the City’s Office of City Attorney & Corporate Counsel;
- (5) The Contractor shall not retaliate, nor allow any of its subcontractors or subgrantees to retaliate, against an employee or other person because such employee or person has exercised rights or is planning to exercise rights protected under the LWO, or has cooperated in an investigation conducted pursuant to the LWO;
- (6) The Contractor is required to insert in all subcontracts the requirements of the LWO. The Contractor is liable for violations of the LWO committed by its covered subcontractors.

By signing below, I certify under the pains and penalties of perjury that I have personal knowledge of the foregoing or have made a reasonable inquiry therein, and that to the best of my knowledge and belief, the foregoing is true and correct. (See 13 V.S.A. 2904(b).)

Date: 10/15/2025 | 12:38 PM PDT

By: 
Contractor, or its duly authorized agent

IMPORTANT NOTE: Effective January 1, 2025, for covered employees not under a labor agreement and not working under an agreement subject to Davis-Bacon Act compliance for highway or heavy construction, if the contract or grant amount, inclusive of amendments, is \$50,000 or greater, the vendor is required to certify payroll with each invoice. An acceptable form of certification is attached. Backup documentation may be requested in connection with random compliance audits. Certification of subcontractor or subconsultant payroll is required only upon request.

ATTACHMENT E

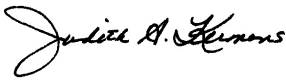
Certification of Compliance with the City of Burlington's Outsourcing Ordinance

I, Judith A. Kermans, on behalf of Gabriel, Roeder, Smith & Company
(Contractor) and in connection with the
actuarial services _____ [project].

hereby certify under oath that (1) Contractor shall comply with the City of Burlington's
Outsourcing Ordinance (Ordinance §§ 21-90 – 21-93); (2) as a condition of entering into
this contract or grant, Contractor confirms that the services provided under the above-
referenced contract will be performed in the United States or Canada.

2025

Dated at Southfield, MI, ~~Vermont~~ ~~XXXXXX~~ this 15 day of October, ~~2018~~.

By: 
Duly Authorized Agent

Certification of Compliance with the City of Burlington's
Union Deterrence Ordinance

I, Judith A. Kermans, on behalf of Gabriel, Roeder, Smith & Company
(Contractor) and in connection with actuarial services (City
contract/project/grant), hereby certify under oath that Gabriel, Roeder, Smith & Company
(Contractor) has not advised the conduct of any illegal activity, and it does not currently, nor will
it over the life of the contract advertise or provide union deterrence services in violation of the
City's union deterrence ordinance.

Dated at Southfield, MI, ~~Vermont~~ this 15 day of October, 2025.

By: 
Duly Authorized Agent

APPENDIX A

TEAM MEMBER BIOGRAPHIES

Craig Graby, EA, FCA, MAAA

Senior Consultant

craig.graby@grsconsulting.com



Expertise

Craig Graby is a Senior Consultant associated with GRS' Midwest Region and primarily serves clients in Pennsylvania and the Washington, DC area. He has more than 30 years of actuarial and benefits consulting experience. Craig specializes in public sector benefit plans sponsored by federal, state, and county governments. He also has experience working with church plan clients.

His areas of expertise with defined benefit plans includes funding, accounting (including cost-sharing multiple-employer plans under GASB), plan design, administration, and communications. Craig has significant experience providing actuarial valuations, experience studies, population and contribution projections, and cost analyses for plan design changes. He has worked on clients of varying sizes and complexity, from local government pension plans to statewide retirement systems.

Craig's pension expertise also includes helping clients navigate plan changes, including the transition from traditional defined benefit to hybrid plans that include both defined benefit and defined contribution components. He also has broad experience with Pennsylvania county and state benefit calculations, including Domestic Relations Orders, return to service calculations (including subsequent retirements), and variety of other specialized calculations.

Professional Designations

- Fellow, Conference of Consulting Actuaries
- Enrolled Actuary, ERISA
- Member, American Academy of Actuaries

Presentations

Craig has served as a speaker for conferences held by the Pennsylvania Association of Public Employee Retirement Systems (PAPERS) and the Pennsylvania State Association of County Controllers (PSACC). Examples of recent speaking experience include:

- PAPERS (2025), *Current Trends in Pension Assumptions: Insights from the Experts*
- PSACC (2025), *Retirement Plan Update*

Education

Bachelor of Science, Mathematics with a concentration in Actuarial Science, the Pennsylvania State University



Heidi Barry, ASA, FCA, MAAA

Senior Consultant & Team Leader

heidi.barry@grsconsulting.com



Expertise

Heidi Barry is a Senior Consultant and Team Leader in GRS' Southfield, Michigan office. She has more than 24 years of actuarial and consulting experience with public employee retirement systems. Heidi has worked with public retirement plans in Michigan, Arkansas, New Hampshire, Florida, Missouri, Illinois and Virginia.

Heidi's actuarial experience covers annual valuations for public employee retirement systems and retiree health care plans, supplemental valuations, actuarial audits, experience studies, actuarial projections, and GASB 67, 68, 74 and 75 compliance. She also has extensive expertise with cost analyses for proposed plan changes and studies of population projections and cash flow. As a manager of a 17-person pension team, Heidi oversees project plans, budgets, and interaction between GRS and clients.

Professional Designations

- Associate, Society of Actuaries
- Fellow, Conference of Consulting Actuaries
- Member, American Academy of Actuaries

Professional Activities

Heidi regularly attends national and regional conferences held by associations serving public employee retirement systems. She has also served as a conference speaker for associations such as the Missouri Association of Public Employee Retirement Systems (MoMAPERS). Her speaking engagements have covered topics on retirement plan design, defined benefit vs. defined contribution issues and actuarial basics.

Education

Bachelor of Science, Mathematics, Wayne State University, Detroit, Michigan





Kevin T. Noelke, ASA, MAAA, FCA

Consultant and Actuary

kevin.noelke@grsconsulting.com

Expertise

Kevin Noelke is a consultant and actuary in GRS' Southfield, Michigan office. He has more than 14 years of actuarial and consulting experience with statewide, local government benefit plans and church programs. Kevin works with plans in Florida, Illinois, Maryland, Michigan, Minnesota, Missouri, New Hampshire and Rhode Island.

Kevin's expertise includes pension and OPEB/VEBA valuations, accounting reports complying with GASB Statement Nos. 67, 68, 74 and 75, deliverables relating to Florida Statutes, experience studies, actuarial funding projections, cost analyses of proposed plan changes, retirement benefit calculations, and annual benefit statements.

Professional Designations

Associate, Society of Actuaries

Member, American Academy of Actuaries

Fellow, Conference of Consulting Actuaries

Presentations and Publications

Kevin speaks before public sector retirement boards and employee groups regarding a variety of actuarial topics and attends conferences held by associations serving public employee retirement systems.

He also has written research articles which have been published in GRS Perspectives.

Education

Bachelor of Science, Actuarial Mathematics, University of Michigan – Ann Arbor



APPENDIX B

GRS TECHNOLOGY TOOLS

GRS Technology Tools

GRS Valuation Software

GRS develops and maintains its own valuation system. Our experience has taught us that valuation software is more than number-crunching. It is an important consulting and advisory tool that must be flexible and comprehensive. GRS' valuation software is specifically designed to manage the unique provisions and benefit design variations found in public sectors plans, e.g. multiple tiers, hybrids, DROPs, PLOPs, COLAs, etc.

Our software delivers:

- Up-to-date compliance with actuarial standards of practice and regulatory requirements
- Integration of nearly every benefit design found in the public sector today
- Timely integration of new benefit designs as they emerge
- Confidence that quality of valuation reports and studies will result in appropriate funding and benefit policy decisions

A key strength of GRS' software development process is the input of our actuaries. We have 63 credentialed actuaries providing services to public plans. Our actuaries are a continual source of suggestions and updates for our software. When our programmers are informed of a client specific need, we are able to modify the software quickly—often in a matter of hours. This agility is particularly critical for legislative proposals and bargaining group negotiations, both of which are nearly always time sensitive situations.

GRS Foresight® Software

GRS Foresight® software is a comprehensive stress testing and solution-driven modeling tool for public sector retirement programs. This industry-leading tool, created from our consultants' vast experience, provides data and analysis you can rely on for decision making.

This solution considers how future stakeholders could be impacted by decisions made today. GRS Foresight® software helps you determine a sustainable path for your retirement program by developing unbiased starting points and dependable forecasts.

Vastly different from the private sector, public sector retirement programs are unique, with great variety in benefit provisions and funding sources. The software is adaptable to meet specific needs, even down to terminology and output. We work closely with you to ensure GRS Foresight® software meets all of your needs.

By running experience scenarios and utilizing stress test modules, you can use GRS Foresight™ software to efficiently test various funding policies or strategies and different actuarial assumptions to predict their impact under the stressed scenarios.



GRS Technology Tools

Benefits and Features of GRS Foresight® Software

- Evaluates the sustainability of the retirement programs
 - Accounts for alternative future realities
 - Assesses various funding strategies
 - Prepares budget forecasts
 - Analyzes risk management strategies
 - Provides insight into the impact of future realized rates of return and inflation
 - Offers turnkey stochastic modeling
-
- Considers sensitivities of liabilities to future economic outcomes
 - Uniquely designed for public sector systems
 - Adaptable to individual client requirements, even down to terminology and output.

How It Works

GRS Foresight® software is accessed through [GRS Advantage™](#). By using up-to-date valuation data and current economic conditions and assumptions, you are able to look in-depth at the valuation results and model various scenarios for future outcomes. Knowing the risks facing a plan helps guide the long-term management of those risks and gives you confidence in the conclusions drawn from the data. Meeting-ready output is available, and GRS Foresight® software creates the necessary documentation to support policy decisions affecting your plan.

The program can evaluate a wide range of variables impacting public sector plans, including:

- Fixed-rate plans
- Corridors
- Direct rate smoothing
- Layered amortizations
- DB/DC hybrid protocols
- Population growth
- Ad hoc COLAs and supplemental payments, including funding strategies and the ability to model multiple ad hoc decisions in the future
- Investment returns, including a unique approach of using historical patterns with modified outcomes and volatility


In addition, if you have other programs that can create return scenarios, GRS Foresight® software can be integrated with those outcomes to produce stochastic results for analysis.

The following pages demonstrate the comprehensive and solution-driven benefits of GRS Foresight® software. We welcome an opportunity to provide a complete demo to the BERS.



GRS Technology Tools

GRS Foresight® software helps determine a sustainable path for retirement programs by developing unbiased starting points and providing reliable forecasts (at least, as reliable as possible). GRS Foresight® software will also efficiently test various policies or strategies with different assumptions to illustrate their impact.



How Sound Decisions Are Made

Welcome John, Sample Client
[Manage Profile](#) [Log Out](#)

Home | **Plan Administration** | Resources | Account Settings

GRS Foresight®

07/01/2019: All >> test 1 [\[change\]](#)


General Settings
 Main

Experience
 Set Experience Scenario
 Inflation Rates
 COLA Rates
 Wage Rates


Results
 Summary
 Funding Charts
 Scenario Report
 Exhibit Filters

Currently displaying 3 of 6 scenario combinations. [\[adjust\]](#) Display Size Number of Years to Display

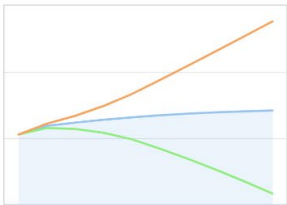
Employer Contribution [\[details\]](#)



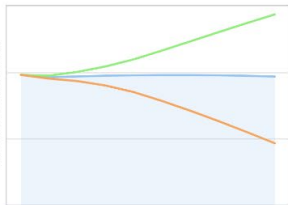
Employer Contribution Rate [\[details\]](#)




Funded Ratio [\[details\]](#)




Unfunded Accrued Liability [\[details\]](#)



Accrued Liability [\[details\]](#)




Actuarially Required Contributions [\[details\]](#)



GRS Technology Tools

By using up-to-date valuation data and current economic conditions and assumptions, GRS Foresight® software can look in-depth at the valuation results and model various scenarios for future outcomes.



GRS Foresight®
How Sound Decisions Are Made

Welcome John, Sample Client
[Manage Profile](#) [Log Out](#)

Home
Plan Administration
Resources
Account Settings

GRS Foresight®

07/01/2019: All >> test 1 [\[change\]](#)

Return to Exhibits
Export to Excel
Export Chart

Number of Years to Display:

General Settings

Main

Experience

Set Experience Scenario

Inflation Rates

COLA Rates

Wage Rates

Plan Policy

Calculate ADEC

Actual Funding

Set Assumptions

Ad Hoc COLA

Client Specific

Results

Summary

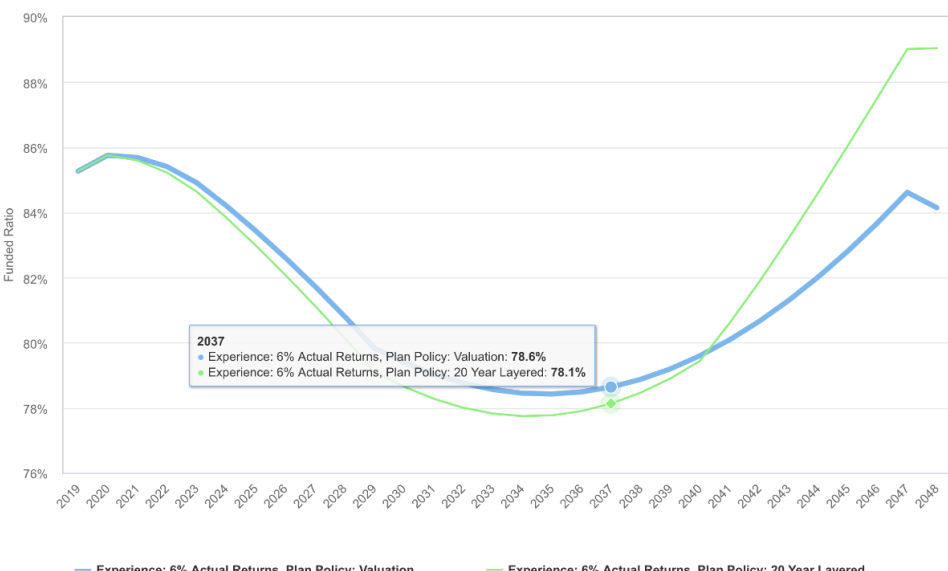
Funding Charts

Scenario Report

Exhibit Filters

Currently displaying 2 of 12 scenario combinations. [\[adjust\]](#)


Funded Ratio



Year	Experience: 6% Actual Returns, Plan Policy: Valuation	Experience: 6% Actual Returns, Plan Policy: 20 Year Layered
2019	85.5%	85.5%
2020	85.8%	85.8%
2021	86.0%	86.0%
2022	85.8%	85.8%
2023	85.2%	85.2%
2024	84.5%	84.5%
2025	83.8%	83.8%
2026	83.0%	83.0%
2027	82.2%	82.2%
2028	81.5%	81.5%
2029	80.8%	80.8%
2030	80.2%	80.2%
2031	79.8%	79.8%
2032	79.5%	79.5%
2033	79.2%	79.2%
2034	79.0%	79.0%
2035	78.8%	78.8%
2036	78.6%	78.6%
2037	78.6%	78.6%
2038	78.8%	78.8%
2039	79.2%	79.2%
2040	79.8%	79.8%
2041	80.5%	80.5%
2042	81.5%	81.5%
2043	82.5%	82.5%
2044	83.5%	83.5%
2045	84.5%	84.5%
2046	85.0%	85.0%
2047	84.8%	89.0%
2048	84.5%	89.0%

— Experience: 6% Actual Returns, Plan Policy: Valuation
 — Experience: 6% Actual Returns, Plan Policy: 20 Year Layered

This exhibit and accompanying data was generated using data for the Sample Client (C9995) '07/01/2019: All' valuation and the study named 'test 1'. Some important notes: 1. The study name may not reflect the benefits and assumptions being modeled. 2. Projections are not predictions. Future actual results will almost certainly vary from these projections. 3. This is not an actuarial statement of opinion and should not be relied upon as such. 4. All results are estimates. Please contact your GRS representative for a certified report before relying on this information. 5. GRS is not responsible for unauthorized use of the information shown in this exhibit and accompanying data.



Page 205 of 446

GRS Technology Tools

GRS Foresight® software is adaptable to individual client requirements, even down to terminology and output. The underlying model is identical to the model used internally by GRS actuaries for funding policy and scenario testing.



GRS Technology Tools

Capital Market Assumption Modeler (CMAM)

The investment return assumption is the most important and perhaps most debated assumption used in the actuarial valuation process. It is critical for GRS consulting teams to present clients with information in a complete and unbiased manner so that policymakers can make fully informed decisions. GRS' CMAM tool helps our clients accomplish this goal.

Below are tables, illustrating the output of the model, that are useful in discussing the results with our clients.

In this example, GRS is using the capital market assumptions from eight different investment consulting firms to identify the expected one-year return as well as the volatility (i.e., standard deviation) associated with the return expectation.

Investment Consultant	Investment Consultant Expected Nominal Return	Investment Consultant Inflation Assumption	Expected Real Return (2)–(3)	Actuary Inflation Assumption	Expected Nominal Return (4)+(5)	Plan Incurred Administrative Expenses	Expected Nominal Return Net of Expenses (6)-(7)	Standard Deviation of Expected Return (1-Year)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	7.02%	2.50%	4.52%	2.50%	7.02%	0.20%	6.82%	13.71%
2	7.18%	2.25%	4.93%	2.50%	7.43%	0.20%	7.23%	12.95%
3	7.27%	2.25%	5.02%	2.50%	7.52%	0.20%	7.32%	13.61%
4	6.71%	1.56%	5.15%	2.50%	7.65%	0.20%	7.45%	11.87%
5	7.39%	2.20%	5.19%	2.50%	7.69%	0.20%	7.49%	12.50%
6	7.49%	2.00%	5.49%	2.50%	7.99%	0.20%	7.79%	14.10%
7	7.94%	2.26%	5.68%	2.50%	8.18%	0.20%	7.98%	12.91%
8	8.09%	2.20%	5.89%	2.50%	8.39%	0.20%	8.19%	14.23%
Average	7.39%	2.15%	5.23%	2.50%	7.73%	0.20%	7.53%	13.24%

GRS Technology Tools

The second table provides the expected average return the plan will earn over the next 20 years as well as the probability that the plan will exceed its current investment return assumption.

Clients find this process invaluable when discussing and identifying an appropriate valuation interest rate assumption, as well as being a methodology that is able to withstand rigorous scrutiny from outside constituents.

Investment Consultant	Distribution of 20-Year Average Geometric Net Nominal Return			Probability of Exceeding 7.50%	Probability of Exceeding 7.25%	Probability of Exceeding 7.00%	Probability of Exceeding 6.75%
	40th	50th	60th	(5)	(6)	(7)	(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	5.18%	5.95%	6.72%	30.56%	33.47%	36.49%	39.61%
2	5.73%	6.46%	7.19%	35.86%	39.14%	42.51%	45.94%
3	5.70%	6.46%	7.23%	36.57%	39.71%	42.93%	46.20%
4	6.13%	6.80%	7.47%	39.52%	43.20%	46.95%	50.73%
5	6.07%	6.77%	7.47%	39.60%	43.10%	46.66%	50.26%
6	6.09%	6.88%	7.67%	42.12%	45.27%	48.45%	51.66%
7	6.49%	7.21%	7.94%	46.00%	49.48%	52.97%	56.45%
8	6.47%	7.26%	8.06%	47.00%	50.17%	53.34%	56.50%
Average	5.99%	6.72%	7.47%	39.65%	42.94%	46.29%	49.67%

APPENDIX C

GRS' CLIENT LISTS

Public Pension Client List

AK

Alaska Retirement Management Board (auditing actuary)

AL

City of Anniston Police and Firefighters Retirement Plan

AR

Arkansas Judicial Retirement System
Arkansas Local Police & Fire Retirement System (LOPFI)
Arkansas Public Employees Retirement System
Arkansas State Police Retirement System
Arkansas Teacher Retirement System
City of Conway
Texarkana Association of Public Employee Retirement Systems

AZ

Arizona Board of Regents
Arizona State Retirement System
City of Phoenix Employees Retirement System
Gila River Indian Community
Tucson Supplemental Retirement System

CO

Adams County Retirement Board
Arapahoe County Board of Retirement
Arvada Fire Protection District
Board of Water Works of Pueblo
Briggsdale Fire Protection District
Chaffee County Fire Protection District
City of Arvada
City of Englewood
City of Lakewood
City of Longmont
Colorado Fire and Police Pension Association (FPPA)
Cortez Fire Protection District
Craig Rural Fire Protection District
Delta County Fire Protection District #1
Delta County Fire Protection District #3
Denver Board of Water
El Paso County Retirement Plan
Fairmount Fire Protection District
Fort Lupton Fire Protection District
Hudson Fire Protection District
Lincoln County
North Metro Fire Rescue District

CO

Pagosa Fire Protection District
Southwest Adams Co Fire Protection District
Strasburg Fire Protection District

DE

New Castle County Employees' Pension Program

FL

Alachua County School District
Bal Harbour General Employees Pension Plan
Bal Harbour Village Police Officers' Pension Plan
Boca Raton Executive Employees Retirement Plan
Boynton Beach Fire Rescue Employees Retirement System
Boynton Beach Municipal Police Officers Retirement Fund
Boynton Beach Pension Plan for General Employees
City of Altamonte Springs
City of Atlantic Beach General Employees Retirement System
City of Atlantic Beach Police Officers' Retirement System
City of Boynton Beach Municipal Firefighters Pension Trust Fund
City of Clearwater
City of Coral Gables Retirement System
City of Coral Springs General
City of Deerfield Beach - Nonuniformed Employees
City of DeLand General Employee's Retirement Plan
City of DeLand Municipal Police Officer's Retirement Plan
City of Delray Beach Firefighters' Retirement System
City of Delray Beach Police Officers' Retirement System
City of Hialeah Elected Officers Retirement System
City of Hollywood General Employees Retirement System
City of Homestead - New Elected Officials and Senior Management Retirement System
City of Homestead Elected Officials Retirement Plan
City of Homestead General Employees Pension Plan
City of Homestead Police Officers Pension Fund
City of Jacksonville Beach Firefighters' Retirement System
City of Jacksonville Beach General Employees' Retirement System
City of Jacksonville Beach Police Officers' Retirement System
City of Key West General Employees' Retirement System



Public Pension Client List

FL

City of Lakeland Employees Retirement System
 City of Largo Municipal Police and Firefighters Retirement Plan
 City of Lauderhill
 City of Lauderhill - General Employees
 City of Leesburg Municipal Firefighters' Retirement Plan
 City of Marianna Firefighters' Pension Trust Fund
 City of Marianna Police Officers' Pension Trust Fund)
 City of Miami Beach Firefighters' and Police Retirement Plan
 City of Miramar Consolidated Retirement Plan and Trust
 City of North Miami Beach
 City of North Miami, Clair T. Singerman Pension Plan
 City of Okeechobee General Employees
 City of Okeechobee Municipal Police Officers' and Firefighters' Pension Trust Fund
 City of Orlando General Employees' Pension Fund
 City of Port Orange
 City of Rockledge Fire Employees' Retirement Plan
 City of Rockledge General Retirement Plan
 City of Rockledge Police Retirement Plan
 City of Sarasota Firefighters' Pension Fund
 City of St. Augustine General Retirement System
 City of St. Augustine Police Retirement System
 City of Starke Firefighters' Retirement System
 City of Starke General Employees' Retirement System
 City of Starke Police Officers' Retirement System
 City of Sunrise Firefighters Retirement Plan
 City of Sunrise General Employees' Retirement Plan
 City of Sweetwater Elected Officers' Retirement Trust
 City of Tallahassee
 City of Tamarac Police Pension Plan Trust Fund
 City of West Palm Beach Restated Employees Defined Benefit Retirement System
 City of Wilton Manors General Employee's and Police Officer's Retirement System
 City of Wilton Manors Volunteer Firefighters' Retirement System
 City of Winter Springs
 Cooper City Fire Retirement Plan
 Cooper City General Employees Retirement System
 Cooper City Police Retirement Plan
 Dade County Fire Fighters Insurance Trust Fund - Plan B

FL

Dania Beach General Employees Retirement System
 Dania Police & Fire Retirement System
 Deerfield Beach Municipal Firefighters' Pension Trust Fund
 Delray Beach General Employees? Retirement System
 Delray Beach Police, Fire Fighters & Paramedics Retiree Benefit Fund
 Eustis Municipal Police Officers' Pension and Retirement System
 Florida Auditor General
 Florida City Elected Official Retirement Plan
 Florida Department of Management Services
 Fort Lauderdale General Employees Retirement System
 Fort Pierce Police Officers Retirement Fund
 Fort Pierce Retirement and Benefit System
 Gilchrist County School District
 Hialeah Gardens Police Pension Fund
 Homestead Firefighters Retirement Plan
 Jacksonville Electric Authority
 Jacksonville Police & Fire Pension Fund
 Kissimmee General Employees Retirement Plan
 Lake Mary Firefighters Pension Plan
 Lake Worth Firefighters Pension System
 Lake Worth General Employees Pension System
 Lake Worth Police Officers Pension System
 Lantana Firefighters' Pension Fund
 Lauderhill Firefighters' Retirement System
 Marco Island Firefighters' Pension Fund
 Martin County School District
 Melbourne Firefighters Retirement System
 Miami Parking Authority
 Miami Shores Village General Employees Pension Plan
 Miami Shores Village Police Officers Pension Plan
 Miami Springs General Employee Retirement System
 Miami Springs Police and Firefighters Retirement Plan
 Mount Dora Firefighters Retirement Fund
 Mount Dora General Employees Pension Plan
 Mount Dora Police Officers Retirement Fund
 New Port Richey Police Officers' Retirement System
 North Miami Police Pension Plan
 Okeechobee Utility Authority Retirement System
 Orlando Utilities Commission
 Palm Beach County Fire Disability Retirement Fund



Public Pension Client List

FL

Palm Beach County Firefighters Retirement Insurance Fund
Palm Beach Gardens Police Officers Pension Fund
Palm Springs Village Hazardous Employees Pension Plan
Palm Tran, Inc./Amalgamated Transit Union Local 1577 Pension Plan
Pembroke Pines Firefighters and Police Officers Pension Fund
Pinellas Park Police Officers Pension Fund
Plantation General Employees Retirement System
Plantation Police Officers Retirement System
Plantation Volunteer Firefighters Retirement System
Retirement Plan for Employees of the Town of Surfside
Retirement System for General Employees of the Utility Board of the City of Key West
Riviera Beach Firefighters / Paramedics of Palm Beach County, Local 2928, IAFF, Inc.
Riviera Beach Firefighters' Retirement Fund
Riviera Beach General Employees Retirement System
Riviera Beach Police Pension Fund
Sarasota General Employees Pension Fund
Sarasota Police Officers' Pension Fund
Sarasota Professional Firefighters' Insurance Trust
Sebring Police Officers' Relief and Pension Fund
St. Lucie County Fire Control District
St. Lucie County Fire District Firefighters Pension Trust Fund
St. Lucie County Fire District Retirement Health Insurance Trust Fund
Sunrise Police Officers Retirement System
Sweetwater Police Officers' Retirement Plan
Tequesta Public Safety Officers' Pension Trust Fund
Town of Indian Shores Police Officers? Retirement System
Town of Jupiter Police Officers? Retirement Fund
Town of Lantana Police Officers Pension Fund
Town of Lauderdale-By-The-Sea Volunteer Firefighters' Pension Plan
Town of Manalapan
Town of Orange Park General Employees' Pension Plan
Town of Palm Beach Retirement System
Vero Beach Firefighters Retirement Fund
Village of Key Biscayne Police and Firefighters Retirement Plan
Village of North Palm Beach General Retirement Fund

FL

Village of Palm Springs General Employee's Pension Fund
Village of Tequesta General Employees Pension Trust
West Melbourne Police Officers' Retirement Fund
West Palm Beach Firefighters Pension Fund
West Palm Beach Police Pension Fund
Winter Park Firefighters' Retirement System
Winter Park Police Officers' Retirement System

HI

State of Hawaii Employees' Retirement System

IL

General Assembly Retirement System of Illinois
Illinois Municipal Retirement Fund
Judges' Retirement System of Illinois
Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago
Policemen's Annuity and Benefit Fund of Chicago
Public School Teachers' Pension and Retirement Fund of Chicago
Regional Transportation Authority
State Employees' Retirement Systems of Illinois
State Universities Retirement System of Illinois

KY

Kentucky Judicial Retirement System
Kentucky Public Pensions Authority

LA

Louisiana Legislative Auditor

MD

Maryland Department of Transportation MTA
Maryland State Retirement and Pension System
Montgomery County Employee Retirement Plans
Montgomery County Public Schools
Prince George's County Government

MI

Bay County Employees' Retirement System
Benton Township Policemen and Firemen Retirement System
Berrien County Employees Amended Retirement Plan
Charter Township of Meridian
City of Allen Park Employees Retirement System
City of Alpena Employees Retirement System
City of Ann Arbor Employees' Retirement System
City of Battle Creek Fire Retiree Health Insurance Funding Trust



Public Pension Client List

MI

City of Battle Creek Police and Fire Retirement System
City of Berkley Public Safety Retirement System
City of Big Rapids Police & Fire Retirement System
City of Birmingham Employees Retirement System
City of Center Line
City of Dearborn Chapter 21 Retirement System
City of Dearborn Chapter 22 Retirement System
City of Dearborn Chapter 23 Retirement System
City of Dearborn Heights Police and Fire Retirement System
City of Detroit General Retirement System
City of Detroit Police and Fire Retirement System
City of Farmington Hills Employees' Retirement System
City of Ferndale Employee Retirement System
City of Ferndale Police and Fire Retirement System
City of Gibraltar Public Safety Officers Retirement System - Act 345
City of Grand Rapids General Retirement System
City of Grand Rapids Police and Fire Retirement System
City of Iron Mountain Policemen and Firemen Retirement System
City of Ishpeming Policemen and Firemen Retirement System
City of Jackson Act 345 Policemen and Firemen Retirement System
City of Jackson Employees Retirement System
City of Jackson Policemen's and Firemen's Pension Fund
City of Kalamazoo Employees Retirement System
City of Kingsford Policemen and Firemen Retirement System
City of Lincoln Park Police Officers and Firefighters Retirement System
City of Madison Heights Policemen and Firemen Retirement System
City of Marquette Policemen and Firemen Retirement System
City of Melvindale Policemen and Firemen Retirement System
City of Menominee Policemen and Firemen Retirement System
City of Midland Police and Fire Fighter Retirement System
City of Monroe Employees Retirement System
City of Mount Clemens Employees Retirement System
City of Mt Pleasant Fire and Police Pension System

MI

City of Pontiac General Employees Retirement System
City of Riverview Retirement System
City of Royal Oak Retirement System
City of Sault Ste. Marie Firemen and Policemen Retirement System
City of Southfield Employees Retirement System
City of Southfield Fire and Police Retirement System
City of Southgate Policemen and Firemen Retirement System
City of St Clair Shores Police and Fire Retirement System
City of St. Clair Shores General Employees Retirement System
City of St. Joseph Employees Retirement System
City of Sterling Heights General Employees' Retirement System
City of Sterling Heights Police and Fire Retirement Systems
City of Sturgis Employees Retirement System
City of Troy Employees Retirement System
City of Wyandotte Employees Retirement System
City of Wyoming Employees Retirement System
City of Ypsilanti Fire and Police Retirement System
Detroit Transportation Corporation
Gogebic County Employees Retirement System
Harrison Township Employees Retirement System
Harrison Township Firemen's Pension Fund
Huron-Clinton Metropolitan Authority Employees' Retirement Plan
Jackson County Employees Retirement System
Kalamazoo County Employees' Retirement System
Kent County Employees Retirement Plan and Trust
Kent District Library Employees' Retirement Plan
Michigan Legislative Retirement System
Michigan Office of Retirement Services
Midland County Employees Retirement System
Midland County Retirement System Act 345
Municipal Employees Retirement System of Michigan
Oakland County Employees Retirement System
Portage Police Officers Association
Retirement Plan for Employees of The Charter Township of West Bloomfield
Retirement Plan for Employees of the Niles Township Police and Fire Department
Road Commission for Oakland County Retirement System
Sanilac County Retirement System



Public Pension Client List

MI

The Detroit Police Benefit and Protective Association Benefit Program
Traverse City - Act 345 Police and Fire Retirement System
Troy Incentive Plan for Volunteer Firefighters
Wayne County Employees' Retirement System

MN

Appleton Firefighters Relief
City of Luverne
Minnesota Corrections Association
Minnesota State Retirement System
Public Employees Retirement Association of Minnesota
St. Paul Teachers' Retirement Fund Association
White Bear Lake Fire Relief Association

MO

City of Columbia Police and Firemen's Retirement Fund
City of Joplin Policemen's and Firemen's Pension Plan
City of Richmond Heights Policemen & Firemen Retirement Fund
Missouri Local Government Employees Retirement System
MoDOT & Patrol Employees' Retirement System
The Firemen's Retirement System of St. Louis

MT

Belgrade Fire Department Relief Association Pension Fund

NC

Office of the State Auditor of North Carolina

ND

North Dakota Public Employees' Retirement System
North Dakota Teachers' Fund for Retirement

NH

City of Manchester Employees' Contributory Retirement System
New Hampshire Retirement System

NM

Jicarilla Apache Nation
New Mexico Education Retirement Board
New Mexico Public Employees Retirement Association

OH

Ohio Public Employees Retirement System

OK

Central Oklahoma Transportation Authority

OK

Metropolitan Tulsa Transit Authority Union Employees Pension Plan
Oklahoma City Employee Retirement System
Teachers' Retirement System of Oklahoma
The Fraternal Order of Police Tulsa Lodge 93 Health and Welfare Trust

PA

Beaver County
Berks County
Bradford County
Bucks County
Cambria County
Centre County
Clearfield County
Crawford County
Dauphin County
Delaware County
Elk County
Franklin County
Greene County
Huntingdon County
Indiana County
Juniata County
Lancaster County
Lebanon County
Lehigh County
McKean County
Mercer County
Mifflin County
Montour County
Northampton County
Pennsylvania State Employees Retirement System
Perry County
Potter County
Schuylkill County
Union County
Wayne County
Wyoming County

RI

City of Warwick
Employees' Retirement System of Rhode Island

SC

Fairfield County Library
South Carolina Public Employee Benefit Authority



Public Pension Client List

SD

City of Sioux Falls Employee's Retirement System
City of Sioux Falls Firefighters' Pension Fund

TX

Austin Police Retirement System
Beaumont Firemen's Relief and Retirement Fund
City of Austin Employees' Retirement System
City of Fort Worth
City of Irving
City of Plano
Dallas / Fort Worth International Airport Board
Dallas County Utility and Reclamation District
Employees' Retirement Fund of the City of Dallas
Employees Retirement System of Texas
Fort Worth Employees' Retirement Fund
Houston Municipal Employees Pension System
Houston Police Officers' Pension System
San Antonio VIA Metropolitan Transit

TX

Teacher Retirement System of Texas
Texas Municipal Retirement System

UT

Utah Retirement System

VA

City of Fairfax Retirement Plans
Virginia Retirement System

WA

Port of Seattle

WI

Milwaukee Public Schools
Wisconsin Retirement System

WV

Employees' Retirement and Benefit Fund of the City
of Morgantown

WY

Cheyenne Regional Medical Center
Wyoming Retirement System

OPEB Client List

AK

Alaska Retirement Management Board

AL

Mobile Area Water and Sewer System

AR

City of Conway

AZ

Arizona Department of Administration

Arizona Dept. of Insurance, Life & Health Divisions

City of Phoenix

City of Sierra Vista

City of Tempe

CA

California State Controller's Office

City of Selma

CO

Adams County Board of Commissioners

Board of Water Works of Pueblo

City of Arvada

City of Lakewood

Colorado Mountain College

Denver Board of Water

FL

Alachua County School District

Bal Harbour

Barefoot Bay Recreation District

Boynton Beach Fire Rescue Employees Retirement System

Bradford County School District

Brevard County School District

Broward Co Sheriff's Office

Broward County School District

Charlotte County

Charlotte County School District

Citrus County Mosquito Control District

City of Altamonte Springs

City of Arcadia

City of Atlantic Beach

City of Biscayne Park

City of Boynton Beach

City of Bradenton

City of Brooksville

City of Clearwater

City of Cocoa

FL

City of Coral Gables

City of Dade City

City of Deltona

City of Fort Myers

City of Greenacres

City of Hialeah

City of Kissimmee

City of Lake Worth

City of Largo

City of Margate

City of Miami Springs

City of Miramar

City of Mount Dora

City of Naples

City of New Port Richey

City of North Miami

City of Okeechobee

City of Oldsmar

City of Orlando

City of Palm Beach Gardens

City of Plant City

City of Plantation

City of Sarasota

City of South Miami

City of St. Augustine Beach

City of Starke

City of Sunrise

City of Tallahassee

City of Vero Beach

City of West Melbourne

City of West Palm Beach

City of West Park

City of Winter Park

Columbia County School District

Coquina Water Control District

Coral Springs Metropolitan District

Delray Beach Police, Fire Fighters & Paramedics

Retiree Benefit Fund

DeSoto County School District

Dixie District School Board

Emerald Coast Utilities Authority

Escambia County

Flagler County



OPEB Client List

FL

Florida City
Florida Keys Aqueduct Authority
Gilchrist County School District
Hamilton County School District
Hardee County
Hardee Schools
Hendry County School District
Hernando County
Highlands County School District
Indian River County
Jacksonville Electric Authority
Key Biscayne
Lake County Schools
Lee County Schools
Lee County Sheriff's Office
Leon County Schools
Levy Schools
Loxahatchee Groves Water Control District
LYNX
Madison County School District
Marion County
Marion County Public Schools
Martin County
Martin County School District
Martin County Sheriff
Miami Parking Authority
Miami Shores Village
Nassau Schools
Nassau County Clerk of the Circuit Court
North Bay Village
Northwest Florida Water Management District
Okaloosa County
Okaloosa County Sheriff's Office
Okeechobee County School Board
Okeechobee Soil and Water Conservation District
Orange County
Orange County Library System
Orlando Utilities Commission-OPEB-Health
Osceola Co School District
Pasco County
Pasco County School District
Pinellas County
Pinellas Sheriff

FL

Polk County
Polk County Schools
Riviera Beach Firefighters / Paramedics of Palm Beach County, Local 2928, IAFF, Inc.
Sarasota County Sheriff's Office
Sarasota Professional Firefighters' Insurance Trust
St. Johns County Clerk of Courts
St. Johns County School District
St. Lucie County Fire Control District
St. Lucie County Fire District Retirement Health Insurance Trust Fund
St. Lucie County Post-Retirement Health and Life Benefits
St. Lucie County Sheriff's Office
St. Lucie Schools County School District
Suwannee County School Board
Suwannee River Water Management District
The City of Jacksonville Beach
The Village of Tequesta
TOHO Water Authority
Town of Highland Beach
Town of Lantana
Town of Surfside
Union County School District
Utilities Commission, City of New Smyrna Beach
Utility Board Of The City Of Key West
Village of El Portal
Village of North Palm Beach
Village Center Community Development District
Volusia Circuit County Clerk

GA

Athens Housing Authority
City of Alpharetta

HI

Hawaii Employer-Union Health Benefits Trust Fund

IL

Glencoe School District #35
Illinois Central Mgmt. Services
Macomb Community Unit School District #185
METRA Retiree Healthcare Program
Zion-Benton Township High School District 126

IN

Ball State University



OPEB Client List

KY

Kentucky Public Pensions Authority
University of Louisville

MD

Maryland Department of Transportation MTA

MI

36th District Court, Detroit
Alger County
Bay County Retiree Health Care Plan
Benton Charter Township
Byron Township
Charter Township of Harrison
Charter Township of Meridian
Charter Township of West Bloomfield
Charter Township of Ypsilanti
Chesterfield Township
City of Alpena
City of Berkley
City of Birmingham
City of Brighton
City of Center Line
City of Dearborn Retiree Health Care Plan
City of Detroit General Retiree Health Care Trust
City of Detroit Police and Fire RHC Trust
City of Ecorse
City of Farmington
City of Fenton Retiree Health Care Plan
City of Ferndale
City of Fraser
City of Grand Rapids
City of Grosse Pointe Park
City of Hamtramck
City of Harbor Springs
City of Hazel Park Retiree Health
City of Jackson
City of Lapeer
City of Lincoln Park
City of Madison Heights Police and Fire Retiree
Health Care Plan
City of Melvindale
City of Monroe
City of Mt. Clemens
City of Muskegon
City of Novi

MI

City of Riverview
City of Romulus
City of Royal Oak
City of Southfield Retiree Health Care Benefits
Plans and Trust
City of Southgate Retiree Health Plan
City of St. Clair Shores Retiree Health Care Plans
City of St. Joseph Retiree Health Care Plan
City of Sterling Heights
City of Sterling Heights Retiree Health Care Plan
City of Troy
City of Wayne
City of Wixom
City of Wyandotte
Clare County
Clinton County
County of Ingham
Eaton County
Flint Mass Transit Authority
Genesee County Health System
Hurley Hospital - Flint
Huron-Clinton Metropolitan Authority
Ingham County Medical Care Facility
Iron County Medical Care Facility
Jackson County
Macomb Co Dept of Roads Retiree Health Care
Plan
Macomb County Retiree Health Plan
Manistee County
Marquette County Road Commission
Mason County
Michigan Office of Retirement Services
Midland City Retiree Health Care Plan
Midland County Retiree Health Plan
Monroe County Library System
Monroe County Road Commission
Oakland County VEBA
Port Huron Housing Commission
Portage Police Officers Association
Redford Township
Road Commission for Oakland County
Saginaw County Community Mental Health
Authority
Saginaw Housing Commission



OPEB Client List

MI

Saginaw Transit Authority Services
Scio Township Retiree Health Care Plan
Southeast Macomb Sanitary District
Suburban Mobility Authority for Regional Transportation
Township of Grosse Ile
Traverse City
Village of Milford
Washtenaw County Road Commission
Wayne County Airport Authority

MN

City of White Bear Lake

MO

City of Jefferson City
Kansas City

ND

North Dakota Public Employees' Retirement System

OH

Ohio Public Employees Retirement System

OK

The Fraternal Order of Police Tulsa Lodge 93
Health and Welfare Trust

RI

Central Falls School District
Rhode Island Housing
State of Rhode Island

SC

Aiken County
Bamberg County
Beaufort Jasper Water and Sewer Authority
Charleston County
Charleston County Library
Charleston County Parks & Recreation Commission
Chesterfield County
City of Greenville
City of Manning
Clarendon County
Darlington County
Dillon County
Fairfield County
Fairfield County Library
Florence County
Gaffney Board of Public Works

SC

Hampton County
Horry County
Horry County Solid Waste Authority, Inc.
Housing Authority of Florence
Jasper County
Lancaster County
Laurens County
Marion County
Marion County Library
Marlboro County
Oconee County
Orangeburg County Disabilities and Special Needs Board
Pickens County
Renewable Water Resources
Saluda County
South Carolina Public Employee Benefit Authority
South Carolina Public Service Authority
South Carolina Research Authority
South Carolina State Ports Authority
Spartanburg County
Spartanburg County Public Libraries
Sumter County
Tri County Commission on Alcohol & Drug Abuse

SD

City of Sioux Falls

TX

Austin Community College District
Bastrop County
Brazos County
Cherokee County
City of Arlington
City of Bay City
City of Baytown
City of Bedford
City of Bellaire
City of Benbrook
City of Big Spring
City of Boerne
City of Brownsville
City of Bryan
City of Burnet
City of Carrollton



OPEB Client List

TX

City of Cedar Hill
City of Cedar Park
City of Cleburne
City of Conroe
City of Converse
City of Copperas Cove
City of Corpus Christi
City of Deer Park
City of Del Rio
City of Denton
City of DeSoto
City of Duncanville
City of Farmers Branch
City of Flower Mound
City of Fort Stockton
City of Friendswood
City of Gatesville
City of Georgetown
City of Grapevine
City of Haltom City
City of Harlingen
City of Harlingen Waterworks System
City of Hempstead
City of Humble
City of Hurst
City of Jacksonville
City of Keller
City of Kilgore
City of La Marque
City of Lampasas
City of Lancaster
City of LaPorte
City of Lubbock
City of Marble Falls
City of McKinney
City of Midlothian
City of Missouri City
City of Nacogoches
City of Nederland
City of North Richland Hills
City of Palestine
City of Paris
City of Pasadena

TX

City of Plainview
City of Port Arthur
City of Richardson
City of Roanoke
City of Rockport
City of Rowlett
City of San Marcos
City of Schertz
City of Selma
City of Sherman
City of Silsbee
City of Southlake
City of Sugarland
City of Sunnyvale
City of Temple
City of Tomball
City of Tyler
City of University Park
City of Victoria
City of Waco
City of Watauga
City of Weatherford
City of Webster
Comal County
Cooke County
County of Galveston
County of Jasper
County of Lubbock
Crosby Municipal Utility District
Dallas / Fort Worth International Airport Board
Ector County
El Paso County
El Paso Water Utilities Public Service Board
Ellis County
Gonzales County
Grayson County
Guadalupe County
Harris County Appraisal District
Harrison County
Houston Municipal Employees Pension System
Hunt County
Jefferson County Drainage District #7
Kaufman County



OPEB Client List

TX

Kerr County
League City
Limestone County
McLennan County
Monahans
Montgomery Central Appraisal District
Navarro County
PermiaCare
Polk County Fresh Water Supply District No. 2
Polk County, TX
Port of Beaumont
Potter County
Randall County
Sabine Neches Navigation District
Sabine River Authority
San Antonio VIA Metropolitan Transit
Tarrant Regional Water District
Taylor County
Teacher Retirement System of Texas
Town of Addison
Town of Highland Park
Tyler County
Victoria County
West University Place
Wharton County
Yoakum County

UT

Intermountain Power Agency
Unified Fire Authority
Utah Retirement System Staff

VA

Virginia Retirement System

VI

U.S. Virgin Islands Water and Power Authority

WA

City of Bellevue

WI

City of Brookfield
City of Milwaukee
Milwaukee Public Schools
Redevelopment Authority of the City of Milwaukee
Rock County
Wisconsin Retirement System

WV

City of Charleston

WY

City of Cheyenne
City of Laramie
City of Rock Springs
Laramie County School District Number One



APPENDIX D

GRS' CERTIFICATE OF INSURANCE

**ADDITIONAL REMARKS SCHEDULE**

AGENCY Assured Partners- Southfield, MI		NAMED INSURED Gabriel, Roeder, Smith & Company Holdings, Inc. One Towne Square, Suite 800 Southfield, MI 48076	
POLICY NUMBER SEE PAGE 1			
CARRIER SEE PAGE 1	NAIC CODE SEE P 1	EFFECTIVE DATE: SEE PAGE 1	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance

Description of Operations/Locations/Vehicles:

(30) days in Advance Notice of Cancellation to Certificate holder as required by written contract is included on the General Liability per Policy Holder Notice - Hartford Endorsement Form IH 03 13 06 11

(60) days in Advance Notice of Cancellation to Certificate holder is included on the Professional Liability policy per Additional You Endorsement EUC0913B407

Form HG 00 01 09 16 Commercial General Liability Coverage Form - includes Blanket Additional Insured with Primary and Non-Contributory and Waiver of Subrogation when required in written contact.

Form HA 99 16 12 21 Commercial Automobile Broad Form Endorsement - includes Blanket Additional Insured with Primary and Non-Contributory and Waiver of Subrogation when required in written contact.

Form XL 00 03 09 16 - Umbrella Liability Policy Provisions - includes Blanket Additional Insured with Waiver of Subrogation when required in written contact.

Form XL 24 37 09 11 Amendement of Other Insurance Condition - Primary or Primary and Non-Contributory when required by written contact or written agreement - Umbrella.

Possible Additional Services



The Nyhart Advantage

Empowering benefits, elevating futures

About Nyhart

Nyhart is an Indianapolis-based firm offering employee benefits consulting, actuarial, and administration services. Established in 1943, Nyhart serves a diverse clientele, including states, cities, municipalities, professional services firms, public and private-sector entities, healthcare systems, religious organizations, and higher education institutions.

With client assets exceeding \$20 billion, our consultative approach targets solutions relevant to the needs of each employer and their plans' participants. Nyhart offers an integrated, two-pronged approach that allows each client to customize the services to their needs, including actuarial consulting, participant education, and pension administration services.

Pension Administration Services

Nyhart provides administration services to a variety of public, private, and church clients across the country. Our firm offers comprehensive pension plan administration services designed to ensure smooth operation and regulatory compliance of your retirement plan(s). Our benefit administration system is flexible, compliant, and coded to match your plan's specific requirements.

- Benefit calculations and estimates
- Annual benefit statements
- Nyhart's Pension Administration System: nyPAS
 - Robust historical data recordkeeping capabilities
 - Access to benefit estimates or calculations on demand, for plan administrators and/or participants
 - Fully customizable & user-friendly
- Full outsourcing of administrative duties, including call center, or co-sourced solutions

LEARN MORE

For more information about our services, contact:

Lawrence E. Scherer, FSA, FCA, EA, MAAA



Larry.scherer@nyhart.com



(770) 405-0751

Jennifer Sterbank, ASA, EA, MAAA



jennifer.sterbank@nyhart.com



(770) 405-0755

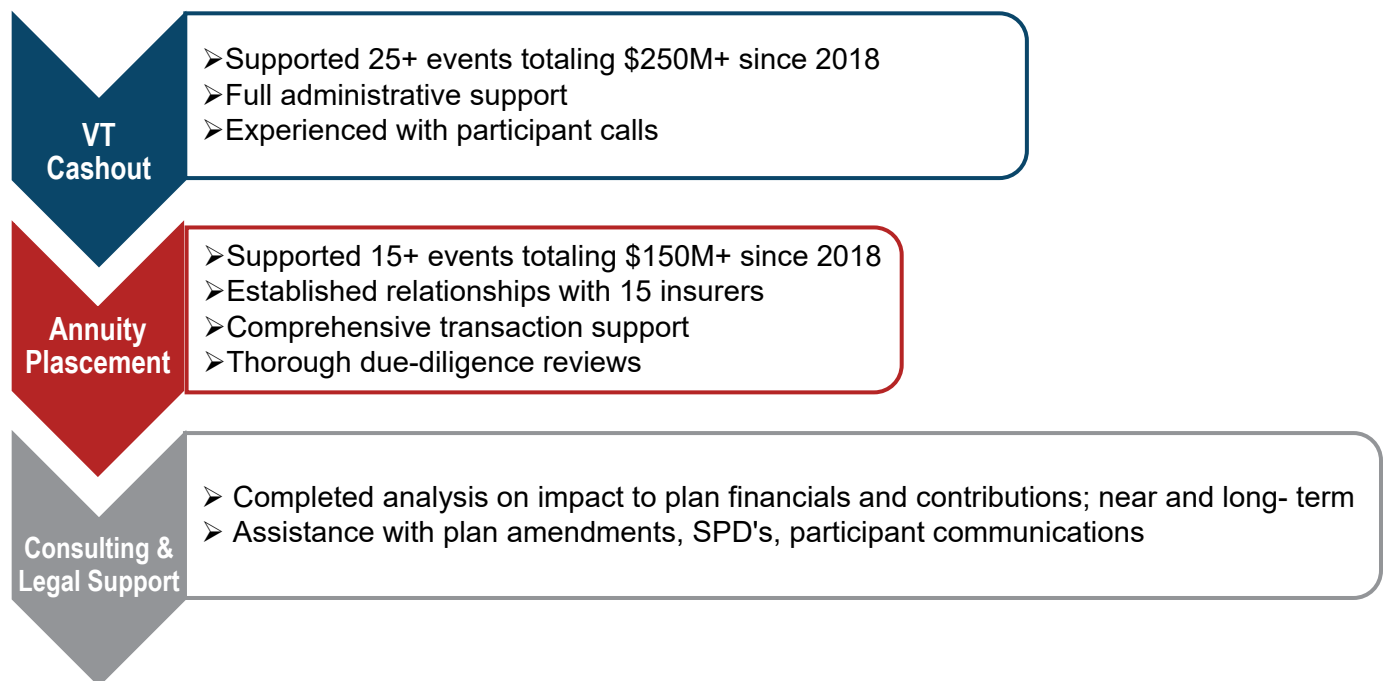
Actuarial Consulting Services

Nyhart has extensive experience in providing actuarial services to public-sector clients. While we excel in annual valuations, we also provide a comprehensive suite of services. Our offerings include:

- Dynamic cost projections
- Plan design modeling – this includes both cost projections and participant impact
- Benefit statements
- Assistance with plan amendments
- General actuarial consulting, including phone calls and meetings regarding the annual valuation

Pension De-Risking Services

Nyhart can also provide de-risking actuarial services, including analysis on strategy, asset-liability studies, lump sum windows (VT Cashout), and partial or full annuity placements.



LEARN MORE

For more information about our services, contact:

Lawrence E. Scherer, FSA, FCA, EA, MAAA



Larry.scherer@nyhart.com



(770) 405-0751

Jennifer Sterbank, ASA, EA, MAAA



jennifer.sterbank@nyhart.com



(770) 405-0755



City of Burlington, VT

Employees' Retirement System Board RFQ for Actuarial Services

Submitted By:

The Howard E. Nyhart Co., Inc.

5750 Castle Creek Pkwy STE 245

Indianapolis, IN 46250

General (317) 845-3500

Toll-Free (800) 428-7106

Website www.nyhart.com

Proposal Contact

Lawrence E. Scherer, FSA, FCA, EA, MAAA

(770) 405-0751

larry.scherer@nyhart.com

Cover Page

October 17, 2025

Brad Kukenberger, Director of Finance
Clerk Treasurer’s Office
149 Church Street, Burlington, VT 05408

RE: RFQ Actuarial Services for BERS

Thank you for considering our proposal to provide actuarial services for the City of Burlington. Nyhart has been supplying actuarial work to clients since 1943 and currently serves more than 1,100 actuarial clients nationwide. We have extensive experience working with a wide variety of pension and post-retirement medical plans during our 40 years of public-sector service, making us well-positioned to deliver the services requested by your organization. We consult with several municipal clients in Vermont and in the Burlington metro: one of our consulting actuaries is local, with more than a decade of experience serving plans in the state.

Our credentialed actuaries average 17 years of industry experience, with half carrying an FSA designation, the highest credential available to actuaries. They are expertly familiar with the markets they serve from a regulatory and legal perspective and deliver lucid translation of complex concepts into meaningful action for plan sponsors and administrators.

National, Statewide, and Local Service Capabilities: Our firm strikes a desirable balance in the actuarial service industry. Our alignment with Ascensus affords Nyhart the resources of a much larger firm (IT security, ERISA legal team) while still allowing us to offer the personal interface of a boutique consulting firm. With clients in every state, our nationwide team of actuaries provides local service and the ability to attend client meetings in person. We truly value our clients’ trust, and we hope to become long-term partners in managing their benefit plans.

Actuarial Team

Consultant	Project Role	Experience	Contact Information Location
Pension Team			
Lawrence E. Scherer, FSA, FCA, EA, MAAA	Relationship Manager	32 years	(770) 405-0751 larry.scherer@nyhart.com Ohio
Erik Schait, FSA, EA	Project Manager	14 years	(802) 557-6262 erik.schait@futureplan.com Vermont
Jennifer Sterbank, ASA, EA, MAAA	Consulting Actuary	10 years	(770) 405-0755 jennifer.sterbank@nyhart.com New York
OPEB Team			
John Lee, FSA, FCA, MAAA	Relationship Manager	17 years	(317) 845-3594 john.lee@nyhart.com New Jersey
Andrew Smith, ASA, MAAA	Project Manager	4 years	(850) 246-2827 andrew.smith@nyhart.com Georgia
Benjamin King	Actuarial Analyst	2 years	(317) 845-3587 Benjamin.King@nyhart.com Massachusetts

Client Service: Every phone call is answered by a real person, not an automated system, ensuring a personalized and responsive customer service experience from the very first *hello*. Our delivery of exceptional service includes returning phone calls the same day, answering questions without *turning on the clock*, and continually improving service efficiency through technological investment and regular collection of feedback. Our goal is to be treated as an extension of your staff and as a trusted partner.

Very easy to work with the Nyhart representatives, they are quick to get me information when I need it, and to offer guidance also when necessary. Friendly and courteous at all times.

Friendly with a good understanding of customer service. Knowledgeable!

I have always been very pleased with the working relationship with Nyhart employees/representatives... the actuarial report that we receive... and I especially appreciate the in-person presentation of the results. Nyhart has always been very good about responding to questions/emails.

Communication: Interpreting actuarial information can be daunting. We digest the complicated statistical and financial data to educate our clients while highlighting key issues that could impact their plans. Survey feedback from our clientele confirms that our educational and consultative approach distinguishes us from other actuarial firms.

I have been working with Nyhart for many years now and they are so easy to work with, are very helpful when I have questions, and do a great job at explaining things when I don't understand what I'm looking at. They are great to work with.

Our actuary, and the team is very professional. In addition, they are super patient. I constantly ask questions and have comments here and there; they will explain again and again. They are not only resolving our issues but also educating me. I am very appreciative of their help.

Prompt courteous service with clear and concise communication. Consistently high-quality provider for our needs.

Nyhart is in receipt of all addenda and acknowledges the requirements of the Request for Qualifications and that any award will depend on meeting these requirements, the submitted information, and the Client's judgment of what best serves its interests. By submitting a Proposal, Nyhart accepts that the City of Burlington may reject any or all proposals or waive technicalities and irregularities.

We attest that the firm, and the proposed actuarial team, meet the qualification requirements outlined in the RFQ and have the bandwidth and expertise to fully engage in the City's project(s) and to meet required deadlines.

Please feel free to contact us with any questions; we sincerely hope to be able to work with you.

Sincerely,



Lawrence Watts, Jr., FSA, EA, FCA, CFA, MAAA*
National Defined Benefit Practice Leader
P (770) 405-0757 | E lawrence.watts@nyhart.com

Proposal Contact

Lawrence E. Scherer, FSA, FCA, EA, MAAA
(770) 405-0751
larry.scherer@nyhart.com

*Lawrence Watts is authorized to bind the firm and commitments made herein. Supporting documentation available upon request.

Additional Requested Information

- **Statement of Qualifications applicable to the RFQ, including the names, qualifications and proposed duties of Nyhart's staff to be assigned to the project; a listing of recent similar projects completed, including the names, titles, addresses, and telephone numbers of the appropriate persons whom the City should contact.**

General Firm Description and Qualifications

Established in 1943 and headquartered in Indianapolis, Nyhart serves more than 2,700 clients in all fifty states. With client assets exceeding \$20 billion, the firm specializes in bringing a consultative approach to large, complex plans. Nyhart collaborates with a diverse client base, including states, cities, and municipalities; professional services firms; public- and private-sector entities; healthcare systems; religious organizations; and higher-education institutions.

Nyhart, part of FuturePlan by Ascensus

Our alignment with Ascensus LLC at the end of 2019 is a continuation of the steady growth Nyhart has earned through its commitment to service. This partnership affords Nyhart the resources of a much larger firm (IT security, ERISA legal team) while still allowing us to offer the personal interface of a much smaller firm.

FuturePlan by Ascensus is the nation's largest retirement third-party administrator, combining high-touch local service with the strength and security of an industry leader. A line of business within Ascensus, FuturePlan's dedicated team serves more than 38,300 retirement plans across the country. Ascensus has built FuturePlan through a series of strategic acquisitions to create a nationwide TPA organization.

Ascensus, the largest independent recordkeeping service provider, third-party administrator, and government savings facilitator in the U.S., has specialized in retirement and savings plan administration since 1980 and is owned by Stone Point Capital and GIC.

Specific Qualifications and Experience

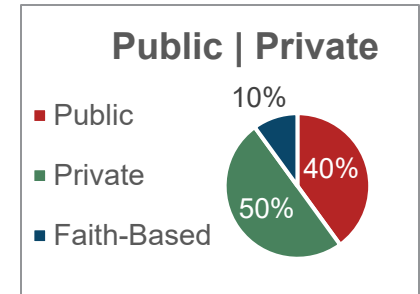
Nyhart is expertly familiar with the scope of work requested, and our consultants have rich practical experience working with a variety of pension and postretirement medical plans across the nation. We confirm that we can provide all of the services requested in Section IV of the RFQ.

Informed Consulting Approach

We acknowledge that several firms are able produce the necessary actuarial calculations; however, we believe that Nyhart sets itself apart with our strategic consulting at the Board and sponsor level by proactively advising on future outcomes and educating our clients. Our consulting services go beyond required annual reporting. To facilitate understanding, we supplement our annual formal funding and accounting valuation reports with a management summary, which condenses the actuarial reports into a digestible format and highlights key issues. Many of our clients view this as **the report** that we provide. While fully appreciating the RFQ's request to be concise, we would encourage you to look at the sample in the appendix! As you compare this management summary with more formal funding and accounting reports, we trust that you will see the value in how Nyhart communicates with our clients.

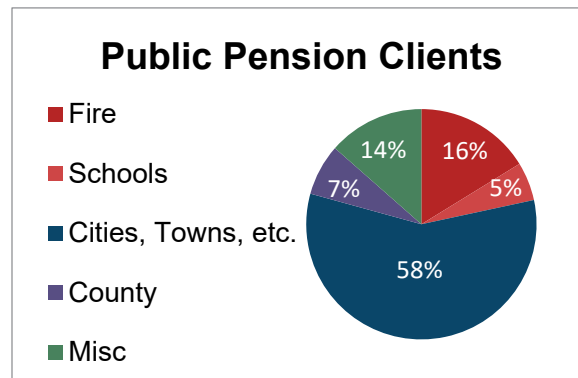
Balanced Perspective

While some firms tout their focus on one type of plan, our experience is mutually broad and specialized. We service public-sector, private-sector, and faith-based institutional clients with the challenges of each informing our approach to the others. Though each plan type has regulatory intricacies and idiosyncrasies, all plans attempt to resolve the same fundamental problem: ensure that existing fund assets, combined with future contributions, meet promised future obligations. Our expertise and exposure to different groups each attempting to solve this problem allows us to better communicate technical outcomes; our goal is to help manage the balance between the short-term requirements and the long-term success of the plan.



Our Commitment to Public Pension Plans

Nyhart serves hundreds of public-pension clients across the nation and provides all actuarial consulting services needed by a pension plan – funding valuations, GASB 67/68/73 valuations, plan-design studies, cost projections, asset-liability studies, experience studies, and pension administration solutions.



At a time when many defined benefit consulting businesses are dwindling, Nyhart has been growing significantly. We have more than 1,000 actuarial relationships across our lines of business, with much of our growth in the last ten years coming from the public sector. We have found our involvement and increasing reputation in the public-sector space to be of particular importance to our success.

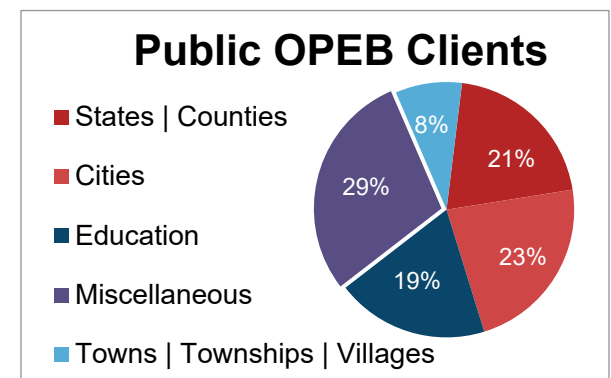
Nyhart serves defined benefit plans across the country with unique needs. The services we provide range from straightforward annual valuation work to full administrative outsourcing with call center support. We have seen great growth and client satisfaction in our abilities to take on expanded benefit-administration duties from dozens of our largest clients.

Familiarity with GASB 74 and 75

Nyhart has been serving public entities' OPEB needs since 2004. Our firm provides actuarial services for more than 700 employers offering OPEB benefits to their retirees across the US. More than 85% of these employers are governmental.

We are familiar with the OPEB plans offered in Vermont, and the proposed team has deep involvement working with such plans across the country. We have extensive experience working with different types of structures, including those with a dedicated OPEB Trust as well as plans in which sponsors make annual contributions to “pay-as-you-go.”

Additionally, we have developed tools, templates, and training manuals to conduct OPEB valuations as per the GASB 74/75 accounting principles to ensure consistency in reporting of valuation results.



Targeted Experience

Nyhart has specific focus and expertise within Vermont; locally, we are currently serving as actuary to several entities, including the Burlington School District and the Roman Catholic Diocese of Burlington. Please find a sampling of our Vermont clients below:

Burlington School District	City of Rutland	City of South Burlington	Town of Bennington	Vermont Electric Power Company	Diocese of Burlington
----------------------------	-----------------	--------------------------	--------------------	--------------------------------	-----------------------

Staff Metrics & Professional Affiliations

Nyhart Employees: 60 Credentialed Actuaries: 31

Nyhart's 60 employees are dedicated exclusively to actuarial consulting and pension administration which includes 31 credentialed actuaries, 14 analysts, 12 plan administrators, a compliance specialist, and an ERISA attorney. Additionally, our relationship through Ascensus affords us the support of hundreds of highly skilled staff (actuaries, ERISA legal, IT) in support of our efforts as a firm.

We develop client teams to include at least two experienced consultants (per plan) to assure the quality of staff assignment over the term of the project and to minimize disruption in client service for any reason. Should a member of the City's team depart from our employment, a new team member with comparable experience and credentialing will be assigned immediately.

Professional Affiliations

Nyhart regularly participates in various state and national conferences that are specifically geared toward our clients' needs and interests. This ensures that our clients are receiving the highest quality consulting, incorporating the industry's latest trends, ideas, and insights. Nyhart employees participate in the following organizations:

MAPERS	American Academy of Actuaries	Iowa State Assoc. of Counties	Conference of Consulting Actuaries (CCA)		
American Society of Pension Professionals		Indiana Association of Cities and Towns	Society of Actuaries	Western Pension and Benefits Council	
American Society of Pension Professionals and Actuaries		Georgia Association of Public Plan Trustees	Tennessee School Board Association		

Actuarial Team

Two highly experienced actuaries, identified as *Relationship Managers* below, will lead the City's teams in support of pension- and OPEB-related projects. They will be supported by a professional staff comprised of actuaries, administration experts, and attorneys. Our partnership with Ascensus affords Nyhart the additional support of a deep bench of credentialed actuaries with significant industry experience.

Our consulting actuaries do not work in silos. We leverage our collective experience and expertise through internal training sessions and brainstorming sessions for complex client situations. This ensures we bring the best and brightest ideas to our clients for their consideration.

No member of Nyhart's actuarial consulting staff has ever been suspended, subjected to disciplinary action, accused or convicted of any criminal action such as fraud, dishonesty, or breach of fiduciary duty, or named in any malpractice, negligence or similar action.

Consultant	Project Role	Experience	Contact Information Location
Pension Team			
Lawrence E. Scherer, FSA, FCA, EA, MAAA	Relationship Manager	32 years	(770) 405-0751 larry.scherer@nyhart.com Ohio
Erik Schait, FSA, EA	Project Manager	14 years	(802) 557-6262 erik.schait@futureplan.com Vermont
Jennifer Sterbank, ASA, EA, MAAA	Consulting Actuary	10 years	(770) 405-0755 jennifer.sterbank@nyhart.com New York
OPEB Team			
John Lee, FSA, FCA, MAAA	Relationship Manager	17 years	(317) 845-3594 john.lee@nyhart.com New Jersey
Andrew Smith, ASA, MAAA	Project Manager	4 years	(850) 246-2827 andrew.smith@nyhart.com Georgia
Benjamin King	Actuarial Analyst	2 years	(317) 845-3587 Benjamin.King@nyhart.com Massachusetts

Team Biographies

Pension Team



Lawrence E. Scherer | Relationship Manager

FSA, FCA, EA, MAAA

Senior Actuary

E | larry.scherer@nyhart.com

P | 770-405-0751 | 800-428-7106 F | 317-845-3654

A | Remote – Ohio

Larry Scherer joined Nyhart in December 2024 and is an actuary in Nyhart's Defined Benefit Practice. His actuarial career began in 1993.

Larry is a proactive consultant who effectively explains technical actuarial concepts to non-technical people. He works closely with clients to develop solutions that balance cost and retirement security. He is also experienced in implementing risk transfer strategies for clients' retirement programs including plan terminations, terminated vested cash outs, and retiree annuity purchases.

Larry earned a Bachelor of Arts degree in English Literature from Borromeo College of Ohio and a Bachelor of Science degree in Mathematics from Cleveland State University.

Actuarial Credentials: Fellow of the Society of Actuaries | Fellow of the Conference of Consulting Actuaries | Enrolled Actuary | Member of the American Academy of Actuaries.



Erik Schait | Project Manager

FSA, EA

Actuarial Consultant

E | erik.schait@futureplan.com

P | 802-557-6262

A | Remote - Vermont

Erik Schait is an actuary in FuturePlan's Defined Benefit Practice. His actuarial career began in 2011 with the retirement services division of People's United Bank in Burlington, VT. He is currently the actuary for many private-sector and public pension plans, with a focus on those in the Northeast. His background includes valuation services, plan design, FASB/GASB work, actuarial experience studies, and general consulting.

Erik earned his bachelor's degree in actuarial mathematics from Bryant University.

Actuarial Credentials: Fellow of the Society of Actuaries | Enrolled Actuary



Jennifer Sterbank | Consulting Actuary

ASA, EA, MAAA

Actuarial Consultant

E | jennifer.sterbank@nyhart.com

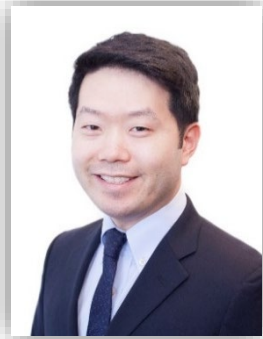
P | 770-405-0755 | 800-428-7106 F | 317-845-3654

A | Remote – New York

Jennifer Sterbank joined Nyhart in 2022 and has more than a decade of retirement plan consulting experience. She is an Actuary in Nyhart's Defined Benefit practice, consulting to public and private sector clients on a variety of issues, with a focus in large plan funding and accounting valuations, multi-year forecasting, and benefit administration. Her goal is to aid individual participants and plan sponsors alike to deliver meaningful results that respective parties can rely on.

Jennifer earned her bachelor's degrees in mathematics and economics from St. Lawrence University.

Actuarial Credentials: Associate of the Society of Actuaries | Enrolled Actuary | Member of the American Academy of Actuaries.



John Lee | Relationship Manager

FSA, FCA, MAAA

National Healthcare Director

E | john.lee@nyhart.com

P | 317-845-3594 | 800-428-7106 F | 317-845-3654

A | Remote – New Jersey

John joined Nyhart in 2022 and is the Healthcare Practice Director at Nyhart. John has 17 years of actuarial consulting experience in Canada, Korea, and the United States. He consults with clients on a variety of issues with a focus on retiree healthcare and employee benefit plans in the public and private sectors. John leads the overall project quality and execution, the development of actuarial staff, and building relationships with potential clients and partners.

John earned his bachelor's degree in actuarial science from the University of Waterloo in Canada.

Actuarial Credentials: Fellow of the Society of Actuaries | Fellow of the Conference of Consulting Actuaries | Member of the American Academy of Actuaries



Andrew Smith | Project Manager

ASA, MAAA

Actuarial Consultant

E | andrew.smith@nyhart.com

P | 317-845-3510 | 800-428-7106 F | 317-845-3654

A | Remote - Georgia

Andrew joined Nyhart in 2022 and has four years of experience working with Healthcare and Pension plans. He is an Actuary in Nyhart's Healthcare Practice and consults with public and private clients on a variety of issues with the focus on retiree healthcare and employee benefit plans. Andrew is a key contributor to quality project execution and building relationships with potential clients and partners.

He earned his bachelor's degree in mathematics from Emmanuel College, GA.

Actuarial Credentials: Associate of the Society of Actuaries | Member of the American Academy of Actuaries



Benjamin King | Actuarial Analyst

Actuarial Analyst

E | Benjamin.King@nyhart.com
P | 508-802-0190 | 800-428-7106 F | 317-845-3654
A | Remote – Massachusetts

Ben King joined Nyhart in 2025 and is an actuarial analyst in Nyhart's healthcare practice. Ben assists in data entry, client communications, and OPEB reporting.

Ben earned his bachelor's degree in mathematics from Bridgewater State University and is a veteran of the United States Navy. Ben is actively pursuing his actuarial credentials

As requested, please find a list of references for clients who can attest to our service and ability to perform similar work. Note that Rutland and St. Johnsbury were served directly by Erik Schait under the Newport moniker, another Ascensus acquisition whose actuarial group is being integrated into Nyhart.

Client	Contact	Service Provided
The City of Rutland, VT PO Box 969 Rutland, VT 05702	Mary Markowski Treasurer 802-773-1800 x239 marym@rutlandcity.org	Pension Actuarial Services
Glynn County, GA 1725 Reynolds Street, Suite 102 Brunswick, GA 31520	Tamara Munson Chief Financial Officer 912-544-7138 tmunson@glynncounty.ga.gov	Pension and OPEB Actuarial Services
City of Livonia, MI 33000 Civic Center Drive Livonia, MI 48154	Missy Ware 734-466-2529 mware@livonia.gov	Pension and OPEB Actuarial Services
Town of St. Johnsbury, VT 51 Depot Square, Suite 101 St. Johnsbury, VT 05819	Stacy Jewell Town Clerk/Treasurer 802-748-4331 x1 townclerk@stjvt.com	Pension Actuarial Services
Burlington School District 150 Colchester Avenue Burlington, VT 05401	Nathan Lavery Executive Director of Finance 802-864-8462 ext. 7 nlavery@bsdvt.org	OPEB Actuarial Services
Town of Bennington, VT PO Box 469 Bennington, VT 05201	Melissa Currier Finance Director 802-447-9704 mcurrier@benningtonvt.org	OPEB Actuarial Services

Client Feedback Regarding Service and Communication

In 2020, Nyhart began collecting service data via a client satisfaction survey. We have found the results to be overwhelmingly positive. Please find a sampling below of the 2024 survey results and how our clients measure our communication and service in their own words.

1-10	Client	Comments
10	Burnett County, WI	<i>Prompt courteous service with clear and concise communication. Consistently high-quality provider for our needs.</i>
10	Burr Oak Tool and Gauge Co., MI	<i>Friendly with a good understanding of customer service. Knowledgeable!</i>
10	County Commission of Wayne County, WV	<i>Once again, Nyhart was a pleasure to work with. They were able to anticipate our needs and walk us through the GASB 75 actuarial report process with patience and unwavering professionalism.</i>
10	Champion Industries, NC	<i>Our Partnership with Nyhart has always been a very positive experience. I have always found their staff to be very professional, and very helpful.</i>
10	Glynn County, GA	<i>Our experience with Nyhart has been exceptional. They really stepped up to the plate to help us through some significant staffing challenges related to our pension administration and were invaluable during the transition. Their communication and responsiveness is superb and they are always very timely in providing our actuarial valuation results.</i>
10	Town of Swanzey, NH	<i>Everyone has been easy to work with! I have also received the final reports much faster than anticipated. Thank you!!</i>
10	City of Encinitas, CA	<i>Our actuary, and the team, is very professional. In addition, she is super patient. I constantly ask questions and have comments here and there; she will explain again and again. She is not only resolving our issues but also educating me. I am very appreciative for her help.</i>
10	Diocese of San Bernadino, CA	<i>Very easy to work with the Nyhart representatives, they are quick to get me information when I need it, and to offer guidance also when necessary. Friendly and courteous at all times.</i>
10	Village of Fox Crossing, WI	<i>Nyhart has been wonderful with working with us on a shorter than normal timeline this year. Thank you!!!</i>
10	Redwood County, MN	<i>I have been working with Nyhart for many years now and they are so easy to work with, are very helpful when I have questions, and do a great job at explaining things when I don't understand what I'm looking at. They are great to work with.</i>
10	Desert Hospital, CA	<i>The communication responses have been prompt, and our rep was patient in waiting for needed documents from us. Both elements are appreciated!</i>
10	Diocese of Covington, KY	<i>I have always been very pleased with the working relationship with Nyhart employees/representatives... the actuarial report that we receive... and I especially appreciate the in-person presentation of the results. Nyhart has always been very good about responding to questions/emails</i>
10	City of Ocala, FL	<i>Questions are answered quick and accurate. Always friendly.</i>

- **A copy of the Consultant’s hourly rate schedule for all personnel, and project costs anticipated to be involved in the project, and a statement that said hourly rate schedule is part of the Consultant’s Proposal for use in invoicing for progress payments and for extra work incurred that is not part of this RFQ.**

The fees quoted below are fees for the City of Burlington based on the services requested in the RFQ document. Our proposed quote is based on a time and materials basis, the scope of services typically required for engagements of this nature, as well as information available through publicly accessible documents. We understand that each plan has its own unique characteristics, and we are always happy to refine our approach and pricing as more specific details become available.

Actuarial Services

Burlington Employees’ Retirement System	Quote
Annual Funding Valuation Report and One In-Person Presentation	\$27,500 - \$32,500
GASB 68 Reporting and Reasonable Audit Support	\$4,500 - \$5,500
GASB 67 Reporting and Reasonable Audit Support	\$4,500 - \$5,500
Experience Study Report (fee dependent on assumptions reviewed and presumes transfer of clean historical data in reasonable format)	\$25,000 - \$35,000
DB Administration Services	Time and Materials
Special Studies, Projections, and Additional Meetings	Time and Materials
Transition Fee*	\$0

City of Burlington OPEB Plan	Quote
GASB 74/75 Valuation Report (Full Valuation Year)	\$8,000
GASB 74/75 Valuation Report (Interim Roll-forward Valuation Year)	\$4,000
Reasonable Audit Support	Included
Transition Fee*	\$0

* Nyhart does not charge for upfront actuarial transition support, as we aim to make the onboarding process as seamless as possible and show our commitment to new clients. This assumes that participant census data can be provided in a reasonably complete and usable format.

Hourly Rates

For projects that are to be billed on a time and materials basis, the hourly rates shown below will apply. Associates will be assigned to optimize work quality and cost efficiency for the client. Please note that Nyhart is always willing to negotiate fixed fees for projects whose scopes are well-defined ahead of time. Our clients find our pricing to be transparent, competitive, and fair; we aim to become valued long-term partners for each of the groups we serve.

Position (Typical Credential)	Current Hourly Rates*
Senior Consultant (FSA) / Relationship Manager	\$415 - \$465
Credentialed Valuation Actuary (ASA) / Project Manager	\$285 - \$375
Actuarial Analyst	\$235 - \$285
Defined Benefit Administration Analyst	\$215

* Hourly rates are subject to annual adjustments, typically inflationary in nature.

- **If the consultant identifies any additional scope of work items not listed in this RFQ that may be of benefit to the project, they can include those in the proposal as “Possible Additional Services.”**

Please see the attached listing included in the appendix regarding possible additional services that Nyhart can provide that are outside the scope of items listed in the RFQ. We took particular notice of the large number of terminated employees due refunds from the system; Nyhart can certainly assist in locating participants and/or otherwise help in cleaning up participant data.

- **Acknowledgment of the Signed Livable Wage, Outsourcing, and Union Deterrence Certifications (Exhibits D-F).**

We acknowledge the City’s ordinances and requirements and have included signed certifications in the appendix.

- **A listing of provisions, if any, objected to in the City’s standard contract (Exhibit C and C-1).**

Listed below are provisions identified by Nyhart that we request be discussed during contracting:

- Indemnification language appears to be one-directional. Nyhart would request indemnification by the City with similar terms.
- Nyhart generally indemnifies solely against gross negligence; the contract as written appears to indemnify against simple negligence. We would request that language be amended.
- Nyhart typically requests that limitations of liability be negotiated and included at a reasonable level; as written, no limitations appear to be envisioned.
- The Appearances section suggests that the consultant shall appear as a witness during litigation when required. Our firm’s policy does not allow for representation or service as an expert witness. Nyhart is not a law firm and cannot provide legal advice. We would certainly be able to consult and support the City, but this language would need to be adjusted.

Appendix

The following documents should be considered part of this RFQ response but are attached as separate documents:

- Nyhart – Additional Pension Services
- Sample XYZ Management Summary
- Certification of Compliance with the City of Burlington’s Outsourcing Ordinance
- Certification of Compliance with the City of Burlington’s Union Deterrence Ordinance
- Certification of Agreement to Comply with the City of Burlington’s Livable Wage Ordinance



USI Consulting Group
95 Glastonbury Boulevard
Suite 102
Glastonbury, CT 06033

October 14, 2025

Via email to bkukenberger@burlingtonvt.gov

Brad Kukenberger
Director of Finance
Clerk Treasurer's Office
City of Burlington
149 Church Street
Burlington, VT 05408

Re: City of Burlington Employees Retirement System Request for Qualifications for Actuarial Services

Dear Mr. Kukenberger,

We are pleased to submit our response to the Request for Qualifications for Actuarial Services for the City of Burlington Employees Retirement System. As the current actuarial consultant, we bring a deep understanding of the City's retirement plans, the Committee's priorities, and the nuances of your governance and funding strategies.

Our longstanding relationship with the City of Burlington has enabled us to deliver consistent, high-quality actuarial support. Over the course of our engagement, we have helped the City navigate complex funding challenges, implement strategic plan design changes, and improve the clarity and accessibility of actuarial reporting. These efforts have contributed to the long-term sustainability and transparency of both the pension and OPEB plans.

We recognize that new personnel may be reviewing this submission, and we welcome the opportunity to highlight the measurable value we've delivered. Our work has supported informed decision-making, enhanced compliance with regulatory requirements, and provided actionable insights that align with the City's financial and workforce objectives.

Our commitment to excellence and responsiveness aligns with the City's goals, and we are enthusiastic about the opportunity to continue serving as your actuarial partner. We look forward to discussing our qualifications further and are available to answer any questions you may have when you review our attached response.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve A. Lemanski".

Steve A. Lemanski, FSA, FCA, EA, MAAA
Partner | Vice President,
Senior Consulting Actuary
Retirement Services
860.856.2073
steve.lemanski@usi.com

A handwritten signature in blue ink, appearing to read "Richard S. Sych".

Richard S. Sych, FSA, EA, MAAA
Partner | Senior Vice President
Retirement Services
860.856.2112
rich.sych@usi.com

Enclosures



**REQUEST FOR QUALIFICATIONS (RFQ)
ACTUARIAL SERVICES**

CITY OF BURLINGTON EMPLOYEES' RETIREMENT SYSTEM



October 17, 2025

Submitted by:

Steve A. Lemanski, FSA, FCA, EA, MAAA
Partner | Vice President,
Senior Consulting Actuary
Retirement Services
95 Glastonbury Boulevard, Suite 102
Glastonbury, CT 06033
860.856.2073
steve.lemanski@usi.com

Richard S. Sych, FSA, EA, MAAA
Partner | Senior Vice President
Retirement Services
95 Glastonbury Boulevard, Suite 102
Glastonbury, CT 06033
860.856.2112
rich.sych@usi.com

Contents

- Service Team 1
- Statement of Qualifications 2
 - Overview.....2
 - Staff Credentials.....3
 - Government Entity Experience and Resources.....3
 - Regulatory & Compliance Services Group.....3
 - References.....4
- Cost Proposal 5
 - Hourly Rates5
 - Subcontractors.....5
- Required Forms..... 6
- Possible Additional Services 6
 - Enhancing Pension Administration for the City of Burlington6
 - Supporting Modern Pension Administration.....6
 - Technology That Works for You.....6
 - Empowering Your Employees7
 - Looking Ahead.....7

Required Forms

- Certification of Agreement to Comply with the City of Burlington's Livable Wage Ordinance
- Certification of Compliance with the City of Burlington's Union Deterrence Ordinance
- Certified Payroll Records

Appendices

- I. Service Team Biographies
- II. Sample Pension Valuation Report
- III. Sample Pension GASB Report
- IV. Sample OPEB Valuation Report
- V. Sample OPEB GASB Report
- VI. Sample Experience Study

SERVICE TEAM

Steve Lemanski has served as the lead actuary and primary contact for the City of Burlington’s relationship with USI Consulting Group, providing trusted guidance and expertise over the years. Steve will be retiring in February 2026.

We are pleased to introduce Rich Sych, FSA, EA, MAAA, as the new lead actuary for the City of Burlington. Rich brings over 30 years of actuarial and consulting experience and has worked extensively with public sector clients. He is well-versed in the City’s plan and will ensure a seamless transition.

As lead consultant, Rich will oversee all aspects of the relationship, including the timely and accurate completion of service components and deliverables. He will coordinate the project team and personally review all deliverables to maintain the high standards the City has come to expect. We are confident that Rich’s expertise and commitment will continue to support the City’s goals effectively.

Rich will be supported by the same dedicated team members who have worked closely with the City in the past. Their familiarity with the plan and established working relationships will help ensure a smooth transition and continued consistency in service delivery.

City of Burlington Employees’ Retirement System Service Team

Team Member	Title/Function
Richard S. Sych, FSA, EA, MAAA Partner Senior Vice President, Retirement Services	Lead Actuary and Primary Contact
Steve Lemanski, FSA, FCA, EA, MAAA Partner Vice President, Senior Consulting Actuary	Current Lead Actuary and Primary Contact
Robert P. Lessard, ASA, EA, MAAA Consulting Actuary	Assistant Vice President and Consulting Actuary
Mike Krzanowski, FSA, EA, MAAA	Senior Actuarial Consultant
Laura Tingley	Senior Actuarial Analyst
Becca Lunt	Senior Actuarial Analyst

Biographies for the City of Burlington Service Team are included with the Appendices to our response.

STATEMENT OF QUALIFICATIONS

Overview

Pension and Other Post-Employment Benefits (OPEB) plans have provided government employees with a comfortable retirement benefit for over 150 years. However, managing a pension plan today can be very complex due to changing regulations, accounting disclosure requirements and other state laws that may mandate or limit benefits offered to public sector employees.

Efficient, cost-effective pension and OPEB solutions for public sector entities starts with USI Consulting Group.

For nearly 50 years, we have been helping plan sponsors mitigate risk and the financial impact their pension plans may be having on their organization. Our experienced actuaries fully understand the challenges of pension and OPEB obligations in the unique public sector environment.

From intelligent plan design to investment governance to participant education and online tools that helps employees appreciate the value of their benefit, our credentialed actuaries offer creative solutions to improve the prediction and management of plan costs and expenses.



Trusted Expertise Across All Aspects of Plan Management

Actuarial	Plan Design & Implementation	Administration
<ul style="list-style-type: none"> ▪ Funding projections ▪ Asset/Liability modeling ▪ Valuation assumptions and methods review ▪ Independent investment advisory and plan governance, including committee training 	<ul style="list-style-type: none"> ▪ Expertise with Pension, OPEB and hybrid plans ▪ DROPS and PLOPS ▪ Innovative risk and cost-sharing plan designs ▪ Effective employee engagement strategies 	<ul style="list-style-type: none"> ▪ Benefit calculation estimates ▪ Benefit calculation reviews and certifications ▪ Assistance with compliance matters ▪ Consulting on ad-hoc administrative needs ▪ Development of actuarial factors and tables

Staff Credentials

USICG has over 650 employees working together to create a multi-disciplinary approach to our benefits consulting. The credentials of our consultants and staff underscore the expertise and experience we bring to every assignment:

Our actuarial staff includes:

- 80 Actuaries
- 34 Fellows of the Society of Actuaries (FSA)
- 27 Associates of the Society of Actuaries (ASA)
- 66 Enrolled Actuaries (EA)
- 15 Fellows of the Conference of Consulting Actuaries (FCA)
- 66 Members of the American Academy of Actuaries (MAAA)

Government Entity Experience and Resources

USICG consultants understand the unique plan design, compliance, funding and accounting requirements of public sector pension plan sponsors, as well as the unique requirements and decision-making processes of public sector entities. Our consultants conduct research and share client experience across the entire actuarial team to provide perspective and provide superior support to our government entity clients.

Our Government Actuarial Services Practice has

- Performed thousands of actuarial valuations of pension plans in the public sector;
- Provided actuarial support in evaluating and understanding the accounting measurement and disclosure requirements for pension plans under GASB Statements 67/68 and 74/75
- Experience and expertise in understanding, and working with, the broad array of stakeholders and the governance processes of a governmental entity.

Our firm has depth and breadth of experience in working with the retirement plans that can be sponsored by governmental and related entities. The legal environment in which governmental plans operate is complex in some ways, although exemptions are applicable in many areas.

In addition to administration tasks, we are asked frequently to assist government entities with:

- Asset liability studies
- Experience studies
- Plan redesign
- Cost projection analysis

We also provide custom software solutions for benefit calculation needs, as well as online pension administration solutions tailored to our clients' specific needs. See more about this service under "Additional Services".

Regulatory & Compliance Services Group

USICG has a Regulatory & Compliance Services Group which is composed of ERISA attorneys and paralegals. The average employee benefits industry experience of the Regulatory & Compliance Group is

over 20 years. This group, in conjunction with others in the firm, can provide compliance reviews, including, but not limited to, creation or modification of plan documents for both pension and retiree health care plans.

The Regulatory & Compliance Group continually monitors changes in laws and regulations with respect to all areas in which we provides client services so that our consultants can keep their clients informed of any changes and can properly advise their clients regarding how they should comply with the law while meeting strategic HR objectives.

We should note that USICG is not a law firm and all final legal decisions should be reviewed and considered by your General Counsel or outside legal firm.

References

We are always pleased to have an opportunity to ask our existing clients to provide a reference for prospective clients. Below are clients with similar plans, whom you may contact as references.

Client Name	City of New Haven, CT
Address	200 Orange Street, 4th Floor, New Haven, CT 06510
Contact Name/Title	Leanna Ambersley, City of New Haven - Pension Administrator
Phone	203-946-8296
Email	LAmbersley@newhavenct.gov
Client Since	40+ years
Client Name	City of Danbury, CT
Address	155 Deer Hill Avenue, Danbury, CT 06810
Contact Name/Title	Dan Garrick, Director of Finance
Phone	203 797-4650
Email	d.garrick@danbury-ct.gov
Client Since	2007
Client Name	City of Torrington, CT
Address	140 Main Street, Torrington, CT 06790
Contact Name/Title	Olivia DeRosa, Comptroller
Phone	(860) 489-2204
Email	Olivia_DeRosa@torringtonct.org
Client Since	2016

COST PROPOSAL

Recurring Actuarial Services Fee Schedule

	Pension Valuation & meetings including GASB 67/68 reporting (1&2)	OPEB Valuation including GASB 74/75 reporting (3&4)	Work outside Valuation & GASB (5)*
July 1, 2025 to June 30, 2026	\$34,500	\$15,500	\$300 per calc
July 1, 2026 to June 30, 2027	\$35,500	\$3,200	\$310 per calc
July 1, 2027 to June 30, 2028	\$36,500	\$16,200	\$320 per calc
July 1, 2022 – June 30, 2027 Actuarial Experience Study	\$23,000		

* Estimated current annual volume is approximately 225 benefit calculations. Actual annual fees will be based on the number of actual benefit calculations times the applicable fee per calculation. Other work outside the valuation and annual accounting reports, including but not limited to benefit statements, cost estimates, union negotiations, etc., will be billed at our hourly rates. Any project expected to exceed \$1,000 will be quoted in advance with a “not to exceed” fee quote.

Hourly Rates

We are always available to assist our clients with special requests or ad hoc projects. Such projects are based on hourly rates. Before beginning special or ad hoc projects, we would provide you with an estimate of anticipated project costs based on the project scope. Work would begin as soon as the estimate is approved. Our 2025 hourly rates are provided below and are subject to change annually:

- Consultants/Actuaries: \$345 - \$575
- Analysts/Technicians: \$190 - \$345
- Administrative/Support: \$115 - \$190

Subcontractors

USI Consulting Group does not use subcontractors to provide actuarial consulting services to clients.

REQUIRED FORMS

The following executed forms are included with our submission.

- Certification of Agreement to Comply with the City of Burlington’s Livable Wage Ordinance
- Certification of Compliance with the City of Burlington’s Union Deterrence Ordinance
- Certified Payroll Records

CONTRACT PROVISIONS

USI Consulting Group takes no exceptions to the Standard Contract Provisions provided with the Request for Qualifications as Exhibits C and C-1.

POSSIBLE ADDITIONAL SERVICES

Enhancing Pension Administration for the City of Burlington

As a valued client, the City of Burlington already benefits from a suite of services designed to streamline pension administration and improve the experience for both plan sponsors and participants. We’d like to take a moment to highlight how these services continue to support your goals and offer opportunities for further enhancement.

Supporting Modern Pension Administration

Over the years, pension administration has evolved significantly—from manual processes to secure, web-based platforms. Our PensionEdge® system reflects this evolution, offering a centralized, easy-to-use portal that helps manage plan data efficiently and securely. It’s designed to meet the needs of municipalities like Burlington, with features that simplify administration and improve access for employees.

Technology That Works for You

PensionEdge® is built to support your team with:

- A comprehensive database of plan participants
- Annual data feeds and reconciliation
- Personalized benefit statements
- Secure document storage and access
- Retirement projections and final benefit calculations
- Ongoing support and training for plan sponsors

These tools help coordinate activities across departments and locations, ensuring consistency and accuracy in plan management.

Empowering Your Employees

Your employees benefit from secure, self-service access to their pension information, including:

- Viewing and printing statements
- Running retirement income estimates
- Requesting final benefit calculations

For additional support, our Participant Service Center connects employees with knowledgeable representatives who assist with forms, navigation, and benefit-related questions. Multilingual services and prompt response times ensure accessibility and convenience.

Looking Ahead

Whether pension administration is a current focus or simply part of your ongoing operations, we remain committed to supporting the City of Burlington and your employees. Our goal is to ensure that the tools and services you have in place continue to meet your needs—efficiently and securely.

If it would be helpful, we'd be glad to provide a demonstration of PensionEdge® to showcase how it's currently supporting your goals and to highlight any additional features that may benefit the City.

Required Forms

- CERTIFICATION OF AGREEMENT TO COMPLY WITH THE CITY OF BURLINGTON'S LIVABLE WAGE ORDINANCE
- CERTIFICATION OF COMPLIANCE WITH THE CITY OF BURLINGTON'S UNION DETERRENCE ORDINANCE
- CERTIFIED PAYROLL RECORDS

Certification of Agreement to Comply with the City of Burlington’s Livable Wage Ordinance

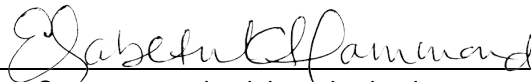
I, Justin Thackeron behalf of USI Consulting Group (“the Contractor”), in connection with a contract for Actuarial

services to be provided to the City of Burlington (“the City”), hereby certify, under oath, that the Contractor (and any of its subcontractors or subgrantees under this contract) shall comply with the City’s Livable Wage Ordinance (“LWO”), B.C.O. 21-80 et seq., and that:

- (1) The Contractor shall pay all “covered employees” as defined by the LWO (including covered employees of subcontractors or subgrantees) a livable wage (as determined, or adjusted, annually by the City’s chief administrative officer), and shall provide required paid time off for the term of the contract (*or the duration of the contracted project*);
 - (a) Employees are entitled to 12 days of paid time off per year, which may be prorated subject to B.C.O. Sec. 21-82(c); and
 - (b) For a covered employer that provides employer assisted health care, the livable wage shall be at least \$19.90 per hour; and
 - (d) For a covered employer that does not provide employer assisted health care, the livable wage shall be at least \$22.11 per hour.
- (2) The Contractor shall post a notice regarding the applicability of the LWO in the workplace or in other locations where covered employees normally work, and where such notice can be readily seen;
- (3) Upon request of the City’s chief administrative officer, the Contractor, for itself and, as applicable, for any of its subcontractors or subgrantees, shall provide payroll records, health insurance enrollment records, and other relevant documentation, as deemed necessary by the chief administrative officer, within ten (10) business days from receipt of the City’s request;
- (4) The Contractor shall cooperate in any investigation conducted pursuant to the LWO by the City’s designated accountability monitors or the City’s Office of City Attorney & Corporate Counsel;
- (5) The Contractor shall not retaliate, nor allow any of its subcontractors or subgrantees to retaliate, against an employee or other person because such employee or person has exercised rights or is planning to exercise rights protected under the LWO, or has cooperated in an investigation conducted pursuant to the LWO;
- (6) The Contractor is required to insert in all subcontracts the requirements of the LWO. The Contractor is liable for violations of the LWO committed by its covered subcontractors.

By signing below, I certify under the pains and penalties of perjury that I have personal knowledge of the foregoing or have made a reasonable inquiry therein, and that to the best of my knowledge and belief, the foregoing is true and correct. (See 13 V.S.A. 2904(b).)

Date: October 16, 2025

By: 
Contractor, or its duly authorized agent
Elizabeth Hammond, FSA, EA, MAAA
Partner | Chief Operating Officer
USI Consulting Group

IMPORTANT NOTE: Effective January 1, 2025, for covered employees not under a labor agreement and not working under an agreement subject to Davis-Bacon Act compliance for highway or heavy construction, if the contract or grant amount, inclusive of amendments, is \$50,000 or greater, the vendor is required to certify payroll with each invoice. An acceptable form of certification is attached. Backup documentation may be requested in connection with random compliance audits. Certification of subcontractor or subconsultant payroll is required only upon request.

Certification of Compliance with the City of Burlington's
Union Deterrence Ordinance

I, Elizabeth Hammond, on behalf of USI Consulting Group
(Contractor) and in connection with Contract for Actuarial Services (City
contract/project/grant), hereby certify under oath that USI Consulting Group
(Contractor) has not advised the conduct of any illegal activity, and it does not currently, nor will
it over the life of the contract advertise or provide union deterrence services in violation of the
City's union deterrence ordinance.

Dated at Nashville, TN, ~~Vermont~~ this 16 day of October, 2025.

By: 
Duly Authorized Agent

Elizabeth Hammond, FSA, EA, MAAA
Partner | Chief Operating Officer
USI Consulting Group

City of Burlington, Vermont
Certified Payroll Record
Living Wage Ordinance, B.C.O. § 21-84(a)

[B.C.O. Ch. 21, Art. VI](#)



BURLINGTON
VERMONT

Instructions to Covered Employers: Use this form to report wages and benefits for covered employees, as defined in B.C.O. § 21-81(d). If three or fewer covered employees performed services pursuant to your agreement with the City of Burlington during the Reporting Period, then report information for each covered employee. If more than three covered employees performed services pursuant to your agreement with the City of Burlington during the Reporting Period, then report information for the three lowest paid covered employees only.

Reporting Period: from 9/1/2025 (date) to 9/30/2025 (date).

(Note: The Reporting Period should match the period covered by the invoice accompanying this Record.)

Employee No. 1

Initials, Last Four Digits of SSN, or other Unique Identifier: Employee 1

Total Wages, Salary, and Tips Paid by Covered Employer During Reporting Period: \$6,161.60

Total Number of Hours Worked for Covered Employer During Reporting Period: 160 hours

Was the Covered Employee Provided Employer-provided Health Insurance as Specified in B.C.O. § 21-81(g)? Yes: X No:

Did the Covered Employer Offer Paid Time Off Pursuant to B.C.O. § 21-82(c)? Yes: X No:

Employee No. 2

Initials, Last Four Digits of SSN, or other Unique Identifier: Employee 2

Total Wages, Salary, and Tips Paid by Covered Employer During Reporting Period: \$7,932.80

Total Number of Hours Worked for Covered Employer During Reporting Period: 160 hours

Was the Covered Employee Provided Employer-provided Health Insurance as Specified in B.C.O. § 21-81(g)? Yes: X No:

Did the Covered Employer Offer Paid Time Off Pursuant to B.C.O. § 21-82(c)? Yes: X No:

Employee No. 3

Initials, Last Four Digits of SSN, or other Unique Identifier: Employee 3

Total Wages, Salary, and Tips Paid by Covered Employer During Reporting Period: \$9,750.40

Total Number of Hours Worked for Covered Employer During Reporting Period: 160 hours

Was the Covered Employee Provided Employer-provided Health Insurance as Specified in B.C.O. § 21-81(g)? Yes: X No:

Did the Covered Employer Offer Paid Time Off Pursuant to B.C.O. § 21-82(c)? Yes: X No:

I certify under the pains and penalties of perjury that I have personal knowledge of matters asserted herein or that I am readily familiar with, and have reviewed, the books and records of the covered employer, and that to the best of my knowledge and belief the foregoing is true and correct. I understand that the covered employer may be asked to provide reasonable backup documentation, which shall be provided upon request.

Authorized Representative:  Date: October 16, 2025

Elizabeth Hammond, FSA, EA, MAAA
Partner | Chief Operating Officer
USI Consulting Group

Appendix I

SERVICE TEAM BIOGRAPHIES

City of Burlington Employees' Retirement System Service Team

Richard S. Sych, FSA, EA, MAAA

SENIOR RELATIONSHIP MANAGER



Richard Sych, Senior Vice President of Retirement Services at USI Consulting Group (USICG), is a consulting actuary for the firm. Prior to joining USICG, Rich was President and Shareholder for Hooker & Holcombe (H&H), a full-service actuarial, retirement consulting, and institutional investment advisory firm. He spent nearly 25 years in leadership roles at H&H before it was acquired by USI Consulting Group in May 2023. Preceding that, he worked at a national actuarial firm for eight years where he consulted with Fortune 500 companies.

Rich has extensive experience with defined benefit plans, including cash balance plans. He specializes in benefit certification software design, retirement income studies, plan design strategies, M&A consulting, and glide path solutions for risk management and termination.

With more than 35 years in the retirement industry, his experience spans a multitude of industries including banking, construction, education, private equity, manufacturing, non-profits, professional services (i.e., accounting/law firms), medical practices, retail, technology, and utilities.

Rich earned his undergraduate degree in Mathematics and his master's degree in Applied Mathematics from Rensselaer Polytechnic Institute. He is a Fellow of the Society of Actuaries (FSA), and Enrolled Actuary (EA), a Member of the Conference of Consulting Actuaries (FCA) and a Member of the American Academy of Actuaries (MAAA). His leadership and expertise have been called upon many times, featuring him as a speaker at CBIA Compensation & Benefits Conferences and various CT Society of CPAs, Government Finance Officers Association (GFOA), and CFA Society Hartford industry events.

Steve A. Lemanski, FSA, FCA, EA, MAAA

PARTNER | VICE PRESIDENT, SENIOR CONSULTING ACTUARY



Steve Lemanski is Vice President, Senior Consulting Actuary at USI Consulting Group (USICG). In this role, he is responsible for overseeing a team of actuarial professionals who manage the firm's pension and other post-employment benefits (OPEB) plans. Additionally, he works on a wide range of projects including consulting on qualified and non-qualified defined benefit and post-retirement

welfare plans, performing pension valuations, benefit calculations, cost estimates and reporting for FASB and GASB. He is also involved in plan studies and design work.

Steve has been in the actuarial consulting industry since 1988 and has provided services to a diverse client base including municipalities, multi-employer pension funds, and Fortune 500 companies. His expertise covers valuations of defined

City of Burlington Employees' Retirement System Service Team

benefit and OPEB plans, plan design, benefit certifications, experience studies, general administration of qualified plans, and consulting on several compliance related issues.

Prior to joining USICG, Steve served as Shareholder, Vice President and Practice Leader of the Actuarial Services Group for Hooker & Holcombe, a full-service actuarial, institutional investment advisory and retirement plan consulting firm. As a Shareholder, he played a leading role in the strategic planning and growth of the firm. Hooker & Holcombe was acquired by USI Consulting Group in 2023.

Steve graduated summa cum laude from Drew University with a bachelor's degree in applied mathematics and economics. He is an Enrolled Actuary and holds several professional designations including fellow of the Society of Actuaries (FSA), fellow of the Conference of Consulting Actuaries (FCA), and member of the American Academy of Actuaries (MAAA). Steve is a past board member for the Connecticut Public Pension Forum and is chairperson of the EA-1 Actuarial Examination Committee.

Robert P. Lessard, ASA, EA, MAAA

CONSULTING ACTUARY



Robert Lessard is an assistant vice president and consulting actuary with USI Consulting Group (USICG), where he works with many public sector clients in the Northeast on a number of projects including pension valuations, disclosure and plan design work. He works on qualified & nonqualified defined benefit plans and postretirement welfare plans.

With over 24 years of defined benefit plan consulting experience, Rob has significant modeling and forecasting experience. Additionally, he has worked on non-standard actuarial projects such as experience studies and early retirement windows.

Previously, Rob was consulting actuary for Hooker & Holcombe, a full-service actuarial, institutional investment advisory and retirement plan consulting firm. There, he was responsible for companywide training and implementation of ProVal actuarial software. Hooker & Holcombe was acquired by USI Consulting Group in 2023.

Rob graduated from Providence College, with honors, with a BA in Mathematics. He is an Associate of the Society of Actuaries (ASA), an Enrolled Actuary (EA) and a Member of the American Academy of Actuaries (MAAA).

City of Burlington Employees' Retirement System Service Team

Mike Krzanowski, FSA, EA, MAAA

SENIOR ACTUARIAL CONSULTANT



Mike Krzanowski is a team leader and actuarial specialist with USI Consulting Group (USICG), where he works with many public and private sector clients in the Northeast on several projects including preparation of actuarial valuations and accounting disclosures, benefit statements and calculations, cost estimates, stochastic and deterministic forecasts, and government forms. He also specializes in non-discrimination testing and plan termination work.

Mike has been in the actuarial industry since 2015. Previously, he was an actuarial specialist for Hooker & Holcombe, a full-service actuarial, institutional investment advisory and retirement plan consulting firm. There, his focus was consulting on both corporate and municipal defined benefit plans. Hooker & Holcombe was acquired by USI Consulting Group in 2023. Prior to joining H&H in 2018, he was with a large, national retirement consulting firm.

Mike graduated from the University of Connecticut with a BA in Mathematics and Actuarial Science. He is a Fellow of the Society of Actuaries (FSA), an Enrolled Actuary (EA), and a Member of the American Academy of Actuaries (MAAA).

Appendix II

SAMPLE PENSION VALUATION REPORT



ACTUARIAL VALUATION REPORT

JULY 1, 2023

ANYTOWN RETIREMENT PLAN

Table of Contents

Executive Summary	1
Valuation Results and Highlights	2
Purpose of the Valuation	2
Information Available in the Valuation Report	2
Changes Reflected in the Valuation	2
Cash Contribution for Fiscal Year Ending 2025	2
Liability Experience During Period Under Review	2
Asset Experience During Period Under Review	3
Assessment and Measurement of Risks	3
Implications of Contribution Allocation Procedure or Funding Policy	5
Certification	6
Development of Unfunded Accrued Liability and Funded Ratio	7
Determination of Normal Cost and Actuarially Determined Employer Contribution	9
Actuarially Determined Employer Contribution per Group	11
Determination of Actuarial Gain/Loss	13
Development of Asset Values	14
Target Allocation and Expected Rate of Return	18
Amortization of Unfunded Liability	19
Member Data	20
Active Member Count by Age and Years of Service	28
Description of Actuarial Methods	29
Description of Actuarial Assumptions	30
Summary of Plan Provisions	32

Report Prepared By:

Jane Actuary
Consulting Actuary
860.xxx.xxxx
jane.actuary@usi.com

Jane Analyst
Actuarial Specialist
860.xxx.xxxx
jane.analyst@usi.com

Executive Summary

	July 1, 2023	July 1, 2022
Number of members		
Active employees	214	209
Terminated vested members	16	20
Vested in employee contributions only	82	75
Retired, disabled and beneficiaries	119	111
Total	431	415
Covered employee payroll	11,242,414	11,181,185
Average plan salary	52,535	53,498
Actuarial present value of future benefits	42,904,335	41,913,877
Actuarial accrued liability	33,301,909	32,197,814
Plan assets		
Market value of assets	28,316,563	27,302,358
Actuarial value of assets	30,712,136	29,994,349
Unfunded accrued liability	2,589,773	2,203,465
Funded ratio	92.2%	93.2%
Actuarially determined employer contribution (ADEC)		
Fiscal year ending	2025	2024
ADEC	1,057,150	1,005,995

Valuation Results and Highlights

Purpose of the Valuation

The purpose of the valuation is to develop the Actuarially Determined Employer Contribution (ADEC). The ultimate cost of a pension plan is based primarily on the level of benefits promised by the plan. The pension fund's investment earnings serve to reduce the cost of plan benefits and expenses. Thus,

$$\text{Ultimate cost} = \text{Benefits Paid} + \text{Expenses Incurred} - \text{Investment Return} - \text{Employee Contributions}$$

The actuarial cost method distributes this ultimate cost over the working lifetime of current plan participants. By means of this budgeting process, costs are allocated to both past and future years, and a cost is assigned to the current year. The current year's allocated cost, or normal cost, is the building block upon which the actuarially determined employer contribution is developed. The July 1, 2023 valuation produces the contribution for the fiscal year ending 2025.

Information Available in the Valuation Report

The Executive Summary is intended to emphasize the notable results of the valuation from the perspective of the Plan Sponsor. Supporting technical detail is documented in Results of the Valuation, Supporting Exhibits and Description of Actuarial Methods and Assumptions. A concise summary of the principal provisions of the Plan is outlined in Summary of Plan Provisions.

Changes Reflected in the Valuation

None.

Cash Contribution for Fiscal Year Ending 2025

The Town cost is:	2025 Fiscal Year
Board of Education	\$398,443
Water	39,012
Sewer	39,648
Town Administration	512,552
Fire	67,495
Total	\$1,057,150

Liability Experience During Period Under Review

The plan experienced a net actuarial gain on liabilities of \$204,859 since the prior valuation.

Asset Experience During Period Under Review

The plan's assets provided the following rates of return during the past fiscal year:

	2023 Fiscal Year
Market Value Basis	6.5%
Actuarial Value Basis	4.9%

The Actuarial Value of assets, rather than the Market Value, is used to determine plan contributions. The Actuarial Value spreads the asset volatility by recognizing 20% of the difference each year, thereby smoothing out fluctuations that are inherent in the Market Value.

Assessment and Measurement of Risks

Financial Significance of Plan

It is important to understand the size of the pension plan compared to the size of the sponsor of that plan. Additional pension contributions may be required at inopportune times for the plan sponsor. In general, a plan sponsor with assets or revenue that are much larger than the liabilities in its pension plans will be better able to withstand increases in required pension contributions.

Plan Maturity Measurements

	July 1, 2023	July 1, 2022
Actuarial accrued liability for members currently in pay status as a percentage of the total actuarial accrued liability	55.9%	51.8%

- A lower percentage results in greater volatility as the investment return assumption changes.
- A higher percentage results in greater demand on cash due to a proportionately higher percentage of benefits being in pay status.

	July 1, 2023
Duration of benefit payments using an investment rate of return of 6.90%	13.9 years

- A higher duration will occur if the plan's percentage of members in pay status decreases. A plan with a higher duration will have a liability that is more sensitive to changes in the investment return assumption.

	July 1, 2023	July 1, 2022
Ratio of market value of assets to covered payroll	2.5	2.4

- A higher ratio is more typical of relatively mature plans with a larger percentage of inactive members and may cause more potential contribution volatility as pension fund assets fluctuate.

	July 1, 2023
--	---------------------

Ratio of market value of assets to expected benefit payments	12.0
--	------

- A plan with a high percentage of members in pay status can have a low ratio. As the ratio decreases, liquidity risk increases, and may indicate the need to review (and potentially adjust) the plan sponsor's funding policy contribution.

Risks to Assess

Overriding Minimum Contribution

	Fiscal Year Ending 2025
--	------------------------------------

Actuarially determined employer contribution (ADEC)	1,057,150
Overriding minimum contribution (OMC)*	1,135,136
Surplus (deficit) - ADEC vs. OMC	(77,986)

- A deficit suggests that a plan's current funding policy contribution approach may result in little to no progress being made towards: (1) reducing the plan's unfunded liability; and (2) increasing the plan's funded ratio in the near-term.

* As defined in "Public Pension Plan Funding Policy" (Society of Actuaries, 2010).

Estimated Impact of a 5% Reduction in Market Value of Assets

	Fiscal Year Ending 2025
--	------------------------------------

Increase in actuarially determined employer contribution (ADEC)	26,521
---	--------

- Plans would generally be subject to a larger amortization payment if the market value of assets were 5% smaller. As a result, the ADEC would generally be higher for up to 20 years.

Due to the asset smoothing method, the ADEC will additionally increase by the same amount in each of the next few years. Each of these additional contributions will continue for up to 20 years.

Estimated Impact of a 1-Year Increase in Life Expectancies

	Fiscal Year Ending 2025
--	------------------------------------

Increase in actuarially determined employer contribution (ADEC)	89,115
---	--------

- If members live longer than expected, it generally results in larger benefits and/or additional benefit payments made. As a result, the ADEC would generally be higher for up to 20 years.

Low-Default-Risk Obligation Measure

	July 1, 2022
Low-default-risk obligation measure (LDROM)*	49,088,951
Total actuarial accrued liability (AAL) for all members**	<u>33,301,909</u>
Difference between LDROM and AAL	15,787,042

• This exhibit illustrates the impact on the ongoing funding liability if the plan decided to invest completely in low-default-risk securities.

* The LDROM discount rate is 3.65%. The discount rate used for this purpose is equal to the published Bond Buyer GO 20-Bond Municipal Index effective as of June 30, 2023. Other than the discount rate, the assumptions and methods are consistent with those used in the actuarial valuation. The disclosure of the LDROM is for illustrative purposes and does not necessarily imply that the associated discount rate should be used for funding purposes.

** The discount rate used in the valuation is 6.90%.

Historical Results

Valuation Year Beginning	Investment Return Assumption	Annual Effective Rate of Return on Market Value of Assets	Market Value of Assets as a % of Actuarial Accrued Liability	Benefit Payments as a % of Market Value of Assets
2023	6.90%	N/A	85.0%	N/A
2022	6.90%	6.5%	84.8%	6.9%
2021	6.90%	-12.3%	102.2%	5.5%
2020	6.90%	25.5%	87.7%	6.4%
2019	6.90%	4.8%	89.1%	5.6%
2018	6.90%	6.8%	92.3%	5.2%
2017	7.00%	5.9%	93.8%	5.1%
2016	7.00%	8.4%	93.5%	4.4%

Implications of Contribution Allocation Procedure or Funding Policy

I have assessed the impact of the funding policy on the anticipated employer contributions and the plan's funded status. The funding policy is described in the Description of Actuarial Methods section of this report.

I have estimated the approximate length of time before the unfunded accrued liability, if any, will become fully amortized. The period is estimated to be 17 years. Subsequent to the end of this period, the future anticipated employer contributions will be the corresponding annual normal costs.

I have assessed whether the funding policy will be sufficient to cover future benefit payments and administrative expenses. The current funding policy is anticipated to cover these costs indefinitely.

Certification

This report presents the results of the July 1, 2023 Actuarial Valuation for Anytown Retirement Plan (the Plan) for the purpose of estimating the funded status of the Plan and determining the Actuarially Determined Employer Contribution (ADEC) for the fiscal year ending June 30, 2025. This report may not be appropriate for any other purpose.

The valuation has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with all applicable Actuarial Standards of Practice.

I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan. The combined effect of the actuarial assumptions and methods is not expected to contain significant bias, meaning it is not overly optimistic or pessimistic.

In preparing this valuation, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Trustee. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

The results in this valuation report are based on the Plan as summarized in the *Summary of Plan Provisions* section of this report and the actuarial assumptions and methods detailed in the *Description of Actuarial Methods and Assumptions* section of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I have no relationship with the employer or the Plan that would impair, or appear to impair, my objectivity in performing the work presented in this report. I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

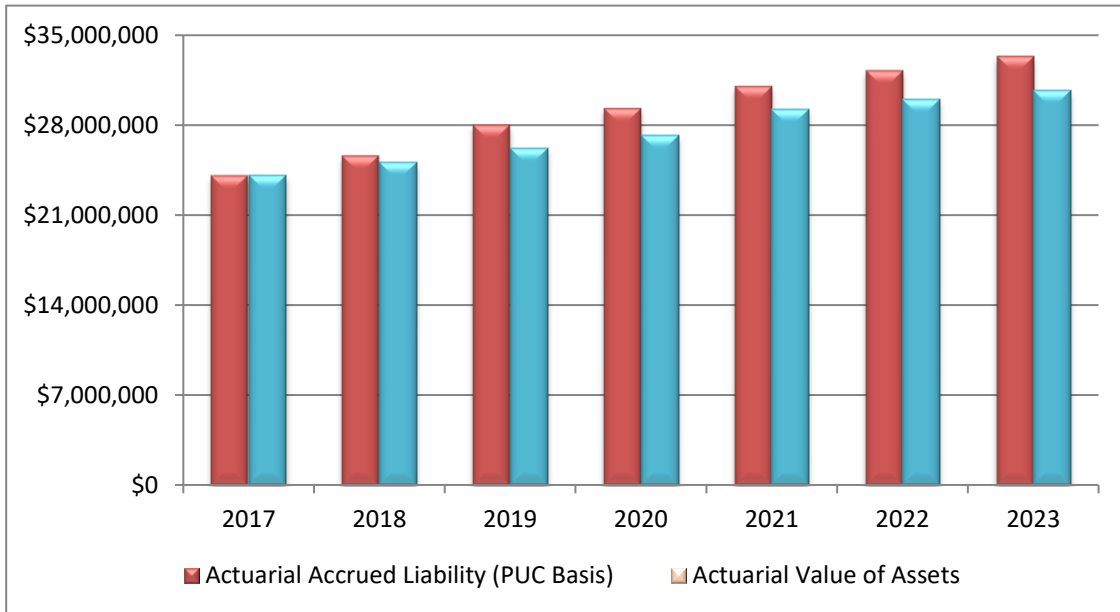
Jane Actuary, FSA, FCA, MAAA
Enrolled Actuary 23-00000

August 14, 2024

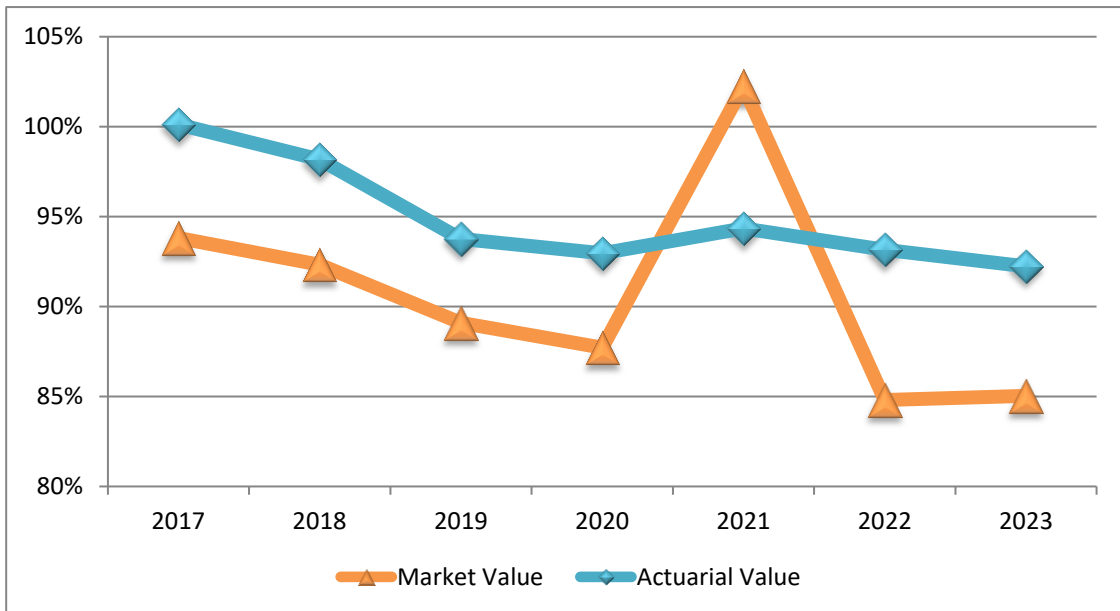
Development of Unfunded Accrued Liability and Funded Ratio

	July 1, 2023	July 1, 2022
Actuarial accrued liability for inactive members		
Retired, disabled and beneficiaries	\$18,621,031	\$16,693,584
Terminated vested members	1,547,601	1,860,198
Due refund of employee contributions only	294,704	273,852
Total	20,463,336	18,827,634
Actuarial accrued liability for active employees	12,838,573	13,370,180
Total actuarial accrued liability	33,301,909	32,197,814
Actuarial value of assets	30,712,136	29,994,349
Unfunded accrued liability	2,589,773	2,203,465
Funded ratio	92.2%	93.2%

Actuarial Accrued Liability vs. Actuarial Value of Assets



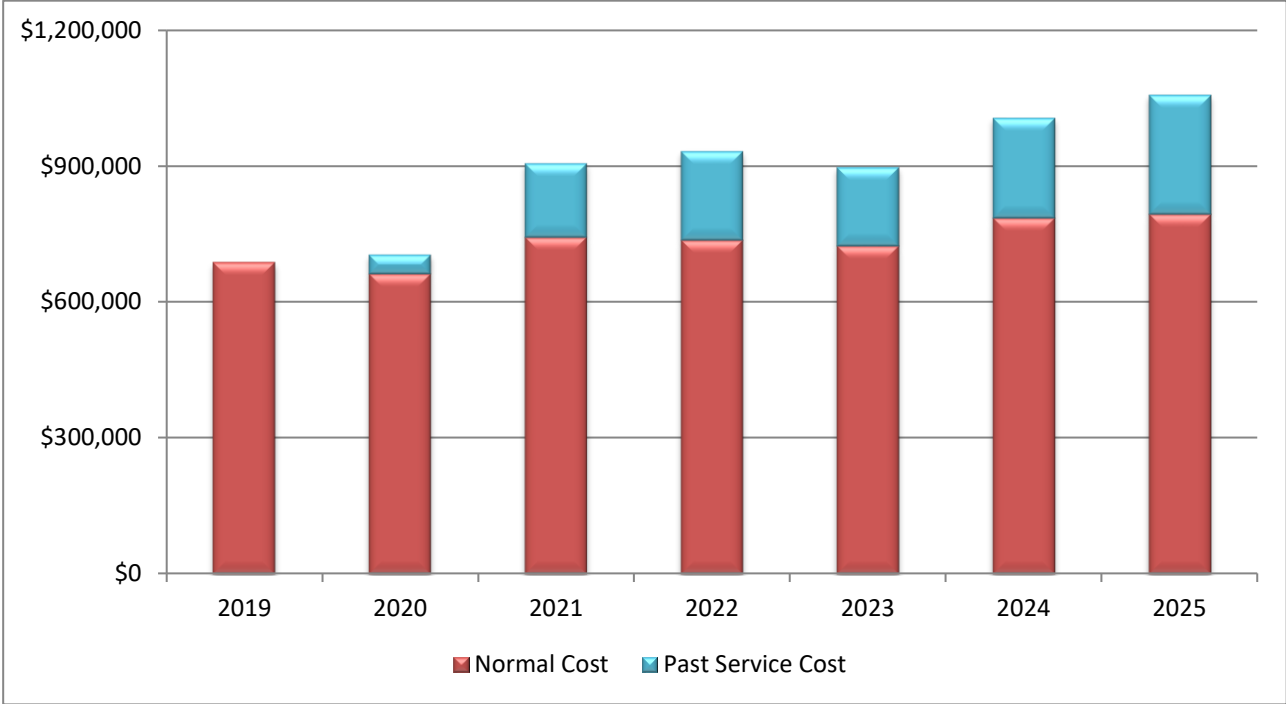
Funded Ratio



Determination of Normal Cost and Actuarially Determined Employer Contribution

	July 1, 2023		July 1, 2022	
	Cost	Percent of payroll	Cost	Percent of payroll
Gross normal cost	\$976,723	9.4%	\$971,894	9.3%
Estimated employee contributions	(259,704)	-2.5%	(262,503)	-2.5%
Town's normal cost	717,019	6.9%	709,391	6.8%
Amortization of unfunded accrued liability	247,517	2.4%	207,552	1.9%
Contribution before adjustment as of the valuation date	964,536	9.3%	916,943	8.7%
Estimated valuation year payroll for actives not yet at 100% assumed retirement age	10,388,161		10,500,118	
Fiscal year ending	2025		2024	
Adjustment for interest and inflation	92,614		89,052	
Actuarially determined employer contribution	1,057,150		1,005,995	

Actuarially Determined Employer Contribution



Actuarially Determined Employer Contribution per Group

	Board of Education	Water	Sewer
Gross normal cost	\$389,070	\$31,180	\$33,224
Estimated employee contributions	<u>(104,500)</u>	<u>(9,404)</u>	<u>(9,213)</u>
Town's normal cost	284,570	21,776	24,011
Actuarial accrued liability	10,571,689	1,865,096	1,663,700
Actuarial value of assets	<u>9,749,566</u>	<u>1,720,054</u>	<u>1,534,320</u>
Unfunded accrued liability	822,123	145,042	129,380
Amortization of unfunded accrued liability	78,479	13,978	12,261
Contribution before adjustment as of the valuation date	363,049	35,754	36,272
Fiscal year ending June 30, 2025			
Adjustment for interest and inflation	<u>35,394</u>	<u>3,258</u>	<u>3,376</u>
Actuarially determined employer contribution	398,443	39,012	39,648

	Town Administration	Fire	Total
Gross normal cost	\$451,513	\$71,736	\$976,723
Estimated employee contributions	<u>(115,805)</u>	<u>(20,782)</u>	<u>(259,704)</u>
Town's normal cost	335,708	50,954	717,019
Actuarial accrued liability	17,791,033	1,410,391	33,301,909
Actuarial value of assets	<u>16,407,487</u>	<u>1,300,709</u>	<u>30,712,136</u>
Unfunded accrued liability	1,383,546	109,682	2,589,773
Amortization of unfunded accrued liability	132,347	10,452	247,517
Contribution before adjustment as of the valuation date	468,055	61,406	964,536
Fiscal year ending June 30, 2025			
Adjustment for interest and inflation	<u>44,497</u>	<u>6,089</u>	<u>92,614</u>
Actuarially determined employer contribution	512,552	67,495	1,057,150

Determination of Actuarial Gain/Loss

The Actuarial Gain/Loss is the difference between the expected unfunded accrued liability and the actual unfunded accrued liability, without regard to any changes in actuarial methods, actuarial assumptions or plan provisions. This can also be referred to an Experience Gain/Loss, since it reflects the difference between what was expected and what was actually experienced.

Actuarial Gain / Loss	
Expected unfunded accrued liability July 1, 2023	
Expected unfunded accrued liability July 1, 2023	
Unfunded accrued liability July 1, 2022	\$2,203,465
Gross normal cost July 1, 2022	971,894
Town and employee contributions for 2022-2023	(1,168,240)
Interest at 6.90% to July 1, 2023	188,620
Expected unfunded accrued liability July 1, 2023	2,195,739
Actuarial (gain) / loss July 1, 2023	394,034
Actual unfunded accrued liability July 1, 2023, prior to plan provision, assumption and method changes	2,589,773
Sources of (gain) / loss	
Assets	598,893
Liabilities	(204,859)
Total (gain) / loss	394,034

Development of Asset Values

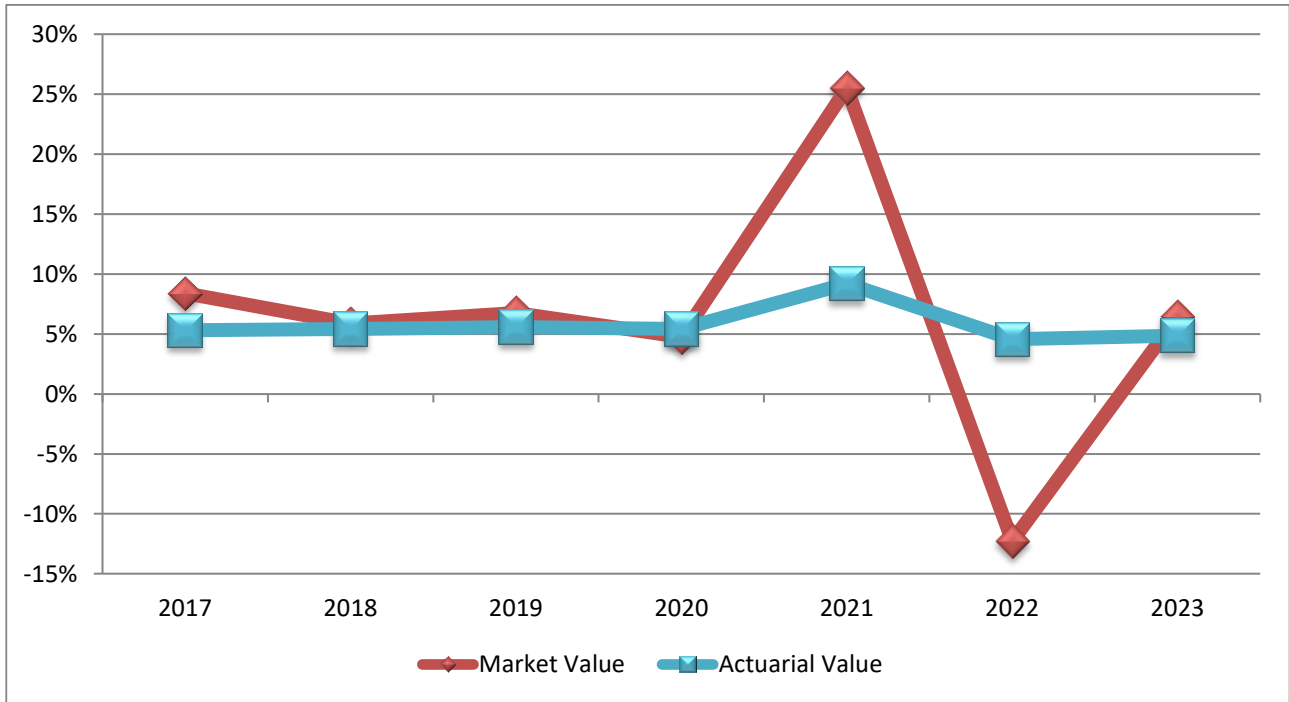
Summary of Fund Activity	
1. Beginning market value of assets July 1, 2022	
Trust assets	\$27,302,358
2. Contributions	
Town contributions during year	897,444
Employee contributions during year	270,796
Total for plan year	1,168,240
3. Disbursements	
Benefit payments during year	1,884,955
Administrative expenses during year	0
Total for plan year	1,884,955
4. Net investment return	
Interest and dividends	0
Net appreciation (depreciation)	1,730,920
Investment-related expenses	0
Total for plan year	1,730,920
5. Ending market value of assets July 1, 2023	
Trust assets: (1) + (2) - (3) + (4)	28,316,563
6. Approximate rate of return	
	6.5%

Determination of the Actuarial Value of Assets	
1. Actuarial value of assets July 1, 2022	\$29,994,349
2. Town contributions during 2022-2023	897,444
3. Employee contributions during 2022-2023	270,796
4. Benefit payments and administrative expenses during 2022-2023	(1,884,955)
5. Expected return during 2022-2023	<u>2,033,395</u>
6. Expected actuarial value of assets July 1, 2023	31,311,029
7. Market value of assets July 1, 2023	28,316,563
8. Appreciation (depreciation) recognized: 20% x [(7) - (6)]	(598,893)
9. Preliminary actuarial value of assets July 1, 2023: (6) + (8)	30,712,136
10. Preliminary actuarial value of assets as a percentage of market value of assets	108.5%
11. Actuarial value of assets July 1, 2023	30,712,136
2022-2023 return on actuarial value of assets	4.9%

Rate of Return on Market Value of Assets				
Period Ending June 30	Average Annual Effective Rate of Return			
	1 Year	3 Years	5 Years	10 Years
2014	14.4%	7.9%	10.5%	5.7%
2015	1.9%	9.0%	8.7%	5.3%
2016	-0.4%	5.1%	5.0%	4.8%
2017	8.4%	3.2%	6.9%	4.3%
2018	5.9%	4.6%	5.9%	5.1%
2019	6.8%	7.0%	4.5%	7.4%
2020	4.8%	5.8%	5.0%	6.8%
2021	25.5%	12.0%	10.0%	7.5%
2022	-12.3%	4.9%	5.4%	6.2%
2023	6.5%	5.4%	5.6%	5.7%

Rate of Return on Actuarial Value of Assets				
Period Ending June 30	Average Annual Effective Rate of Return			
	1 Year	3 Years	5 Years	10 Years
2014	7.4%	6.0%	5.5%	5.2%
2015	6.0%	6.4%	6.0%	5.4%
2016	4.7%	6.0%	5.7%	5.4%
2017	5.3%	5.3%	5.8%	5.0%
2018	5.4%	5.2%	5.8%	5.0%
2019	5.6%	5.4%	5.4%	5.5%
2020	5.4%	5.5%	5.3%	5.7%
2021	9.2%	6.7%	6.2%	5.9%
2022	4.6%	6.4%	6.0%	5.9%
2023	4.9%	6.2%	5.9%	5.8%

Actual Rate of Return on Assets



Target Allocation and Expected Rate of Return July 1, 2023

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*	Weighting
US Government Fixed Income	2.00%	1.80%	0.04%
US Corporate Fixed Income - Investment Grade	26.00%	2.80%	0.73%
US Corporate Fixed Income - High Yield	1.00%	4.00%	0.04%
US Large Cap Equity	25.00%	5.20%	1.30%
US Mid Cap Equity	13.50%	7.10%	0.96%
US Small Cap Equity	3.50%	8.30%	0.29%
International Equity	7.00%	5.60%	0.39%
Emerging Markets Equity	10.00%	7.40%	0.74%
Real Estate	12.00%	4.70%	0.56%
	100.00%		5.05%
Long-Term Inflation Expectation			2.40%
Long-Term Expected Nominal Return			7.45%

**Long-Term Real Returns are provided by XYZ Wealth Management. The returns are geometric means.*

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return are developed. Best estimates of the real rates of return for each major asset class are included in the pension plan's target asset allocation.

The information above is based on arithmetic means. The investment return assumption was selected using the long term asset allocation shown above. An expected rate of return of 6.90% was used.

Amortization of Unfunded Liability

Schedule of Amortization Bases					
	Date established	Original amount	Amortization installment	Years remaining	Present value of remaining installments as of July 1, 2023
Initial base	July 1, 2018	\$468,775	\$41,072	15	\$402,427
2019 base	July 1, 2019	1,288,633	112,904	16	1,147,747
2020 base	July 1, 2020	359,318	31,482	17	330,858
2021 base	July 1, 2021	(252,089)	(22,087)	18	(239,226)
2022 base	July 1, 2022	504,261	44,181	19	491,826
2023 base	July 1, 2023	456,141	39,965	20	456,141
Total			247,517		2,589,773

Equivalent single amortization period

17 years

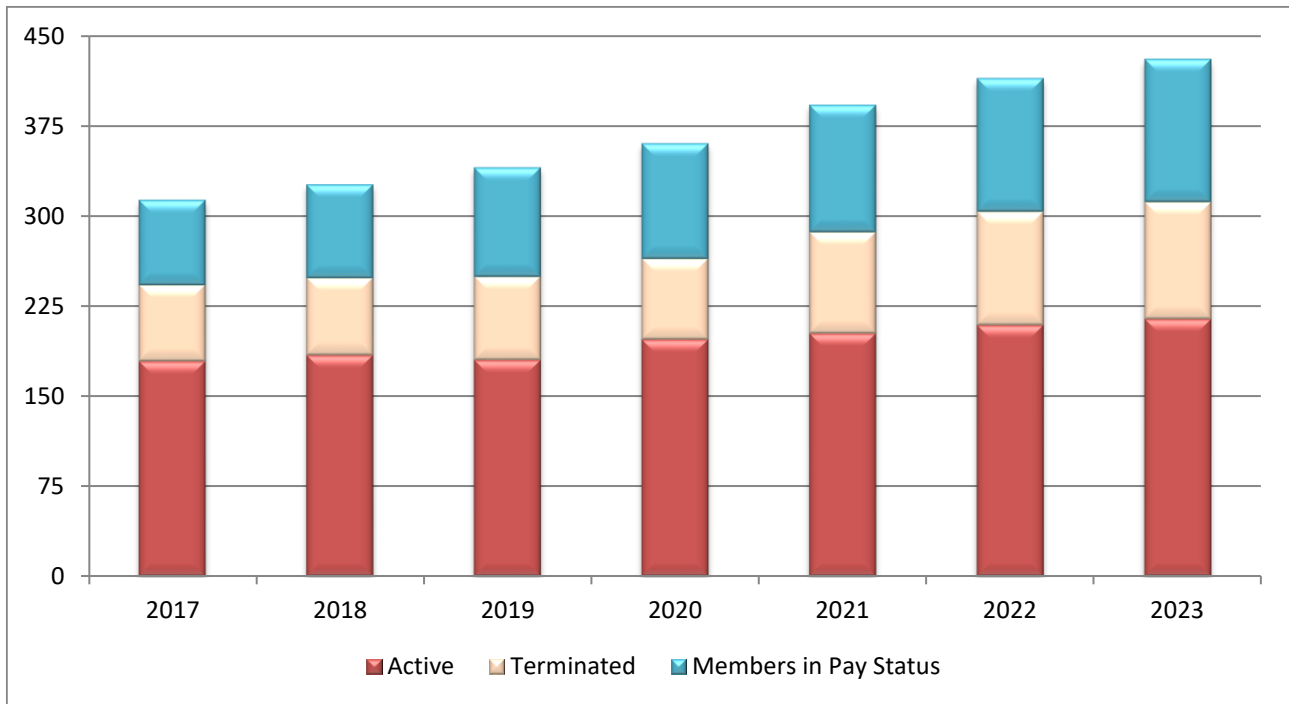
Member Data

The data reported by the Plan Sponsor for this valuation includes 214 active employees who met the Plan's minimum age and service requirements as of July 1, 2023.

Member Data					
	Active	Terminated vested	Due refund of contributions	Members in pay status	Total
Total members July 1, 2022	209	20	75	111	415
Adjustments	0	0	0	0	0
Retirements	-7	-3	N/A	+10	0
Disabilities	0	N/A	N/A	0	0
Terminations					
Vested	0	0	N/A	N/A	0
Lump sum payments	-4	0	-6	N/A	-10
Due contributions only	-12	N/A	+12	N/A	0
Deaths					
With death benefit	0	0	0	0	0
Without death benefit	-1	-1	0	-2	-4
Transfers	0	0	0	N/A	0
Rehires	0	0	0	N/A	0
New beneficiaries	N/A	N/A	N/A	0	0
New entrants	+29	N/A	+1	N/A	+30
Total members July 1, 2023	214	16	82	119	431

Member Data				
	Active	Terminated vested	Due refund of contributions	Members in pay status
Average age				
July 1, 2022	49.7	54.9	48.2	72.6
July 1, 2023	50.2	54.4	47.4	72.7
Average service				
July 1, 2022	9.6	N/A	N/A	N/A
July 1, 2023	9.3	N/A	N/A	N/A
Covered employee payroll				
July 1, 2022	\$11,181,185	N/A	N/A	N/A
July 1, 2023	11,242,414	N/A	N/A	N/A
Total annual benefits				
July 1, 2022	N/A	\$226,732	\$273,852	\$1,736,346
July 1, 2023	N/A	190,220	294,704	1,929,633

Member Counts by Status



Member Data - Board of Education					
	Active	Terminated vested	Due refund of contributions	Members in pay status	Total
Total members July 1, 2022	109	8	55	56	228
Adjustments	0	0	0	0	0
Retirements	-3	-2	N/A	+5	0
Disabilities	0	N/A	N/A	0	0
Terminations					
Vested	0	0	N/A	N/A	0
Lump sum payments	-1	0	0	N/A	-1
Due contributions only	-6	N/A	+6	N/A	0
Deaths					
With death benefit	0	0	0	0	0
Without death benefit	-1	0	0	0	-1
Transfers	0	0	0	N/A	0
Rehires	0	0	0	N/A	0
New beneficiaries	N/A	N/A	N/A	0	0
New entrants	+17	N/A	0	N/A	+17
Total members July 1, 2023	115	6	61	61	243

Member Data - Water					
	Active	Terminated vested	Due refund of contributions	Members in pay status	Total
Total members July 1, 2022	6	1	3	5	15
Adjustments	0	0	0	0	0
Retirements	-1	0	N/A	+1	0
Disabilities	0	N/A	N/A	0	0
Terminations					
Vested	0	0	N/A	N/A	0
Lump sum payments	0	0	0	N/A	0
Due contributions only	0	N/A	0	N/A	0
Deaths					
With death benefit	0	0	0	0	0
Without death benefit	0	-1	0	0	-1
Transfers	0	0	0	N/A	0
Rehires	0	0	0	N/A	0
New beneficiaries	N/A	N/A	N/A	0	0
New entrants	+1	N/A	0	N/A	+1
Total members July 1, 2023	6	0	3	6	15

Member Data - Sewer					
	Active	Terminated vested	Due refund of contributions	Members in pay status	Total
Total members July 1, 2022	6	1	0	1	8
Adjustments	0	0	0	0	0
Retirements	-1	0	N/A	+1	0
Disabilities	0	N/A	N/A	0	0
Terminations					
Vested	0	0	N/A	N/A	0
Lump sum payments	0	0	0	N/A	0
Due contributions only	0	N/A	0	N/A	0
Deaths					
With death benefit	0	0	0	0	0
Without death benefit	0	0	0	0	0
Transfers	0	0	0	N/A	0
Rehires	0	0	0	N/A	0
New beneficiaries	N/A	N/A	N/A	0	0
New entrants	+1	N/A	0	N/A	+1
Total members July 1, 2023	6	1	0	2	9

Member Data - Town Administration					
	Active	Terminated vested	Due refund of contributions	Members in pay status	Total
Total members July 1, 2022	74	8	17	47	146
Adjustments	0	0	0	0	0
Retirements	-2	-1	N/A	+3	0
Disabilities	0	N/A	N/A	0	0
Terminations					
Vested	0	0	N/A	N/A	0
Lump sum payments	-2	0	-6	N/A	-8
Due contributions only	-4	N/A	+4	N/A	0
Deaths					
With death benefit	0	0	0	0	0
Without death benefit	0	0	0	-2	-2
Transfers	0	0	0	N/A	0
Rehires	0	0	0	N/A	0
New beneficiaries	N/A	N/A	N/A	0	0
New entrants	+9	N/A	+1	N/A	+10
Total members July 1, 2023	75	7	16	48	146

Member Data - Fire					
	Active	Terminated vested	Due refund of contributions	Members in pay status	Total
Total members July 1, 2022	14	2	0	2	18
Adjustments	0	0	0	0	0
Retirements	0	0	N/A	0	0
Disabilities	0	N/A	N/A	0	0
Terminations					
Vested	0	0	N/A	N/A	0
Lump sum payments	-1	0	0	N/A	-1
Due contributions only	-2	N/A	+2	N/A	0
Deaths					
With death benefit	0	0	0	0	0
Without death benefit	0	0	0	0	0
Transfers	0	0	0	N/A	0
Rehires	0	0	0	N/A	0
New beneficiaries	N/A	N/A	N/A	0	0
New entrants	+1	N/A	0	N/A	+1
Total members July 1, 2023	12	2	2	2	18

Active Member Count by Age and Years of Service

Attained age	Completed Years of Credited Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and over	All years
Under 25	1	2									3
25 to 29	1	7									8
30 to 34	5	9	3	1							18
35 to 39	3	12	3								18
40 to 44	2	7	9	2							20
45 to 49	4	3	6	4		2					19
50 to 54	4	16	7	7	4	4					42
55 to 59	3	7	11	6	7	3		4			41
60 to 64	2	7	4	2	5	3	3	3	1		30
65 to 69		3	3	2	1	3			1		13
70 & over				1				1			2
All ages	25	73	46	25	17	15	3	8	2		214

Description of Actuarial Methods

Asset Valuation Method

The Actuarial Value of assets used in the development of plan contributions phases in the recognition of differences between the Market Value and Expected Actuarial Value by recognizing 20% of the difference each year. The Actuarial Value is adjusted, if necessary, to be within the range of 65% and 130% of the Market Value of assets.

Actuarial Cost Method

Changes in Actuarial Cost Method: None.

Description of Current Actuarial Cost Method: Actuarial Cost Method - Projected Unit Credit

Normal Cost: Under this method, the normal cost equals the total present value of the benefits accruing for all members during the upcoming year, increased to reflect salaries projected to the assumed retirement date.

Unfunded Accrued Liability: The actuarial accrued liability equals the present value of all benefits accrued to date, increased to reflect salaries for all active members. The actuarial accrued liability is reduced by plan assets to develop the unfunded accrued liability. Unfunded accrued liabilities as of July 1, 2018 were amortized over a closed 20-year period. Future changes in the unfunded accrued liability will be amortized separately, assuming a new 20-year amortization each valuation.

Experience Gains and Losses: All experience gains and losses (the financial effect of the difference between the actual experience during the prior period and the result expected by the actuarial assumptions for that prior period) appear directly in the actuarial accrued liability and are amortized at the same rate the plan is amortizing the remaining unfunded accrued liability.

Description of Actuarial Assumptions

Changes in Actuarial Assumptions

The valuation reflects changes in the actuarial assumptions listed below. (The assumptions used before and after these changes are more fully described in the next section.)

- None

The assumptions indicated were changed to represent the Enrolled Actuary's current best estimate of anticipated experience of the plan.

Investment rate of return (net of investment-related and administrative expenses)

6.90%.

Salary Scale

Rates of Sample Ages

Age	Rate
25	5.90%
30	5.25%
35	4.60%
40	3.95%
45	3.30%
50	2.65%
52 and over	2.40%

The plan does not have statistically credible data on which to form this assumption. The assumption is based on input from the plan sponsor regarding future expectations, as well as knowledge that younger employees generally earn higher annual percentage increases than older employees.

Inflation

2.40%.

This assumption is consistent with the Social Security Administration's ultimate long-term (75-year horizon) annual percentage increase in CPI, as published in the 2023 OASDI Trustees Report.

Mortality

Pub-2010 Public Retirement Plans Amount-Weighted Mortality Tables (with separate tables for General Employees, Public Safety and Teachers), projected to the valuation date with Scale MP-2021.

Mortality Improvement

Projected to date of decrement using Scale MP-2021 (generational).

We have selected this mortality assumption because it is based on one of the latest published pension mortality study released by the Society of Actuaries.

Retirement age

Age	Rate
55-59	2%
60-61	4%
62	32%
63-65	14%
66	41%
67-71	15%
72 and over	100%

These rates are based upon actual plan experience. The rates were last updated July 1, 2012.

Termination prior to retirement

Sample Male Rates		Sample Female Rates	
Age	Rate	Age	Rate
25	5.00%	25	7.50%
30	3.75	30	5.00
35	2.50	35	3.75
40	1.50	40	2.50
45	0.75	45	1.25
50	0.00	50	0.00

The actuarial assumptions in regards to rates of decrement shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Disability

None.

Administrative expenses

Currently, only minimal administrative expenses are paid out of plan assets. Therefore, we do not have an expense assumption.

Payroll Growth

3.40% per year.

Percent of active employees married

85%.

Spouse's age

Husbands are assumed to be 3 years older than wives.

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Plan identification

Single-employer pension plan

Effective Date

Original Plan - September 1, 1965.

Latest Amendment - June 30, 1990.

Eligibility

First day of the month after completion of probationary period.

Compensation

Total salary or wages earned by a participant from the Town for a particular year.

Average Final Compensation

The average annual compensation during the three consecutive highest-paid years of service including the last full month of plan participation.

Normal Retirement Age

Age 62 or 5 years of plan participation, whichever is later (if terminated prior to March 10, 1989; age 65).

Credited Service

Latest period of continuous service during which the participant contributes.

Effective 6/30/1990: Credited Service will include any service from the latest period of continuous service for which additional contributions are made (bought-back).

Normal Retirement Benefit

One and five-tenths percent of Average Final Compensation times years of Credited Service.

Deferred Retirement Benefit

Accrued benefit at Deferred Retirement Date.

Early Retirement

Age 55 plus 15 years of Credited Service. Normal retirement benefit formula applies, subject to actuarial reduction.

Vesting

10 years of service and employee contributions remain in plan.

Employee Contributions

2½% of Compensation, accumulated at 3% compound interest prior to June 30, 1976 and at 5% thereafter, refundable upon death or termination.

Appendix III

SAMPLE PENSION GASB REPORT



RETIREMENT PLAN FOR EMPLOYEES OF ANYTOWN

GASB 67 AND 68 DISCLOSURE

as of June 30, 2023

Table of Contents

Certification.....	1
Money-Weighted Rate of Return.....	2
Schedule of Investment Returns.....	3
Contributions Compared to ADEC and Payroll.....	4
Discount Rate Calculation.....	5
Target Allocation and Expected Rate of Return.....	6
Schedule of Changes in Net Pension Liability and Related Ratios.....	7
Schedule of Net Pension Liability.....	9
Disclosure Overview as of June 30, 2023.....	10
Changes in the Net Pension Liability.....	11
Components of the Pension Expense for the Fiscal Year Ended June 30, 2023.....	12
Pension Expense and Deferred Outflows and Inflows of Resources Related to Pensions.....	17
Sensitivity of the Net Pension Liability to Changes in the Discount Rate.....	21
Participant Breakdown as of July 1, 2022.....	21
Description of Significant Changes Prior to Year End.....	22
DROP Balances.....	22
Valuation Date and Roll Forward Process.....	22
Funding Policy.....	22
Assumption Selection.....	22
Description of Actuarial Methods.....	23
Description of Actuarial Assumptions.....	24
Summary of Plan Provisions.....	26

All the items listed below are required by GASB 67 and GASB 68 but are not included in this report:

Investment Policy
Pension Board Composition
Authority to Amend Plan

Report Prepared By:

Jane Actuary
Consulting Actuary
860.xxx.xxxx
jane.actuary@usi.com

Jane Analyst
Actuarial Specialist
860.xxx.xxxx
jane.analyst@usi.com

Certification

This report presents the results of the June 30, 2023 GASB 67 and GASB 68 Disclosure for the Retirement Plan for Employees of Anytown (the Plan). The report is intended to satisfy the requirements of both GASB 67 and GASB 68. This report may not be appropriate for any other purpose.

The report has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with the Actuarial Standards Board Standards of Practice.

I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan.

In preparing this disclosure report, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Plan Sponsor or Trustee. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

The results in this disclosure report are based on the Plan as summarized in the Summary of Plan Provisions section of this report and the actuarial methods and assumptions detailed in the Description of Actuarial Methods and Procedures and Description of Actuarial Assumptions sections of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I have no relationship with the employer or the Plan that would impair, or appear to impair, my objectivity in performing the work presented in this report. I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

Jane Actuary, FSA, FCA, MAAA
Enrolled Actuary 23-00000

October 16, 2025

**Money-Weighted Rate of Return
June 30, 2023**

Beg. Value 4,432,957 **Ending Value** 4,765,424

	Date	Employer Contributions	Employee Contributions	Benefit Payments	Admin. Expenses	Net External Cash Flows	Period Invested	Period Weight	Net External Cash Flows w/ Interest
Beg. of Yr.	7/1/2022						12	1.000	4,733,454
July	7/31/2022	-	4,819	(12,143)	(113)	(7,437)	11	0.917	(7,898)
August	8/31/2022	-	4,502	(12,143)	-	(7,641)	10	0.833	(8,070)
September	9/30/2022	-	5,627	(12,143)	-	(6,516)	9	0.750	(6,845)
October	10/31/2022	-	4,502	(12,143)	(113)	(7,754)	8	0.667	(8,101)
November	11/30/2022	-	4,464	(12,143)	-	(7,679)	7	0.583	(7,978)
December	12/31/2022	-	5,112	(52,828)	-	(47,716)	6	0.500	(49,307)
January	1/31/2023	-	4,275	(14,408)	(1,647)	(11,780)	5	0.417	(12,106)
February	2/28/2023	-	4,277	(12,866)	-	(8,589)	4	0.333	(8,779)
March	3/31/2023	-	5,350	(12,866)	-	(7,516)	3	0.250	(7,640)
April	4/30/2023	-	4,275	(12,866)	(120)	(8,711)	2	0.167	(8,807)
May	5/31/2023	-	4,109	(12,866)	-	(8,757)	1	0.083	(8,805)
June	6/30/2023	180,226	4,928	(18,848)	-	166,306	0	0.000	166,306
End of Yr.	6/30/2023	180,226	56,240	(198,263)	(1,993)				4,765,424

Money-Weighted Rate of Return

6.78%

Schedule of Investment Returns Last 10 Fiscal Years

Year Ended June 30:	Annual Money-Weighted Rate of Return, Net of Investment Expense
2014	14.79%
2015	2.64%
2016	-0.16%
2017	7.22%
2018	3.38%
2019	9.68%
2020	4.88%
2021	25.01%
2022	-4.32%
2023	6.78%

Contributions Compared to ADEC and Payroll Schedule of Contributions Last 10 Fiscal Years

	2023	2022	2021	2020	2019
Actuarially determined employer contribution (ADEC)	\$ 180,226	\$ 184,600	\$ 157,795	\$ 153,302	\$ 157,050
Contributions in relation to the ADEC	<u>180,226</u>	<u>184,600</u>	<u>157,795</u>	<u>153,302</u>	<u>157,050</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered payroll	\$ 1,096,377	\$ 1,169,063	\$ 1,135,008	\$ 1,186,623	\$ 1,338,125
Contributions as a % of covered payroll	16.44%	15.79%	13.90%	12.92%	11.74%

	2018	2017	2016	2015	2014
Actuarially determined employer contribution (ADEC)	\$ 172,672	\$ 192,865	\$ 202,591	\$ 188,652	\$ 153,283
Contributions in relation to the ADEC	<u>172,672</u>	<u>192,865</u>	<u>202,591</u>	<u>188,652</u>	<u>153,294</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (11)</u>
Covered payroll	\$ 1,425,412	\$ 1,391,434	\$ 1,540,827	\$ 1,461,620	\$ 1,462,181
Contributions as a % of covered payroll	12.11%	13.86%	13.15%	12.91%	10.48%

Discount Rate Calculation

The long-term expected rate of return on investments may be used to discount liabilities to the extent that the plan's fiduciary net position and future contributions are projected to be sufficient to cover expected benefit payments and administrative expenses for current plan members. Projections of the plan's fiduciary net position incorporate all cash flows for contributions from the employer and employee and administrative expenses. Professional judgment should be applied to the projections of contributions in circumstances where (a) contribution amounts are established by statute or contract or (b) a formal written policy exists. Consideration should also be given to the most recent five-year contribution history as key indicators of future contributions. It should not include cash flows for future plan members.

If the amount of the plan's fiduciary net position is projected to be greater than or equal to the benefit payments and administrative expenses made in that period, the actuarial present value of payments should be discounted using the long-term expected rate of return on those investments. A 20-year, high quality (AA/Aa or higher), tax-exempt municipal bond yield or index rate must be used to discount benefit payments for periods where the fiduciary net position is not projected to cover expected benefit payments and administrative expenses.

Plans that are projected to have sufficient fiduciary net position indefinitely will use the long-term expected return on investments to determine liabilities but will have to substantiate their projected solvency.

GASB permits alternative methods to evaluate the sufficiency of the plan's net fiduciary position. Based on the plan's current net pension liability and current contribution policy, the plan's projected fiduciary net position will be sufficient to cover projected benefit payments and administrative expenses indefinitely. Therefore, since the fund is not projected to run out of money, we have used the 6.50% interest rate assumption to discount plan liabilities.

Target Allocation and Expected Rate of Return

Actuarial Valuation as of July 1, 2022

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*	Weighting
Large Cap Core Equity	32.50%	4.60%	1.50%
Mid/Small Cap Core Equity	20.00%	5.20%	1.04%
International Equity	10.00%	5.80%	0.58%
Emerging Market Equity	2.50%	7.55%	0.19%
US Fixed Income Taxable	17.50%	1.45%	0.25%
Short Duration Investment Grade Taxable	17.50%	0.60%	0.11%
	100.00%		3.67%
Long-Term Inflation Expectation			2.40%
Long-Term Expected Nominal Return			6.07%

**Long-Term Real Returns are provided by USI Advisors. The returns are geometric means.*

The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return are developed. Best estimates of the real rates of return for each major asset class are included in the pension plan's target asset allocation.

The information above is based on geometric means and does not reflect additional returns through investment selection, asset allocation and rebalancing. The results support a rate between 6.10% and 6.60%. An expected rate of return of 6.50% was used.

The July 1, 2022 Actuarial Valuation directly calculated the July 1, 2022 Total Pension Liability (TPL). The July 1, 2022 TPL was increased by service cost and interest and decreased by benefit payments to estimate the TPL as of June 30, 2023.

Schedule of Changes in Net Pension Liability and Related Ratios Last 10 Fiscal Years

	2023	2022	2021	2020	2019
Total pension liability					
Service cost	\$ 118,566	\$ 123,859	\$ 126,595	\$ 133,301	\$ 152,955
Interest	363,524	345,268	317,042	299,968	294,171
Changes of benefit terms	-	-	-	-	-
Differences between expected and actual experience	(43,144)	11,866	58,524	13,153	(124,831)
Changes of assumptions	-	84,353	181,229	(14,176)	108,419
Benefit payments, including refunds of member contributions	(198,263)	(160,222)	(171,519)	(173,613)	(165,494)
Net change in total pension liability	240,683	405,124	511,871	258,633	265,220
Total pension liability - beginning	5,571,682	5,166,558	4,654,687	4,396,054	4,130,834
Total pension liability - ending: (a)	<u>\$ 5,812,365</u>	<u>\$ 5,571,682</u>	<u>\$ 5,166,558</u>	<u>\$ 4,654,687</u>	<u>\$ 4,396,054</u>
Plan fiduciary net position					
Contributions - employer	\$ 180,226	\$ 184,600	\$ 157,795	\$ 153,302	\$ 157,050
Contributions - member	56,240	64,362	67,986	68,559	69,345
Net investment income (loss)	296,257	(217,958)	888,426	163,326	290,887
Benefit payments, including refunds of member contributions	(198,263)	(160,222)	(171,519)	(173,613)	(165,494)
Administrative expenses	(1,993)	(1,993)	(2,010)	(1,970)	(1,885)
Other	-	24,075	-	-	-
Net change in plan fiduciary net position	332,467	(107,136)	940,678	209,604	349,903
Plan fiduciary net position - beginning	4,432,957	4,540,093	3,599,415	3,389,811	3,039,908
Plan fiduciary net position - ending: (b)	<u>4,765,424</u>	<u>4,432,957</u>	<u>4,540,093</u>	<u>3,599,415</u>	<u>3,389,811</u>
Net pension liability - ending: (a) - (b)	<u>\$ 1,046,941</u>	<u>\$ 1,138,725</u>	<u>\$ 626,465</u>	<u>\$ 1,055,272</u>	<u>\$ 1,006,243</u>
Plan fiduciary net position as a % of total pension liability	81.99%	79.56%	87.87%	77.33%	77.11%
Covered payroll	\$ 1,096,377	\$ 1,169,063	\$ 1,135,008	\$ 1,186,623	\$ 1,338,125
Net pension liability as a % of covered payroll	95.49%	97.40%	55.19%	88.93%	75.20%

	2018	2017	2016	2015	2014
Total pension liability					
Service cost	\$ 154,650	\$ 173,431	\$ 163,802	\$ 157,502	\$ 153,960
Interest	274,602	285,889	282,781	242,689	224,488
Changes of benefit terms	(25,547)	-	-	-	-
Differences between expected and actual experience	117,981	(205,791)	(218,852)	93,914	-
Changes of assumptions	(93,434)	13,341	(51,581)	164,079	-
Benefit payments, including refunds of member contributions	(129,119)	(144,564)	(144,111)	(116,239)	(161,572)
Net change in total pension liability	299,133	122,306	32,039	541,945	216,876
Total pension liability - beginning	3,831,701	3,709,395	3,677,356	3,135,411	2,918,535
Total pension liability - ending: (a)	<u>\$ 4,130,834</u>	<u>\$ 3,831,701</u>	<u>\$ 3,709,395</u>	<u>\$ 3,677,356</u>	<u>\$ 3,135,411</u>
Plan fiduciary net position					
Contributions - employer	\$ 172,672	\$ 192,865	\$ 202,591	\$ 188,652	\$ 153,294
Contributions - member	74,855	67,754	72,072	70,829	71,035
Net investment income (loss)	94,816	179,904	(3,912)	66,652	271,097
Benefit payments, including refunds of member contributions	(129,119)	(144,564)	(144,111)	(116,239)	(161,572)
Administrative expenses	-	-	-	-	-
Other	-	-	-	-	-
Net change in plan fiduciary net position	213,224	295,959	126,640	209,894	333,854
Plan fiduciary net position - beginning	2,826,684	2,530,725	2,404,085	2,194,191	1,860,337
Plan fiduciary net position - ending: (b)	<u>3,039,908</u>	<u>2,826,684</u>	<u>2,530,725</u>	<u>2,404,085</u>	<u>2,194,191</u>
Net pension liability - ending: (a) - (b)	<u>\$ 1,090,926</u>	<u>\$ 1,005,017</u>	<u>\$ 1,178,670</u>	<u>\$ 1,273,271</u>	<u>\$ 941,220</u>
Plan fiduciary net position as a % of total pension liability	73.59%	73.77%	68.22%	65.38%	69.98%
Covered payroll	\$ 1,425,412	\$ 1,391,434	\$ 1,540,827	\$ 1,461,620	\$ 1,462,181
Net pension liability as a % of covered payroll	76.53%	72.23%	76.50%	87.11%	64.37%

Schedule of Net Pension Liability Last 10 Fiscal Years

	2023	2022	2021	2020	2019
Total pension liability	\$ 5,812,365	\$ 5,571,682	\$ 5,166,558	\$ 4,654,687	\$ 4,396,054
Plan fiduciary net position	4,765,424	4,432,957	4,540,093	3,599,415	3,389,811
Net pension liability (asset)	\$ 1,046,941	\$ 1,138,725	\$ 626,465	\$ 1,055,272	\$ 1,006,243
Plan fiduciary net position as a % of total pension liability	81.99%	79.56%	87.87%	77.33%	77.11%
Covered payroll	\$ 1,096,377	\$ 1,169,063	\$ 1,135,008	\$ 1,186,623	\$ 1,338,125
Net pension liability as a % of covered payroll	95.49%	97.40%	55.19%	88.93%	75.20%

	2018	2017	2016	2015	2014
Total pension liability	\$ 4,130,834	\$ 3,831,701	\$ 3,709,395	\$ 3,677,356	\$ 3,135,411
Plan fiduciary net position	3,039,908	2,826,684	2,530,725	2,404,085	2,194,191
Net pension liability (asset)	\$ 1,090,926	\$ 1,005,017	\$ 1,178,670	\$ 1,273,271	\$ 941,220
Plan fiduciary net position as a % of total pension liability	73.59%	73.77%	68.22%	65.38%	69.98%
Covered payroll	\$ 1,425,412	\$ 1,391,434	\$ 1,540,827	\$ 1,461,620	\$ 1,462,181
Net pension liability as a % of covered payroll	76.53%	72.23%	76.50%	87.11%	64.37%

Disclosure Overview as of June 30, 2023

	Plan's Funded Status			Deferred Outflows/(Inflows) of Resources			Recognized in Net Pension Liability	Recognized in Total Pension Expense
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Experience (Gains)/ Losses	Assumption Changes	Investment (Gains)/ Losses		
Balances -- prior year disclosure	(5,571,682)	4,432,957	(1,138,725)	23,752	135,972	43,240	(1,138,725)	
Changes in net pension liability:								
Service cost	(118,566)		(118,566)					118,566
Interest	(363,524)		(363,524)					363,524
Net investment income		296,257	296,257					(296,257)
Contributions - employer		180,226	180,226				180,226	
Contributions - member		56,240	56,240					(56,240)
Changes of benefit terms	-		-					-
Benefit payments, including refunds of member contributions	198,263	(198,263)	-					
Administrative expense		(1,993)	(1,993)					1,993
Other		-	-					-
Recognized in total pension expense								
Differences between expected and actual experience				7,269			(7,269)	(7,269)
Changes of assumptions					(72,537)		72,537	72,537
Differences between projected and actual earnings on pension plan investments						27,477	(27,477)	(27,477)
Deferred outflows/inflows of resources								
Differences between expected and actual experience	43,144		43,144	(43,144)			43,144	
Changes of assumptions	-		-				-	
Differences between projected and actual earnings on pension plan investments						(6,957)	6,957	6,957
Total pension expense							(176,334)	176,334
Balances -- end of year	(5,812,365)	4,765,424	(1,046,941)	(12,123)	63,435	63,760	(1,046,941)	

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2022	\$ 5,571,682	\$ 4,432,957	\$ 1,138,725
Changes for the year:			
Service cost	118,566		118,566
Interest	363,524		363,524
Differences between expected and actual experience	(43,144)		(43,144)
Changes of benefit terms	-		-
Changes of assumptions	-		-
Contributions - employer		180,226	(180,226)
Contributions - member		56,240	(56,240)
Net investment income		296,257	(296,257)
Benefit payments, including refunds of member contributions	(198,263)	(198,263)	-
Administrative expense		(1,993)	1,993
Other		-	-
Net changes	<u>240,683</u>	<u>332,467</u>	<u>(91,784)</u>
Balances at June 30, 2023	<u>\$ 5,812,365</u>	<u>\$ 4,765,424</u>	<u>\$ 1,046,941</u>

Components of the Pension Expense for the Fiscal Year Ended June 30, 2023

Description	Amount
Service cost	\$ 118,566
Interest on the total pension liability	363,524
Differences between expected and actual experience	(7,269)
Changes of assumptions	72,537
Changes of benefit terms	-
Member contributions	(56,240)
Projected earnings on pension plan investments	(289,300)
Differences between projected and actual earnings on plan investments	(27,477)
Pension plan administrative expense	1,993
Other changes in fiduciary net position	-
Total pension expense	\$ 176,334

**Increase (Decrease) in Pension Expense from the Recognition of the Effects
 of Differences Between Expected and Actual Experience**

Year	Differences between Expected and Actual Experience		Recognition Period (Years)			
				2023	2024	2025
2016	\$	(218,852)	7.2	\$ (6,080)		
2017		(205,791)	6.2	(6,639)		
2020		13,153	3.6	2,191		
2021		58,524	3.6	16,257	\$ 9,753	
2022		11,866	3.3	3,596	3,596	\$ 1,078
2023		(43,144)	2.6	<u>(16,594)</u>	<u>(16,594)</u>	<u>(9,956)</u>
Net increase (decrease) in pension expense				<u>\$ (7,269)</u>	<u>\$ (3,245)</u>	<u>\$ (8,878)</u>

Increase (Decrease) in Pension Expense from the Recognition of the Effects of Changes of Assumptions

Year	Changes of Assumptions	Recognition Period (Years)	2023	2024	2025
2016	\$ (51,581)	7.2	\$ (1,433)		
2017	13,341	6.2	429		
2020	(14,176)	3.6	(2,362)		
2021	181,229	3.6	50,341	\$ 30,206	
2022	84,353	3.3	25,562	25,562	\$ 7,667
2023	-	2.6	-	-	-
Net increase (decrease) in pension expense			<u>\$ 72,537</u>	<u>\$ 55,768</u>	<u>\$ 7,667</u>

**Increase (Decrease) in Pension Expense from the Recognition of Differences Between
 Projected and Actual Earnings on Pension Plan Investments**

Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)						
			2023	2024	2025	2026	2027	
2019	\$ (76,062)	5	\$ (15,214)					
2020	67,022	5	13,404	\$ 13,406				
2021	(643,730)	5	(128,746)	(128,746)	\$ (128,746)			
2022	522,352	5	104,470	104,470	104,470	\$ 104,472		
2023	(6,957)	5	(1,391)	(1,391)	(1,391)	(1,391)	\$ (1,393)	
Net increase (decrease) in pension expense			<u>\$ (27,477)</u>	<u>\$ (12,261)</u>	<u>\$ (25,667)</u>	<u>\$ 103,081</u>	<u>\$ (1,393)</u>	

Interest on the Total Pension Liability Recognized in Expense

	Amount for Period	Portion of Period	Interest Rate	Interest on the Total Pension Liability
Beginning total pension liability	\$ 5,571,682	100%	6.50%	\$ 362,159
Service cost	118,566	100	6.50	7,707
Benefit payments, including refunds of member contributions	(198,263)	50	6.50	(6,342)
Total interest on the pension liability				\$ 363,524

Projected Earnings on Pension Plan Investments Recognized in Expense

	Amount for Period	Portion of Period	Projected Rate of Return	Projected Earnings
Beginning plan fiduciary net position	\$ 4,432,957	100%	6.50%	\$ 288,142
Contributions - employer	180,226	50	6.50	5,765
Contributions - member	56,240	50	6.50	1,799
Benefit payments, including refunds of member contributions	(198,263)	50	6.50	(6,342)
Administrative expense and other	(1,993)	50	6.50	(64)
Total projected earnings				\$ 289,300

Pension Expense and Deferred Outflows and Inflows of Resources Related to Pensions

For the fiscal year ended June 30, 2023, the recognized pension expense is \$176,334. As of June 30, 2023, deferred outflows and inflows of resources related to pensions are reported as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 14,427	\$ (26,550)
Changes of assumptions	63,435	
Net difference between projected and actual earnings on pension plan investments	<u>63,760</u>	
Total	<u>\$ 141,622</u>	<u>\$ (26,550)</u>

Amounts reported as deferred outflows and inflows of resources related to pensions will be recognized in the pension expense as follows:

Year Ended June 30:	
2024	\$ 40,262
2025	(26,878)
2026	103,081
2027	(1,393)
2028	-
Thereafter	-

Deferred Outflows and Inflows of Resources from Differences Between Expected and Actual Experience

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense through June 30, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2021	\$ 58,524		\$ 48,771	\$ 9,753	
2022	11,866		7,192	4,674	
2023		\$ (43,144)	(16,594)		\$ (26,550)
				<u>\$ 14,427</u>	<u>\$ (26,550)</u>

Deferred Outflows and Inflows of Resources from Changes of Assumptions

Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense through June 30, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2021	\$ 181,229		\$ 151,023	\$ 30,206	
2022	84,353		51,124	33,229	
				<u>\$ 63,435</u>	<u>\$ -</u>

**Deferred Outflows and Inflows of Resources from Differences
 Between Projected and Actual Earnings on Pension Plan Investments**

Year	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense through June 30, 2023 (c)	Balances at June 30, 2023	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2020	\$ 67,022		\$ 53,616	\$ 13,406	
2021		\$ (643,730)	(386,238)		\$ (257,492)
2022	522,352		208,940	313,412	
2023		(6,957)	(1,391)		(5,566)
				<u>\$ 326,818</u>	<u>\$ (263,058)</u>

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	Current Discount Rate (6.50%)	1% Decrease (5.50%)	1% Increase (7.50%)
Net pension liability as of June 30, 2023	\$ 1,046,941	\$ 1,694,389	\$ 490,797

Participant Breakdown as of July 1, 2022

	Participant Count
Inactive plan members or beneficiaries currently receiving benefits	15
Inactive plan members entitled to but not yet receiving benefits	7
Active plan members	15
Total members	37

Description of Significant Changes Prior to Year End

There were no significant plan changes since the last published valuation.

DROP Balances

Currently, there is no Deferred Retirement Option Plan (DROP). Therefore, the DROP balances are \$0.

Valuation Date and Roll Forward Process

The Plan Sponsor uses the July 1, 2021 Actuarial Valuation to calculate the ADEC for the fiscal year ending 2023.

The July 1, 2022 Actuarial Valuation directly calculated the July 1, 2022 Total Pension Liability (TPL). The July 1, 2022 TPL was increased by service cost and interest and decreased by benefit payments to estimate the TPL as of June 30, 2023. The TPL as of June 30, 2023 was also adjusted to reflect any material plan changes after the valuation, if applicable.

Funding Policy

The Plan Sponsor uses the Entry Age Normal Actuarial Cost Method to calculate the plan liabilities. The Funding Policy has two parts.

1. Normal Cost
2. Amortization of the Unfunded Actuarial Liability (UAL)

Each year the Plan Sponsor pays the Normal Cost plus an amortization of the plan's UAL. For the July 1, 2017 Actuarial Valuation, a closed amortization period of 18 years was used. Future changes in the unfunded accrued liability will be established as separate bases, with a fresh 20 year (closed basis) amortization for each valuation.

Assumption Selection

The selections of all assumptions used in determining the total pension liability were made in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board.

The actuarial assumptions used in the valuation were based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor. The plan does not have credible data on which to perform an experience study. As a result, a full actuarial experience study is not applicable.

Description of Actuarial Methods

Asset Valuation Method

The Actuarial Value of assets used in the development of plan contributions phases in the recognition of differences between the Market Value and Expected Actuarial Value by recognizing 20% of the difference each year. The Actuarial Value is adjusted, if necessary, to be within the range of 80% and 120% of the Market Value of assets.

Actuarial Cost Method

Changes in Actuarial Cost Method: None.

Description of Current Actuarial Cost Method: Entry Age Normal (level percentage of salary)

Normal Cost: Under this method, the total normal cost is the sum of amounts necessary to fund each active member's normal retirement benefit if paid annually from entry age to assumed retirement age. Entry age is the age at which the employee would have been first eligible for the plan, if it had always been in effect. The normal cost for each participant is expected to remain a level percentage of the employee's salary. The normal cost for the plan is the difference between the total normal cost for the year and the anticipated member contributions for that year.

Past Service Liability: The present value of future benefits that relates to service before the valuation date is the total past service liability. The unfunded past service liability is the difference between the total past service liability and any assets (including accumulated member contributions). The July 1, 2010 unfunded accrued liability was established as a separate base, and is being amortized over 25 years on a closed basis (13 years remaining as of July 1, 2022). Future changes in the unfunded accrued liability will be amortized separately, assuming a new 20-year (closed Basis) amortization each valuation.

Experience Gains and Losses: All experience gains and losses (the financial effect of the difference between the actual experience during the prior period and the result expected by the actuarial assumptions for that prior period) appear directly in the past service liability and are amortized at the same rate the plan is amortizing the remaining unfunded past service liability.

Description of Actuarial Assumptions

Changes in Actuarial Assumptions

None.

Investment rate of return (net of investment-related and administrative expenses)

6.50%

Rate of compensation increase (including inflation)

Graded salary scale averaging approximately 3.3%.

The actuarial assumption in regards to rate of compensation increases shown above are based on the results of a review of plan experience.

Inflation

2.40%.

This assumption is consistent with the Social Security Administration’s current best estimate of the ultimate long-term (75-year horizon) annual percentage increase in CPI, as published in the 2022 OASDI Trustees Report.

Mortality

Pub-2010 Public Retirement Plans Amount-Weighted Mortality Tables for General Employees, projected to the valuation date with Scale MP-2021.

Mortality Improvement

Projected to date of decrement using Scale MP-2021 (generational).

We have selected this mortality assumption because it is based on the latest published public retirement mortality study released by the Society of Actuaries.

Retirement age

Age	Rate
55-61	4%
62	8%
63-64	4%
65	20%
66	8%
67	20%
68	40%
69	80%
70	100%

The actuarial assumption in regards to rates of retirement shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Termination prior to retirement

25% Vaughn Select and ultimate withdrawal.

The actuarial assumption in regards to rates of termination shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Disability

None.

Cost of living increases

None.

Payroll growth

3.30% per year

Percent of active employees married

70% of males and 60% of females.

Spouse's age

Husbands are assumed to be 3 years older than wives.

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. To the extent that this summary does not accurately reflect the plan provisions, then the results of this disclosure may not be accurate.

Plan identification

Single-employer pension plan.

Effective date

Original: July 1, 1990.

Latest amendment: July 1, 2017.

Plan year

July 1 to June 30.

Participation

All full time employees are eligible to enter on the beginning of the month coincident with or following the latest of:

- July 1, 1990,
- the completion of one Year of Service, and
- attainment of age 21.

Effective July 1, 2017, new employees are not eligible to participate in the pension plan.

Credited Service (for benefit accrual)

Full plan years based on 1,000 hours excluding years when required participant contributions are not made.

Annual Earnings (plan salary)

Total wages and other amounts reportable on Form W-2 for the calendar year, including elective salary reductions under IRC Sec. 125 and any deferred salary or wages considered annual salary. Compensation is limited for benefit determination purposes as state in IRC Sec 401(a)(17).

Final Average Compensation

Highest average Annual Earnings received by the participant in any 3 consecutive Plan Years prior to the earliest of a participant's actual date of retirement, date of disability, date of death, or date of termination.

Form of benefit

Normal form: Life annuity with modified cash refund.

Optional forms: Life annuity, 100%, 67% or 50% joint and survivor annuity, or a life annuity guaranteed for the first 10 years.

Early retirement

First of the month coincident with or next following the date a participant has attained both age 55 and completed ten years of Credited Service.

Benefit: Accrued Benefit at the Early Retirement Date, reduced by 5% for each year by which commencement of benefit payments precedes the Participant's Normal Retirement Date.

Late retirement benefit

Benefits commence first of the month on or after termination. Benefit is payable based on service and compensation as of that date.

Termination prior to retirement

Vesting schedule:

Credited Year	Vested Percent
1	0%
2	0%
3	0%
4	40%
5	50%
6	60%
7	70%
8	80%
9	90%
10	100%

Benefit: Vested portion of accrued benefit as of date of termination, first payable upon normal retirement eligibility. Participant may elect to return employee contributions with interest and forfeit all vested benefits.

Pre-retirement Death Benefit

Benefit: Employee contributions with interest.

Accrued benefit

1.75% of Average Annual Earnings multiplied by years of Credited Service prior to July 1, 2009, plus a benefit of 2.0% of Average Annual Earnings multiplied by years of Credited Service between July 1, 2009 and July 1, 2014, plus a benefit of 2.25% of Average Annual Earnings multiplied by years of Credited Service between July 1, 2014 and July 1, 2017, plus a benefit of 2.00% of Average Annual Earnings multiplied by Years of Credited Service after July 1, 2017.

Normal retirement

Attainment of age 65 and completion of 5 years of service.

Benefit: Accrued benefit as of normal retirement date.

Member Contributions

Effective Date	Contribution Rate
Prior to 7/1/2010*	1.0%
Between 7/1/2010 and 6/30/2017	5.0%
On or after 7/1/2017	5.99%

* 3.25% for 2009-2010

Appendix IV

SAMPLE OPEB VALUATION REPORT



ACTUARIAL VALUATION REPORT
REPORTING AS OF JULY 1, 2024

SAMPLE REPORT OPEB PLAN

Table of Contents

Executive Summary	1
Valuation Results and Highlights	2
Purpose of the Valuation.....	2
Information Available in the Valuation Report	2
Changes Reflected in the Valuation	2
Cash Contribution for Fiscal Years Ending 2025 and 2026	2
Asset Experience During Period Under Review	2
Certification	3
Development of Unfunded Accrued Liability and Funded Ratio	4
Development of Unfunded Accrued Liability and Funded Ratio by Group	5
Determination of Normal Cost and Actuarially Determined Employer Contribution	7
Actuarially Determined Employer Contribution per Group	9
Development of Asset Values.....	10
Target Allocation and Expected Rate of Return	12
Amortization of Unfunded Liability	13
Member Data	16
Expected Benefit Payments from Trust Fund.....	18
Expected Per Capita Claims (without Medicare Integration)	19
Description of Actuarial Methods	20
Description of Actuarial Assumptions	21
Summary of Plan Provisions	25

Report Prepared By:

Jane Actuary
Consulting Actuary
860.xxx.xxxx
jane.actuary@usi.com

Jane Actuary
Consulting Actuary
860.xxx.xxxx
jane.actuary@usi.com

Executive Summary

	July 1, 2023	July 1, 2021
Number of members		
Active members	437	390
Retired members and dependents	51	53
Total	488	443
Covered employee payroll	26,610,474	24,845,271
Average plan salary	60,894	63,706
Actuarial present value of future benefits	6,112,307	5,501,313
Actuarial accrued liability	4,280,887	3,957,395
Plan assets		
Market value of assets	2,306,650	2,251,177
Actuarial value of assets	2,306,650	2,251,177
Unfunded accrued liability	1,974,237	1,706,218
Funded ratio	53.9%	56.9%
Actuarially determined employer contribution (ADEC)		
Fiscal year ending	2025	2023
ADEC	354,000	292,000
Fiscal year ending	2026	2024
ADEC	362,900	299,300

Valuation Results and Highlights

Purpose of the Valuation

The purpose of the valuation is to develop the Actuarially Determined Employer Contribution (ADEC). The ultimate cost of an OPEB plan is based primarily on the level of benefits promised by the plan. The OPEB fund's investment earnings serve to reduce the cost of plan benefits and expenses. Thus,

$$\text{Ultimate cost} = \text{Benefits Paid} + \text{Expenses Incurred} - \text{Investment Return} - \text{Employee Contributions}$$

The actuarial cost method distributes this ultimate cost over the working lifetime of current plan participants. By means of this budgeting process, costs are allocated to both past and future years, and a cost is assigned to the current year. The current year's allocated cost, or normal cost, is the building block upon which the actuarially determined employer contribution is developed. The July 1, 2023 valuation produces the contributions for the fiscal years ending 2025 and 2026.

Information Available in the Valuation Report

The Executive Summary is intended to emphasize the notable results of the valuation from the perspective of the Plan Sponsor. Supporting technical detail is documented in Results of the Valuation, Supporting Exhibits and Description of Actuarial Methods and Assumptions. A concise summary of the principal provisions of the Plan is outlined in Summary of Plan Provisions.

Changes Reflected in the Valuation

- Healthcare cost trend rates

Cash Contribution for Fiscal Years Ending 2025 and 2026

The Town cost is:	2025 Fiscal Year	2026 Fiscal Year
BOE	\$198,500	\$203,400
Town	<u>155,500</u>	<u>159,500</u>
Total	\$354,000	\$362,900

Asset Experience During Period Under Review

The plan's assets provided the following rates of return during the past two fiscal years:

	2022 Fiscal Year	2023 Fiscal Year
Market Value Basis	-14.3%	12.3%

The Market Value of assets is used to determine plan contributions.

Certification

This report presents the results of the July 1, 2023 Actuarial Valuation for Sample Report OPEB Plan (the Plan) for the purpose of estimating the funded status of the Plan and determining the Actuarially Determined Employer Contribution (ADEC) for the fiscal years ending June 30, 2025 and June 30, 2026. This report is intended to satisfy the requirements of Connecticut General Statute 7-450a. This report may not be appropriate for any other purpose.

The valuation has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with all applicable Actuarial Standards of Practice.

I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan.

In preparing this valuation, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Trustee. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

The results in this valuation report are based on the Plan as summarized in the *Summary of Plan Provisions* section of this report and the actuarial assumptions and methods detailed in the *Description of Actuarial Methods and Assumptions* section of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I have no relationship with the employer or the Plan that would impair, or appear to impair, my objectivity in performing the work presented in this report. I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

Jane Actuary, FSA, FCA, MAAA
Enrolled Actuary 23-00000

August 15, 2024

Development of Unfunded Accrued Liability and Funded Ratio

	July 1, 2023	July 1, 2021
Actuarial accrued liability for active members		
Members under age 65	\$2,090,406	\$1,723,729
Members over age 65	150,662	81,064
Dependents under age 65	699,197	585,524
Dependents over age 65	0	0
Total	2,940,265	2,390,317
Actuarial accrued liability for inactive members		
Members under age 65	236,784	166,997
Members over age 65	1,103,838	1,251,117
Dependents under age 65	0	49,750
Dependents over age 65	0	99,214
Total	1,340,622	1,567,078
Total actuarial accrued liability	4,280,887	3,957,395
Actuarial value of assets	2,306,650	2,251,177
Unfunded accrued liability	1,974,237	1,706,218
Funded ratio	53.9%	56.9%

	Current Discount Rate (6.90%)	1% Decrease (5.90%)	1% Increase (7.90%)
Actuarial accrued liability for active members	2,940,265	3,306,905	2,619,941
Actuarial accrued liability for inactive members	1,340,622	1,446,534	1,248,165
Total actuarial accrued liability	4,280,887	4,753,439	3,868,106

	Healthcare Cost Trend Rates (7.00% decreasing to 4.40%)	1% Decrease (6.00% decreasing to 3.40%)	1% Increase (8.00% decreasing to 5.40%)
Actuarial accrued liability for active members	2,940,265	2,615,722	3,329,858
Actuarial accrued liability for inactive members	1,340,622	1,275,196	1,413,646
Total actuarial accrued liability	4,280,887	3,890,918	4,743,504

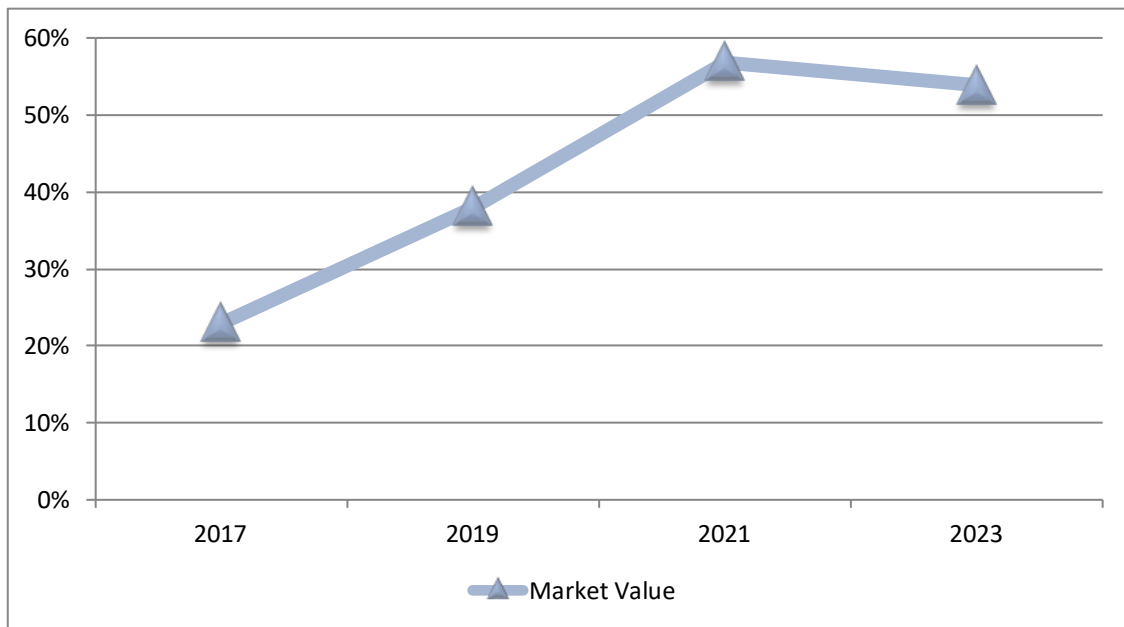
Development of Unfunded Accrued Liability and Funded Ratio by Group

	BOE	Town	Total
Actuarial accrued liability for active members			
Members under age 65	\$1,167,708	\$922,698	\$2,090,406
Members over age 65	0	150,662	150,662
Dependents under age 65	413,734	285,463	699,197
Dependents over age 65	0	0	0
Total	1,581,442	1,358,823	2,940,265
Actuarial accrued liability for inactive members			
Members under age 65	26,287	210,497	236,784
Members over age 65	918,787	185,051	1,103,838
Dependents under age 65	0	0	0
Dependents over age 65	0	0	0
Total	945,074	395,548	1,340,622
Total actuarial accrued liability	2,526,516	1,754,371	4,280,887
Actuarial value of assets	1,361,351	945,299	2,306,650
Unfunded accrued liability	1,165,165	809,072	1,974,237
Funded ratio	53.9%	53.9%	53.9%

Actuarial Accrued Liability vs. Market Value of Assets



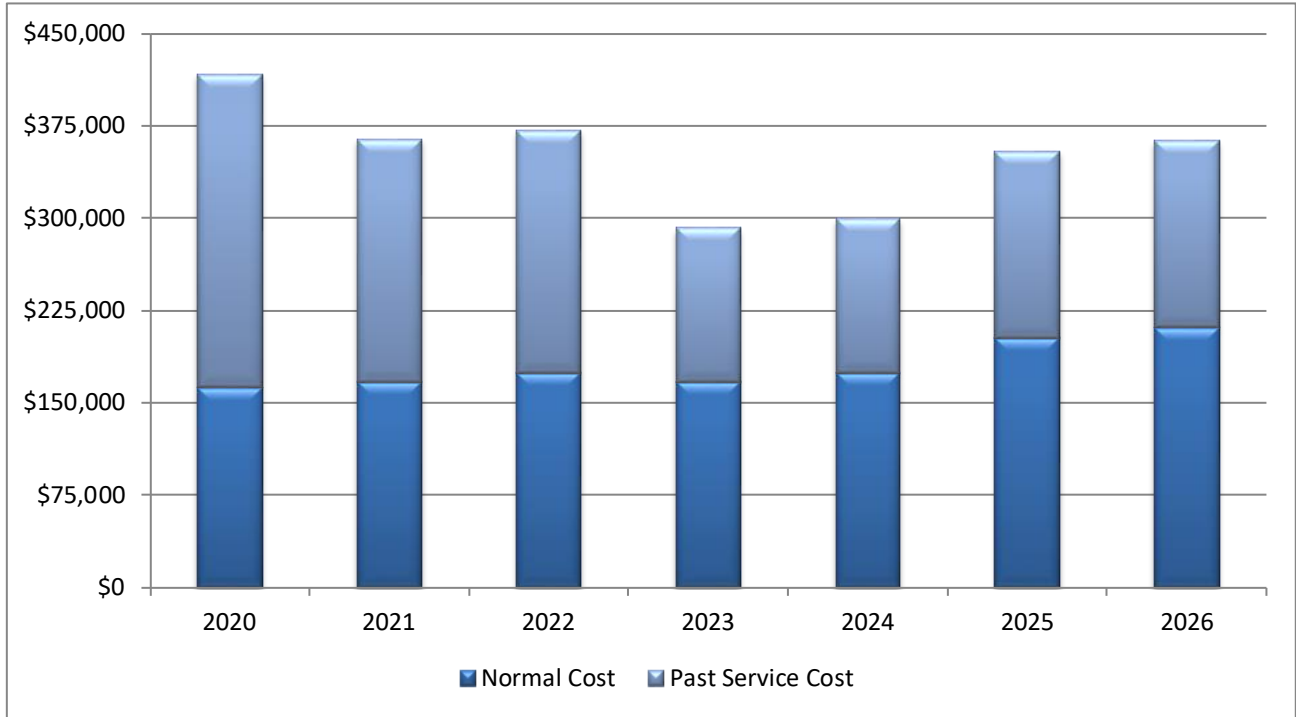
Funded Ratio



Determination of Normal Cost and Actuarially Determined Employer Contribution

	July 1, 2023		July 1, 2021	
	Cost	Percent of payroll	Cost	Percent of payroll
Town's normal cost	\$187,101	0.7%	\$154,251	0.6%
Amortization of unfunded accrued liability	147,052	0.6%	121,389	0.5%
Contribution before adjustment as of the valuation date	334,153	1.3%	275,640	1.1%
Contribution rounded to nearest \$100	334,200		275,600	
Estimated valuation year payroll for actives not yet at 100% assumed retirement age	25,250,413		24,481,758	
Fiscal year ending	2025		2023	
Adjustment for interest and inflation	19,800		16,400	
Actuarially determined employer contribution	354,000		292,000	
Expected benefit payments	172,500		236,700	
Fiscal year ending	2026		2024	
Adjustment for interest and inflation	8,900		7,300	
Actuarially determined employer contribution	362,900		299,300	
Expected benefit payments	202,400		217,900	

Actuarially Determined Employer Contribution



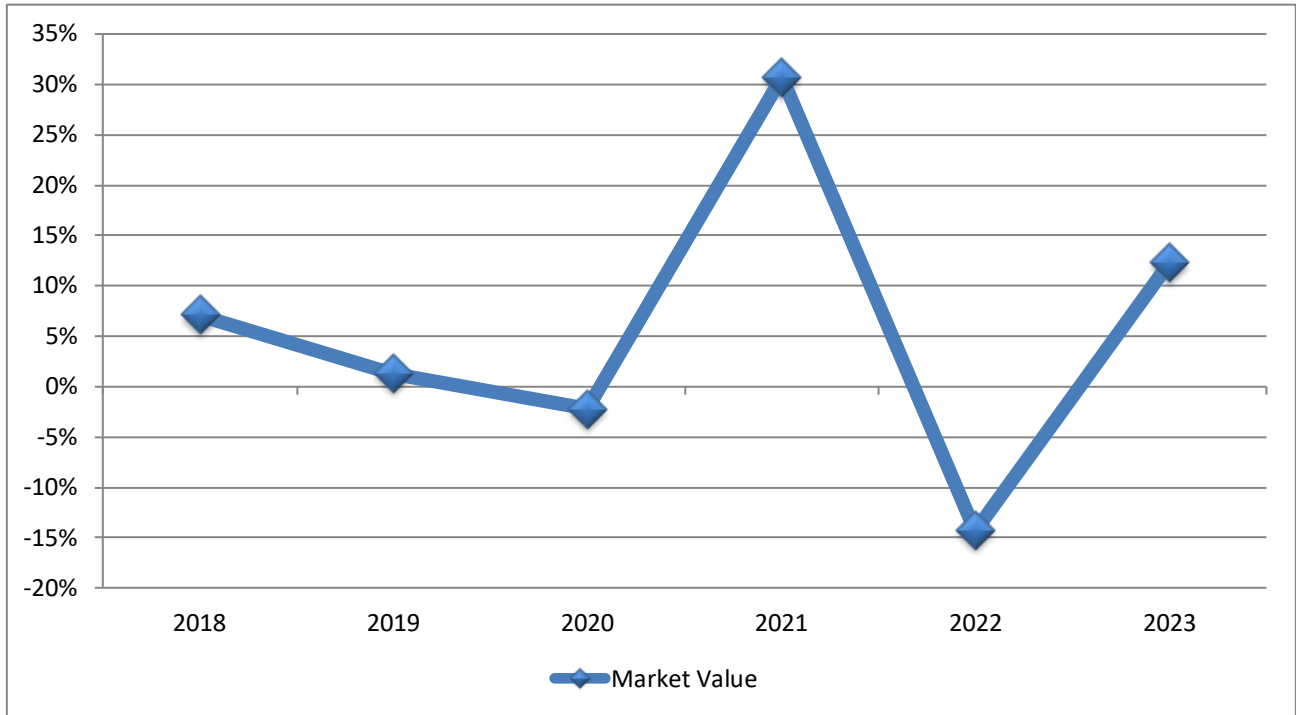
Actuarially Determined Employer Contribution per Group

	BOE	Town	Total
Town's normal cost	\$102,903	\$84,198	\$187,101
Actuarial accrued liability	2,526,516	1,754,371	4,280,887
Actuarial value of assets	<u>1,361,351</u>	<u>945,299</u>	<u>2,306,650</u>
Unfunded accrued liability	1,165,165	809,072	1,974,237
Amortization of unfunded accrued liability	84,580	62,472	147,052
Contribution before adjustment as of the valuation date	187,483	146,670	334,153
Contribution rounded to nearest \$100	187,500	146,700	334,200
Fiscal year ending June 30, 2025			
Adjustment for interest and inflation	<u>11,000</u>	<u>8,800</u>	<u>19,800</u>
Actuarially determined employer contribution	198,500	155,500	354,000
Expected benefit payments	115,200	57,300	172,500
Fiscal year ending June 30, 2026			
Adjustment for interest and inflation	<u>4,900</u>	<u>4,000</u>	<u>8,900</u>
Actuarially determined employer contribution	203,400	159,500	362,900
Expected benefit payments	131,100	71,300	202,400

Development of Asset Values

Summary of Fund Activity		
	July 1, 2021 - June 30, 2022	July 1, 2022 - June 30, 2023
1. Beginning market value of assets		
Trust assets	\$2,251,177	\$1,998,767
2. Contributions		
Town contributions during year	75,100	57,900
Employee contributions during year	0	0
Total for plan year	75,100	57,900
3. Disbursements		
Benefit payments during year	0	0
Administrative expenses during year	0	0
Total for plan year	0	0
4. Net investment return		
Interest and dividends	0	0
Realized and unrealized gain / (loss)	(299,229)	275,282
Investment-related expenses	(28,281)	(25,299)
Total for plan year	(327,510)	249,983
5. Ending market value of assets		
#REF!	1,998,767	2,306,650
6. Approximate rate of return	-14.3%	12.3%

Actual Rate of Return on Assets



Target Allocation and Expected Rate of Return July 1, 2023

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*	Weighting
Cash	9.00%	0.20%	0.02%
US Government Fixed Income	10.00%	1.90%	0.19%
US Corporate Fixed Income - Investment Grade	19.00%	3.00%	0.57%
US Corporate Fixed Income - High Yield	2.00%	4.40%	0.09%
International Fixed Income	5.00%	1.40%	0.07%
Emerging Markets Fixed Income	5.00%	4.10%	0.21%
US Large Cap Equity	15.00%	6.30%	0.95%
US Mid Cap Equity	5.00%	8.70%	0.44%
US Small Cap Equity	5.00%	10.30%	0.52%
International Equity	5.00%	7.10%	0.36%
Emerging Markets Equity	10.00%	9.40%	0.94%
Real Estate	10.00%	5.50%	0.55%
	100.00%		4.91%
Long-Term Inflation Expectation			2.40%
Long-Term Expected Nominal Return			7.31%

**Long-Term Real Returns are provided by RBC Wealth Management. The returns are arithmetic means.*

The long-term expected rate of return on OPEB plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return are developed. Best estimates of the real rates of return for each major asset class are included in the OPEB plan's target asset allocation.

The information above is based on arithmetic means. The investment return assumption was selected using the long term asset allocation shown above. An expected rate of return of 6.90% was used.

Amortization of Unfunded Liability

Schedule of Amortization Bases - Total					
	Date established	Original amount	Amortization installment	Years remaining	Present value of remaining installments as of July 1, 2023
Initial base	July 1, 2019	\$2,547,206	\$190,095	26	\$2,425,489
2021 base	July 1, 2021	(784,185)	(68,707)	18	(744,175)
2023 base	July 1, 2023	292,923	25,664	20	292,923
Total			147,052		1,974,237

Schedule of Amortization Bases - BOE					
	Date established	Original amount	Amortization installment	Years remaining	Present value of remaining installments as of July 1, 2023
Initial base	July 1, 2019	\$1,693,780	\$126,405	26	\$1,612,842
2021 base	July 1, 2021	(581,834)	(50,978)	18	(552,148)
2023 base	July 1, 2023	104,471	<u>9,153</u>	20	<u>104,471</u>
Total			84,580		1,165,165

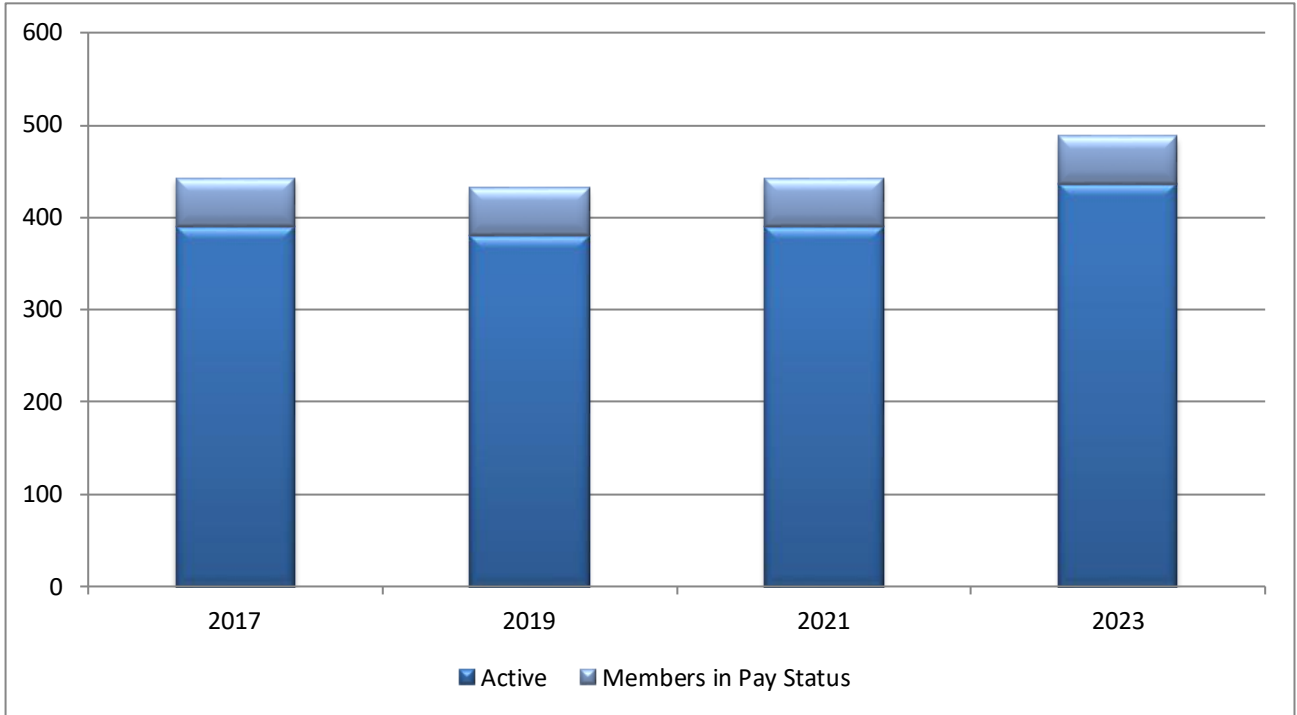
Schedule of Amortization Bases - Town					
	Date established	Original amount	Amortization installment	Years remaining	Present value of remaining installments as of July 1, 2023
Initial base	July 1, 2019	\$853,426	\$63,690	26	\$812,647
2021 base	July 1, 2021	(202,351)	(17,729)	18	(192,027)
2023 base	July 1, 2023	188,452	<u>16,511</u>	20	<u>188,452</u>
Total			62,472		809,072

Member Data

The data reported by the Plan Sponsor for this valuation includes 437 active employees who met the Plan's minimum age and service requirements as of July 1, 2023.

	BOE	Town	Total
Total members July 1, 2023			
Active members	343	94	437
Retirees	6	45	51
Total	349	139	488
Average age July 1, 2023			
Active members	45.2	49.2	46.1
Retirees	74.6	70.9	71.4
Total members July 1, 2021			
Active members	289	101	390
Retirees	11	39	50
Dependents of current retirees	1	2	3
Total	301	142	443
Average age July 1, 2021			
Active members	44.8	49.0	45.9
Retirees	70.6	70.0	70.1
Dependents of current retirees	95.5	61.0	72.5

Member Counts by Status



Expected Benefit Payments from Trust Fund

An important consideration in formulating short-term or intermediate-term investment policy is the need for liquidity to meet the payment requirements of the Plan. The Plan's investment advisors may wish to compare expected benefit payments and expenses with anticipated cash income from investments and employer contributions.

The table below presents projected annual benefit payments for the next twenty plan years. The following assumptions are reflected in this table:

- Retirements among active participants will occur consistent with the Plan's retirement assumption.
- Benefits will continue to accrue according to the provisions of the Plan.

Differences between actual experience and that assumed will affect the pattern of benefit payments.

Participant categories reflect status as of July 1, 2023.

Year	Active as of July 1, 2023	Retired and Terminated as of July 1, 2023	Total Benefit Payments
2023	\$11,700	\$138,400	\$150,100
2024	35,600	136,900	172,500
2025	59,900	142,500	202,400
2026	93,900	138,100	232,000
2027	135,900	119,900	255,800
2028	176,500	121,700	298,200
2029	198,500	117,800	316,300
2030	229,000	119,000	348,000
2031	278,800	119,900	398,700
2032	336,100	120,600	456,700
2033	403,700	95,800	499,500
2034	439,700	93,600	533,300
2035	461,000	90,900	551,900
2036	425,600	87,900	513,500
2037	441,800	84,400	526,200
2038	477,200	80,700	557,900
2039	505,800	76,800	582,600
2040	523,900	72,600	596,500
2041	489,800	68,300	558,100
2042	582,400	63,900	646,300

Expected Per Capita Claims (without Medicare Integration)

Town HDHP

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$8,091	\$11,277
50	10,566	13,140
55	13,864	15,307
60	17,861	17,854
64	21,812	20,901

BOE Admin HDHP

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$7,376	\$10,281
50	9,633	11,980
55	12,640	13,956
60	16,284	16,277
65	20,733	19,730
70	24,941	23,076
75	28,621	25,903

BOE Teacher HDHP

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$7,291	\$10,163
50	9,522	11,841
55	12,494	13,795
60	16,096	16,089
65	20,494	19,502
70	24,653	22,810
75	28,291	25,605

BOE Non-Certified HDHP

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$7,291	\$10,163
50	9,522	11,841
55	12,494	13,795
60	16,096	16,089
64	19,656	18,836

BOE Teacher PPO

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$11,587	\$16,150
50	15,131	18,818
55	19,855	21,922
60	25,578	25,568
65	32,567	30,991
70	39,177	36,248
75	44,958	40,689

BOE Non-Certified PPO

Sample Age	Expected Claim (Male)	Expected Claim (Female)
45	\$11,587	\$16,150
50	15,131	18,818
55	19,855	21,922
60	25,578	25,568
64	31,237	29,932

Description of Actuarial Methods

Asset Valuation Method

Plan Assets equal the Market Value of assets.

Actuarial Cost Method

Changes in Actuarial Cost Method: None.

Description of Current Actuarial Cost Method: Entry Age Normal (level percentage of salary)

Normal Cost: Under this method, the total normal cost is the sum of amounts necessary to fund each active member's normal retirement benefit if paid annually from entry age to assumed retirement age. Entry age is the age at which the employee would have been first eligible for the plan, if it had always been in effect. The normal cost for each participant is expected to remain a level percentage of the employee's salary. The normal cost for the plan is the difference between the total normal cost for the year and the anticipated member contributions for that year.

Past Service Liability: The present value of future benefits that relates to service before the valuation date is the total past service liability. The unfunded past service liability is the difference between the total past service liability and any assets (including accumulated member contributions). Unfunded accrued liabilities as of July 1, 2019 were amortized over a closed 30-year period. Future changes in the unfunded accrued liability will be amortized separately, assuming a new 20-year amortization each valuation.

Experience Gains and Losses: All experience gains and losses (the financial effect of the difference between the actual experience during the prior period and the result expected by the actuarial assumptions for that prior period) appear directly in the past service liability and are amortized at the same rate the plan is amortizing the remaining unfunded past service liability.

Description of Actuarial Assumptions

Changes in Actuarial Assumptions

The valuation reflects changes in the actuarial assumptions listed below. (The assumptions used before and after these changes are more fully described in the next section.)

- Healthcare cost trend rates

The assumption indicated was changed to represent the Enrolled Actuary's current best estimate of anticipated experience of the plan.

Investment rate of return (net of investment-related and administrative expenses)

6.90%.

Rate of compensation increase (including inflation)

2.40%.

The plan does not have statistically credible data on which to form a rate of compensation increase assumption.

Inflation

2.40%.

This assumption is consistent with the Social Security Administration's current best estimate of the ultimate long-term (75-year horizon) annual percentage increase in CPI, as published in the 2023 OASDI Trustees Report.

Mortality

Pub-2010 Public Retirement Plans Amount-Weighted Mortality Tables (with separate tables for General Employees, Public Safety and Teachers), projected to the valuation date with Scale MP-2021.

Mortality Improvement

Projected to date of decrement using Scale MP-2021 (generational).

We have selected this mortality assumption because it is based on the latest published public retirement mortality study released by the Society of Actuaries.

Retirement age

The assumed rates of retirement are as follows:

Town, Public Works, BOE Non-Certified

<i>Age</i>	<i>Rate</i>
55-59	2%
60-61	4%
62	32%
63-65	14%
66	41%
67-71	15%
72 and over	100%

The actuarial assumption in regards to rates of retirement shown above are based on an experience study as of July 1, 2012.

Retirement age (cont.)

BOE Certified: Per table below (from Connecticut State TRS 2020 Pension Valuation):

Age	Eligible for Normal (Unreduced) Retirement (Age 60 and 20 Yrs. Serv. Or 35 Yrs. Serv.) Less than 35 years of Serv.		Eligible for Normal (Unreduced) Retirement (Age 60 and 20 Yrs. Serv. Or 35 Yrs. Serv.) 35 or more years of Serv.		Eligible for Early (Reduced) Retirement (Age 50 and 20 Yrs. Serv. Or 25 Yrs. Serv.)	
	Male	Female	Male	Female	Male	Female
50			35.0%	30.0%	1.50%	1.25%
51			35.0%	30.0%	1.50%	1.25%
52			35.0%	30.0%	1.50%	1.25%
53			35.0%	30.0%	1.50%	1.75%
54			35.0%	30.0%	2.00%	2.25%
55			35.0%	30.0%	3.00%	3.00%
56			35.0%	30.0%	4.00%	3.75%
57			35.0%	30.0%	5.00%	4.50%
58			35.0%	30.0%	6.50%	5.50%
59			35.0%	30.0%	8.00%	7.00%
60	20.0%	20.0%	30.0%	30.0%		
61	20.0%	20.0%	30.0%	30.0%		
62	22.5%	20.0%	30.0%	30.0%		
63	22.5%	20.0%	30.0%	30.0%		
64	25.0%	25.0%	30.0%	30.0%		
65	27.5%	32.5%	35.0%	37.5%		
66	27.5%	30.0%	35.0%	37.5%		
67-68	27.5%	30.0%	30.0%	32.5%		
69-74	27.5%	30.0%	30.0%	32.5%		
75-80	100.0%	100.0%	100.0%	100.0%		

The actuarial assumptions in regards to rates of retirement shown above are based on the rates used by the Connecticut State Teachers' Retirement System actuaries.

Police: It was assumed that officers will retire once they complete 25 years of service, but not earlier than age 50.

The actuarial assumptions in regards to rates of retirement shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Termination prior to retirement

Sample Age-Based Withdrawal Rates (until eligible to retire)

Town, Public Works, BOE Non-Certified, Police:

<i>Sample Rates</i>		
Age	Male Rate	Female Rate
25	5.00%	7.50%
30	3.75%	5.00%
35	2.50%	3.75%
40	1.50%	2.50%
45	0.75%	1.25%
50	0.00%	0.00%

The actuarial assumption in regards to rates of withdrawal shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

BOE Certified: Rates based on gender and length of service for first ten years and gender and age thereafter (Connecticut State TRS 2020 Pension Valuation):

Service	Male Rate	Female Rate
0-1	15.00%	12.00%
1-2	11.00	11.00
2-3	8.50	9.50
3-4	7.00	8.00
4-5	5.50	7.50
5-6	4.50	7.00
6-7	4.00	6.50
7-8	3.50	6.00
8-9	3.50	5.50
9-10	3.50	5.00
10 +	use age-related rates until eligible to retire	

Sample Age-Based Withdrawal Rates (until eligible to retire):

Age	Male Rate	Female Rate
25	1.80%	6.00%
30	1.80	6.00
35	1.80	4.25
40	1.80	2.50
45	1.80	2.00
50	2.25	2.40
55	4.00	3.90
59+	5.50	4.00

The actuarial assumptions in regards to rates of withdrawal shown above are based on the rates used by the Connecticut State Teachers' Retirement System actuaries.

Utilization

Town, Sewer and BOE Non-Certified: 50% of current active members will elect medical coverage at retirement.
BOE Certified and Police: 100% of current active members will elect medical coverage at retirement.

Medicare eligibility

20% of current BOE Certified members hired prior to April 1, 1986 are assumed to continue coverage post-65, without Medical coverage.

Percent of active employees married

50% of males and 50% of females.

Spouse’s age

Husbands are assumed to be 3 years older than wives.

Healthcare cost trend rates

7.00% in 2023, reducing by 0.2% each year to a final 4.40% per year rate for 2036 and later.

(Prior: 6.50% in 2021, reducing by 0.2% each year to a final 4.40% per year rate for 2032 and later.)

Healthcare cost trend rates reflect both the current and long-term outlook for increases in health care costs. The short term rates are based on recent industry surveys, plan experience and near-term expectations. The long term trend rate is based on our general inflation assumption plus an adjustment to reflect expectations for long-term medical inflation.

The trend rates were changed to better reflect actual experience.

Premiums/Allocation rates

	Employee	Employee Plus Spouse
Town HDHP	\$12,792	\$25,594
BOE Admin HDHP	\$11,663	\$23,334
BOE HDHP	\$11,528	\$23,065
BOE PPO	\$18,327	N/A

Premiums were used as the basis for per capita costs.

Patient Protection and Affordable Care Act (PPACA)

For purposes of this valuation, extended coverage for adult children and 100% coverage of preventive care are assumed to be reflected in per capita costs.

For purposes of this valuation, elimination of lifetime maximum benefits and removal of the limits on essential healthcare are assumed to have no impact on plan liabilities.

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Plan identification

Single-employer OPEB plan.

Retiree medical benefit

Eligibility - Full-time employee of Town of Cromwell who retires from the Town. The eligibility is 10 years of service for Town Hall employees, 25 years of service for Police, and age 55 and 15 years of service for other employees. Fire and Water employees are not eligible for retiree medical.

Retirees – Pre 65

Police – prior to 7/1/2006 Town pays 50% of the cost for the retiree. After June 30, 2006 Town costs are capped at \$8,000 per year.

Town Hall – Employees who retire at age 62 or beyond with at least 10 years of service, and were hired before October 1, 2012, are eligible for a reimbursement up to \$6,000 per year, until they reach age 65, at which time said payments cease, to offset the premium cost of obtaining medical coverage.

Employees who retire at age 60 but prior to age 62 with at least 15 years of service, and were hired before October 1, 2012, are eligible for a reimbursement up to \$4,000 per year, until they reach age 65, at which time payments cease, to offset the premium cost of obtaining medical coverage.

Employees who retire prior to age 60 may pay the COBRA rate.

Sewer – Retiree pays 100% of the cost.

Other Town Employees - The retiree pays the COBRA premium.

Retirees – Post 65

Police – The retiree pays the premium for a Medicare Supplement.

Town Hall - The retiree pays the premium for a Medicare Supplement.

Other Town Employees – The retiree pays the premium for a Medicare Supplement.

Spousal medical benefit

Eligibility - Must be a spouse of a retiree eligible for medical benefits.

Spouse Benefit

Police – Spouse pays COBRA rate and there is no Post 65 coverage.

Town Hall – For Pre 65 coverage the spouse pays 100% of the active premium. For Post 65 coverage, the spouse pays premium for a Medicare Supplement.

Other Town Employees – The spouse pays the COBRA rate if a member of the Civilian Police Personnel. There is no Pre or Post 65 spousal coverage for the remaining spouses.

Life Insurance

A \$10,000 life insurance benefit is available to Police retirees. A \$20,000 life insurance benefit is available to Town Hall, Sewer and Other Town retirees.

Appendix V

SAMPLE OPEB GASB REPORT



GASB 74 AND GASB 75 DISCLOSURE

REPORTING AS OF JUNE 30, 2024

SAMPLE REPORT

Table of Contents

Certification	1
Money-Weighted Rate of Return	2
Schedule of Investment Returns	3
Contributions Compared to ADEC and Payroll	4
Discount Rate Calculation.....	5
Target Allocation and Expected Rate of Return	6
Schedule of Changes in Net OPEB Liability.....	7
Schedule of Net OPEB Liability	9
Development of Employer Contribution	10
Disclosure Overview for Fiscal Year Ending June 30, 2024	11
Changes in the Net OPEB Liability	12
Components of the OPEB Expense for the Fiscal Year Ended June 30, 2024.....	13
OPEB Expense and Deferred Outflows and Inflows of Resources Related to OPEB	20
Sensitivity of the Net OPEB Liability to Changes in the Discount Rate.....	24
Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates	24
Participant Breakdown as of July 1, 2023.....	24
Description of Significant Changes Prior to Year End.....	25
Valuation Date and Roll Forward Process	25
Funding Policy.....	25
Assumption Selection	25
Description of Actuarial Methods	26
Description of Actuarial Assumptions	27
Summary of Plan Provisions	31

All the items listed below are required by GASB 74 and GASB 75 but are not included in this report:

- Statement of Changes in Fiduciary Net Position
- Statement of Fiduciary Net Position
- Investments That Represent 5% or More of the Plan’s Fiduciary Net Position
- Investment Policy
- OPEB Board Composition
- Authority to Amend Plan

Report Prepared By:

Jane Actuary
Consulting Actuary
860.xxx.xxxx
jane.actuary@usi.com

Jane Actuary
Consulting Actuary
860.xxx.xxxx
jane.actuary@usi.com

Certification

This report presents the results of the June 30, 2024 GASB 74 and GASB 75 Disclosure for the Sample Report (the Plan). The report is intended to satisfy the requirements of both GASB 74 and GASB 75. This report may not be appropriate for any other purpose.

The report has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with the Actuarial Standards Board Standards of Practice.

I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan.

In preparing this disclosure report, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Plan Sponsor or Trustee. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

The results in this disclosure report are based on the Plan as summarized in the Summary of Plan Provisions section of this report and the actuarial methods and assumptions detailed in the Description of Actuarial Methods and Procedures and Description of Actuarial Assumptions sections of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I have no relationship with the employer or the Plan that would impair, or appear to impair, my objectivity in performing the work presented in this report. I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

Jane Actuary, FSA, FCA, MAAA
Enrolled Actuary 23-00000

August 28, 2024

Schedule of Investment Returns Last 8 Fiscal Years

Year Ended June 30:	Annual Money-Weighted Rate of Return, Net of Investment Expense
2017	6.55%
2018	7.21%
2019	1.37%
2020	-2.17%
2021	30.80%
2022	-14.42%
2023	12.42%
2024	11.73%

**Contributions Compared to ADEC and Payroll
Schedule of Contributions for Last 8 Fiscal Years**

	2024	2023	2022	2021	2020
Actuarially determined employer contribution (ADEC)	\$ 299,300	\$ 292,000	\$ 371,300	\$ 363,600	\$ 417,000
Contributions in relation to the ADEC	227,859	230,046	316,704	337,443	406,672
Contribution deficiency (excess)	<u>\$ 71,441</u>	<u>\$ 61,954</u>	<u>\$ 54,596</u>	<u>\$ 26,157</u>	<u>\$ 10,328</u>
Covered payroll	\$ 27,249,125	\$ 26,052,155	\$ 25,441,558	\$ 25,673,617	\$ 25,023,019
Contributions as a % of covered payroll	0.84%	0.88%	1.24%	1.31%	1.63%

	2019	2018	2017
Actuarially determined employer contribution (ADEC)	\$ 412,600	\$ 656,000	\$ 648,000
Contributions in relation to the ADEC	589,868	556,379	407,346
Contribution deficiency (excess)	<u>\$ (177,268)</u>	<u>\$ 99,621</u>	<u>\$ 240,654</u>
Covered payroll	\$ 24,256,883	\$ 23,607,672	\$ 22,740,011
Contributions as a % of covered payroll	2.43%	2.36%	1.79%

Discount Rate Calculation

The long-term expected rate of return on investments may be used to discount liabilities to the extent that the plan's fiduciary net position and future contributions are projected to be sufficient to cover expected benefit payments and administrative expenses for current plan members. Projections of the plan's fiduciary net position incorporate all cash flows for contributions from the employer and employee and administrative expenses. Professional judgment should be applied to the projections of contributions in circumstances where (a) contribution amounts are established by statute or contract or (b) a formal written policy exists. Consideration should also be given to the most recent five-year contribution history as key indicators of future contributions. It should not include cash flows for future plan members.

If the amount of the plan's fiduciary net position is projected to be greater than or equal to the benefit payments and administrative expenses made in that period, the actuarial present value of payments should be discounted using the long-term expected rate of return on those investments. A 20-year, high quality (AA/Aa or higher), tax-exempt municipal bond yield or index rate must be used to discount benefit payments for periods where the fiduciary net position is not projected to cover expected benefit payments and administrative expenses.

Plans that are projected to have sufficient fiduciary net position indefinitely will use the long-term expected return on investments to determine liabilities but will have to substantiate their projected solvency. GASB permits alternative methods to evaluate the sufficiency of the plan's net fiduciary position. Based on the plan's current net OPEB liability and current contribution policy, the plan's projected fiduciary net position will be sufficient to cover projected benefit payments and administrative expenses indefinitely. Therefore, since the fund is not projected to run out of money, we have used the 6.90% interest rate assumption to discount plan liabilities.

Target Allocation and Expected Rate of Return Actuarial Valuation as of July 1, 2023

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*	Weighting
Cash	9.00%	0.20%	0.02%
US Government Fixed Income	10.00%	1.90%	0.19%
US Corporate Fixed Income - Investment Grade	19.00%	3.00%	0.57%
US Corporate Fixed Income - High Yield	2.00%	4.40%	0.09%
International Fixed Income	5.00%	1.40%	0.07%
Emerging Markets Fixed Income	5.00%	4.10%	0.21%
US Large Cap Equity	15.00%	6.30%	0.95%
US Mid Cap Equity	5.00%	8.70%	0.44%
US Small Cap Equity	5.00%	10.30%	0.52%
International Equity	5.00%	7.10%	0.36%
Emerging Markets Equity	10.00%	9.40%	0.94%
Real Estate	10.00%	5.50%	0.55%
	100.00%		4.91%
Long-Term Inflation Expectation			2.40%
Long-Term Expected Nominal Return			7.31%

**Long-Term Real Returns are provided by RBC Wealth Management. The returns are arithmetic means.*

The long-term expected rate of return on OPEB plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return are developed. Best estimates of the real rates of return for each major asset class are included in the OPEB plan's target asset allocation.

The information above is based on arithmetic means. The investment return assumption was selected using the long term asset allocation shown above. An expected rate of return of 6.90% was used. The July 1, 2023 Actuarial Valuation directly calculated the July 1, 2023 Total OPEB Liability (TOL). The July 1, 2023 TOL was increased by service cost and interest and decreased by benefit payments to estimate the TOL as of June 30, 2024.

Schedule of Changes in Net OPEB Liability Last 8 Fiscal Years

	2024	2023	2022	2021	2020
Total OPEB liability					
Service cost	\$ 168,124	\$ 161,038	\$ 168,392	\$ 161,604	\$ 162,635
Interest	307,312	291,036	308,334	295,644	298,523
Changes of benefit terms	192,854	-	-	-	-
Differences between expected and actual experience	(513,068)	(33,940)	(352,965)	720	(415,727)
Changes of assumptions	268,820	-	(130,347)	-	273,319
Benefit payments, including refunds of member contributions	(174,399)	(203,825)	(268,590)	(292,681)	(302,390)
Net change in total OPEB liability	249,643	214,309	(275,176)	165,287	16,360
Total OPEB liability - beginning	4,371,403	4,157,094	4,432,270	4,266,983	4,250,623
Total OPEB liability - ending: (a)	<u>\$ 4,621,046</u>	<u>\$ 4,371,403</u>	<u>\$ 4,157,094</u>	<u>\$ 4,432,270</u>	<u>\$ 4,266,983</u>
Plan fiduciary net position					
Contributions - employer	\$ 227,859	\$ 230,046	\$ 316,704	\$ 337,443	\$ 406,672
Contributions - active member	-	-	-	-	-
Contributions - TRB reimbursements	27,940	31,679	26,986	26,838	27,718
Net investment income (loss)	272,782	249,983	(327,510)	518,417	(34,893)
Benefit payments, including refunds of member contributions	(174,399)	(203,825)	(268,590)	(292,681)	(302,390)
Administrative expenses	-	-	-	-	-
Other	-	-	-	-	-
Net change in plan fiduciary net position	354,182	307,883	(252,410)	590,017	97,107
Plan fiduciary net position - beginning	2,306,650	1,998,767	2,251,177	1,661,160	1,564,053
Plan fiduciary net position - ending: (b)	<u>2,660,832</u>	<u>2,306,650</u>	<u>1,998,767</u>	<u>2,251,177</u>	<u>1,661,160</u>
Net OPEB liability - ending: (a) - (b)	<u>\$ 1,960,214</u>	<u>\$ 2,064,753</u>	<u>\$ 2,158,327</u>	<u>\$ 2,181,093</u>	<u>\$ 2,605,823</u>
Plan fiduciary net position as a % of total OPEB liability	57.58%	52.77%	48.08%	50.79%	38.93%
Covered payroll	\$ 27,249,125	\$ 26,052,155	\$ 25,441,558	\$ 25,673,617	\$ 25,023,019
Net OPEB liability as a % of covered payroll	7.19%	7.93%	8.48%	8.50%	10.41%

	2019	2018	2017
Total OPEB liability			
Service cost	\$ 155,706	\$ 268,162	\$ 260,985
Interest	286,889	353,821	339,240
Changes of benefit terms	-	(29,592)	-
Differences between expected and actual experience	36,301	(2,012,609)	(153,061)
Changes of assumptions	-	(1,131,229)	-
Benefit payments, including refunds of member contributions	(336,267)	(294,060)	(183,909)
Net change in total OPEB liability	142,629	(2,845,507)	263,255
Total OPEB liability - beginning	4,107,994	6,953,501	6,690,246
Total OPEB liability - ending: (a)	<u>\$ 4,250,623</u>	<u>\$ 4,107,994</u>	<u>\$ 6,953,501</u>
Plan fiduciary net position			
Contributions - employer	\$ 589,868	\$ 556,379	\$ 407,346
Contributions - active member	-	-	-
Contributions - TRB reimbursements	26,399	27,682	26,563
Net investment income (loss)	18,565	65,618	44,336
Benefit payments, including refunds of member contributions	(336,267)	(294,060)	(183,909)
Administrative expenses	-	-	-
Other	-	-	-
Net change in plan fiduciary net position	298,565	355,619	294,336
Plan fiduciary net position - beginning	1,265,488	909,869	615,533
Plan fiduciary net position - ending: (b)	<u>1,564,053</u>	<u>1,265,488</u>	<u>909,869</u>
Net OPEB liability - ending: (a) - (b)	<u>\$ 2,686,570</u>	<u>\$ 2,842,506</u>	<u>\$ 6,043,632</u>
Plan fiduciary net position as a % of total OPEB liability	36.80%	30.81%	13.09%
Covered payroll	\$ 24,256,883	\$ 23,607,672	\$ 22,740,011
Net OPEB liability as a % of covered payroll	11.08%	12.04%	26.58%

**Schedule of Net OPEB Liability
Last 9 Fiscal Years**

	2024	2023	2022	2021	2020
Total OPEB liability	\$ 4,621,046	\$ 4,371,403	\$ 4,157,094	\$ 4,432,270	\$ 4,266,983
Plan fiduciary net position	2,660,832	2,306,650	1,998,767	2,251,177	1,661,160
Net OPEB liability (asset)	\$ 1,960,214	\$ 2,064,753	\$ 2,158,327	\$ 2,181,093	\$ 2,605,823
Plan fiduciary net position as a % of total OPEB liability	57.58%	52.77%	48.08%	50.79%	38.93%
Covered payroll	\$ 27,249,125	\$ 26,052,155	\$ 25,441,558	\$ 25,673,617	\$ 25,023,019
Net OPEB liability as a % of covered payroll	7.19%	7.93%	8.48%	8.50%	10.41%

	2019	2018	2017	2016
Total OPEB liability	\$ 4,250,623	\$ 4,107,994	\$ 6,953,501	\$ 6,690,246
Plan fiduciary net position	1,564,053	1,265,488	909,869	615,533
Net OPEB liability (asset)	\$ 2,686,570	\$ 2,842,506	\$ 6,043,632	\$ 6,074,713
Plan fiduciary net position as a % of total OPEB liability	36.80%	30.81%	13.09%	9.20%
Covered payroll	\$ 24,256,883	\$ 23,607,672	\$ 22,740,011	\$ 22,077,681
Net OPEB liability as a % of covered payroll	11.08%	12.04%	26.58%	27.52%

Development of Employer Contribution

Category	Amount
Premiums	\$ 131,279
Implicit rate subsidy	117,000
Teachers' Retirement Board reimbursements	(27,940)
Trust contribution	81,400
Retiree contributions	(75,339)
Life insurance	1,459
Total	\$ 227,859

Disclosure Overview for Fiscal Year Ending June 30, 2024

	Plan's Funded Status			Deferred Outflows/(Inflows) of Resources			Recognized in Net OPEB Liability	Recognized in Total OPEB Expense
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability	Experience (Gains)/ Losses	Assumption Changes	Investment (Gains)/ Losses		
Balances -- prior year disclosure	(4,371,403)	2,306,650	(2,064,753)	(1,755,927)	(569,161)	72,386	(2,064,753)	
Changes in net OPEB liability:								
Service cost	(168,124)		(168,124)					168,124
Interest	(307,312)		(307,312)					307,312
Net investment income		272,782	272,782					(272,782)
Contributions - employer		227,859	227,859				227,859	
Contributions - active member		-	-					-
Contributions - TRB reimbursements		27,940	27,940					(27,940)
Changes of benefit terms	(192,854)		(192,854)					192,854
Benefit payments, including refunds of member contributions	174,399	(174,399)	-					-
Administrative expense		-	-					-
Other		-	-					-
Recognized in total OPEB expense								
Differences between expected and actual experience				237,243			(237,243)	(237,243)
Changes of assumptions					49,865		(49,865)	(49,865)
Differences between projected and actual earnings on OPEB plan						(2,394)	2,394	2,394
Deferred outflows/inflows of resources								
Differences between expected and actual experience	513,068		513,068	(513,068)			513,068	
Changes of assumptions	(268,820)		(268,820)		268,820		(268,820)	
Differences between projected and actual earnings on OPEB plan						(110,861)	110,861	110,861
Total OPEB expense							(193,715)	193,715
Balances -- end of year	(4,621,046)	2,660,832	(1,960,214)	(2,031,752)	(250,476)	(40,869)	(1,960,214)	

Changes in the Net OPEB Liability

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances as of June 30, 2023	\$ 4,371,403	\$ 2,306,650	\$ 2,064,753
Changes for the year:			
Service cost	168,124		168,124
Interest	307,312		307,312
Differences between expected and actual experience	(513,068)		(513,068)
Changes of benefit terms	192,854		192,854
Changes of assumptions	268,820		268,820
Contributions - employer		227,859	(227,859)
Contributions - active member		-	-
Contributions - TRB reimbursements		27,940	(27,940)
Net investment income		272,782	(272,782)
Benefit payments, including refunds of member contributions	(174,399)	(174,399)	-
Administrative expense		-	-
Other		-	-
Net changes	249,643	354,182	(104,539)
Balances as of June 30, 2024	\$ 4,621,046	\$ 2,660,832	\$ 1,960,214

Components of the OPEB Expense for the Fiscal Year Ended June 30, 2024

Description	Amount
Service cost	\$ 168,124
Interest on the total OPEB liability	307,312
Differences between expected and actual experience	(237,243)
Changes of assumptions	(49,865)
Changes of benefit terms	192,854
Active member contributions	-
Contributions related to TRB reimbursements	(27,940)
Projected earnings on OPEB plan investments	(161,921)
Differences between projected and actual earnings on plan investments	2,394
OPEB plan administrative expense	-
Other changes in fiduciary net position	-
Total OPEB expense	\$ 193,715

**Increase (Decrease) in OPEB Expense from the Recognition of the
Effects of Differences Between Expected and Actual Experience**

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	2024	2025	2026	2027	2028	2029
2018	\$ (2,012,609)	14.1	\$ (142,738)	\$ (142,738)	\$ (142,738)	\$ (142,738)	\$ (142,738)	\$ (142,738)
2019	36,301	14.1	2,575	2,575	2,575	2,575	2,575	2,575
2020	(415,727)	13.4	(31,024)	(31,024)	(31,024)	(31,024)	(31,024)	(31,024)
2021	720	13.4	54	54	54	54	54	54
2022	(352,965)	13.5	(26,146)	(26,146)	(26,146)	(26,146)	(26,146)	(26,146)
2023	(33,940)	13.5	(2,514)	(2,514)	(2,514)	(2,514)	(2,514)	(2,514)
2024	(513,068)	13.7	(37,450)	(37,450)	(37,450)	(37,450)	(37,450)	(37,450)
Net increase (decrease) in OPEB expense			<u>\$ (237,243)</u>	<u>\$ (237,243)</u>	<u>\$ (237,243)</u>	<u>\$ (237,243)</u>	<u>\$ (237,243)</u>	<u>\$ (237,243)</u>

Year	Differences between Expected and Actual		Recognition						
	Experience	Period (Years)	2030	2031	2032	2033	2034	2035	
2018	\$ (2,012,609)	14.1	\$ (142,738)	\$ (142,738)	\$ (14,277)				
2019	36,301	14.1	2,575	2,575	2,575	\$ 251			
2020	(415,727)	13.4	(31,024)	(31,024)	(31,024)	(12,415)			
2021	720	13.4	54	54	54	54	\$ 18		
2022	(352,965)	13.5	(26,146)	(26,146)	(26,146)	(26,146)	(26,146)	\$ (13,067)	
2023	(33,940)	13.5	(2,514)	(2,514)	(2,514)	(2,514)	(2,514)	(2,514)	
2024	(513,068)	13.7	(37,450)	(37,450)	(37,450)	(37,450)	(37,450)	(37,450)	
Net increase (decrease) in OPEB expense			<u>\$ (237,243)</u>	<u>\$ (237,243)</u>	<u>\$ (108,782)</u>	<u>\$ (78,220)</u>	<u>\$ (66,092)</u>	<u>\$ (53,031)</u>	

Year	Differences between Expected and Actual		Recognition	
	Experience	Period (Years)	2036	2037
2018	\$ (2,012,609)	14.1		
2019	36,301	14.1		
2020	(415,727)	13.4		
2021	720	13.4		
2022	(352,965)	13.5		
2023	(33,940)	13.5	\$ (1,258)	
2024	(513,068)	13.7	(37,450)	\$ (26,218)
Net increase (decrease) in OPEB expense			<u>\$ (38,708)</u>	<u>\$ (26,218)</u>

**Increase (Decrease) in OPEB Expense from the
Recognition of the Effects of Changes of Assumptions**

Year	Changes of Assumptions	Recognition Period (Years)	2024	2025	2026	2027	2028	2029
2018	\$ (1,131,229)	14.1	\$ (80,229)	\$ (80,229)	\$ (80,229)	\$ (80,229)	\$ (80,229)	\$ (80,229)
2019	-	14.1	-	-	-	-	-	-
2020	273,319	13.4	20,397	20,397	20,397	20,397	20,397	20,397
2021	-	13.4	-	-	-	-	-	-
2022	(130,347)	13.5	(9,655)	(9,655)	(9,655)	(9,655)	(9,655)	(9,655)
2023	-	13.5	-	-	-	-	-	-
2024	268,820	13.7	19,622	19,622	19,622	19,622	19,622	19,622
Net increase (decrease) in OPEB expense			<u>\$ (49,865)</u>	<u>\$ (49,865)</u>	<u>\$ (49,865)</u>	<u>\$ (49,865)</u>	<u>\$ (49,865)</u>	<u>\$ (49,865)</u>

Year	Changes of Assumptions	Recognition Period (Years)	2030	2031	2032	2033	2034	2035
2018	\$ (1,131,229)	14.1	\$ (80,229)	\$ (80,229)	\$ (8,023)			
2019	-	14.1	-	-	-	\$ -		
2020	273,319	13.4	20,397	20,397	20,397	8,158		
2021	-	13.4	-	-	-	-	\$ -	
2022	(130,347)	13.5	(9,655)	(9,655)	(9,655)	(9,655)	(9,655)	\$ (4,832)
2023	-	13.5	-	-	-	-	-	-
2024	268,820	13.7	19,622	19,622	19,622	19,622	19,622	19,622
Net increase (decrease) in OPEB expense			<u>\$ (49,865)</u>	<u>\$ (49,865)</u>	<u>\$ 22,341</u>	<u>\$ 18,125</u>	<u>\$ 9,967</u>	<u>\$ 14,790</u>

Year	Changes of Assumptions	Recognition Period (Years)	2036	2037
2018	\$ (1,131,229)	14.1		
2019	-	14.1		
2020	273,319	13.4		
2021	-	13.4		
2022	(130,347)	13.5		
2023	-	13.5	\$ -	
2024	268,820	13.7	19,622	\$ 13,734
Net increase (decrease) in OPEB expense			<u>\$ 19,622</u>	<u>\$ 13,734</u>

**Increase (Decrease) in OPEB Expense from the Recognition of Differences
Between Projected and Actual Earnings on OPEB Plan Investments**

Year	Differences between Projected and Actual Earnings on OPEB Plan Investments		Recognition Period (Years)					
			2024	2025	2026	2027	2028	
2020	\$	148,919	5	\$ 29,783				
2021		(401,368)	5	(80,274)	\$ (80,272)			
2022		485,388	5	97,078	97,078	\$ 97,076		
2023		(110,104)	5	(22,021)	(22,021)	(22,021)	\$ (22,020)	
2024		(110,861)	5	(22,172)	(22,172)	(22,172)	(22,172)	\$ (22,173)
Net increase (decrease) in OPEB expense				<u>\$ 2,394</u>	<u>\$ (27,387)</u>	<u>\$ 52,883</u>	<u>\$ (44,192)</u>	<u>\$ (22,173)</u>

Interest on the Total OPEB Liability Recognized in Expense

	Amount for Period	Portion of Period	Interest Rate	Interest on the Total OPEB Liability
Beginning total OPEB liability	\$ 4,371,403	100%	6.90%	\$ 301,627
Service cost	168,124	100	6.90	11,601
Benefit payments, including refunds of member contributions	(174,399)	50	6.90	(5,916)
Total interest on the OPEB liability				\$ 307,312

Projected Earnings on OPEB Plan Investments Recognized in Expense

	Amount for Period	Portion of Period	Projected Rate of Return	Projected Earnings
Beginning plan fiduciary net position	\$ 2,306,650	100%	6.90%	\$ 159,159
Contributions - employer	227,859	50	6.90	7,730
Contributions - active member	-	50	6.90	-
Contributions - TRB reimbursements	27,940	50	6.90	948
Benefit payments, including refunds of member contributions	(174,399)	50	6.90	(5,916)
Administrative expense and other	-	50	6.90	-
Total projected earnings				\$ 161,921

OPEB Expense and Deferred Outflows and Inflows of Resources Related to OPEB

For the fiscal year ended June 30, 2024, the recognized OPEB expense is \$193,715. As of June 30, 2024, deferred outflows and inflows of resources related to OPEB are reported as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 21,355	\$ (2,053,107)
Changes of assumptions	420,532	(671,008)
Net difference between projected and actual earnings on OPEB plan investments		(40,869)
Total	<u>\$ 441,887</u>	<u>\$ (2,764,984)</u>

Amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in the OPEB expense as follows:

Year Ended June 30:	
2025	\$ (314,495)
2026	(234,225)
2027	(331,300)
2028	(309,281)
2029	(287,108)
Thereafter	(846,688)

Deferred Outflows and Inflows of Resources from Differences Between Expected and Actual Experience

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in OPEB Expense through June 30, 2024 (c)	Balances at June 30, 2024	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018		\$ (2,012,609)	\$ (999,166)		\$ (1,013,443)
2019	\$ 36,301		15,450	\$ 20,851	
2020		(415,727)	(155,120)		(260,607)
2021	720		216	504	
2022		(352,965)	(78,438)		(274,527)
2023		(33,940)	(5,028)		(28,912)
2024		(513,068)	(37,450)		(475,618)
				\$ 21,355	\$ (2,053,107)

Deferred Outflows and Inflows of Resources from Changes of Assumptions

Year	Increases in the Total OPEB Liability (a)	Decreases in the Total OPEB Liability (b)	Amounts Recognized in OPEB Expense through June 30, 2024 (c)	Balances at June 30, 2024	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2018		\$ (1,131,229)	\$ (561,603)		\$ (569,626)
2020	\$ 273,319		101,985	\$ 171,334	
2022		(130,347)	(28,965)		(101,382)
2024	268,820		19,622	249,198	
				<u>\$ 420,532</u>	<u>\$ (671,008)</u>

Deferred Outflows and Inflows of Resources from Differences Between Projected and Actual Earnings on OPEB Plan Investments

Year	Investment Earnings Less Than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in OPEB Expense through June 30, 2024 (c)	Balances at June 30, 2024	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2021		\$ (401,368)	\$ (321,096)		\$ (80,272)
2022	\$ 485,388		291,234	\$ 194,154	
2023		(110,104)	(44,042)		(66,062)
2024		(110,861)	(22,172)		(88,689)
				<u>\$ 194,154</u>	<u>\$ (235,023)</u>

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

	Current Discount Rate (6.90%)		1% Decrease (5.90%)		1% Increase (7.90%)	
Net OPEB liability as of June 30, 2024	\$	1,960,214	\$	2,459,676	\$	1,523,136

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

	Healthcare Cost Trend Rates (7.00% decreasing to 4.40%)		1% Decrease (6.00% decreasing to 3.40%)		1% Increase (8.00% decreasing to 5.40%)	
Net OPEB liability as of June 30, 2024	\$	1,960,214	\$	1,514,181	\$	2,491,656

Participant Breakdown as of July 1, 2023

	Participant Count
Inactive plan members or beneficiaries currently receiving benefits	51
Inactive plan members entitled to but not yet receiving benefits	0
Active plan members	437
Total members	488

Description of Significant Changes Prior to Year End

There were no significant plan changes since the last published valuation.

Valuation Date and Roll Forward Process

The Plan Sponsor uses the July 1, 2021 Actuarial Valuation to calculate the ADEC for the fiscal year ending 2024.

The July 1, 2023 Actuarial Valuation directly calculated the July 1, 2023 Total OPEB Liability (TOL). The July 1, 2023 TOL was increased by service cost and interest and decreased by benefit payments to estimate the TOL as of June 30, 2024. The TOL as of June 30, 2024 was also adjusted to reflect any material plan changes after the valuation, if applicable.

Funding Policy

The Plan Sponsor's Funding Policy is to phase into full ADEC funding over 10 years.

Assumption Selection

The selections of all assumptions used in determining the total OPEB liability were made in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board.

The actuarial assumptions used in the valuation were based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor. The plan does not have credible data on which to perform an experience study. As a result, a full actuarial experience study is not applicable.

Description of Actuarial Methods

Asset Valuation Method

Plan Assets equal the Market Value of assets.

Actuarial Cost Method

Description of Current Actuarial Cost Method: Entry Age Normal (level percentage of salary)

Normal Cost: Under this method, the total normal cost is the sum of amounts necessary to fund each active member's normal retirement benefit if paid annually from entry age to assumed retirement age. Entry age is the age at which the employee would have been first eligible for the plan, if it had always been in effect. The normal cost for each participant is expected to remain a level percentage of the employee's salary. The normal cost for the plan is the difference between the total normal cost for the year and the anticipated member contributions for that year.

Past Service Liability: The present value of future benefits that relates to service before the valuation date is the total past service liability. The unfunded past service liability is the difference between the total past service liability and any assets (including accumulated member contributions). Unfunded accrued liabilities as of July 1, 2019 were amortized over a closed 30-year period. Future changes in the unfunded accrued liability will be amortized separately, assuming a new 20-year amortization each valuation.

Experience Gains and Losses: All experience gains and losses (the financial effect of the difference between the actual experience during the prior period and the result expected by the actuarial assumptions for that prior period) appear directly in the past service liability and are amortized at the same rate the plan is amortizing the remaining unfunded past service liability.

Description of Actuarial Assumptions

Changes in Actuarial Assumptions

The valuation reflects changes in the actuarial assumptions listed below. (The assumptions used before and after these changes are more fully described in the next section.)

- Healthcare cost trend rates

The assumption indicated was changed to represent the Enrolled Actuary's current best estimate of anticipated experience of the plan.

Investment rate of return (net of investment-related and administrative expenses)

6.90%.

Rate of compensation increase (including inflation)

2.40%.

The plan does not have statistically credible data on which to form a rate of compensation increase assumption.

Inflation

2.40%.

This assumption is consistent with the Social Security Administration's current best estimate of the ultimate long-term (75-year horizon) annual percentage increase in CPI, as published in the 2023 OASDI Trustees Report.

Mortality

Pub-2010 Public Retirement Plans Amount-Weighted Mortality Tables (with separate tables for General Employees, Public Safety and Teachers), projected to the valuation date with Scale MP-2021.

Mortality Improvement

Projected to date of decrement using Scale MP-2021 (generational).

We have selected this mortality assumption because it is based on the latest published public retirement mortality study released by the Society of Actuaries.

Retirement age

The assumed rates of retirement are as follows:

Town, Public Works, BOE Non-Certified

<i>Age</i>	<i>Rate</i>
55-59	2%
60-61	4%
62	32%
63-65	14%
66	41%
67-71	15%
72 and over	100%

The actuarial assumption in regards to rates of retirement shown above are based on an experience study as of July 1, 2012.

Retirement age (cont.)

BOE Certified: Per table below (from Connecticut State TRS 2020 Pension Valuation):

Age	Eligible for Normal (Unreduced) Retirement (Age 60 and 20 Yrs. Serv. Or 35 Yrs. Serv.) Less than 35 years of Serv.		Eligible for Normal (Unreduced) Retirement (Age 60 and 20 Yrs. Serv. Or 35 Yrs. Serv.) 35 or more years of Serv.		Eligible for Early (Reduced) Retirement (Age 50 and 20 Yrs. Serv. Or 25 Yrs. Serv.)	
	Male	Female	Male	Female	Male	Female
50			35.0%	30.0%	1.50%	1.25%
51			35.0%	30.0%	1.50%	1.25%
52			35.0%	30.0%	1.50%	1.25%
53			35.0%	30.0%	1.50%	1.75%
54			35.0%	30.0%	2.00%	2.25%
55			35.0%	30.0%	3.00%	3.00%
56			35.0%	30.0%	4.00%	3.75%
57			35.0%	30.0%	5.00%	4.50%
58			35.0%	30.0%	6.50%	5.50%
59			35.0%	30.0%	8.00%	7.00%
60	20.0%	20.0%	30.0%	30.0%		
61	20.0%	20.0%	30.0%	30.0%		
62	22.5%	20.0%	30.0%	30.0%		
63	22.5%	20.0%	30.0%	30.0%		
64	25.0%	25.0%	30.0%	30.0%		
65	27.5%	32.5%	35.0%	37.5%		
66	27.5%	30.0%	35.0%	37.5%		
67-68	27.5%	30.0%	30.0%	32.5%		
69-74	27.5%	30.0%	30.0%	32.5%		
75-80	100.0%	100.0%	100.0%	100.0%		

The actuarial assumptions in regards to rates of retirement shown above are based on the rates used by the Connecticut State Teachers' Retirement System actuaries.

Police: It was assumed that officers will retire once they complete 25 years of service, but not earlier than age 50.

The actuarial assumptions in regards to rates of retirement shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Termination prior to retirement

Sample Age-Based Withdrawal Rates (until eligible to retire)

Town, Public Works, BOE Non-Certified, Police:

<i>Sample Rates</i>		
Age	Male Rate	Female Rate
25	5.00%	7.50%
30	3.75%	5.00%
35	2.50%	3.75%
40	1.50%	2.50%
45	0.75%	1.25%
50	0.00%	0.00%

The actuarial assumption in regards to rates of withdrawal shown above are based on standard tables modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

BOE Certified: Rates based on gender and length of service for first ten years and gender and age thereafter (Connecticut State TRS 2020 Pension Valuation):

Service	Male Rate	Female Rate
0-1	15.00%	12.00%
1-2	11.00	11.00
2-3	8.50	9.50
3-4	7.00	8.00
4-5	5.50	7.50
5-6	4.50	7.00
6-7	4.00	6.50
7-8	3.50	6.00
8-9	3.50	5.50
9-10	3.50	5.00
10 +	use age-related rates until eligible to retire	

Sample Age-Based Withdrawal Rates (until eligible to retire):

Age	Male Rate	Female Rate
25	1.80%	6.00%
30	1.80	6.00
35	1.80	4.25
40	1.80	2.50
45	1.80	2.00
50	2.25	2.40
55	4.00	3.90
59+	5.50	4.00

The actuarial assumptions in regards to rates of withdrawal shown above are based on the rates used by the Connecticut State Teachers' Retirement System actuaries.

Utilization

Town, Sewer and BOE Non-Certified: 50% of current active members will elect medical coverage at retirement.
BOE Certified and Police: 100% of current active members will elect medical coverage at retirement.

Medicare eligibility

20% of current BOE Certified members hired prior to April 1, 1986 are assumed to continue coverage post-65, without Medical coverage.

Percent of active employees married

50% of males and 50% of females.

Spouse’s age

Husbands are assumed to be 3 years older than wives.

Healthcare cost trend rates

7.00% in 2023, reducing by 0.2% each year to a final 4.40% per year rate for 2036 and later.

(Prior: 6.50% in 2021, reducing by 0.2% each year to a final 4.40% per year rate for 2032 and later.)

Healthcare cost trend rates reflect both the current and long-term outlook for increases in health care costs. The short term rates are based on recent industry surveys, plan experience and near-term expectations. The long term trend rate is based on our general inflation assumption plus an adjustment to reflect expectations for long-term medical inflation.

The trend rates were changed to better reflect actual experience.

Premiums/Allocation rates

	Employee	Employee Plus Spouse
Town HDHP	\$12,792	\$25,594
BOE Admin HDHP	\$11,663	\$23,334
BOE HDHP	\$11,528	\$23,065
BOE PPO	\$18,327	N/A

Premiums were used as the basis for per capita costs.

Patient Protection and Affordable Care Act (PPACA)

For purposes of this valuation, extended coverage for adult children and 100% coverage of preventive care are assumed to be reflected in per capita costs.

For purposes of this valuation, elimination of lifetime maximum benefits and removal of the limits on essential healthcare are assumed to have no impact on plan liabilities.

Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Plan identification

Single-employer OPEB plan.

Retiree medical benefit

Eligibility - Full-time employee of Town of Cromwell who retires from the Town. The eligibility is 10 years of service for Town Hall employees, 25 years of service for Police, and age 55 and 15 years of service for other employees. Fire and Water employees are not eligible for retiree medical.

Retirees – Pre 65

Police – prior to 7/1/2006 Town pays 50% of the cost for the retiree. After June 30, 2006 Town costs are capped at \$8,000 per year.

Town Hall – Employees who retire at age 62 or beyond with at least 10 years of service, and were hired before October 1, 2012, are eligible for a reimbursement up to \$6,000 per year, until they reach age 65, at which time said payments cease, to offset the premium cost of obtaining medical coverage.

Employees who retire at age 60 but prior to age 62 with at least 15 years of service, and were hired before October 1, 2012, are eligible for a reimbursement up to \$4,000 per year, until they reach age 65, at which time payments cease, to offset the premium cost of obtaining medical coverage.

Employees who retire prior to age 60 may pay the COBRA rate.

Sewer – Retiree pays 100% of the cost.

Other Town Employees - The retiree pays the COBRA premium.

Retirees – Post 65

Police – The retiree pays the premium for a Medicare Supplement.

Town Hall - The retiree pays the premium for a Medicare Supplement.

Other Town Employees – The retiree pays the premium for a Medicare Supplement.

Spousal medical benefit

Eligibility - Must be a spouse of a retiree eligible for medical benefits.

Spouse Benefit

Police – Spouse pays COBRA rate and there is no Post 65 coverage.

Town Hall – For Pre 65 coverage the spouse pays 100% of the active premium. For Post 65 coverage, the spouse pays premium for a Medicare Supplement.

Other Town Employees – The spouse pays the COBRA rate if a member of the Civilian Police Personnel. There is no Pre or Post 65 spousal coverage for the remaining spouses.

Life Insurance

A \$10,000 life insurance benefit is available to Police retirees. A \$20,000 life insurance benefit is available to Town Hall, Sewer and Other Town retirees.

Appendix VI

SAMPLE EXPERIENCE STUDY



Sample Municipality

2021 Experience Study

Review period: July 1, 2015 - June 30, 2020

Table of Contents

Executive Summary	1
Actuarial Certification	8
Exhibit A – Pro Forma Impact on Actuarial Valuation Results	9
Exhibit B – Supporting Analysis for Assumptions	
Section I – Mortality Rates.....	12
Section II – Retirement Rates.....	16
Section III – Turnover Rates	20
Section IV – Disability Rates.....	24
Section V – Rate of Compensation Increase.....	28
Section VI – COLA (Benefit Accrual Rate) Election.....	32
Section VII – Investment Return	33

Report Prepared By:

Consultant Name
Title
860.856.2XXX
Email

Actuary Name
Title
860.856.2XXX
Email

Analyst Name
Title
860.856.2XXX
Email

Sample Municipality

Executive Summary

The following is an Executive Summary of our recommendations based on the results of the Experience Study for the review period July 1, 2015 to June 30, 2020. The impact on the valuation results is shown under five separate investment return assumptions to provide the information necessary to review the effect of that assumption. Exhibit A shows additional details of the impact on the actuarial valuation results under those five scenarios. Exhibit B shows the data analysis used to develop the recommended assumption changes by employee group when appropriate.

Pro Forma Impact on Actuarial Valuation Results

	\$ millions					
Investment Return	7.50%	7.50%	7.25%	7.00%	6.75%	6.50%
Other Assumptions	Current	Proposed	Proposed	Proposed	Proposed	Proposed
Present Value of Benefits	\$296.4	\$286.2	\$295.3	\$304.9	\$315.1	\$325.8
Increase/(Decrease)		(\$10.2)	(\$1.1)	\$8.5	\$18.6	\$29.4
Actuarial Accrued Liability	\$252.4	\$242.8	\$249.1	\$255.8	\$262.7	\$270.0
Increase/(Decrease)		(\$9.6)	(\$3.3)	\$3.3	\$10.3	\$17.5
Actuarial Value of Assets	\$183.8	\$183.8	\$183.8	\$183.8	\$183.8	\$183.8
Increase/(Decrease)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Funded Ratio	72.8%	75.7%	73.8%	71.9%	70.0%	68.1%
Increase/(Decrease)		2.9%	1.0%	-1.0%	-2.9%	-4.7%
Actuarially Determined Employer Contribution	\$10.18	\$8.91	\$9.68	\$10.46	\$11.26	\$12.08
Increase/(Decrease)		(\$1.27)	(\$0.51)	\$0.28	\$1.08	\$1.89

Mortality

Current Basis:

RP-2014 Adjusted to 2006 Total Dataset Mortality Table, projected to the valuation date with Scale MP-2019.

Comment:

We recommend updating the table to be consistent with the latest published public mortality study released by the Society of Actuaries. In addition, since Class B actual mortality was greater than expected, we recommend a 2-year set forward of rates for this group.

Recommendation:

Class A: Pub-2010 Public Retirement Plans Amount-Weighted Mortality Tables for Public Safety employees, for non-annuitants and annuitants, projected to the valuation date with Scale MP-2020.

Class B: Pub-2010 Public Retirement Plans Amount-Weighted Mortality Tables for General employees, for non-annuitants and annuitants, projected to the valuation date with Scale MP-2020, set forward 2 years.

Mortality improvement

Current Basis:

Projected to date of decrement using Scale MP-2019 (generational mortality).

Comment:

We recommend updating the table to be consistent with a more recently published mortality study released by the Society of Actuaries.

Recommendation:

Projected to date of decrement using Scale MP-2020 (generational mortality).

Retirement rates

Current Basis:

Class A		Class B	
Age	Rate	Age	Rate
45-46	15%	55-59	5%
47-48	30%	60	10%
49-51	5%	61	15%
52	18%	62	20%
53-59	20%	63-65	25%
60	100%	66	20%
		67	25%
		68	20%
		69	25%
		70	100%

Comment:

Class A retirement experience suggests a change to a table based on years of service, rather than age. Class B retirement experience indicates that participants are retiring later than expected, on average.

Recommendation:

Change to service-based rates for Class A, and extend the age-based rates for Class B to age 75. The proposed rates of retirement are as follows:

Class A

Completed Years of Service	Rate
<15	0%
15-18	5%
19	15%
20-23	25%
24	30%
25	75%
26-29	50%
30-34	75%
35+	100%

Compulsory retirement is assumed at age 60.

Retirement rates (cont.)

Class B

Age	Rate
55-59	5.0%
60	7.5%
61	12.5%
62	18.0%
63	22.5%
64-65	25.0%
66-69	30.0%
70-74	50.0%
75+	100.0%

Termination prior to retirement

Current Basis:

Class A	
Sample Rates	
Age	Rate
20	14.0%
25	7.0%
30	6.0%
35	6.0%
40	5.0%
45	4.0%
50	3.0%
55	0.0%

Class B		
Sample Rates		
Years of Service		
Age	0-2	3+
20	27.5%	15.0%
25	27.5%	15.0%
30	22.0%	12.0%
35	22.0%	10.0%
40	16.5%	4.0%
45	16.5%	4.0%
50	16.5%	4.0%
55	16.5%	4.0%
60	16.5%	4.0%
65	16.5%	4.0%
70	0.0%	0.0%

Comment:

Experience suggests a change to a table with age-based rates for Class A, and also shows that members in this group generally do not terminate after attainment of 10 years of service. Although a select and ultimate termination table continues to be appropriate for Class B, the current rates should be updated.

Termination prior to retirement (cont.)

Recommendation:

Class A

Completed Years of Service	Rate
<1	8.0%
1	7.0%
2	6.0%
7	5.0%
8	4.5%
9	4.0%
10+	0.0%

Class B: 100% of the Vaughn Select & Ultimate Withdrawal Table for service prior to 3 years, and 130% of the Vaughn Select & Ultimate Withdrawal Table thereafter.

Sample rates

Age	Completed Years of Service			
	0	1	2	3+
20	29.8%	25.0%	21.0%	24.18%
25	27.8%	22.5%	18.5%	17.68%
30	25.8%	20.0%	16.0%	13.13%
35	23.8%	17.8%	13.8%	10.27%
40	21.8%	15.8%	11.8%	8.45%
45	19.8%	14.1%	10.1%	7.15%
50	17.8%	12.6%	8.6%	5.85%
55	0.0%	0.0%	0.0%	0.00%

Disability

Current Basis:

Class A		Class B	
Age	Rate	Age	Rate
20	0.20%	20	0.08%
25	0.24%	25	0.09%
30	0.29%	30	0.12%
35	0.38%	35	0.14%
40	0.50%	40	0.20%
45	0.74%	45	0.29%
50	1.25%	50	0.49%
55	0.00%	55	0.90%
		60	1.73%
		65	0.00%

Comment:

Experience for both groups indicates that there were fewer disabilities than expected and that lower assumed rates at all ages will provide a better estimate of future plan experience.

Recommendation:

Class A: 1985 Pension Disability Study Class 2 Table for Males and Females.

Class B: 1985 Pension Disability Study Class 1 Table for Males and Females.

Inflation

Current Basis:

2.75%.

Comment:

We recommend updating the assumption to be consistent with the Social Security’s best estimate of the ultimate long-term (75-year horizon) annual percentage increase in CPI, as published in the 2020 OASDI Trustees Report.

Recommendation:

We recommend that the assumption be lowered to 2.40%.

COLAs

Current Basis:

Cost of living increases averaging 3% per year were assumed. For employees retiring after July 1, 2017, cost of living increases were capped at 2.75%.

Comment:

We recommend that this assumption be consistent with the recommended inflation assumption.

Recommendation:

We recommend that the assumption be lowered to 2.40%.

Rate of compensation increase (including inflation)

Graded scale (sample rates shown below):

Age	Class A&B
25	8.8%
30	7.0%
35	5.6%
40	4.9%
45	4.6%
50	4.3%
55	4.0%
59	3.9%
60	3.9%
65	3.8%
69	3.8%

Comment:

Plan experience suggests a change to rates based on years of service, rather than age. Also, current long-term capital market assumptions suggest a change to the inflation assumption, from 2.75% to 2.40%.

Recommendation:

Adopt tables shown below, which include an updated long-term inflation assumption of 2.40% for all groups.

Class A

Completed Years of Service	Rate
<1	10.0%
1	8.5%
2	7.3%
3	6.3%
4	5.9%
5	5.6%
6	5.4%
7	5.2%
8	5.0%
9	4.8%
10	4.7%
11	4.6%
12	4.5%
13	4.4%
14	4.3%
15	4.2%
16	4.0%
17	3.8%
18	3.7%
19	3.6%
20+	3.5%

Class B

Completed Years of Service	Rate
<1	6.6%
1	6.0%
2	5.5%
3	5.1%
4	4.9%
5	4.7%
6	4.5%
7	4.4%
8	4.3%
9	4.3%
10	4.2%
11	4.2%
12	4.1%
13	4.0%
14	3.9%
15	3.8%
16	3.8%
17	3.8%
18	3.7%
19	3.6%
20+	3.5%

Payroll growth

Current Basis:

3.50%.

Comment:

We suggest that this assumption be lowered, consistent with the recommendation to lower the inflation assumption.

Recommendation:

We recommend that the assumption be lowered to 3.00%.

COLA (benefit accrual rate) election

Current Basis:

For both Class A and Class B, 85% of retiring members are assumed to elect the no COLA benefit accrual rate and 15% of retiring members are assumed to elect the full COLA benefit accrual rate.

Comment:

See Section VI for details.

Recommendation:

For Class A, retain the current assumption. Change the Class B assumption so that 75% of retiring members are assumed to elect the no COLA benefit accrual rate and 25% of retiring members are assumed to elect the full COLA benefit accrual rate.

Investment return and investment expenses

Current Basis:

7.50% per year, net of investment-related and administrative expenses.

Comment:

See Section VII for details.

Recommendation:

Based on updated capital market assumptions (H&H Investment Advisors, 2019), we recommend that the current 7.50% assumption be reduced to 7.00% or lower. However, the final assumed long-term rate of return should be selected in consultation with the plan's investment advisor.

Actuarial Certification

This report presents the results of the 2021 Experience Study of Sample Municipality and the pro forma impact that our recommendations for changes in assumptions have on the July 1, 2020 Actuarial Valuation results. It also provides the support for our recommendations. This report may not be appropriate for any other purpose.

The valuation results present in this report have been calculated in accordance with generally accepted actuarial principles and practices. I certify that the actuarial assumptions and methods were selected by me and represent my best estimate of anticipated actuarial experience under the plan.

In preparing all related valuation results, I have relied on employee data provided by the City and on asset and contribution information also provided by the City. I have not audited the employee data or the financial information, although I have reviewed them for reasonableness.

The results in this report are based on the Plan as summarized in the July 1, 2020 Actuarial Valuation Report and unless otherwise specified in this report the actuarial assumptions and methods detailed in that same report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

The signing actuary is independent of the Plan Sponsor. I am not aware of any relationship that would impact the objectivity of my work.

I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

Consultant Name, FSA, MAAA
Enrolled Actuary 20-00000

April 8, 2021

Exhibit A – Pro Forma Impact on Actuarial Valuation Results

Total

	\$ millions					
Investment Return	7.50%	7.50%	7.25%	7.00%	6.75%	6.50%
Other Assumptions	Current	Proposed	Proposed	Proposed	Proposed	Proposed
Present Value of Benefits - Actives	\$135.1	\$129.9	\$135.6	\$141.8	\$148.3	\$155.3
Present Value of Benefits - Inactives	\$161.3	\$156.3	\$159.7	\$163.1	\$166.8	\$170.5
Present Value of Benefits - Total	\$296.4	\$286.2	\$295.3	\$304.9	\$315.1	\$325.8
Increase/(Decrease)		(\$10.2)	(\$1.1)	\$8.5	\$18.6	\$29.4
Actuarial Accrued Liability - Actives	\$91.1	\$86.4	\$89.5	\$92.6	\$95.9	\$99.4
Actuarial Accrued Liability - Inactives	\$161.3	\$156.3	\$159.7	\$163.1	\$166.8	\$170.5
Actuarial Accrued Liability - Total	\$252.4	\$242.8	\$249.1	\$255.8	\$262.7	\$270.0
Increase/(Decrease)		(\$9.6)	(\$3.3)	\$3.3	\$10.3	\$17.5
Actuarial Value of Assets	\$183.8	\$183.8	\$183.8	\$183.8	\$183.8	\$183.8
Increase/(Decrease)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Funded Ratio	72.8%	75.7%	73.8%	71.9%	70.0%	68.1%
Increase/(Decrease)		2.9%	1.0%	-1.0%	-2.9%	-4.7%
Actuarially Determined Employer Contribution	\$10.18	\$8.91	\$9.68	\$10.46	\$11.26	\$12.08
Increase/(Decrease)		(\$1.27)	(\$0.51)	\$0.28	\$1.08	\$1.89

Exhibit A – Pro Forma Impact on Actuarial Valuation Results

Class A

	\$ millions					
Investment Return	7.50%	7.50%	7.25%	7.00%	6.75%	6.50%
Other Assumptions	Current	Proposed	Proposed	Proposed	Proposed	Proposed
Present Value of Benefits - Actives	\$54.7	\$57.2	\$60.2	\$63.4	\$66.7	\$70.4
Present Value of Benefits - Inactives	\$80.1	\$78.7	\$80.5	\$82.3	\$84.2	\$86.2
Present Value of Benefits - Total	\$134.9	\$136.0	\$140.7	\$145.7	\$151.0	\$156.6
Increase/(Decrease)		\$1.1	\$5.8	\$10.8	\$16.1	\$21.7
Actuarial Accrued Liability - Actives	\$35.4	\$35.2	\$36.5	\$37.9	\$39.4	\$40.9
Actuarial Accrued Liability - Inactives	\$80.1	\$78.7	\$80.5	\$82.3	\$84.2	\$86.2
Actuarial Accrued Liability - Total	\$115.6	\$113.9	\$117.0	\$120.2	\$123.6	\$127.2
Increase/(Decrease)		(\$1.6)	\$1.5	\$4.7	\$8.1	\$11.6
Actuarial Value of Assets	\$78.6	\$78.6	\$78.6	\$78.6	\$78.6	\$78.6
Increase/(Decrease)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Funded Ratio	68.0%	69.0%	67.2%	65.4%	63.6%	61.8%
Increase/(Decrease)		1.0%	-0.9%	-2.6%	-4.4%	-6.2%
Actuarially Determined Employer Contribution	\$4.81	\$4.74	\$5.11	\$5.49	\$5.87	\$6.27
Increase/(Decrease)		(\$0.06)	\$0.30	\$0.68	\$1.07	\$1.46

Exhibit A – Pro Forma Impact on Actuarial Valuation Results

Class B

	\$ millions					
Investment Return	7.50%	7.50%	7.25%	7.00%	6.75%	6.50%
Other Assumptions	Current	Proposed	Proposed	Proposed	Proposed	Proposed
Present Value of Benefits - Actives	\$80.4	\$72.6	\$75.4	\$78.4	\$81.6	\$84.9
Present Value of Benefits - Inactives	\$81.2	\$77.6	\$79.2	\$80.8	\$82.5	\$84.3
Present Value of Benefits - Total	\$161.5	\$150.2	\$154.6	\$159.2	\$164.1	\$169.2
Increase/(Decrease)		(\$11.3)	(\$6.9)	(\$2.3)	\$2.5	\$7.6
Actuarial Accrued Liability - Actives	\$55.7	\$51.2	\$52.9	\$54.7	\$56.6	\$58.5
Actuarial Accrued Liability - Inactives	\$81.2	\$77.6	\$79.2	\$80.8	\$82.5	\$84.3
Actuarial Accrued Liability - Total	\$136.9	\$128.8	\$132.1	\$135.5	\$139.1	\$142.8
Increase/(Decrease)		(\$8.0)	(\$4.8)	(\$1.3)	\$2.2	\$5.9
Actuarial Value of Assets	\$105.2	\$105.2	\$105.2	\$105.2	\$105.2	\$105.2
Increase/(Decrease)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Funded Ratio	76.9%	81.7%	79.7%	77.7%	75.7%	73.7%
Increase/(Decrease)		4.8%	2.8%	0.8%	-1.2%	-3.2%
Actuarially Determined Employer Contribution	\$5.38	\$4.17	\$4.57	\$4.98	\$5.39	\$5.81
Increase/(Decrease)		(\$1.21)	(\$0.81)	(\$0.40)	\$0.01	\$0.43

Exhibit B – Section I – Mortality Rates

Actual 2015-2020 Experience Compared to Current Assumption

Class A

Age	# of Lives	Actual Deaths	Expected Deaths	Actual %	Expected %	Ratio: Actual over Expected
<55	188	1	0.4	0.53%	0.23%	227.27%
55-59	134	1	0.6	0.75%	0.46%	161.29%
60-64	114	1	1.0	0.88%	0.83%	105.26%
65-69	141	2	1.9	1.42%	1.37%	103.63%
70-74	80	1	1.8	1.25%	2.25%	55.56%
75-79	22	0	0.9	0.00%	3.91%	0.00%
80-84	20	1	1.4	5.00%	6.85%	72.99%
85-89	11	1	1.2	9.09%	11.09%	81.97%
90+	1	0	0.2	0.00%	16.00%	0.00%
Grand Total	711	8	9.4	1.13%	1.32%	85.56%

Exhibit B – Section I – Mortality Rates

Actual 2015-2020 Experience Compared to Proposed Assumption

Class A

Age	# of Lives	Actual Deaths	Expected Deaths	Actual %	Expected %	Ratio:
						Actual over Expected
<55	188	1	0.7	0.53%	0.37%	144.93%
55-59	134	1	0.9	0.75%	0.66%	112.36%
60-64	114	1	1.1	0.88%	0.95%	92.59%
65-69	141	2	1.9	1.42%	1.36%	104.17%
70-74	80	1	1.7	1.25%	2.09%	59.88%
75-79	22	0	0.8	0.00%	3.45%	0.00%
80-84	20	1	1.2	5.00%	6.10%	81.97%
85-89	11	1	1.1	9.09%	10.00%	90.91%
90+	1	0	0.2	0.00%	15.00%	0.00%
Grand Total	711	8	9.5	1.13%	1.33%	84.39%

Recommendation:

We recommend updating the table to be consistent with a more recently published mortality study released by the Society of Actuaries.

Exhibit B – Section I – Mortality Rates

Actual 2015-2020 Experience Compared to Current Assumption

Class B

Age	# of Lives	Actual Deaths	Expected Deaths	Actual %	Expected %	Ratio: Actual over Expected
<55	0	0	0.0	0.00%	0.00%	0.00%
55-59	77	1	0.3	1.30%	0.44%	294.12%
60-64	241	1	1.9	0.41%	0.79%	52.36%
65-69	517	13	6.4	2.51%	1.24%	202.49%
70-74	329	6	6.9	1.82%	2.09%	87.34%
75-79	229	10	8.2	4.37%	3.57%	122.25%
80-84	153	9	9.0	5.88%	5.86%	100.45%
85-89	55	6	5.3	10.91%	9.64%	113.21%
90+	21	4	3.3	19.05%	15.76%	120.85%
Grand Total	1,622	50	41.3	3.08%	2.55%	121.09%

Exhibit B – Section I – Mortality Rates

Actual 2015-2020 Experience Compared to Proposed Assumption

Class B

Age	# of Lives	Actual Deaths	Expected Deaths	Actual %	Expected %	Ratio: Actual over Expected
<55	0	0	0.0	0.00%	0.00%	0.00%
55-59	77	1	0.5	1.30%	0.70%	185.19%
60-64	241	1	2.5	0.41%	1.05%	39.37%
65-69	517	13	7.7	2.51%	1.48%	169.49%
70-74	329	6	7.7	1.82%	2.33%	78.43%
75-79	229	10	9.0	4.37%	3.93%	110.99%
80-84	153	9	10.2	5.88%	6.67%	88.15%
85-89	55	6	6.2	10.91%	11.31%	96.46%
90+	21	4	4.0	19.05%	18.81%	101.27%
Grand Total	1,622	50	47.8	3.08%	2.95%	104.62%

Recommendation:

We recommend updating the table to be consistent with a more recently published mortality study released by the Society of Actuaries. In addition, since Class B actual mortality was greater than expected, we recommend a 2-year set forward of rates for this group.

Exhibit B – Section II – Retirement Rates

Actual 2015-2020 Experience Compared to Current Assumption

Class A

Service	# of Lives	Actual Retirements	Expected Retirements	Ratio:		
				Actual %	Expected %	Actual over Expected
<15	51	0	6.9	0.00%	13.49%	0.00%
15	16	1	2.1	6.25%	12.81%	48.78%
16	14	1	2.4	7.14%	16.79%	42.55%
17	17	0	3.1	0.00%	18.24%	0.00%
18	16	1	2.7	6.25%	17.06%	36.63%
19	12	2	2.4	16.67%	19.67%	84.75%
20	14	3	1.8	21.43%	12.86%	166.67%
21	9	4	0.8	44.44%	8.89%	500.00%
22	9	4	1.4	44.44%	15.56%	285.71%
23	9	1	1.6	11.11%	17.22%	64.52%
24	10	3	2.2	30.00%	21.80%	137.61%
25	8	6	1.8	75.00%	21.88%	342.86%
26	5	1	1.7	20.00%	33.00%	60.61%
27	4	3	1.7	75.00%	41.25%	181.82%
28	1	1	0.2	100.00%	15.00%	666.67%
29	1	0	0.2	0.00%	15.00%	0.00%
30	1	1	0.2	100.00%	18.00%	555.56%
31	0	0	0.0	0.00%	0.00%	0.00%
32	1	1	1.0	100.00%	100.00%	100.00%
33	1	1	0.2	100.00%	20.00%	500.00%
34	0	0	0.0	0.00%	0.00%	0.00%
35+	2	1	2.0	50.00%	100.00%	50.00%
Grand Total	201	35	35.9	17.41%	17.88%	97.41%

Exhibit B – Section II – Retirement Rates

Actual 2015-2020 Experience Compared to Proposed Assumption

Class A

Service	# of Lives	Actual Retirements	Expected Retirements	Ratio:		
				Actual %	Expected %	Actual over Expected
<15	51	0	0.0	0.00%	0.00%	0.00%
15	16	1	0.8	6.25%	5.00%	125.00%
16	14	1	0.7	7.14%	5.00%	142.86%
17	17	0	1.8	0.00%	10.59%	0.00%
18	16	1	0.8	6.25%	5.00%	125.00%
19	12	2	1.8	16.67%	15.00%	111.11%
20	14	3	3.5	21.43%	25.00%	85.71%
21	9	4	2.3	44.44%	25.00%	177.78%
22	9	4	2.3	44.44%	25.00%	177.78%
23	9	1	2.3	11.11%	25.00%	44.44%
24	10	3	3.0	30.00%	30.00%	100.00%
25	8	6	6.0	75.00%	75.00%	100.00%
26	5	1	3.0	20.00%	60.00%	33.33%
27	4	3	2.5	75.00%	62.50%	120.00%
28	1	1	0.5	100.00%	50.00%	200.00%
29	1	0	0.5	0.00%	50.00%	0.00%
30	1	1	0.8	100.00%	75.00%	133.33%
31	0	0	0.0	0.00%	0.00%	0.00%
32	1	1	1.0	100.00%	100.00%	100.00%
33	1	1	0.8	100.00%	75.00%	133.33%
34	0	0	0.0	0.00%	0.00%	0.00%
35+	2	1	2.0	50.00%	100.00%	50.00%
Grand Total	201	35	36.2	17.41%	17.99%	96.82%

Recommendation:

The proposed table was developed from the actual retirements from 2015-2020 and has rates that are based on service. Our recommendation is to adopt the proposed table.

Exhibit B – Section II – Retirement Rates

Actual 2015-2020 Experience Compared to Current Assumption

Class B

Age	# of Lives	Actual Retirements	Expected Retirements	Actual %	Expected %	Ratio: Actual over Expected
55	94	4	4.7	4.26%	5.00%	85.11%
56	94	6	4.7	6.38%	5.00%	127.66%
57	85	6	4.3	7.06%	5.00%	141.18%
58	78	5	3.9	6.41%	5.00%	128.21%
59	77	5	3.9	6.49%	5.00%	129.87%
60	75	4	7.5	5.33%	10.00%	53.33%
61	85	7	12.8	8.24%	15.00%	54.90%
62	74	12	14.8	16.22%	20.00%	81.08%
63	70	14	17.5	20.00%	25.00%	80.00%
64	61	17	15.3	27.87%	25.00%	111.48%
65	41	10	10.3	24.39%	25.00%	97.56%
66	31	13	6.2	41.94%	20.00%	209.68%
67	16	5	4.0	31.25%	25.00%	125.00%
68	8	2	1.6	25.00%	20.00%	125.00%
69	6	2	1.5	33.33%	25.00%	133.33%
70	2	0	2.0	0.00%	100.00%	0.00%
71	4	0	4.0	0.00%	100.00%	0.00%
72	4	0	4.0	0.00%	100.00%	0.00%
73	4	0	4.0	0.00%	100.00%	0.00%
74	4	2	4.0	50.00%	100.00%	50.00%
75+	20	3	20.0	15.00%	100.00%	15.00%
Grand Total	933	117	150.8	12.54%	16.16%	77.61%

Exhibit B – Section II – Retirement Rates

Actual 2015-2020 Experience Compared to Proposed Assumption

Class B

Age	# of Lives	Actual Retirements	Expected Retirements	Actual %	Expected %	Ratio: Actual over Expected
55	94	4	4.7	4.26%	5.00%	85.11%
56	94	6	4.7	6.38%	5.00%	127.66%
57	85	6	4.3	7.06%	5.00%	141.18%
58	78	5	3.9	6.41%	5.00%	128.21%
59	77	5	3.9	6.49%	5.00%	129.87%
60	75	4	5.6	5.33%	7.50%	71.11%
61	85	7	10.6	8.24%	12.50%	65.88%
62	74	12	13.3	16.22%	18.00%	90.09%
63	70	14	15.8	20.00%	22.50%	88.89%
64	61	17	15.3	27.87%	25.00%	111.48%
65	41	10	10.3	24.39%	25.00%	97.56%
66	31	13	9.3	41.94%	30.00%	139.78%
67	16	5	4.8	31.25%	30.00%	104.17%
68	8	2	2.4	25.00%	30.00%	83.33%
69	6	2	1.8	33.33%	30.00%	111.11%
70	2	0	1.0	0.00%	50.00%	0.00%
71	4	0	2.0	0.00%	50.00%	0.00%
72	4	0	2.0	0.00%	50.00%	0.00%
73	4	0	2.0	0.00%	50.00%	0.00%
74	4	2	2.0	50.00%	50.00%	100.00%
75+	20	3	20.0	15.00%	100.00%	15.00%
Grand Total	933	117	139.5	12.54%	14.95%	83.86%

Recommendation:

The proposed table was developed from the actual retirements from 2015-2020 and has rates that extend to age 75. Our recommendation is to adopt the proposed table.

Exhibit B – Section III – Turnover Rates

Actual 2015-2020 Experience Compared to Current Assumption

Class A

Service	# of Lives	Actual Terminations	Expected Terminations	Actual %	Expected %	Ratio: Actual over Expected
0	28	2	2.1	7.14%	7.46%	95.69%
1	74	6	5.2	8.11%	7.07%	114.72%
2	60	3	4.1	5.00%	6.75%	74.07%
3	57	1	3.7	1.75%	6.40%	27.40%
4	51	6	3.1	11.76%	6.14%	191.69%
5	46	1	2.8	2.17%	6.02%	36.10%
6	39	2	2.3	5.13%	5.95%	86.21%
7	35	1	2.1	2.86%	5.94%	48.08%
8	34	3	2.0	8.82%	5.85%	150.75%
9	26	1	1.5	3.85%	5.77%	66.67%
10+	222	1	11.8	0.45%	5.31%	8.48%
Grand Total	672	27	40.6	4.02%	6.04%	66.50%

Exhibit B – Section III – Turnover Rates

Actual 2015-2020 Experience Compared to Proposed Assumption

Class A

Service	# of Lives	Actual Terminations	Expected Terminations	Actual %	Expected %	Ratio: Actual over Expected
0	28	2	2.2	7.14%	8.00%	89.29%
1	74	6	5.2	8.11%	7.00%	115.83%
2	60	3	3.6	5.00%	6.00%	83.33%
3	57	1	3.4	1.75%	6.00%	29.24%
4	51	6	3.1	11.76%	6.00%	196.08%
5	46	1	2.8	2.17%	6.00%	36.23%
6	39	2	2.3	5.13%	6.00%	85.47%
7	35	1	1.8	2.86%	5.00%	57.14%
8	34	3	1.5	8.82%	4.50%	196.08%
9	26	1	1.0	3.85%	4.00%	96.15%
10	222	1	0.0	0.45%	0.00%	0.00%
Grand Total	672	27	26.9	4.02%	4.01%	100.30%

Recommendation:

Actual experience from 2015-2020 suggests that employees generally do not terminate after attainment of 10 years of service.

Our recommendation is to adopt a revised table that does not assume any terminations for 10 years of service or later.

Exhibit B – Section III – Turnover Rates

Actual 2015-2020 Experience Compared to Current Assumption

Class B

Service	Age	# of Lives	Actual		Expected		Ratio:
			Terminations	Actual %	Terminations	Expected %	Actual over Expected
<3	<25	61	11	18.03%	16.1	26.44%	68.20%
	25-29	202	51	25.25%	47.0	23.25%	108.58%
	30-34	150	26	17.33%	29.5	19.64%	88.26%
	35-39	126	22	17.46%	21.7	17.18%	101.62%
	40-44	133	17	12.78%	18.6	13.95%	91.59%
	45-49	142	19	13.38%	19.0	13.41%	99.79%
	50-54	110	13	11.82%	14.7	13.32%	88.74%
	Subtotal	924	159	17.21%	166.5	18.02%	95.52%
3+	<25	5	0	0.00%	0.8	15.00%	0.00%
	25-29	51	6	11.76%	6.9	13.55%	86.83%
	30-34	144	15	10.42%	15.9	11.05%	94.28%
	35-39	201	18	8.96%	15.4	7.67%	116.73%
	40-44	215	17	7.91%	8.6	4.00%	197.44%
	45-49	328	16	4.88%	13.1	4.00%	121.86%
	50-54	485	24	4.95%	19.4	4.00%	123.71%
	Subtotal	1,429	96	6.72%	80.1	5.61%	119.81%
Total	<25	66	11	16.67%	16.9	25.58%	65.17%
	25-29	253	57	22.53%	53.9	21.30%	105.79%
	30-34	294	41	13.95%	45.4	15.43%	90.37%
	35-39	327	40	12.23%	37.1	11.34%	107.90%
	40-44	348	34	9.77%	27.2	7.81%	125.14%
	45-49	470	35	7.45%	32.2	6.84%	108.80%
	50-54	595	37	6.22%	34.1	5.72%	108.66%
Grand Total		2,353	255	10.84%	246.6	10.48%	103.41%

Exhibit B – Section III – Turnover Rates

Actual 2015-2020 Experience Compared to Proposed Assumption

Class B

Service	Age	# of Lives	Actual		Expected		Ratio:
			Terminations	Actual %	Terminations	Expected %	Actual over Expected
<3	<25	58	10	17.24%	13.6	23.38%	73.75%
	25-29	163	41	25.15%	34.2	20.98%	119.92%
	30-34	117	20	17.09%	21.9	18.73%	91.28%
	35-39	99	19	19.19%	16.8	16.97%	113.10%
	40-44	106	12	11.32%	16.0	15.06%	75.19%
	45-49	107	13	12.15%	14.0	13.12%	92.59%
	50-54	82	8	9.76%	9.5	11.57%	84.30%
	Subtotal	732	123	16.80%	126.0	17.21%	97.66%
3+	<25	8	1	12.50%	1.6	20.13%	62.11%
	25-29	90	16	17.78%	13.7	15.18%	117.13%
	30-34	177	21	11.86%	20.8	11.75%	101.01%
	35-39	228	21	9.21%	21.5	9.41%	97.90%
	40-44	242	22	9.09%	19.1	7.89%	115.24%
	45-49	363	22	6.06%	24.0	6.61%	91.67%
	50-54	513	29	5.65%	27.2	5.30%	106.66%
	Subtotal	1,621	132	8.14%	127.8	7.88%	103.29%
Total	<25	66	11	16.67%	15.2	22.98%	72.51%
	25-29	253	57	22.53%	47.9	18.91%	119.12%
	30-34	294	41	13.95%	42.7	14.52%	96.02%
	35-39	327	40	12.23%	38.3	11.70%	104.58%
	40-44	348	34	9.77%	35.1	10.07%	97.00%
	45-49	470	35	7.45%	38.0	8.09%	92.01%
	50-54	595	37	6.22%	36.7	6.16%	100.87%
Grand Total		2,353	255	10.84%	253.7	10.78%	100.50%

Recommendation:

Actual experience from 2015-2020 suggests that the current assumption should remain a select and ultimate table but that the assumed rates should be updated. We recommend adopting 100% of the Vaughn Select & Ultimate Withdrawal Table for service prior to 3 years and 130% of the Vaughn Select & Ultimate Withdrawal Table thereafter.

Exhibit B – Section IV – Disability Rates

Actual 2015-2020 Experience Compared to Current Assumption

Class A

Age	# of Lives	Actual Disabilities	Expected Disabilities	Actual %	Expected %	Ratio: Actual over Expected
<25	41	0	0.1	0.00%	0.22%	0.00%
25-29	148	0	0.4	0.00%	0.25%	0.00%
30-34	192	0	0.6	0.00%	0.33%	0.00%
35-39	170	0	0.7	0.00%	0.42%	0.00%
40-44	158	0	0.9	0.00%	0.59%	0.00%
45-49	111	2	1.0	1.80%	0.89%	202.02%
50-54	31	0	0.5	0.00%	1.48%	0.00%
55+	22	0	0.0	0.00%	0.00%	0.00%
Grand Total	873	2	4.2	0.23%	0.48%	47.85%

Exhibit B – Section IV – Disability Rates

Actual 2015-2020 Experience Compared to Proposed Assumption

Class A

Age	# of Lives	Actual Disabilities	Expected Disabilities	Actual %	Expected %	Ratio: Actual over Expected
<25	41	0	0.0	0.00%	0.07%	0.00%
25-29	148	0	0.2	0.00%	0.11%	0.00%
30-34	192	0	0.3	0.00%	0.17%	0.00%
35-39	170	0	0.4	0.00%	0.24%	0.00%
40-44	158	0	0.6	0.00%	0.39%	0.00%
45-49	111	2	0.7	1.80%	0.60%	298.51%
50-54	31	0	0.3	0.00%	0.97%	0.00%
55+	22	0	0.3	0.00%	1.27%	0.00%
Grand Total	873	2	2.8	0.23%	0.32%	71.94%

Recommendation:

The 2015-2020 actual experience shows that there were fewer disabilities than expected. Also, since there was a relatively low number of exposures, a standard disability table should be used.

Our recommendation is to adopt the 1985 Pension Disability Study Class 2 Table for Males and Females.

Exhibit B – Section IV – Disability Rates

Actual 2015-2020 Experience Compared to Current Assumption

Class B

Age	# of Lives	Actual Disabilities	Expected Disabilities	Actual %	Expected %	Ratio:
						Actual over Expected
<25	66	0	0.1	0.00%	0.09%	0.00%
25-29	253	0	0.2	0.00%	0.09%	0.00%
30-34	294	0	0.4	0.00%	0.13%	0.00%
35-39	327	0	0.5	0.00%	0.16%	0.00%
40-44	348	0	0.8	0.00%	0.23%	0.00%
45-49	470	0	1.7	0.00%	0.37%	0.00%
50-54	595	2	3.8	0.34%	0.64%	52.22%
55-59	534	8	6.3	1.50%	1.18%	126.58%
60-64	416	6	10.1	1.44%	2.42%	59.58%
65+	152	0	0.0	0.00%	0.00%	0.00%
Grand Total	3,455	16	23.9	0.46%	0.69%	66.83%

Exhibit B – Section IV – Disability Rates

Actual 2015-2020 Experience Compared to Proposed Assumption

Class B

Age	# of Lives	Actual Disabilities	Expected Disabilities	Actual %	Expected %	Ratio: Actual over Expected
<25	66	0	0.0	0.00%	0.03%	0.00%
25-29	253	0	0.1	0.00%	0.05%	0.00%
30-34	294	0	0.2	0.00%	0.07%	0.00%
35-39	327	0	0.4	0.00%	0.12%	0.00%
40-44	348	0	0.7	0.00%	0.19%	0.00%
45-49	470	0	1.5	0.00%	0.31%	0.00%
50-54	595	2	3.4	0.34%	0.56%	59.70%
55-59	534	8	5.3	1.50%	0.99%	152.09%
60-64	416	6	5.6	1.44%	1.35%	106.76%
65+	152	0	2.0	0.00%	1.28%	0.00%
Grand Total	3,455	16	19.1	0.46%	0.55%	83.90%

Recommendation:

The 2015-2020 actual experience shows that there were fewer disabilities than expected. Also, since there was a relatively low number of exposures, a standard disability table should be used.

Our recommendation is to adopt the 1985 Pension Disability Study Class 1 Table for Males and Females.

Exhibit B – Section V – Rate of Compensation Increase

Actual 2015-2020 Experience Compared to Current Assumption

Class A

Service	# of Lives	Prior Year Salaries	Actual Salaries	Expected Salaries	Ratio: Actual over Expected
<1	94	2,655,845	4,153,024	2,849,486	145.75%
1	57	2,472,592	2,700,812	2,651,319	101.87%
2	56	2,511,525	2,695,271	2,686,533	100.33%
3	45	2,269,816	2,368,425	2,426,620	97.60%
4	45	2,265,473	2,378,355	2,419,897	98.28%
5	37	1,944,949	2,048,564	2,076,282	98.67%
6	34	1,763,918	1,803,233	1,880,735	95.88%
7	32	1,709,079	1,885,243	1,810,979	104.10%
8	26	1,497,457	1,604,637	1,583,415	101.34%
9	29	1,692,072	1,736,561	1,787,949	97.13%
10	33	1,943,942	2,019,895	2,047,719	98.64%
11	38	2,281,761	2,356,212	2,398,506	98.24%
12	41	2,537,625	2,645,430	2,664,540	99.28%
13	46	2,877,443	3,030,364	3,011,441	100.63%
14	38	2,548,945	2,653,251	2,670,699	99.35%
15	36	2,224,902	2,359,122	2,330,758	101.22%
16	33	1,912,379	2,007,974	1,996,205	100.59%
17	26	1,421,334	1,479,561	1,479,741	99.99%
18	16	804,258	853,235	836,711	101.97%
19	12	526,420	547,615	548,641	99.81%
20+	35	979,831	1,027,884	1,017,744	101.00%
Grand Total	809	40,841,566	44,354,668	43,175,920	102.73%

Exhibit B – Section V – Rate of Compensation Increase

Actual 2015-2020 Experience Compared to Proposed Assumption

Class A

Service	# of Lives	Prior Year Salaries	Actual Salaries	Expected Salaries	Ratio: Actual over Expected
<1	94	2,655,845	4,153,024	2,921,429	142.16%
1	57	2,472,592	2,700,812	2,682,762	100.67%
2	56	2,511,525	2,695,271	2,694,866	100.02%
3	45	2,269,816	2,368,424	2,412,815	98.16%
4	45	2,265,473	2,378,355	2,399,136	99.13%
5	37	1,944,949	2,048,564	2,053,866	99.74%
6	34	1,763,918	1,803,233	1,859,170	96.99%
7	32	1,709,079	1,885,243	1,797,951	104.86%
8	26	1,497,457	1,604,637	1,572,330	102.05%
9	29	1,692,072	1,736,561	1,773,291	97.93%
10	33	1,943,942	2,019,895	2,035,307	99.24%
11	38	2,281,761	2,356,212	2,386,722	98.72%
12	41	2,537,625	2,645,430	2,651,818	99.76%
13	46	2,877,443	3,030,364	3,004,051	100.88%
14	38	2,548,945	2,653,251	2,658,550	99.80%
15	36	2,224,902	2,359,122	2,318,348	101.76%
16	33	1,912,379	2,007,974	1,988,875	100.96%
17	26	1,421,334	1,479,561	1,475,345	100.29%
18	16	804,258	853,235	834,015	102.30%
19	12	526,420	547,615	545,371	100.41%
20+	35	979,831	1,027,884	1,014,125	101.36%
Grand Total	809	40,841,566	44,354,667	43,080,143	102.96%

Recommendation:

Plan experience suggests a change to rates based on years of service, rather than age.

Our recommendation is to adopt the proposed merit table, which includes an updated long-term inflation assumption of 2.40%.

Exhibit B – Section V – Rate of Compensation Increase

Actual 2015-2020 Experience Compared to Current Assumption

Class B

Service	# of Lives	Prior Year Salaries	Actual Salaries	Expected Salaries	Ratio: Actual over Expected
<1	456	10,579,447	16,750,669	11,155,549	150.16%
1	242	8,919,844	9,504,853	9,399,191	101.12%
2	190	7,601,278	7,989,931	8,004,783	99.81%
3	163	6,911,001	7,320,631	7,269,646	100.70%
4	145	5,869,801	6,225,283	6,173,749	100.83%
5	144	5,943,054	6,092,295	6,244,222	97.57%
6	129	5,658,733	5,826,517	5,935,108	98.17%
7	117	5,123,520	5,361,936	5,369,059	99.87%
8	108	4,745,805	4,906,755	4,967,797	98.77%
9	102	4,292,151	4,443,586	4,493,832	98.88%
10	95	3,973,410	4,140,768	4,156,111	99.63%
11	85	3,826,279	4,001,284	4,000,796	100.01%
12	88	4,092,975	4,216,673	4,278,089	98.56%
13	88	4,109,096	4,272,289	4,293,760	99.50%
14	81	3,862,962	3,962,622	4,031,591	98.29%
15	72	3,394,080	3,546,706	3,539,559	100.20%
16	72	3,618,283	3,753,550	3,771,369	99.53%
17	62	3,162,535	3,248,638	3,296,018	98.56%
18	53	2,836,916	2,921,970	2,955,849	98.85%
19	43	2,493,360	2,551,421	2,596,688	98.26%
20+	511	25,454,064	26,144,965	26,492,920	98.69%
Grand Total	3,046	126,468,594	137,183,342	132,425,686	103.59%

Exhibit B – Section V – Rate of Compensation Increase

Actual 2015-2020 Experience Compared to Proposed Assumption

Class B

Service	# of Lives	Prior Year Salaries	Actual Salaries	Expected Salaries	Ratio: Actual over Expected
<1	456	10,579,447	16,750,669	11,277,691	148.53%
1	242	8,919,844	9,504,853	9,455,035	100.53%
2	190	7,601,278	7,989,931	8,019,348	99.63%
3	163	6,911,001	7,320,631	7,263,462	100.79%
4	145	5,869,801	6,225,283	6,157,422	101.10%
5	144	5,943,054	6,092,295	6,222,378	97.91%
6	129	5,658,733	5,826,517	5,913,376	98.53%
7	117	5,123,520	5,361,936	5,348,955	100.24%
8	108	4,745,805	4,906,755	4,949,874	99.13%
9	102	4,292,151	4,443,586	4,476,713	99.26%
10	95	3,973,410	4,140,768	4,140,293	100.01%
11	85	3,826,279	4,001,284	3,986,983	100.36%
12	88	4,092,975	4,216,673	4,260,787	98.96%
13	88	4,109,096	4,272,289	4,273,460	99.97%
14	81	3,862,962	3,962,622	4,013,617	98.73%
15	72	3,394,080	3,546,706	3,523,055	100.67%
16	72	3,618,283	3,753,550	3,755,778	99.94%
17	62	3,162,535	3,248,638	3,282,712	98.96%
18	53	2,836,916	2,921,970	2,941,882	99.32%
19	43	2,493,360	2,551,421	2,583,120	98.77%
20+	511	25,454,064	26,144,965	26,344,957	99.24%
Grand Total	3,046	126,468,594	137,183,342	132,190,898	103.78%

Recommendation:

Our recommendation is to adopt the proposed merit table, which includes an updated long-term inflation assumption of 2.40%.

Exhibit B – Section VI – COLA (Benefit Accrual Rate)

For both Class A and Class B, 85% of retiring members are assumed to elect the no COLA benefit accrual rate and 15% of retiring members are assumed to elect the full COLA benefit accrual rate.

For members that retired during the 2015-2020 measurement period, the COLA elected was as follows:

COLA Selection	Class A	Class B
Full COLA	11.1%	34.2%
No COLA	88.9%	65.8%

Recommendation:

We recommend retaining the Class A assumption. We recommend changing the Class B assumption so that 75% of retiring members are assumed to elect the no COLA benefit accrual rate and 25% of retiring members are assumed to elect the full COLA benefit accrual rate.

Exhibit B – Section VII – Investment Return Assumption

Expected Long-Term Return Based on Asset Allocation

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*	Weighting
US Large Cap	30.00%	4.50%	1.35%
US Mid Cap	9.00%	5.00%	0.45%
US Small Cap	9.00%	5.00%	0.45%
MSCI EAFE	10.00%	5.25%	0.53%
MSCI Emerging Markets	10.00%	6.25%	0.63%
Intermediate Government Credit	25.00%	1.50%	0.38%
Real Estate	4.00%	4.50%	0.18%
Private Equity	2.00%	6.25%	0.13%
Cash	1.00%	0.00%	0.00%
	100.00%		4.10%
Long-Term Inflation Expectation			2.40%
Long-Term Expected Nominal Return			6.50%

**Long-Term Expected Real Rates of Return are provided by USI Advisors. The returns are geometric means.*

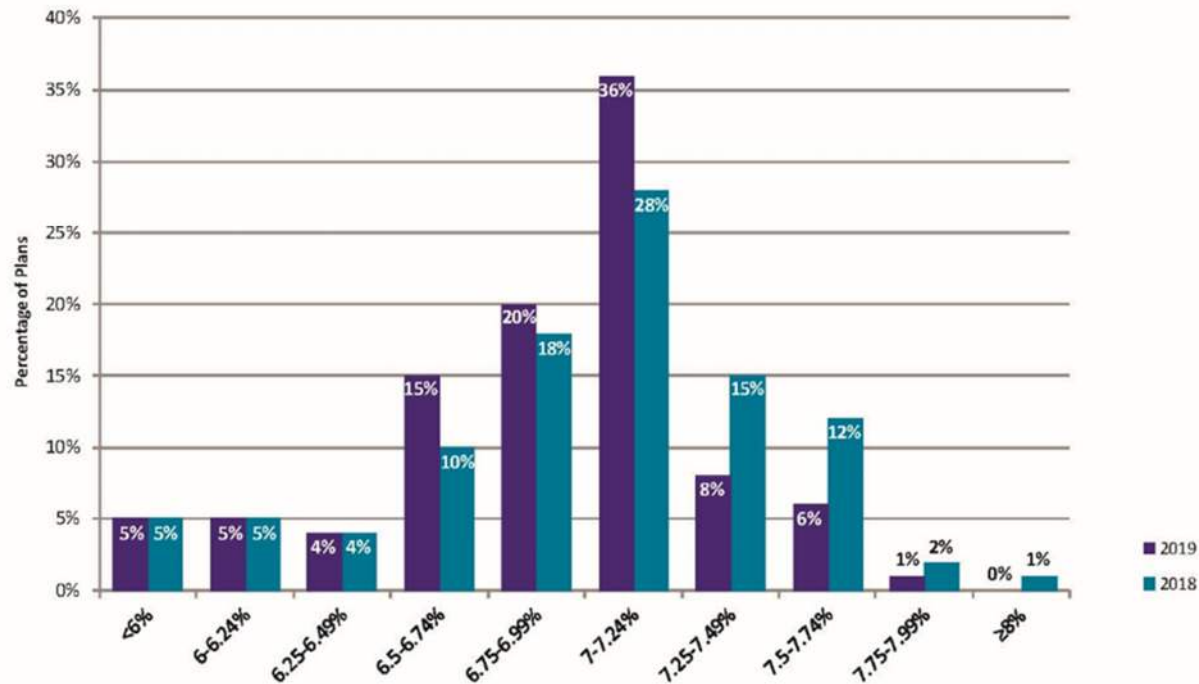
The long-term expected rate of return on pension plan investments was determined using a building block method in which best-estimate ranges of expected future real rates of return are developed. Best estimates of the real rates of return for each major asset class are included in the pension plan's target asset allocation.

The information above is based on geometric means and does not reflect additional returns through investment selection, asset allocation and rebalancing. The results support a rate between 6.50% and 7.00%.

Exhibit B – Section VII – Investment Return Assumption

Survey of Long-Term Rate of Return Assumption, based on FYE 2019 CAFRs*

2019 LTROR Assumption



* This information comes from approximately 200 Connecticut plans that we gathered data on.

Recommendation:

The plan's current asset allocation combined with updated long term capital market expectations (USI Advisors, 2019) that assume 2.40% inflation support an investment return assumption in the range of 6.50% to 7.00%.

As a result, our recommendation is to change the current assumption of 7.50% to 7.00% or lower. However, the final rate should be selected in consultation with the plan's investment advisor.



City of Burlington Employees Retirement System

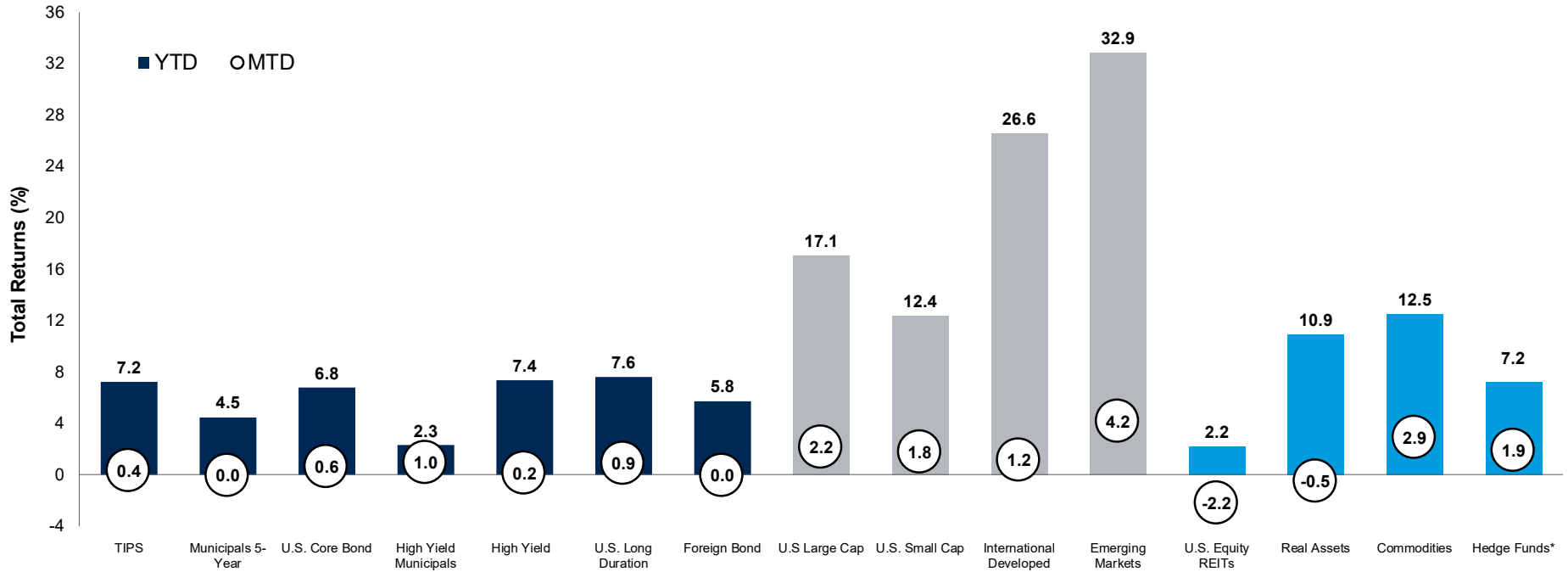
Monthly Performance Update - October 2025

This report is intended for the exclusive use of clients or prospective clients (the "recipient") of Fiducient Advisors and the information contained herein is confidential and the dissemination or distribution to any other person without the prior approval of Fiducient Advisors is strictly prohibited. Information has been obtained from sources believed to be reliable, though not independently verified. Any forecasts are hypothetical and represent future expectations and not actual return volatilities and correlations will differ from forecasts. This report does not represent a specific investment recommendation. The opinions and analysis expressed herein are based on Fiducient Advisor research and professional experience and are expressed as of the date of this report.

Please consult with your advisor, attorney and accountant, as appropriate, regarding specific advice. Past performance does not indicate future performance and there is risk of loss.



Asset Class Performance



Source: Morningstar Direct. As of October 31, 2025. *Hedge fund returns are as of September 30, 2025.

Fixed Income (October)

- + The Federal Reserve continued to cut the Fed Funds rate in October, further reducing the target by 0.25%. Interest rate volatility ticked up during the month, but core fixed income posted a modest gain.
- + Despite a slight widening of credit spreads, high yield bonds were slightly positive in the month. Demand remains robust as all-in yields continue to be elevated.
- + Long duration bonds, which are more interest rate sensitive, benefited from the move lower in rates.

Equity (October)

- + U.S. equity markets were generally positive in the month, with large cap equities besting small cap. Optimism on easing central bank policy and AI helped propel markets even in the face of the U.S. government shutdown.
- + Emerging market equities extended their lead for the calendar year as trade tensions eased with China. Developed regions were positive but lagged emerging counterparts as Europe experienced lackluster growth.

Real Asset / Alternatives (October)

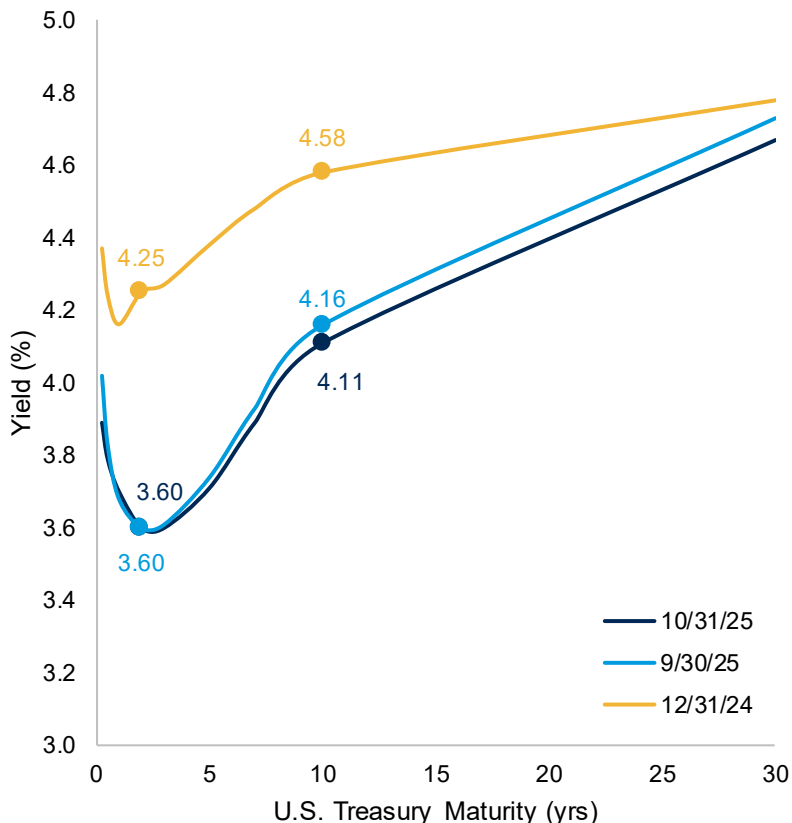
- U.S. equity REITs declined, underperforming most asset classes. A weakening labor market put negative pressure on consumer related areas of the REIT market.
- Real assets declined slightly driven by weakness in global infrastructure and timber related assets.
- + Commodity markets climbed higher, driven by both precious and industrial metals. Gold continued to climb and touched new highs.



Fixed Income Market Update

U.S. Treasury Yield Curve

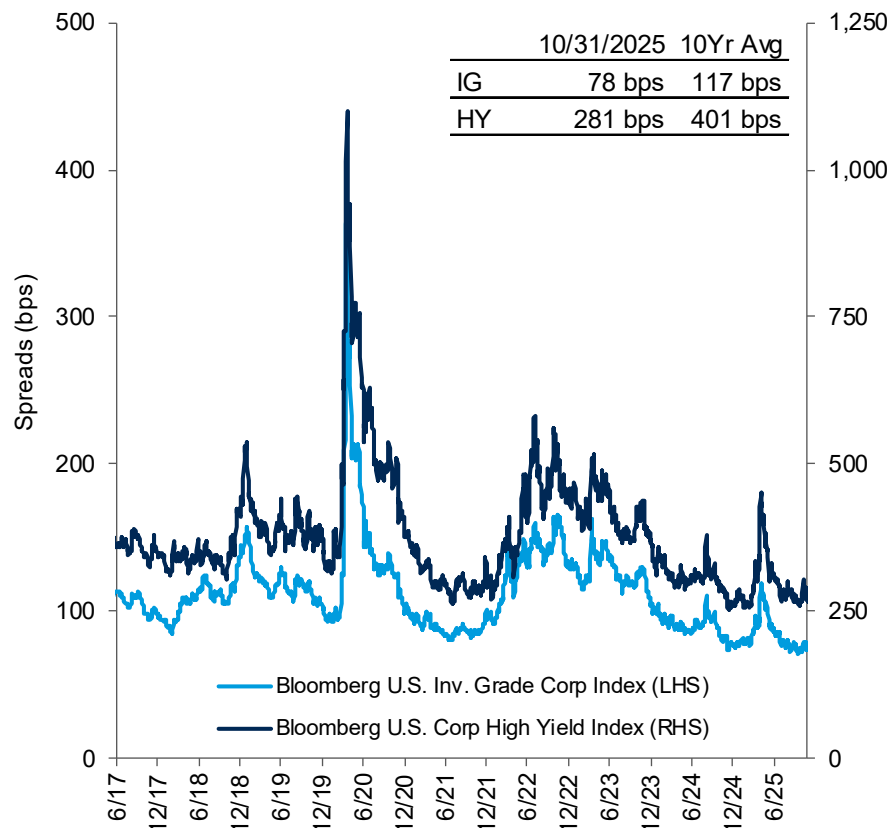
Rate volatility ticked up during the month as markets digested the U.S. government shut down which resulted in delayed economic data reporting. Economic growth remains resilient, but cracks within the labor market have started to emerge. Against this backdrop, rates ultimately moved lower across the curve during the month.



Source: FactSet. As of October 31, 2025.

Corporate Credit Spreads – Trailing 5 Years (October)

Credit spreads moved modestly higher during the month, but corporate bond markets still generated positive returns. Corporate fundamentals remain resilient, and the third quarter earnings season is on pace to see double-digit earnings growth. Valuations in credit remain elevated, with both investment grade and high yield spreads sitting well below long-term averages.



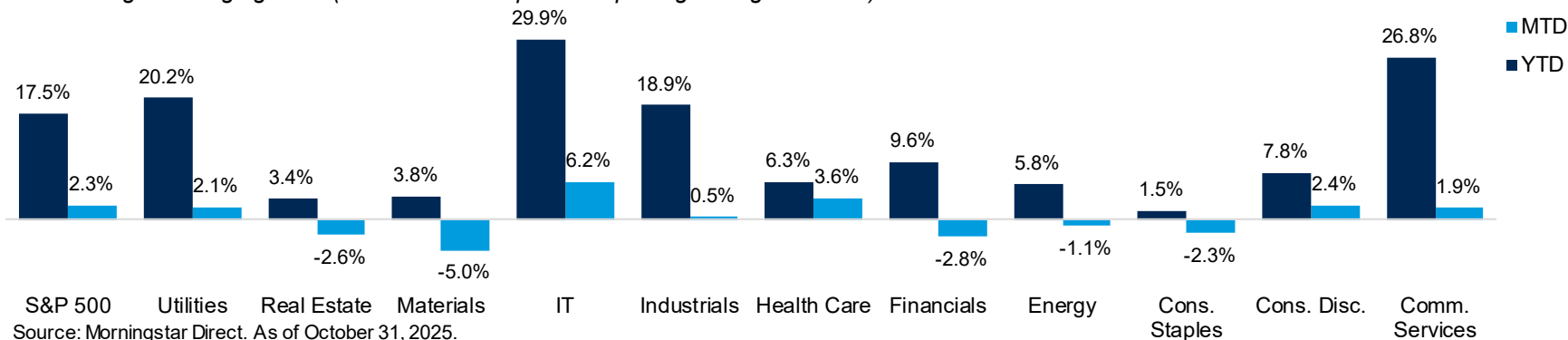
Source: FactSet. As of October 31, 2025.



Equity Market Update

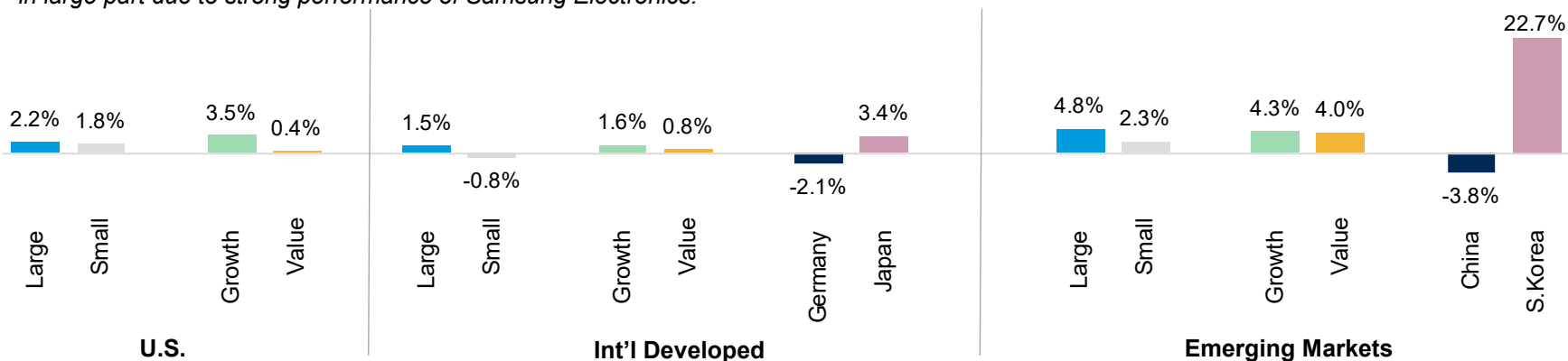
U.S. Equities – Returns by Sector (October)

Equity markets largely shrugged off the U.S. government shutdown during the month and posted modest gains as optimism surrounding AI, easing trade tensions, and a Federal Reserve rate cut buoyed markets. Technology was once again in the spotlight following a strong earnings season and continued enthusiasm for AI. Corporate fundamentals remain resilient, with earnings growth for the S&P 500 on pace for its fourth consecutive quarter of double-digit earnings growth (with 64% of companies reporting through October).



Market Capitalization, Style, and Select Country Performance (October)

Equities around the globe were broadly positive. Growth stocks continued to benefit from the AI optimism and outpaced their value counterparts. Regionally, emerging markets was the standout. South Korea posted double-digit returns during the month, and has gained almost 100% year-to-date, in large part due to strong performance of Samsung Electronics.

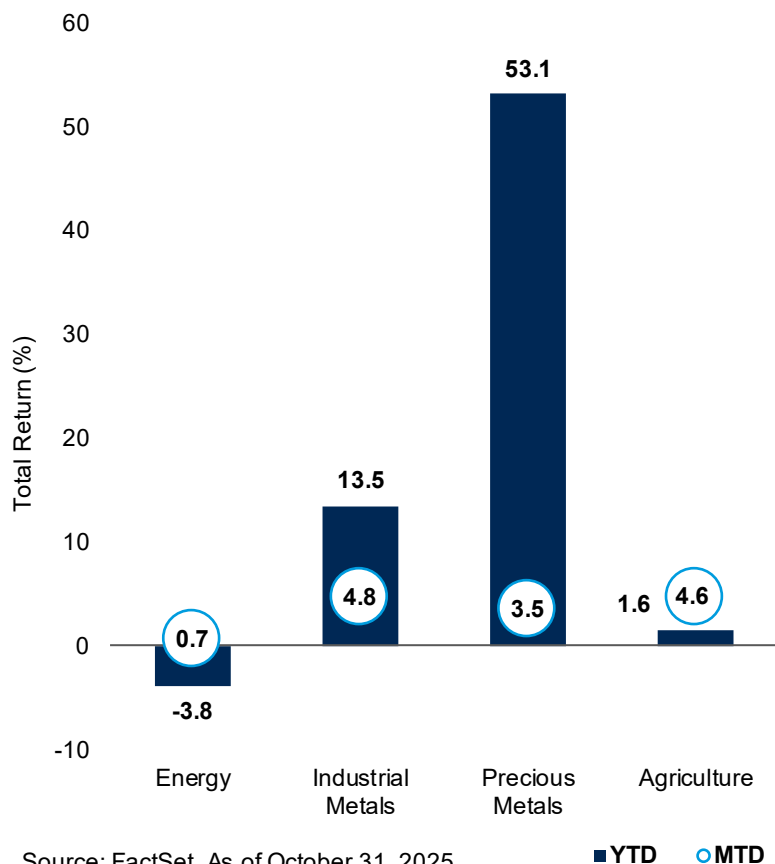




Real Asset Market Update

Commodity Performance (October)

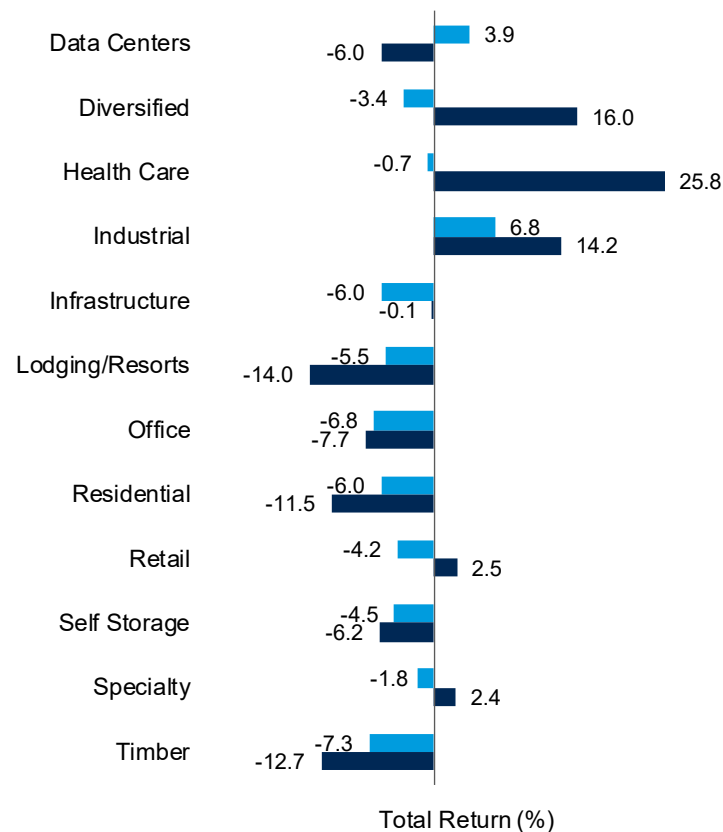
Commodity markets moved higher during the month. Gold touched another all-time high during the period, bringing its year-to-date return past the 50% mark. Energy commodities were modestly positive, despite downward pressure from oil prices.



Source: FactSet. As of October 31, 2025.

REIT Sector Performance (October)

REITs declined in October despite broader equity gains and a Fed rate cut. Despite the cut, a more hawkish tone from the Fed created uncertainty on the timing of future cuts. Fundamentals weakened in lodging, retail, and residential amid softer consumer demand and a weakening labor market.



Source: FactSet. As of October 31, 2025.



Financial Markets Performance

Financial Markets Performance

Total Return as of October 31, 2025

Periods greater than one year are annualized

All returns are in U.S. dollar terms

Global Fixed Income Markets	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Bloomberg 1-3-Month T-Bill	0.4%	3.6%	4.4%	4.9%	3.1%	2.7%	2.1%	1.4%
Bloomberg U.S. TIPS	0.4%	7.2%	6.1%	4.6%	1.6%	3.7%	3.0%	2.7%
Bloomberg Municipal Bond (5 Year)	0.0%	4.5%	4.5%	4.4%	1.1%	2.3%	1.9%	2.2%
Bloomberg High Yield Municipal Bond	1.0%	2.3%	2.8%	7.9%	3.0%	4.0%	4.4%	5.0%
Bloomberg U.S. Aggregate	0.6%	6.8%	6.2%	5.6%	-0.2%	2.3%	1.9%	2.3%
Bloomberg U.S. Corporate High Yield	0.2%	7.4%	8.2%	10.2%	5.5%	5.6%	5.9%	6.0%
Bloomberg Global Aggregate ex-U.S. Hedged	0.9%	3.2%	4.5%	5.4%	1.0%	2.5%	2.6%	3.1%
Bloomberg Global Aggregate ex-U.S. Unhedged	-1.0%	8.3%	5.2%	5.5%	-2.8%	-0.3%	0.4%	-0.2%
Bloomberg U.S. Long Gov / Credit	0.9%	7.6%	4.5%	5.6%	-4.1%	1.9%	1.9%	3.4%
Global Equity Markets	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
S&P 500	2.3%	17.5%	21.5%	22.7%	17.6%	16.0%	14.6%	14.5%
Dow Jones Industrial Average	2.6%	13.3%	15.8%	15.5%	14.6%	11.8%	12.9%	12.7%
NASDAQ Composite	4.7%	23.5%	32.0%	30.2%	17.7%	19.3%	17.8%	17.3%
Russell 3000	2.1%	16.8%	20.8%	21.8%	16.7%	15.3%	14.1%	14.1%
Russell 1000	2.2%	17.1%	21.1%	22.3%	17.1%	15.7%	14.4%	14.4%
Russell 1000 Growth	3.6%	21.5%	30.5%	30.7%	19.2%	20.3%	18.3%	17.3%
Russell 1000 Value	0.4%	12.1%	11.1%	13.4%	14.3%	10.4%	10.0%	11.1%
Russell Mid Cap	-0.8%	9.5%	10.8%	14.1%	12.3%	11.3%	10.6%	11.7%
Russell Mid Cap Growth	-0.3%	12.5%	19.6%	19.7%	11.2%	13.6%	12.6%	13.1%
Russell Mid Cap Value	-1.0%	8.4%	7.9%	11.7%	13.2%	9.7%	9.2%	10.7%
Russell 2000	1.8%	12.4%	14.4%	11.9%	11.5%	8.8%	9.4%	10.3%
Russell 2000 Growth	3.2%	15.3%	18.8%	14.4%	8.9%	9.2%	9.6%	10.9%
Russell 2000 Value	0.3%	9.3%	9.9%	9.3%	13.9%	7.9%	8.7%	9.3%
MSCI ACWI	2.2%	21.1%	22.6%	21.6%	14.6%	12.9%	11.3%	10.1%
MSCI ACWI ex. U.S.	2.0%	28.6%	24.9%	20.3%	11.2%	9.1%	7.7%	6.0%
MSCI EAFE	1.2%	26.6%	23.0%	20.1%	12.3%	9.2%	7.5%	6.6%
MSCI EAFE Growth	1.6%	20.4%	16.7%	16.8%	7.8%	8.7%	7.2%	6.8%
MSCI EAFE Value	0.8%	32.9%	29.5%	23.4%	16.8%	9.4%	7.5%	6.2%
MSCI EAFE Small Cap	-0.8%	27.3%	24.5%	17.7%	9.1%	7.5%	7.2%	7.4%
MSCI Emerging Markets	4.2%	32.9%	27.9%	21.1%	7.5%	8.2%	7.7%	4.1%
Alternatives	MTD	YTD	1YR	3YR	5YR	7YR	10YR	15YR
Consumer Price Index*	0.3%	2.1%	3.0%	3.0%	4.5%	3.7%	3.2%	2.7%
FTSE NAREIT All Equity REITs	-2.2%	2.2%	-2.6%	6.3%	7.2%	5.9%	5.9%	8.0%
S&P Real Assets	-0.5%	10.9%	8.8%	8.9%	7.5%	5.9%	5.3%	5.0%
FTSE EPRA NAREIT Developed	-1.5%	9.6%	4.5%	8.8%	6.9%	4.1%	4.0%	5.5%
FTSE EPRA NAREIT Developed ex U.S.	-1.4%	22.6%	14.0%	10.1%	3.6%	2.0%	2.4%	3.5%
Bloomberg Commodity Total Return	2.9%	12.5%	14.2%	3.1%	11.9%	6.5%	4.3%	-0.6%
HFRI Fund of Funds Composite*	1.9%	7.2%	9.5%	8.1%	6.2%	5.2%	4.6%	4.0%
HFRI Asset Weighted Composite*	2.1%	6.9%	9.2%	5.7%	6.9%	5.0%	4.6%	4.0%
Alerian MLP	-0.7%	5.0%	11.7%	16.8%	31.0%	11.0%	7.1%	6.3%

Sources: Morningstar, FactSet. As of October 31, 2025. *Consumer Price Index and HFRI indexes as of September 30, 2025.

See disclosures for list of indices representing each asset class. Past performance does not indicate future performance and there is a possibility of loss. Indices cannot be invested in directly. Please refer to Material Risk disclosure for important information associated with market volatility.



Asset Allocation

Total Plan

As of October 31, 2025

	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
Total Plan	285,295,883	100.0	100.0	0.0
Pension Benefits Payable to the City	-4,740,529	-1.7	0.0	-1.7
Total Invested Assets	290,036,412	101.7	100.0	1.7
Short Term Liquidity	230,454	0.1	0.0	0.1
Key Bank Cash Portfolio	172,640	0.1	0.0	0.1
First American Govt Oblig Fund Z	57,814	0.0	0.0	0.0
Fixed Income	71,520,654	25.1	27.0	-1.9
JIC Core Bond Fund I	53,056,830	18.6	20.0	-1.4
BlackRock Strategic Income Opportunities K	18,463,824	6.5	7.0	-0.5
Equity	207,131,457	72.6	68.5	4.1
Domestic Equity	130,561,419	45.8	43.0	2.8
BNYM Mellon DB NSL Stock Index Fund	102,891,716	36.1	33.0	3.1
BNYM Mellon DB SL SMID Cap Stock Index Fund	27,669,703	9.7	10.0	-0.3
International Equity	76,185,846	26.7	25.5	1.2
BNYM Mellon DB NSL International Stock Index Fund	52,745,760	18.5	18.0	0.5
BNYM Mellon DB NSL Emerging Markets Stock Index Fund	23,440,086	8.2	7.5	0.7
Private Equity	384,192	0.1	0.0	0.1
Hamilton Lane II	624	0.0	-	-
Hamilton Lane VII A	273,852	0.1	-	-
Hamilton Lane VII B	109,716	0.0	-	-
Real Assets	11,153,847	3.9	4.5	-0.6
UBS Trumbull Property Fund	7,781,358	2.7	3.0	-0.3
DWS RREEF Real Assets R6	3,372,489	1.2	1.5	-0.3

Valuations data as of:

Hamilton Lane VII - 6/30/2025

Hamilton Lane II - 12/31/2024

UBS Trumbull Property Fund - 9/30/2025

All private equity and real estate assets are adjusted for any subsequent capital activity.

Investments with a zero balance were held in the portfolio during the reporting period and will be removed once they no longer impact portfolio performance. Asset Allocation weightings may not add up to 100% due to rounding.



Asset Allocation

Total Invested Assets

As of October 31, 2025

	Asset Allocation (\$)	Asset Allocation (%)	Target Allocation (%)	Differences (%)
Total Invested Assets	290,036,412	100.0	100.0	0.0
Short Term Liquidity	230,454	0.1	0.0	0.1
Key Bank Cash Portfolio	172,640	0.1	0.0	0.1
First American Govt Oblig Fund Z	57,814	0.0	0.0	0.0
Fixed Income	71,520,654	24.7	27.0	-2.3
JIC Core Bond Fund I	53,056,830	18.3	20.0	-1.7
BlackRock Strategic Income Opportunities K	18,463,824	6.4	7.0	-0.6
Equity	207,131,457	71.4	68.5	2.9
Domestic Equity	130,561,419	45.0	43.0	2.0
BNYM Mellon DB NSL Stock Index Fund	102,891,716	35.5	33.0	2.5
BNYM Mellon DB SL SMID Cap Stock Index Fund	27,669,703	9.5	10.0	-0.5
International Equity	76,185,846	26.3	25.5	0.8
BNYM Mellon DB NSL International Stock Index Fund	52,745,760	18.2	18.0	0.2
BNYM Mellon DB NSL Emerging Markets Stock Index Fund	23,440,086	8.1	7.5	0.6
Private Equity	384,192	0.1	0.0	0.1
Hamilton Lane II	624	0.0	-	-
Hamilton Lane VII A	273,852	0.1	-	-
Hamilton Lane VII B	109,716	0.0	-	-
Real Assets	11,153,847	3.8	4.5	-0.7
UBS Trumbull Property Fund	7,781,358	2.7	3.0	-0.3
DWS RREEF Real Assets R6	3,372,489	1.2	1.5	-0.3

Valuations data as of:

Hamilton Lane VII - 6/30/2025

Hamilton Lane II - 12/31/2024

UBS Trumbull Property Fund - 9/30/2025

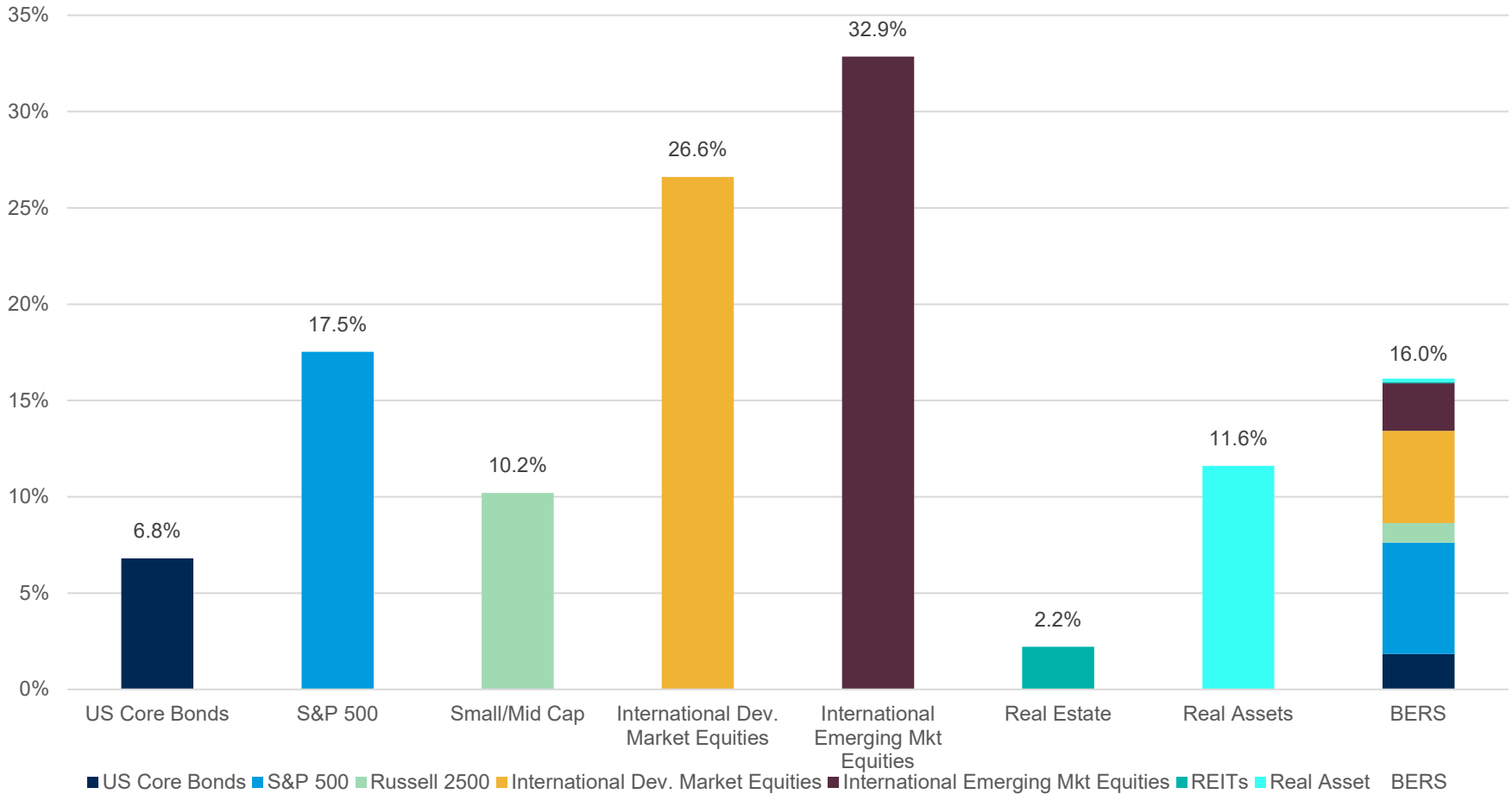
All private equity and real estate assets are adjusted for any subsequent capital activity.

Investments with a zero balance were held in the portfolio during the reporting period and will be removed once they no longer impact portfolio performance. Asset Allocation weightings may not add up to 100% due to rounding.



Asset Class Performance & BERS Benchmark Attribution

Asset Class Performance & BERS Benchmark Attribution January 1, 2025 - 10/31/2025



BERS Benchmark Composition: 27.0% Blmbg. U.S. Aggregate, 33.0% S&P 500, 10.0% Russell 2500 Index, 18.0% MSCI EAFE (Net), 7.5% MSCI Emerging Markets (Net), 3.0% NCREIF Fund Index - ODCE (net), 1.5% DWS Real Assets Benchmark

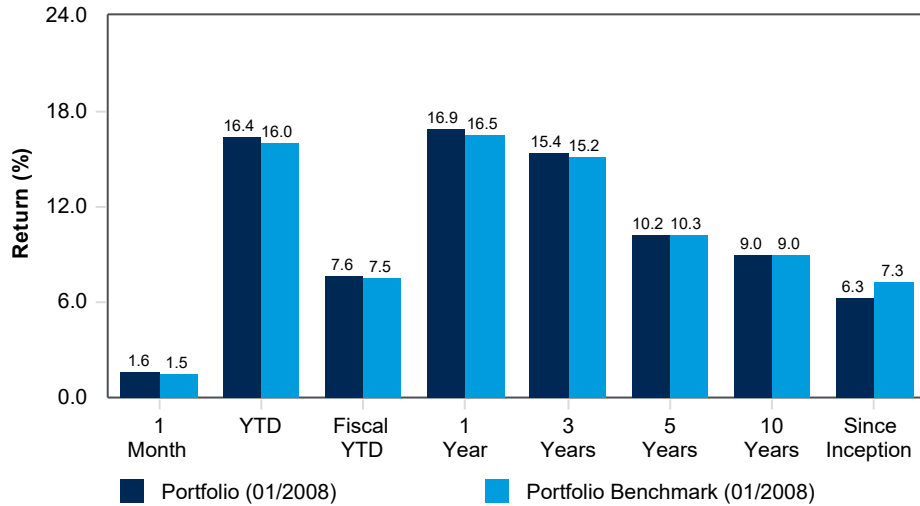


Portfolio Dashboard

Total Invested Assets

As of October 31, 2025

Historical Performance



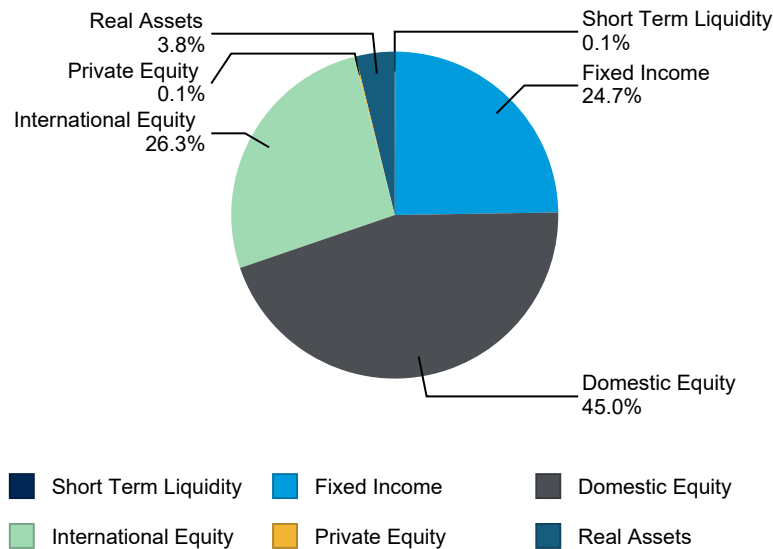
Summary of Cash Flows

	1 Month	YTD	Fiscal YTD	1 Year
Total Invested Assets				
Beginning Market Value	285,422,202	254,255,219	275,006,808	253,206,684
Net Contributions	80,707	-5,655,841	-5,655,879	-5,655,841
Gain/Loss	4,533,502	41,437,034	20,685,483	42,485,569
Ending Market Value	290,036,412	290,036,412	290,036,412	290,036,412

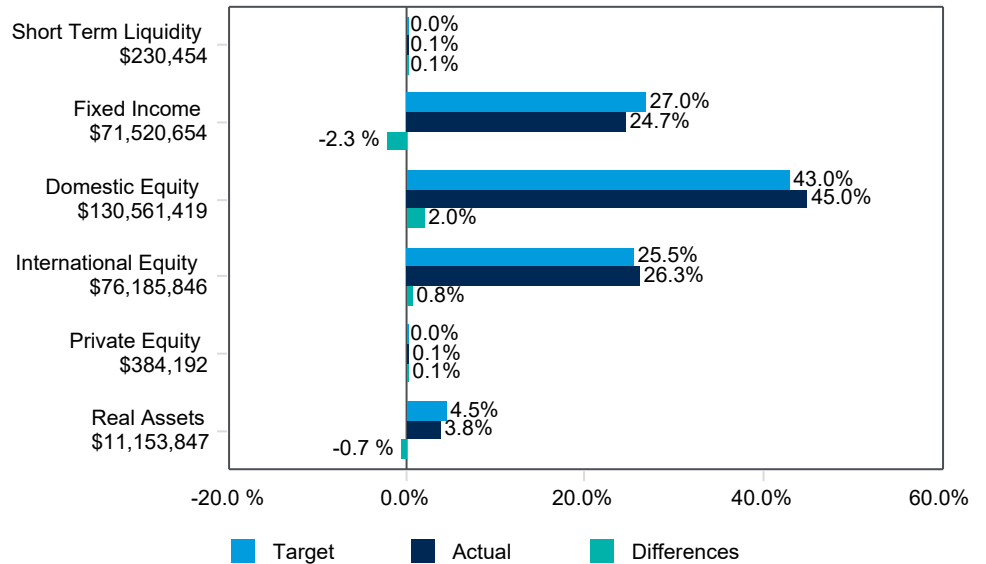
Current Benchmark Composition

From Date	To Date	Composition
04/2025	Present	27.00% Blmbg. U.S. Aggregate, 33.00% S&P 500, 10.00% Russell 2500 Index, 18.00% MSCI EAFE (Net), 7.50% MSCI Emerging Markets (Net), 3.00% NCREIF Fund Index - ODCE (net), 1.50% DWS Real Assets Benchmark

Portfolio Allocation



Actual vs. Target Allocations



Client portfolio performance is presented net of underlying investment manager fees but gross of Fiduciant Advisors' fees.



Recent Portfolio Activities

Quarter	Cash Flow
4Q 2025	<ul style="list-style-type: none">• October 3, 2025: \$22,939.07 UBS Trumbull Property Fund LP redemption.• October 27, 2025: \$57,768.34 UBS Trumbull Property Fund LP distribution.
3Q 2025	<ul style="list-style-type: none">• July 7, 2025: \$3,689,564 cash raised to reimburse the General Fund.• July 25, 2025: \$57,987.44 UBS Trumbull Property Fund LP distribution.• August 19, 2025: \$1,031,535.48 invested excess cash.
2Q 2025	<ul style="list-style-type: none">• April 14, 2025: Funded DWS RREEF Real Asset Fund.• April 28, 2025: \$58,224.58 UBS Trumbull Property Fund LP distribution.• June 23, 2025: \$3,000,000 cash raised to reimburse the General Fund.
1Q 2025	<ul style="list-style-type: none">• January 6, 2025: \$266,147.78 UBS Trumbull Property Fund LP redemption.• January 27, 2025: \$60,043.52 UBS Trumbull Property Fund LP distribution.
4Q 2024	<ul style="list-style-type: none">• October 10, 2024: \$386,628.34 UBS Trumbull Property Fund LP redemption.• October 25, 2024: \$70,575.75 UBS Trumbull Property Fund LP distribution.
3Q 2024	<ul style="list-style-type: none">• July 5, 2024: \$124,974.45 UBS Trumbull Property Fund LP redemption.• July 26, 2024: \$67,506.43 UBS Trumbull Property Fund LP distribution.
2Q 2024	<ul style="list-style-type: none">• April 4, 2024: \$55,152.00 UBS Trumbull Property Fund LP redemption.• April 19, 2024: \$67,457.44 UBS Trumbull Property Fund LP distribution.• June 28, 2024: \$5,436,142 cash raised to reimburse the General Fund.



Performance Overview

Total Invested Assets

As of October 31, 2025

Trailing Performance Summary

	1 Month	YTD	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Invested Assets	1.6	16.4	7.6	16.9	15.4	10.2	8.4	9.0	6.3	01/2008
<i>Policy Benchmark</i>	<i>1.5</i>	<i>16.0</i>	<i>7.5</i>	<i>16.5</i>	<i>15.2</i>	<i>10.3</i>	<i>9.7</i>	<i>9.0</i>	<i>7.3</i>	<i>01/2008</i>

Calendar Year Performance Summary

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Total Invested Assets	11.2	15.0	-15.4	14.6	12.7	19.1	-5.2	17.0	8.7	-2.2
<i>Policy Benchmark</i>	<i>10.7</i>	<i>14.9</i>	<i>-14.7</i>	<i>14.3</i>	<i>14.5</i>	<i>20.6</i>	<i>-5.2</i>	<i>16.9</i>	<i>9.0</i>	<i>-0.2</i>

Plan Reconciliation

	1 Month	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Invested Assets									01/2008
Beginning Market Value	285,422,202	254,255,219	275,006,808	253,206,684	204,063,777	201,464,020	156,704,140	126,047,968	
Net Contributions	80,707	-5,655,841	-5,655,879	-5,655,841	-18,746,181	-30,722,217	-47,172,724	-57,082,630	
Gain/Loss	4,533,502	41,437,034	20,685,483	42,485,569	104,718,816	119,294,609	180,504,996	221,071,074	
Ending Market Value	290,036,412	290,036,412	290,036,412	290,036,412	290,036,412	290,036,412	290,036,412	290,036,412	

Benchmark Composition

	Weight (%)
Apr-2025	
Blmbg. U.S. Aggregate	27.0
S&P 500	33.0
Russell 2500 Index	10.0
MSCI EAFE (Net)	18.0
MSCI Emerging Markets (Net)	7.5
NCREIF Fund Index - ODCE (net)	3.0
DWS Real Assets Benchmark	1.5



Manager Performance

As of October 31, 2025

	Allocation		Performance(%)								
	Market Value (\$)	%	1 Month	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Invested Assets	290,036,412	100.0	1.6	16.4	7.6	16.9	15.4	10.2	9.0	6.3	01/2008
Policy Benchmark			1.5	16.0	7.5	16.5	15.2	10.3	9.0	7.3	
Secondary Benchmark			1.5	16.1	7.5	16.6	15.1	10.1	8.8	7.1	
Short Term Liquidity	230,454	0.1	0.0	1.0	0.7	1.1	2.1	-	-	1.3	01/2021
90 Day U.S. Treasury Bill			0.3	3.5	1.4	4.3	4.8	3.0	2.1	3.1	
Key Bank Cash Portfolio	172,640	0.1									
First American Govt Oblig Fund Z	57,814	0.0	0.3	3.5	1.4	4.3	4.8	3.0	2.0	4.0	02/2022
90 Day U.S. Treasury Bill			0.3	3.5	1.4	4.3	4.8	3.0	2.1	4.1	
Fixed Income	71,520,654	24.7	0.7	7.5	2.8	7.2	6.3	-	-	0.0	01/2021
Blmbg. U.S. Aggregate			0.6	6.8	2.7	6.2	5.6	-0.2	1.9	-0.5	
JIC Core Bond Fund I	53,056,830	18.3	0.7	7.4	2.8	6.6	5.7	-0.5	2.2	0.3	03/2020
Blmbg. U.S. Aggregate			0.6	6.8	2.7	6.2	5.6	-0.2	1.9	0.2	
Intermediate Core Bond Median			0.6	6.7	2.6	6.1	5.6	-0.2	1.9	0.3	
JIC Core Bond Fund I Rank			20	11	22	17	41	75	24	50	
BlackRock Strategic Income Opportunities K	18,463,824	6.4	0.7	7.7	2.9	8.6	7.5	3.9	3.8	4.1	02/2022
Blmbg. U.S. Aggregate			0.6	6.8	2.7	6.2	5.6	-0.2	1.9	0.4	
Nontraditional Bond Median			0.4	5.8	2.2	6.7	7.0	3.3	3.3	3.7	
BlackRock Strategic Income Opportunities K Rank			23	19	22	20	38	35	31	38	

Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees. Manager performance for mutual funds and ETFs is based on NAV and provided by Morningstar. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian. Funds may include returns of an equivalent share class with a longer return history if period includes dates prior to the fund's inception. Returns are net of fees unless otherwise stated. The fund's inception date represents the first month the client made the investment. Composite performance includes all funds held in the composite since inception. Inception dates for asset class composites reflect the start date at which these returns could be calculated using historical and existing system capabilities and may vary from the inception dates of underlying component strategies. Fund level peer groups changed from Lipper to Morningstar effective 09/30/2025. As a result of this change, the peer rankings of funds may differ.



Manager Performance

As of October 31, 2025

	Allocation		Performance(%)								
	Market Value (\$)	%	1 Month	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Equity	207,131,457	71.4	2.0	20.5	9.8	21.4	20.5	-	-	10.9	01/2021
<i>MSCI AC World Index (Net)</i>			2.2	21.1	10.0	22.6	21.6	14.6	11.3	11.4	
Domestic Equity	130,561,419	45.0	2.0	15.9	10.5	19.4	20.4	-	-	13.2	01/2021
<i>Domestic Equity Benchmark</i>			2.0	15.8	10.5	19.3	20.4	16.7	13.5	13.2	
BNYM Mellon DB NSL Stock Index Fund	102,891,716	35.5	2.3	17.5	10.7	21.5	22.7	17.6	-	15.3	04/2016
<i>S&P 500</i>			2.3	17.5	10.7	21.5	22.7	17.6	14.6	15.3	
Large Blend Median			2.0	15.9	9.4	18.9	21.1	16.3	13.3	14.1	
BNYM Mellon DB NSL Stock Index Fund Rank			29	23	21	21	21	20	-	12	
BNYM Mellon DB SL SMID Cap Stock Index Fund	27,669,703	9.5	0.7	10.3	9.8	12.0	12.5	12.0	-	10.8	04/2016
<i>Russell 2500 Index</i>			0.7	10.2	9.7	11.9	12.4	11.8	10.0	10.7	
U.S. SMID Cap Equity (MF) Median			-0.5	5.5	6.1	6.8	10.5	11.5	9.2	9.8	
BNYM Mellon DB SL SMID Cap Stock Index Fund Rank			32	24	26	25	31	44	-	32	
International Equity	76,185,846	26.3	2.1	28.9	8.8	25.0	20.8	-	-	7.2	01/2021
<i>International Equity Benchmark</i>			2.1	28.7	8.7	24.7	20.6	10.9	8.2	7.4	
BNYM Mellon DB NSL International Stock Index Fund	52,745,760	18.2	1.2	27.0	6.1	23.4	20.4	12.7	-	8.9	04/2016
<i>MSCI EAFE (Net)</i>			1.2	26.6	6.0	23.0	20.1	12.3	7.5	8.5	
Foreign Large Blend Median			0.9	27.1	6.1	23.4	19.7	11.4	7.4	8.4	
BNYM Mellon DB NSL International Stock Index Fund Rank			35	51	51	51	30	20	-	25	
BNYM Mellon DB NSL Emerging Markets Stock Index Fund	23,440,086	8.1	4.1	33.2	15.6	28.4	21.0	7.2	-	8.0	04/2016
<i>MSCI Emerging Markets (Net)</i>			4.2	32.9	15.3	27.9	21.1	7.5	7.7	8.1	
Diversified Emerging Mkts Median			3.7	30.8	14.0	26.7	19.9	7.0	7.3	7.9	
BNYM Mellon DB NSL Emerging Markets Stock Index Fund Rank			35	30	28	35	34	48	-	45	

Client portfolio performance is presented net of underlying investment manager fees but gross of Fiducient Advisors' fees. Manager performance for mutual funds and ETFs is based on NAV and provided by Morningstar. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian. Funds may include returns of an equivalent share class with a longer return history if period includes dates prior to the fund's inception. Returns are net of fees unless otherwise stated. The fund's inception date represents the first month the client made the investment. Composite performance includes all funds held in the composite since inception. Inception dates for asset class composites reflect the start date at which these returns could be calculated using historical and existing system capabilities and may vary from the inception dates of underlying component strategies. Fund level peer groups changed from Lipper to Morningstar effective 09/30/2025. As a result of this change, the peer rankings of funds may differ.



Manager Performance

As of October 31, 2025

	Allocation		Performance(%)								
	Market Value (\$)	%	1 Month	YTD	Fiscal YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Private Equity	384,192	0.1	0.0	-12.9	0.0	-22.4	-11.2	-	-	-6.3	01/2021
Hamilton Lane II	624	0.0	0.0	0.0	0.0	-3.4	-24.0	-20.3	-1.0	6.4	03/2009
Hamilton Lane VII A	273,852	0.1	0.0	-14.2	0.0	-24.1	-11.9	-4.5	3.7	6.3	07/2011
Hamilton Lane VII B	109,716	0.0	0.0	-9.8	0.0	-18.7	-8.0	-6.7	1.9	5.0	07/2011
Real Assets	11,153,847	3.8	-0.3	4.2	1.2	5.0	-6.8	-	-	0.0	01/2021
UBS Trumbull Property Fund	7,781,358	2.7	0.0	3.6	1.0	4.4	-7.0	0.1	-	1.0	07/2016
<i>NCREIF Fund Index - ODCE (net)</i>			0.0	2.2	0.5	3.2	-6.1	2.6	4.1	3.7	
DWS RREEF Real Assets R6	3,372,489	1.2	-0.9	10.0	1.8	6.0	7.4	8.4	6.4	4.3	05/2025
<i>DWS Real Assets Benchmark</i>			-0.9	11.6	2.9	8.3	7.5	8.9	5.4	5.8	

Valuations data as of:

Hamilton Lane VII - 6/30/2025

Hamilton Lane II - 12/31/2024

UBS Trumbull Property Fund - 9/30/2025

All private equity and real estate assets are adjusted for any subsequent capital activity.

UBS Trumbull Property Fund and NCREIF Fund Index - ODCE (net) one month return is N/A.

Client portfolio performance is presented net of underlying investment manager fees but gross of Fiduciant Advisors' fees. Manager performance for mutual funds and ETFs is based on NAV and provided by Morningstar. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian. Funds may include returns of an equivalent share class with a longer return history if period includes dates prior to the fund's inception. Returns are net of fees unless otherwise stated. The fund's inception date represents the first month the client made the investment. Composite performance includes all funds held in the composite since inception. Inception dates for asset class composites reflect the start date at which these returns could be calculated using historical and existing system capabilities and may vary from the inception dates of underlying component strategies. Fund level peer groups changed from Lipper to Morningstar effective 09/30/2025. As a result of this change, the peer rankings of funds may differ.



Benchmark History

Total Invested Assets

As of October 31, 2025

Account Name	From Date	To Date	Benchmark
Total Invested Assets	04/2025	Present	27.0% Blmbg. U.S. Aggregate, 33.0% S&P 500, 10.0% Russell 2500 Index, 18.0% MSCI EAFE (Net), 7.5% MSCI Emerging Markets (Net), 3.0% NCREIF Fund Index - ODCE (net), 1.5% DWS Real Assets Benchmark
	04/2024	03/2025	27.0% Blmbg. U.S. Aggregate, 33.5% S&P 500, 9.5% Russell 2500 Index, 19.0% MSCI EAFE (Net), 7.0% MSCI Emerging Markets (Net), 4.0% NCREIF Fund Index - ODCE (net)
	01/2023	03/2024	25.0% Blmbg. U.S. Aggregate, 32.5% S&P 500, 9.0% Russell 2500 Index, 20.5% MSCI EAFE (Net), 7.0% MSCI Emerging Markets (Net), 6.0% NCREIF Fund Index - ODCE (net)
	09/2022	12/2022	25.0% Blmbg. U.S. Aggregate, 31.5% S&P 500, 9.0% Russell 2500 Index, 20.5% MSCI EAFE (Net), 7.0% MSCI Emerging Markets (Net), 6.0% NCREIF Fund Index - ODCE (net), 1.0% NCREIF Timberland Index
	05/2021	08/2022	18.0% Blmbg. U.S. Aggregate, 31.5% S&P 500, 10.5% Russell 2500 Index, 23.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 6.0% NCREIF Fund Index - ODCE (net), 1.0% NCREIF Timberland Index
	12/2019	04/2021	20.0% Blmbg. U.S. Aggregate, 32.0% S&P 500, 18.0% Russell 2500 Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 8.0% NCREIF Fund Index - ODCE (net), 2.0% NCREIF Timberland Index
	06/2017	11/2019	20.0% Blmbg. Intermed. U.S. Government/Credit, 30.0% S&P 500, 18.0% Russell 2500 Index, 2.0% S&P Completion Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 8.0% NCREIF Fund Index - ODCE (net), 2.0% NCREIF Timberland Index
	01/2016	05/2017	28.0% Blmbg. Intermed. U.S. Government/Credit, 30.0% S&P 500, 18.0% Russell 2500 Index, 2.0% S&P Completion Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 2.0% NCREIF Timberland Index
	01/2008	12/2015	20.0% Blmbg. U.S. Aggregate, 32.0% S&P 500, 18.0% Russell 2500 Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 8.0% NCREIF Fund Index - ODCE (net), 2.0% NCREIF Timberland Index

Account Name	From Date	To Date	Benchmark
Secondary Benchmark	04/2025	Present	27.0% Blmbg. U.S. Aggregate, 33.0% S&P 500, 10.0% Russell 2500 Index, 18.0% MSCI EAFE (Net), 7.5% MSCI Emerging Markets (Net), 3.0% UBS Trumbull Property Fund, 1.5% DWS Real Assets Benchmark
	04/2024	03/2025	27.0% Blmbg. U.S. Aggregate, 33.5% S&P 500, 9.5% Russell 2500 Index, 19.0% MSCI EAFE (Net), 7.0% MSCI Emerging Markets (Net), 4.0% UBS Trumbull Property Fund
	01/2023	03/2024	25.0% Blmbg. U.S. Aggregate, 32.5% S&P 500, 9.0% Russell 2500 Index, 20.5% MSCI EAFE (Net), 7.0% MSCI Emerging Markets (Net), 6.0% UBS Trumbull Property Fund
	09/2022	12/2022	25.0% Blmbg. U.S. Aggregate, 31.5% S&P 500, 9.0% Russell 2500 Index, 20.5% MSCI EAFE (Net), 7.0% MSCI Emerging Markets (Net), 6.0% UBS Trumbull Property Fund, 1.0% Molpus SWF II
	05/2021	08/2022	18.0% Blmbg. U.S. Aggregate, 31.5% S&P 500, 10.5% Russell 2500 Index, 23.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 6.0% UBS Trumbull Property Fund, 1.0% Molpus SWF II
	12/2019	04/2021	20.0% Blmbg. U.S. Aggregate, 32.0% S&P 500, 18.0% Russell 2500 Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 8.0% UBS Trumbull Property Fund, 2.0% Molpus SWF II
	06/2017	11/2019	20.0% Blmbg. Intermed. U.S. Government/Credit, 30.0% S&P 500, 18.0% Russell 2500 Index, 2.0% S&P Completion Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 8.0% UBS Trumbull Property Fund, 2.0% Molpus SWF II
	07/2016	05/2017	28.0% Blmbg. Intermed. U.S. Government/Credit, 30.0% S&P 500, 18.0% Russell 2500 Index, 2.0% S&P Completion Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 2.0% Molpus SWF II
	01/2016	06/2016	28.0% Blmbg. Intermed. U.S. Government/Credit, 30.0% S&P 500, 18.0% Russell 2500 Index, 2.0% S&P Completion Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 2.0% Molpus SWF II
	03/2009	12/2015	20.0% Blmbg. U.S. Aggregate, 32.0% S&P 500, 18.0% Russell 2500 Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 8.0% NCREIF Fund Index - ODCE (net), 2.0% Molpus SWF II



Benchmark History

Total Invested Assets

As of October 31, 2025

Account Name	From Date	To Date	Benchmark
	01/2008	02/2009	20.0% Blmbg. U.S. Aggregate, 32.0% S&P 500, 18.0% Russell 2500 Index, 10.0% MSCI EAFE (Net), 10.0% MSCI Emerging Markets (Net), 8.0% NCREIF Fund Index - ODCE (net), 2.0% NCREIF Timberland Index



Definitions & Disclosures

Please note: Due to rounding methodologies of various data providers, certain returns in this report might differ slightly when compared to other sources

REGULATORY DISCLOSURES

Offer of ADV Part 2A: Rule 204-3 under the Investment Advisers Act of 1940 requires that we make an annual offer to clients to send them, without charge, a written disclosure statement meeting the requirements of such rule. We will be glad to send a copy of our ADV Part 2A to you upon your written request to compliance@fiducient.com.

INDEX DEFINITIONS

- **Citigroup 3 Month T-Bill** measures monthly return equivalents of yield averages that are not marked to market. The Three-Month Treasury Bill Indexes consist of the last three three-month Treasury bill issues.
- **Ryan 3 Yr. GIC** is an arithmetic mean of market rates of \$1 million Guaranteed Interest Contracts held for three years.
- **Bloomberg Treasury U.S. T-Bills-1-3 Month Index** includes aged U.S. Treasury bills, notes and bonds with a remaining maturity from 1 up to (but not including) 3 months. It excludes zero coupon strips.
- **Bloomberg Capital US Treasury Inflation Protected Securities Index** consists of Inflation-Protection securities issued by the U.S. Treasury.
- **Bloomberg Muni Index** is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. Bonds must be rated investment-grade by at least two ratings agencies.
- **Bloomberg Muni 1 Year Index** is the 1-year (1-2) component of the Municipal Bond index.
- **Bloomberg Muni 3 Year Index** is the 3-year (2-4) component of the Municipal Bond index.
- **Bloomberg Muni 5 Year Index** is the 5-year (4-6) component of the Municipal Bond index.
- **Bloomberg Muni 7 Year Index** is the 7-year (6-8) component of the Municipal Bond index.
- **Bloomberg Intermediate U.S. Gov't/Credit** is the Intermediate component of the U.S. Government/Credit index, which includes securities in the Government and Credit Indices. The Government Index includes treasuries and agencies, while the credit index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.
- **Bloomberg U.S. Aggregate Index** covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.
- **Bloomberg Global Aggregate ex. USD Indices** represent a broad-based measure of the global investment-grade fixed income markets. The two major components of this index are the Pan-European Aggregate and the Asian-Pacific Aggregate Indices. The index also includes Eurodollar and Euro-Yen corporate bonds and Canadian government, agency and corporate securities.
- **Bloomberg U.S. Corporate High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.
- **JP Morgan Government Bond Index-Emerging Market (GBI-EM) Index** is a comprehensive, global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.
- **The S&P 500** is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.
- **The Dow Jones Industrial Index** is a price-weighted average of 30 blue-chip stocks that are generally the leaders in their industry.
- **The NASDAQ** is a broad-based capitalization-weighted index of stocks in all three NASDAQ tiers: Global Select, Global Market and Capital Market.
- **Russell 3000** is a market-cap-weighted index which consists of roughly 3,000 of the largest companies in the U.S. as determined by market capitalization. It represents nearly 98% of the investable U.S. equity market.
- **Russell 1000** consists of the largest 1000 companies in the Russell 3000 Index.
- **Russell 1000 Growth** measures the performance of those Russell 1000 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 1000 Value** measures the performance of those Russell 1000 companies with lower P/B ratios and lower forecasted growth values.
- **Russell Mid Cap** measures the performance of the 800 smallest companies in the Russell 1000 Index.
- **Russell Mid Cap Growth** measures the performance of those Russell Mid Cap companies with higher P/B ratios and higher forecasted growth values.
- **Russell Mid Cap Value** measures the performance of those Russell Mid Cap companies with lower P/B ratios and lower forecasted growth values.
- **Russell 2000** consists of the 2,000 smallest U.S. companies in the Russell 3000 index.
- **Russell 2000 Growth** measures the performance of the Russell 2000 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 2000 Value** measures the performance of those Russell 2000 companies with lower P/B ratios and lower forecasted growth values.
- **Russell 2500** consists of the 2,500 smallest U.S. companies in the Russell 3000 index.
- **Russell 2500 Growth** measures the performance of the Russell 2500 companies with higher P/B ratios and higher forecasted growth values.
- **Russell 2500 Value** measures the performance of those Russell 2500 companies with lower P/B ratios and lower forecasted growth values.
- **MSCI World** captures large and mid-cap representation across 23 Developed Markets countries. With 1,645 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
- **MSCI ACWI (All Country World Index) ex. U.S. Index** captures large and mid-cap representation across 22 of 23 Developed Markets countries (excluding the United States) and 23 Emerging Markets countries. With 1,859 constituents, the index covers approximately 85% of the global equity opportunity set outside the US.
- **MSCI ACWI (All Country World Index) ex. U.S. Small Cap Index** captures small cap representation across 22 of 23 Developed Markets countries (excluding the US) and 23 Emerging Markets countries. With 4,368 constituents, the index covers approximately 14% of the global equity opportunity set outside the US.
- **MSCI EAFE** is an equity index which captures large and mid-cap representation across Developed Markets countries around the world, excluding the US and Canada. With 930 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.



- **MSCI EAFE Value** captures large and mid-cap securities exhibiting overall value style characteristics across Developed Markets countries around the world, excluding the US and Canada. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield. With 507 constituents, the index targets 50% coverage of the free float-adjusted market capitalization of the MSCI EAFE Index.
- **MSCI EAFE Growth** captures large and mid-cap securities exhibiting overall growth style characteristics across Developed Markets countries around the world, excluding the US and Canada. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend. With 542 constituents, the index targets 50% coverage of the free float-adjusted market capitalization of the MSCI EAFE Index.
- **MSCI Emerging Markets** captures large and mid-cap representation across 23 Emerging Markets countries. With 836 constituents, the index covers approximately 85% of the free-float adjusted market capitalization in each country.
- **Consumer Price Index** is a measure of prices paid by consumers for a market basket of consumer goods and services. The yearly (or monthly) growth rates represent the inflation rate.
- **FTSE NAREIT Equity REITs Index** contains all Equity REITs not designed as Timber REITs or Infrastructure REITs.
- **S&P Developed World Property** defines and measures the investable universe of publicly traded property companies domiciled in developed markets. The companies in the index are engaged in real estate related activities, such as property ownership, management, development, rental and investment.
- **S&P Developed World Property x U.S.** defines and measures the investable universe of publicly traded property companies domiciled in developed countries outside of the U.S. The companies included are engaged in real estate related activities, such as property ownership, management, development, rental and investment.
- **Fund Specific Broad Real Asset Benchmarks:**
 - **DWS Real Assets:** 30%: Dow Jones Brookfield Infrastructure Index, 30%: FTSE EPRA/NAREIT Developed Index, 15%: Bloomberg Commodity Index, 15%: S&P Global Natural Resources Index, 10%: U.S. Treasury Inflation Notes Total Return Index
 - **PIMCO Inflation Response Multi Asset Fund:** 45% Bloomberg U.S. TIPS, 20% Bloomberg Commodity Index, 15% JP Morgan Emerging Local Markets Plus, 10% Dow Jones Select REIT, 10% Bloomberg Gold Subindex Total Return
 - **Principal Diversified Real Assets:** 35% BbgBarc U.S. Treasury TIPS Index, 20% S&P Global Infrastructure Index NTR, 20% S&P Global Natural Resources Index NTR, 15% Bloomberg Commodity Index, and 10% FTSE EPRA/NAREIT Developed Index NTR
 - **Wellington Diversified Inflation H:** 50% MSCI ACWI Commodity Producers Index, 25% Bloomberg Commodity Index, and 25% Bloomberg Bloomberg US TIPS 1 – 10 Year Index
- **Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification.
- **HFRI Fund Weighted Composite Index** is a global, equal-weighted index of over 2,000 single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in US Dollar and have a minimum of \$50 Million under management or a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.
- **The Alerian MLP Index** is the leading gauge of energy Master Limited Partnerships (MLPs). The float adjusted, capitalization-weighted index, whose constituents represent approximately 85% of total float-adjusted market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis.
- **The Adjusted Alerian MLP Index** is commensurate with 65% of the monthly returns of the Alerian MLP Index to incorporate the effect of deferred tax liabilities incurred by MLP entities.
- **Cambridge Associates U.S. Private Equity Index** is based on data compiled from more than 1,200 institutional-quality buyout, growth equity, private equity energy, and mezzanine funds formed between 1986 and 2015.
- **Cambridge Associates U.S. Venture Capital Index** is based on data compiled from over 1,600 institutional-quality venture capital funds formed between 1986 and 2015.
- **Vanguard Spliced Bloomberg US1-5Yr Gov/Cr Flt Adj Index:** Bloomberg U.S. 1–5 Year Government/Credit Bond Index through December 31, 2009; Bloomberg U.S. 1–5 Year Government/Credit Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg US5-10Yr Gov/Cr Flt Adj Index:** Bloomberg U.S. 5–10 Year Government/Credit Bond Index through December 31, 2009; Bloomberg U.S. 5–10 Year Government/Credit Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg US Agg Flt Adj Index:** Bloomberg U.S. Aggregate Bond Index through December 31, 2009; Bloomberg U.S. Aggregate Float Adjusted Index thereafter.
- **Vanguard Spliced Bloomberg US Long Gov/Cr Flt Adj Index:** Bloomberg U.S. Long Government/Credit Bond Index through December 31, 2009; Bloomberg U.S. Long Government/Credit Float Adjusted Index thereafter.
- **Vanguard Balanced Composite Index:** Made up of two unmanaged benchmarks, weighted 60% Dow Jones U.S. Total Stock Market Index (formerly the Dow Jones Wilshire 5000 Index) and 40% Bloomberg U.S. Aggregate Bond Index through May 31, 2005; 60% MSCI US Broad Market Index and 40% Bloomberg U.S. Aggregate Bond Index through December 31, 2009; 60% MSCI US Broad Market Index and 40% Bloomberg U.S. Aggregate Float Adjusted Index through January 14, 2013; and 60% CRSP US Total Market Index and 40% Bloomberg U.S. Aggregate Float Adjusted Index thereafter.
- **Vanguard Spliced Intermediate-Term Tax-Exempt Index:** Bloomberg 1–15 Year Municipal Bond Index.
- **Vanguard Spliced Extended Market Index:** Dow Jones Wilshire 4500 Index through June 17, 2005; S&P Transitional Completion Index through September 16, 2005; S&P Completion Index thereafter.
- **Vanguard Spliced Value Index:** S&P 500 Value Index (formerly the S&P 500/Barra Value Index) through May 16, 2003; MSCI US Prime Market Value Index through April 16, 2013; CRSP US Large Cap Value Index thereafter.
- **Vanguard Spliced Large Cap Index:** Consists of MSCI US Prime Market 750 Index through January 30, 2013, and the CRSP US Large Cap Index thereafter.
- **Vanguard Spliced Growth Index:** S&P 500 Growth Index (formerly the S&P 500/Barra Growth Index) through May 16, 2003; MSCI US Prime Market Growth Index through April 16, 2013; CRSP US Large Cap Growth Index thereafter.
- **Vanguard Spliced Mid Cap Value Index:** MSCI US Mid Cap Value Index through April 16, 2013; CRSP US Mid Cap Value Index thereafter.
- **Vanguard Spliced Mid Cap Index:** S&P MidCap 400 Index through May 16, 2003; the MSCI US Mid Cap 450 Index through January 30, 2013; and the CRSP US Mid Cap Index thereafter.
- **Vanguard Spliced Mid Cap Growth Index:** MSCI US Mid Cap Growth Index through April 16, 2013; CRSP US Mid Cap Growth Index thereafter.
- **Vanguard Spliced Total Stock Market Index:** Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005; MSCI US Broad Market Index through June 2, 2013; and CRSP US Total Market Index thereafter.
- **Vanguard Spliced Small Cap Value Index:** SmallCap 600 Value Index (formerly the S&P SmallCap 600/Barra Value Index) through May 16, 2003; MSCI US Small Cap Value Index through April 16, 2013; CRSP US Small Cap Value Index thereafter.



- **Vanguard Spliced Small Cap Index:** Russell 2000 Index through May 16, 2003; the MSCI US Small Cap 1750 Index through January 30, 2013; and the CRSP US Small Cap Index thereafter.
- **Vanguard Spliced Small Cap Growth Index:** S&P SmallCap 600 Growth Index (formerly the S&P SmallCap 600/Barra Value Index) through May 16, 2003; MSCI US Small Cap Growth Index through April 16, 2013; CRSP US Small Cap Growth Index thereafter.
- **Vanguard Spliced Total International Stock Index:** Consists of the Total International Composite Index through August 31, 2006; the MSCI EAFE + Emerging Markets Index through December 15, 2010; the MSCI AC USA IMI Index through June 2, 2013; and FTSE Global All Cap ex US Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard Spliced Developed Markets Index:** MSCI EAFE Index through May 28, 2013; FTSE Developed ex North America Index through December 20, 2015; FTSE Developed All Cap ex US Transition Index through May 31, 2016; FTSE Developed All Cap ex US Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard Spliced Emerging Markets Index:** Select Emerging Markets Index through August 23, 2006; MSCI Emerging Markets Index through January 9, 2013; FTSE Emerging Transition Index through June 27, 2013; FTSE Emerging Index through November 1, 2015; and FTSE Emerging Markets All Cap China A Transition Index thereafter. Benchmark returns are adjusted for withholding taxes.
- **Vanguard REIT Spliced Index:** MSCI US REIT Index adjusted to include a 2% cash position (Lipper Money Market Average) through April 30, 2009; MSCI US REIT Index through January 31, 2018; MSCI US Investable Market Real Estate 25/50 Transition Index through July 24, 2018; MSCI US Investable Market Real Estate 25/50 Index thereafter.

Additional:

- Equity sector returns are calculated by Russell and MSCI for domestic and international markets, respectively. MSCI sector definitions correspond to the MSCI GICS® classification (Global Industry Classification System); Russell uses its own sector and industry classifications.
- MSCI country returns are calculated by MSCI and are free float-adjusted market capitalization indices that are designed to measure equity market performance in each specific country.
- Currency returns are calculated using Bloomberg's historical spot rate indices and are calculated using the U.S. dollar as the base currency.
- The Index of Leading Economic Indicators, calculated by The Conference Board, is used as a barometer of economic activity over a range of three to six months. The index is used to determine the direction and stability of the economy. The composite index of leading indicators, which is derived from 10 leading indicators, helps to signal turning points in the economy and forecast economic cycles. The leading indicators are the following: average weekly hours, average weekly initial claims, manufacturers' new orders, both consumer and non-defense capital goods, vendor performance, building permits, stock prices, money supply (M2), the interest rate spread and the index of consumer expectations.
- S&P Target Date Indexes are constructed using a survey method of current target date investments with \$100 million or more in assets under management. Allocations for each vintage are comprised of exchange-traded funds that represent respective asset classes used in target date portfolios. The indexes are designed to represent a market consensus glide path.

DEFINITION OF KEY STATISTICS AND TERMS

- **Returns:** A percentage figure used when reporting historical average compounded rate of investment return. All returns are annualized if the period for which they are calculated exceeds one year.
- **Universe Comparison:** The universe compares the fund's returns to a group of other investment portfolios with similar investment strategies. The returns for the fund, the index and the universe percentiles are displayed. A percentile ranking of 1 is the best, while a percentile ranking of 100 is the worst. For example, a ranking of 50 indicates the fund outperformed half of the universe. A ranking of 25 indicates the fund was in the top 25% of the universe, outperforming 75%.
- **Returns In Up/Down Markets:** This measures how the fund performed in both up and down markets. The methodology is to segregate the performance for each time period into the quarters in which the market, as defined by the index, was positive and negative. Quarters with negative index returns are treated as down markets, and quarters with positive index returns are treated as up markets. Thus, in a 3 year or 12 quarter period, there might be 4 down quarters and 8 up quarters. A simple arithmetic average of returns is calculated for the fund and the index based on the up quarters. A simple arithmetic average of returns is calculated for the fund and the index based on the down quarters. The up market capture ratio is the ratio of the fund's return in up markets to the index. The down market capture ratio is the ratio of the fund's return in down markets to the index. Ideally, the fund would have a greater up market capture ratio than down market capture ratio.
- **Standard Deviation:** Standard deviation is a statistical measure of the range of performance within which the total returns of a fund fall. When a fund has a high standard deviation, the range of performance is very wide, meaning there is a greater volatility. Approximately 68% of the time, the total return of any given fund will differ from the average total return by no more than plus or minus the standard deviation figure. Ninety-five percent of the time, a fund's total return will be within a range of plus or minus two times the standard deviation from the average total return. If the quarterly or monthly returns are all the same the standard deviation will be zero. The more they vary from one another, the higher the standard deviation. Standard deviation can be misleading as a risk indicator for funds with high total returns because large positive deviations will increase the standard deviation without a corresponding increase in the risk of the fund. While positive volatility is welcome, negative is not.
- **R-Squared:** This reflects the percentage of a fund's movements that are explained by movements in its benchmark index. An R-squared of 100 means that all movements of a fund are completely explained by movements in the index. Conversely, a low R-squared indicates very few of the fund's movements are explained by movements in the benchmark index. R-squared can also be used to ascertain the significance of a particular beta. Generally, a higher R-squared will indicate a more reliable beta figure. If the R-squared is lower, then the beta is less relevant to the fund's performance. A measure of diversification, R-squared indicates the extent to which fluctuations in portfolio returns are explained by market. An R-squared = 0.70 implies that 70% of the fluctuation in a portfolio's return is explained by the fluctuation in the market. In this instance, overweighting or underweighting of industry groups or individual securities is responsible for 30% of the fund's movement.
- **Beta:** This is a measure of a fund's market risk. The beta of the market is 1.00. Accordingly, a fund with a 1.10 beta is expected to perform 10% better than the market in up markets and 10% worse than the market in down markets. It is important to note, however, a low fund beta does not imply the fund has a low level of volatility; rather, a low beta means only that the fund's market-related risk is low. Because beta analyzes the market risk of a fund by showing how responsive the fund is to the market, its usefulness depends on the degree to which the markets determine the fund's total risk (indicated by R-squared).
- **Alpha:** The Alpha is the nonsystematic return, or the return that can't be attributed to the market. It can be thought of as how the manager performed if the market's return was zero. A positive alpha implies the manager added value to the return of the portfolio over that of the market. A negative alpha implies the manager did not contribute any value over the performance of the market.
- **Sharpe Ratio:** The Sharpe ratio is the excess return per unit of total risk as measured by standard deviation. Higher numbers are better, indicating more return for the level of risk experienced. The ratio is a fund's return minus the risk-free rate of return (30-day T-Bill rate) divided by the fund's standard deviation. The higher the Sharpe ratio, the more reward you are receiving per unit of total risk. This measure can be used to rank the performance of mutual funds or other portfolios.
- **Treynor Ratio:** The Treynor ratio measures returns earned in excess of that which could have been earned on a riskless investment per each unit of market risk. The ratio relates excess return over the risk-free rate to the additional risk taken; however, systematic risk is used instead of total risk. The Treynor ratio is similar to the Sharpe ratio, except in the fact that it uses the beta to evaluate the returns rather than the standard deviation of portfolio returns. High values mean better return for risk taken.



- **Tracking Error:** Tracking error measures the volatility of the difference in annual returns between the manager and the index. This value is calculated by measuring the standard deviation of the difference between manager and index returns. For example, a tracking error of +/- 5 would mean there is about a 68% chance (1 standard deviation event) that the manager's returns will fall within +/- 5% of the benchmark's annual return.
- **Information Ratio:** The information ratio is a measure of the consistency of excess return. This value is determined by taking the annualized excess return over a benchmark (style benchmark by default) and dividing the standard deviation of excess return.
- **Consistency:** Consistency shows the percent of the periods the fund has beaten the index and the percent of the periods the index has beat the fund. A high average for the fund (e.g., over 50) is desirable, indicating the fund has beaten the index frequently.
- **Downside Risk:** Downside risk is a measure similar to standard deviation but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the factor, the riskier the product.
- **M-Squared:** M-squared, or the Modigliani risk-adjusted performance measure is used to characterize how well a portfolio's return rewards an investor for the amount of risk taken, relative to that of some benchmark portfolio and to the risk-free rate.

DEFINITION OF KEY PRIVATE EQUITY TERMS

- **PIC (Paid in Capital):** The amount of committed capital that has been transferred from the limited partner to the general partner.
- **TVPI (Total Value to Paid in Capital):** Money returned to limited partners plus the fund's unrealized investments, divided by money paid-in to the partnership. The TVPI should equal RVPI plus DPI.
- **DPI (Distribution to Paid In Capital):** Money returned (distributions) to limited partners divided by money paid in to the partnership. Also called cash-on-cash multiple.
- **RVPI (Residual Value to Paid In Capital):** The value of a fund's unrealized investments divided by money paid-in to the partnership.
- **Internal rate of return (IRR):** This is the most appropriate performance benchmark for private equity investments. It is a time-weighted return expressed as a percentage. IRR uses the present sum of cash drawdowns (money invested), the present value of distributions (money returned from investments) and the current value of unrealized investments and applies a discount.
- **Commitment:** Every investor in a private equity fund commits to investing a specified sum of money in the fund partnership over a specified period of time. The fund records this as the limited partnership's capital commitment. The sum of capital commitments is equal to the size of the fund.
- **Capital Distribution:** These are the returns that an investor in a private equity fund receives. It is the income and capital realized from investments less expenses and liabilities. Once a limited partner has had their cost of investment returned, further distributions are actual profit. The partnership agreement determines the timing of distributions to the limited partner. It will also determine how profits are divided among the limited partners and general partner.
- **Carried Interest:** The share of profits that the fund manager is due once it has returned the cost of investment to investors. Carried interest is normally expressed as a percentage of the total profits of the fund.
- **Co-Investment:** Co-Investments are minority investments made alongside a private equity investor in an LBO, a recapitalization, or an expansion capital transaction. It is a passive, non-controlling investment, as the private equity firm involved will typically exercise control and perform monitoring functions.
- **General Partner (GP):** This can refer to the top-ranking partners at a private equity firm as well as the firm managing the private equity fund.
- **GP Commitments:** It is normal practice for the GP managing a private equity fund to also make a financial commitment to the fund on the same basis as the LPs in the fund, and this is seen as an important factor driving the alignment of GP and LP interests. The historic benchmark for GP commitments has been 1% of the total fund size, but this is by no means universal, and many GPs commit significantly larger amounts. Furthermore, there has been a marked trend towards GPs making larger commitments to their funds over recent years.
- **Leveraged Buy-Out (LBO):** The acquisition of a company using debt and equity finance.
- **Limited Partner (LP):** Institutions or high-net-worth individuals/sophisticated investors that contribute capital to a private equity fund.
- **Public Market Equivalent (PME):** Performance measure used to evaluate performance relative to the market. It is calculated as the ratio of the discounted value of the LP's inflows divided by the discounted value of outflows, with the discounting performed using realized market returns.
- **Primaries:** An original investment vehicle that invests directly into a company or asset.

VALUATION POLICY

Fiducient Advisors does not engage an independent third-party pricing service to value securities. Our reports are generated using the security prices provided by custodians used by our clients. Our custodial pricing hierarchy is available upon request. If a client holds a security not reported by the first custodian within the hierarchy, the valuation is generated from the next custodian within the hierarchy, and so forth. Each custodian uses pricing services from outside vendors, where the vendors may generate nominally different prices. Therefore, this report can reflect minor valuation differences from those contained in a custodian's report. In rare instances where FA overrides a custodial price, prices are taken from Bloomberg.

REPORTING POLICY

This report is intended for the exclusive use of the client listed within the report. Content is privileged and confidential. Any dissemination or distribution is strictly prohibited. Information has been obtained from a variety of sources believed to be reliable though not independently verified. Any forecast represents median expectations and actual returns, volatilities and correlations will differ from forecasts. Please note each client has customized investment objectives and constraints and the investment strategy for each portfolio is based on a client-specific asset allocation model. Past performance does not indicate future performance and there is a possibility of a loss. Performance calculated net of investment fees. Certain portfolios presented may be gross of Fiducient Advisors' fees and actual performance would be reduced by investment advisory fees. This report does not represent a specific investment recommendation. Please consult with your advisor, attorney, and accountant, as appropriate, regarding specific advice.



Custodian reports are the reports that govern the account. There will be different account values between Fiducient Advisors' reports and the custodian reports based on whether the report utilizes trade date or date to calculate value. Additionally, difference between values contained on reports may be caused by different accrued income values. Any forecasts represent future expectations and actual returns, volatilities and will differ from forecasts. This report does not represent a specific investment recommendation. Please consult with your advisor, attorney, and accountant, as appropriate, regarding specific advice. Past performance does not indicate future performance and there is a possibility of a loss.

Manager performance for mutual funds and ETFs is based on NAV and provided by Morningstar. Performance for non-mutual fund or ETF investments is based on the returns provided by managers, calculations based on a manager statement, or calculations based on a statement or data from the client's custodian. Unless specified otherwise, all returns are net of individual manager fees, represent total returns and are annualized for periods greater than one year. The deduction of fees produces a compounding effect that reduces the total rate of return over time. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) quarterly fee assessment, (b) \$1,000,000 investment, (c) portfolio return of 8% a year, and (d) 0.50% annual investment advisory fee would be \$5,228 in the first year, and cumulative effects of \$30,342 over five years and \$73,826 over ten years. Additional information on advisory fees charged by Fiducient Advisors are described in Part 2 of the Form ADV.

MATERIAL RISKS & LIMITATIONS

Fixed Income securities are subject to interest rate risks, the risk of default and liquidity risk. U.S. investors exposed to non-U.S. fixed income may also be subject to currency risk and fluctuations.
-Liability Driven Investing (LDI) Assets

Cash may be subject to the loss of principal and over longer period of time may lose purchasing power due to inflation.
-Short Term Liquidity

Domestic Equity can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry factors, or other macro events. These may happen quickly and unpredictably.

International Equity can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry impacts, or other macro events. These may happen quickly and unpredictably. International equity allocations may also be impacted by currency and/or country specific risks which may result in lower liquidity in some markets.

Real Assets can be volatile and may include asset segments that may have greater volatility than investment in traditional equity securities. Such volatility could be influenced by a myriad of factors including, but not limited to overall market volatility, changes in interest rates, political and regulatory developments, or other exogenous events like weather or natural disaster.

Private Equity involves higher risk and is suitable only for sophisticated investors. Along with traditional equity market risks, private equity investments are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility and/or the potential loss of capital.

Private Credit involves higher risk and is suitable only for sophisticated investors. These assets are subject to interest rate risks, the risk of default and limited liquidity. U.S. investors exposed to non-U.S. private credit may also be subject to currency risk and fluctuations.

Private Real Estate involves higher risk and is suitable only for sophisticated investors. Real estate assets can be volatile and may include unique risks to the asset class like leverage and/or industry, sector or geographical concentration. Declines in real estate value may take place for a number of reasons including, but are not limited to economic conditions, change in condition of the underlying property or defaults by the borrower.

Marketable Alternatives involves higher risk and is suitable only for sophisticated investors. Along with traditional market risks, marketable alternatives are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility or the potential for loss of capital. Additionally, short selling involved certain risks including, but not limited to additional costs, and the potential for unlimited loss on certain short sale positions.

OTHER

By regulation, closed-end funds utilizing debt for leverage must report their interest expense, as well as their income tax expense, as part of their total expense ratio. To make for a useful comparison between closed-end funds and both open-end funds and exchange-traded funds, adjusted expense ratios excluding interest and income tax expenses are utilized for closed-end funds within this report. See disclosure on closed-end fund fact sheets for information regarding the total expense ratio of each closed-end fund.

Please advise us of any changes in your objectives or circumstances.

CUSTODIAN STATEMENTS

Please remember to review the periodic statements you receive from your custodian. If you do not receive periodic statements from your custodian or notice issues with the activity reported in those statements, please contact FA or your custodian immediately.