



02/27/23 09:39:23  
WV Purchasing Division

West Virginia Consolidated Public Retirement Board

# Outside Actuarial Services

**CRFP 0203 CPR2300000002**

March 1, 2023



Matthew Strom, FSA, MAAA, EA  
Senior Vice President, Actuary  
T 312.984.8534  
M 646.668.1425  
mstrom@segalco.com

101 North Wacker Drive  
Suite 500  
Chicago, IL 60606-1724  
segalco.com

# Title Page

March 1, 2023

West Virginia Consolidated Public Retirement Board  
Ms. Melissa Pettrey, Senior Buyer  
2019 Washington Street, East  
Charleston, West Virginia 25305

RE: CRFP 0203 CPR2300000002 for Outside Actuarial Services

Dear Ms. Pettrey:

Thank you for the opportunity to submit our proposal to perform outside actuarial services for the West Virginia Consolidated Public Retirement Board (the Agency). We trust this proposal illustrates our proven record of experience, dedication and innovation in helping clients manage their defined benefit programs.

Currently, Segal consults to more than one-third of the state-level plans, as well as various cities and municipalities across the country. Serving the public sector is a primary focus at Segal and for our senior consulting team proposed for the Agency. 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 National Institute on Retirement Security.

## Highlights of our proposal

**An elite service team:** To ensure timely access to senior consultants and provide the bench strength that the Agency expects and deserves, we have assigned three experienced lead actuaries to the proposed team. Additionally, we have included a member of Segal's National Public Sector Compliance practice on the proposed team to assist the Agency with issues related to policy or administrative challenges associated with implementing new legislation.

**Segal Pulse®:** For trustees and system staff who want to explore the impact of key variables such as investment return, amortization period and future payroll growth scenarios hands-on, Segal Pulse® is an enhanced, client-driven version of our internal forecast modeling tool that dynamically generates financial and actuarial deterministic projections from a web-based environment.

**SCRUB® (Segal Cloud Reconciling Utility for Benefit plan data):** Segal's SCRUB® data-processing utility tool is designed from the ground up with the sole focus of reconciling

retirement plan member data for use in actuarial valuations. This tool includes customizable checks and is able to seek out and report common anomalies, such as a pattern of pay decreases, unreasonably low member account balances, etc.

**Longstanding mission – providing “trusted advice that improves lives”:** Segal offers a team with the knowledge and experience to engage with the Agency when and where you need us, and a commitment to a common goal: to allow your members to thrive in their employment years as they look forward to a secure retirement.

**An independent, privately held consulting firm:** Segal has been employee owned by its officers since 1978 and currently has 322 employee owners, with no shareholder owning more than 5% of the company. We do not expect any changes in the ownership structure and expect that Segal will continue to be independent and employee owned, ensuring the Agency will receive the most consistent and comprehensive services.

As your primary point of contact, I am available to answer any questions regarding our proposal or qualifications and experience. Please feel free to contact me directly at 646.668.1425 [t], 312.896.9364 [f], or [mstrom@segalco.com](mailto:mstrom@segalco.com).

Sincerely,



Matthew Strom, FSA, MAAA, EA  
Senior Vice President, Actuary

# Table of Contents

Title Page.....	1
Executive Summary.....	1
Requirements .....	4
4.2 Project goals and mandatory requirements.....	4
4.2.1. Goals and objectives.....	4
4.2.2. Mandatory project requirements.....	22
4.3. Qualifications and experience.....	23
4.3.1. Qualification and experience information.....	24
4.3.2. Mandatory qualification/experience requirements .....	38
Attachments.....	40
A. Addenda acknowledgement form .....	41
B. Vendor information form.....	42
C. Designated contact form .....	43
D. Certification form.....	44
Appendices .....	45
A. Professional biographies .....	46

# Executive Summary

We are pleased to submit this proposal to West Virginia Consolidated Public Retirement Board (“CPRB” or the “Agency”) in response to your Request for Proposal (RFP) for Outside Actuarial Services.

Segal has been helping public sector retirement systems and employers with their retirement plans for over 70 years – through multiple economic cycles and market volatility. We have been providing actuarial consulting services to public sector retirement plans since the mid-1950s. We are known for designing and supporting retirement plans that reflect the unique needs and priorities of public entities and their employees. Our public sector retirement practice provides a full range of services.

## Understanding your Systems

We understand the Agency is seeking a qualified actuarial firm to perform outside actuarial services to the Public Employees’ Retirement System (PERS), the Teachers’ Retirement System (TRS), the Department of Public Safety, Death, Disability and Retirement System (SPDDRS), the State Police Retirement System (SPRS) and the Judges Retirement System (JRS). The outside actuary will perform the annual funding valuations and GASB 67/68 valuations for PERS, TRS, SPDDRS, SPRS and JRS. At least once every five years, the outside actuary and the Board Actuary will perform an experience study. Additionally, the outside Actuary will perform actuarial services as necessary.

With similar clients such as the Vermont Retirement Systems, Teachers’ Retirement System of the State of Illinois, the Public Employees’ Retirement Association of Colorado and North Dakota Teachers’ Fund for Retirement, we have the experience and expertise to help you reach your goals (as illustrated in the RFP).

## Our consulting approach

Segal is uniquely qualified to assist the Agency in this important engagement. We will not provide reactive services or simply present the actuarial valuations – we will be your partner and trusted advisor. It is important to note that we do not follow a one-size-fits-all approach to our work. We recognize each client is unique and we will provide the most appropriate solutions based on your circumstances and the environment in which you operate. We accomplish this goal by working closely with Agency professionals and by choosing the best-equipped team from Segal to serve your needs. We believe knowledge, understanding, communication and trust are at the heart of good consulting. Additionally, we are small enough to focus thoroughly on your specific needs but large enough to have robust internal resources in all key areas—including in-house research, compliance, governance, and communications.

## Team experience

Segal has established a team of actuaries and consultants who function as a center of excellence for public sector consulting. This team specializes in public sector systems such as

states, local governments and other public sector organizations and has extensive experience valuing the liabilities for all types of retirement benefits, as well as advising clients in managing the magnitude of their liabilities. Leading the Agency team are:

**Matt Strom, FSA, MAAA, EA, Senior Vice President and Actuary.** Matt works in Segal's Chicago office and has more than 25 years of experience consulting to sponsors of defined benefit pension plans. He is also a member of Segal's Public Sector Leadership Group, which discusses the issues facing public sector clients and ways to advance Segal's public sector consulting. His responsibilities include presenting to boards of trustees, reviewing actuarial valuations, preparing actuarial cost studies, and managing other special projects for public sector retirement plans. Matt's expertise includes deterministic and stochastic cost and funding level projections, plan design analyses, experience studies, asset/liability modeling and actuarial audits. He has served as Supervising Actuary to several retirement systems including:

- Teachers' Retirement System of the State of Illinois
- North Dakota Teachers' Fund for Retirement
- Vermont Retirement Systems
- Public Employees' Retirement Association of Colorado
- Municipal Employees' Annuity and Benefit Fund of Chicago

**Daniel Siblik, ASA, MAAA, FCA, EA, Vice President and Actuary.** Dan works out of Segal's Chicago office and has more than 25 years of experience as a benefits consultant and focuses primarily on public sector pension consulting, as well as retiree healthcare consulting. His primary roles include, but are not limited to, reviewing and delivering pension valuation results, preparing experience studies and developing recommended assumptions, actuarial audits, modeling projections, preparing cost-impact statements for proposed legislation and/or plan changes and reporting to the Governmental Accounting Standards Board. His clients include:

- Teachers' Retirement System of the State of Illinois
- Illinois Commission on Government Forecasting and Accountability
- Chicago Housing Authority
- Milwaukee County Employees' Retirement System
- Firemen's Annuity and Benefit of Chicago

**Brad Ramirez, FSA, FCA, MAAA, EA, Vice President and Consulting Actuary.** Brad works in Segal's Denver office and has more than 25 years of consulting experience. He has specialized expertise in the funding, design and administration of defined benefit pension plans. Brad works with public and private institutions to help manage the financial risks of providing stable retirement income to their former employees. His clients include:

- Public Employees' Retirement Association of Colorado
- Nevada Public Employees' Retirement System
- North Dakota Teachers' Fund for Retirement
- Weld County (CO) Retirement Plan
- Oregon Retail Employees Pension Trust

## 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 Agency, the basic processes that guide our efforts, our qualifications, client team, proposed fees and references. To be brief and to the point, much of the information has been summarized. However, we welcome the opportunity to meet with you and discuss our proposed services and approach in more detail. We believe Segal will make an excellent partner to the Agency for many years. Our team is dedicated to you and this engagement, and we look forward to meeting and working with your team.

# Requirements

*Vendor should describe its approach and methodology to providing the service or solving the problem described by meet the goals/objectives identified below. Vendor's response should include any information about how the proposed approach is superior or inferior to other possible approaches.*

## 4.2 Project goals and mandatory requirements

### 4.2.1. Goals and objectives

*The project goals and objectives are listed below.*

*4.2.1.1. To procure the services of an actuarial firm with qualified actuaries to prepare the annual July 1st actuarial funding valuation reports for the following defined benefit retirement systems:*

- Public Employees' Retirement System (PERS)*
- Teachers' Retirement System (TRS)*
- Department of Public Safety, Death, Disability and Retirement System (Trooper Plan A)*
- State Police Retirement System (Trooper Plan B)*
- Judges' Retirement System (JRS)*

*The TRS valuation must include the development of the State TRS contribution and the School Aid Formula appropriation amounts.*

*All actuarial funding valuation reports must comply with all Actuarial Standards of Practice (ASOPs), including a section regarding ASOP 51 compliance and exhibits displaying the actuarial gain/loss development required by ASOP 4. The data for the actuarial funding valuations will be prepared by the CPRB actuarial group with the outside actuarial team performing a review of the data for consistency and reasonableness. Typically, the CPRB finalizes PERS data around the third week of October, TRS data the second week of November, Trooper Plan A and Trooper Plan B around the first week in December, and JRS by the second week of December. Asset information will be provided by the West Virginia Investment Management Board around the fourth week of September.*

*The consultant must attend a CPRB Board of Trustees' meeting to present the July 1st valuation results. Generally, this meeting occurs in mid-January of each year.*



## Proposed methodology and work plan

We will prepare the requested actuarial valuations in accordance with generally accepted actuarial principles and practices. Each actuarial valuation will include an analysis and review of the membership data; a review and recommendations for the actuarial assumptions; a review of the existing funding schedule and recommendations for changes, if appropriate; and the preparation of additional funding schedules based on alternative assumptions, if requested and if appropriate. The TRS valuation will include the development of the State TRS contribution and the School Aid Formula appropriation amounts.

We will also prepare annual reports that include the reporting and disclosure information as required by the Governmental Accounting Standards Board (GASB). All actuarial funding valuation reports will comply with all Actuarial Standards of Practice (ASOPs), including a section regarding ASOP 51 compliance and exhibits displaying the actuarial gain/loss development required by ASOP 4.

Additionally, our proposed team will prepare actuarial valuations for the Agency based on data prepared and provided by the CPRB actuarial group and assumptions adopted by the Agency. We will review the data for consistency and reasonableness. The actuarial valuation reports provide a regular picture of the financial condition of the plans. Each valuation includes the determination of the required employer contributions and the various actuarial present values based on the participant and financial data, and the actuarial assumptions and plan provisions. The reports will include changes that have occurred since the previous report and the rationale behind them.

Our draft and final reports will be prepared in compliance with Actuarial Standards of Practice issued by the Actuarial Standards Board, as well as any applicable State statutes. In mid-January of each year, it is expected that **Matt Strom** and **Dan Siblik** will attend a CPRB Board of Trustees' meeting to present the July 1st valuation results.

The procedures we will undertake are outlined below.

## Work plan and methodology

We will anticipate receiving the finalized data from CPRB in the third week of October, TRS data in the second week of November, Trooper Plan A and Trooper Plan B in the first week in December, and JRS in the second week of December. We anticipate receiving asset information from the West Virginia Investment Management Board around the fourth week of September.

Upon receipt, we will analyze the data, question missing or irregular data items, calculate the liabilities and prepare reports of our findings and recommendations.

Immediately upon approval of the engagement, Segal will establish a meeting or conference with the Agency to initiate the project. The purpose is to:

- Discuss and finalize the project scope and timing
- Understand any special needs or interests
- Establish parameters for keeping responsible parties updated—conference calls or some other medium

- Identify data required for the overall engagement
- Review on the final due dates for all deliverables for the project

Following the initial discussion, we will summarize the discussion and decisions and provide a project outline and data request to the appropriate parties. Any open issues and questions will be identified for review as the project progresses. We will also reach out to the prior actuary for information so we can begin matching the prior valuations numbers concurrent with the new valuations process. This ensures that our understanding of the plans match the Agency's understanding. We will also prepare a detailed work plan for the Agency's review. Upon approval of the work plan by responsible parties, we will proceed with the work plan, once we receive clean, usable data.

## Transition plan

Segal's principal objective for the transition is to have all actuarial valuation procedures and programs in place and validated before the beginning of the first annual valuation cycle with Segal as the Agency's actuary. We are confident the transition process will be smooth. The key tasks in the transition process are as follows:

- **Testing the initial year's valuations for accuracy and precision:** Our approach to transitioning the actuarial work from your current vendor to Segal begins with our actuaries programming the most recent valuation into our valuation system and thoroughly testing and reviewing the results. As part of the transition process, the actuarial analysts will program the liability routines, and the senior actuarial analysts and valuation manager will thoroughly review every aspect of the program.

The Segal team will discuss any discrepancies or questions that arise and only after agreeing that the programs are properly written will the work proceed. A major step of the valuation programming is to produce detailed liability calculations for a representative sample of the member population. A detailed review of the calculations for sample members will ensure that each benefit provided is properly included in the liabilities. The valuation team will review the detailed liability calculations. The goal is for the team to be in agreement with the valuation programming.

- **Reconciling differences in calculations and methodologies:** Once we are comfortable that our liability calculations are accurate, we will compare our results to those of the current actuaries.

We expect to have fully reconciled all liabilities and contributions by eight weeks after receiving the valuation-ready census data from the most recent valuations, enabling us to address any cost analyses or other consulting requests and to prepare for the upcoming valuation cycle.

## Evaluate plan documentation and data

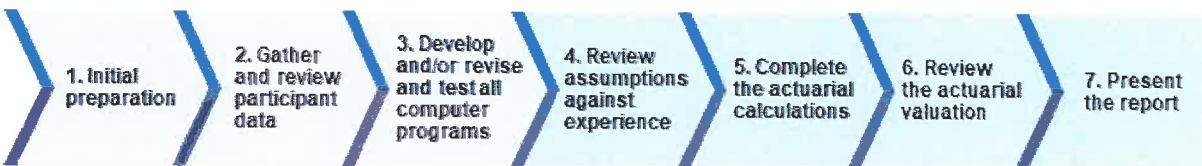
The next phase of the project would consist of a review of all relevant plan documents, summary plan descriptions and any other related documents concerning the pension benefits provided to the Plan's retirees. Where needed, we will raise questions to assure that we fully understand all aspects of the program.

Data elements required for the pension valuations will be outlined in our data requests.

## Valuation process

An actuarial valuation must communicate the financial condition of the Plan in a clear, concise manner and with the utmost degree of accuracy. Segal's established approach to actuarial valuations defines a sequence, methodology and set of quality controls that allow us to consistently meet this high standard of quality and accuracy.

Valuations are always prepared by a credentialed actuary in a manner consistent with all laws, accounting requirements and Actuarial Standards of Practice (ASOPs). Each valuation includes the determination of the required contributions and the various actuarial present values based on the participant data, financial information and the actuarial assumptions and methods. It also explains any changes that have occurred since the previous report and the reasons.



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 to meet the client's needs.

- 1. Do the initial preparation.** Set up files, including plan documents for all plans, previous valuations and any other relevant materials. Prepare a summary of the benefit plans and the present assumptions. Speak with the Agency to ensure that there is complete agreement and full understanding of the operation of each plan of benefits.
  - Prepare a data request, identifying all required information for the calculations. This will include 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.
  - Review the initial preparation and data request. Have the initial preparation and data request reviewed by the reviewing actuary.
- 2. Send the data request to the Agency.** Work with the Agency, as necessary, to simplify data preparation and assure its completeness and accuracy. Participant data can be uploaded electronically to Segal's secure file transfer protocol (SFT) website.
  - Review the data when received, to be sure it conforms to the data request. Run the participant data through standard "edit and distribution" programs to verify completeness and reasonableness. Discuss any problems with your team.
- 3. Develop and/or revise and test all computer programs.** We will make programming adjustments as necessary to consider changes in benefits, contributions and actuarial assumptions. We implement extensive testing of valuation applications before, during and after processing the actual valuations to ensure that the programs perform as expected.
- 4. Review assumptions against experience.** The team will assess developing trends and analyze actuarial gains and losses since the prior valuation. We will discuss with the Agency staff team, if necessary, to verify unusual results.

5. **Complete the actuarial calculations.** Run final versions of computer valuation programs. Prepare work sheets and tables. Submit all calculations to the reviewing actuary for verification of mathematical accuracy.
6. **Review the actuarial valuations.** This review encompasses the entire process including participant and financial data preparation, calculations and programs. The reviewing actuary assumes responsibility for the completeness and correctness of the actuarial results.
  - Draft the report and presentation to be delivered to the Agency.
  - Perform the final review. The Lead Actuaries will conduct this review.
7. **Distribute the report.**
  - Meet with the Agency to discuss the report, its findings, the reasons for changes and any other relevant matters.
  - Follow up with you on any action arising from the report.

We have found that these procedures ensure a quality actuarial product and communicate the results in a clear manner.

## Assumption review

As part of each annual actuarial valuation, we analyze the economic and demographic assumptions used for reasonableness and appropriateness. We also assess whether the actuarial valuation assumptions are reasonable and consistent with generally accepted actuarial standards and practices, specifically ASOP No. 4 regarding measuring pension obligations, ASOP No. 27 covering economic assumptions and ASOP No. 35 covering demographic and non-economic assumptions. The assessment also determines whether the assumptions are reasonable based on the Plan's experience and appropriate to the current benefit structures and funding objectives.

In addition to multi-year experience review studies, with each annual valuation we track gains and losses to the actuarial assumptions that result in an early assessment of trends or shifts in performance that can be reviewed with the Board and potentially addressed "off cycle" if necessary, rather than waiting for the next comprehensive review.

## Perform actuarial valuations of the liabilities

We will perform actuarial valuations of the actuarial liabilities and actuarially determined contribution rates in accordance with applicable rules, governing statutes and Board policies (if appropriate). We will also develop net pension liability and pension expense based on the rules of GASB Statements No. 67 and 68. Our analysis will include a projection of the costs based on the current population of active employees and retirees.

Segal will perform the following calculations:

- **Discount the projected cost of benefits to the present value:** The actuarial present value of total projected benefits is the amount that would have to be set aside today in an interest-earning account in order to provide enough capital to pay all expected costs of postemployment benefits for all current plan participants (both retirees and employees).
- **Determine the Actuarial Accrued Liability (AAL):** The AAL is the portion of the actuarial present value of total projected benefits allocated to years of employment prior to the

measurement date. The AAL is calculated using the actuarial cost method recommended by the actuary and approved by the Board.

- **Calculate the Unfunded Actuarial Accrued Liability (UAAL):** The UAAL is the difference between the AAL and actuarial value of the plan's assets.
- **Actuarially Determined Contribution (ADC):** The ADC is equal to the sum of the normal cost (NC) and the amortization of the UAAL.

Additional relevant figures would be calculated and provided to the Agency, including annual expense (including any applicable transition calculations), accumulated postretirement benefit obligation, expected postretirement benefit obligation and vested postretirement benefit obligation.

We will determine the actuarial value of assets based on the asset valuation method adopted by the Agency. In addition, we will comment on the impact of using an asset valuation method other than market value on the current and future appropriations. If the actuarial value of assets is significantly different than the market value, we will review with the Agency the option to reflect deferred investment gains and losses in the projection of future appropriations.

The various actuarial cost methods are tools designed to create funding patterns to assure that sufficient assets are available as benefits become payable. Segal has no preconceived "best" method. Rather we work with our clients to choose an acceptable method that best fits into their long-range plans. Typically, we use funding methods such as the following for public plans: Entry Age Normal (EAN), Projected Unit Credit (PUC) and Aggregate. The choice of a particular method is dependent upon several factors, including the demographic makeup of the plan population, the funding level of the plan, the plan sponsor's philosophical point of view and other factors. All three methods will adequately fund a plan as long as the plan sponsor actually makes the required contributions. Note that the Governmental Accounting Standards Board require EAN for all disclosure purposes under Statements 67 and 68.

While Segal does not prescribe any specific assumption or set of assumptions, the assumptions used for each plan must be reasonable and fall within generally accepted actuarial principles.

## Prepare valuation reports

Segal's valuation reports typically contain the following information but are tailored to each client's unique needs:

- Purpose of report
- Letter of Certification
- Significant changes in valuation year
- Summary of key valuation results
- Census data summary
- Summary of actuarial valuation results
- Development of Actuarially Determined Contribution (ADC)
- Schedule of employer contributions
- Schedule of funding progress
- Solvency test
- Summary of plan provisions
- Glossary of Pension and GASB terms
- Description of the plan
- Description of significant assumptions as well as the dates of experience studies on which the significant assumptions are based
- Investment policies
- Policy for determining contributions
- Components of the Net Pension Liability

- Net Pension Liability
- Schedule of changes in Pension Liability
- Reconciliation of Net Pension Liability
- Deferred Outflows of Resources and Deferred Inflows of Resources
- Pension expense
- Supplementary information required by the GASB
- Actuarial assumptions and actuarial cost methods
- Sensitivity analysis of the impact Net Pension Liability of a one percentage point increase and decrease in the discount rate
- Net Pension Liability for the past 10 years
- Change in Net Pension Liability for the past 10 years
- Schedule of Actuarially Determined Contributions for the past 10 years
- Development of long-term earnings assumption
- Money weighted rates of investment return for past 10 years

## Assessment of risk factors (ASOP 51 detail)

Our valuation reports will include a customized risk identification and analysis section, which will exceed the requirements outlined in ASOP 51. For the CPRB plans, since the State is required to pay an actuarially determined contribution amount, we will comment on various risks that may contribute to these amounts increasing more than expected. Where possible, we will provide a degree of magnitude and a potential range of future measurements, which will allow readers and stakeholders to gain a deeper understanding of the risks each plan faces.

The Agency may want to consider having Segal do a specific risk study as we have done for other clients that shows the main risk components and how they individually affect costs such as the Actuarial Determined Contribution, funded ratios and other metrics.

## Review report and findings

Once the draft valuations are complete, we will meet with the Agency to review our actuarial reports and findings. Within 5 days of receipt of your comments (or sooner, if necessary), we will incorporate the comments and submit the reports as final.

We will work closely with the Agency staff to define timing for completion of any additional modeling and plan design testing resulting from the initial valuations.

## Actuarial valuation software

Segal has built and maintained its own actuarial software in-house for many years – this allows us to customize our deliverables based on the unique needs of our clients. Our dedicated Actuarial Technology and Systems department is comprised of a group of systems developers responsible for providing and supporting the company’s state-of-the-art actuarial valuation system. This system has been designed internally to maintain control and flexibility to allow for modifications to best meet the unique needs of our clients.

Our actuarial valuation system includes:

- **SCRUB® (Segal Cloud Reconciling Utility for Benefit plan data):** This data reconciliation application starts with client-supplied records and produces a single source of data for all actuarial processing needs. Data received from the client via secure methods is imported into SCRUB, a proprietary cloud and web-based application. This centralized data solution offers the security of managing user access to client data, and encryption for data at all points of the

process. SCRUB offers the user flexibility via a variety of features and tools to accommodate the uniqueness of each individual client's data.

- **STAR:** This is a multi-decrement actuarial valuation program that produces a comprehensive set of liability calculations associated with a wide range of benefit plans. The architecture of the program capitalizes on the speed and security of cloud technology, and the modular structure of the underlying code allows for improvements to be implemented with a high degree of ease, speed and accuracy.
- **Costs and report generator:** The set of demographic and liability calculations produced by STAR is automatically imported into an integrated costs and report generator program. This program produces actuarial calculations associated with the liabilities to meet regulatory, legislative and client requirements. The results of these calculations are electronically linked to a report generator that creates the valuation report including tables and graphs.
- **Experience study software:** This software aggregates experience over survey period and compiles summary tables and charts comparing expected to actual to recommended data.
- **Actuarial utility programs:** These user-friendly tools are readily available to our actuaries for use in performing various actuarial calculations such as Section 415 limitations, Social Security calculations and generation of annuity values.
- **Asset liability modeling:** Segal's capabilities include our proprietary Forecast and Pulse dynamic real-time modeling tool that accommodates deterministic projections to increase understanding and facilitate decision-making by allowing plan sponsors to view and assess emerging retirement plan finances. Segal's Asset Liability Modeling (ALM) tool is used for stochastic asset/liability modeling studies to make sound decisions regarding plan assets and liabilities while measuring actuarial funding risks.



We are unique in our ability to provide Segal Pulse<sup>®</sup>, a web-based forecasting tool that dynamically generates financial and actuarial deterministic projections. Featuring an easy-to-use interface, the tool allows clients to make their own real-time projections to increase their understanding of the direction their plans are heading and to learn what factors could change that direction. Users are able to perform "what if" projections to see the impact of changing financial and demographic variables in real-time.

Segal Pulse<sup>®</sup> functionalities are comprehensive and include:

- Fluctuation in future investment returns
- Variation of future contributions
- Change in active population and salary growth assumptions
- Adjustment to amortization methods and periods
- Modification to plan design

---

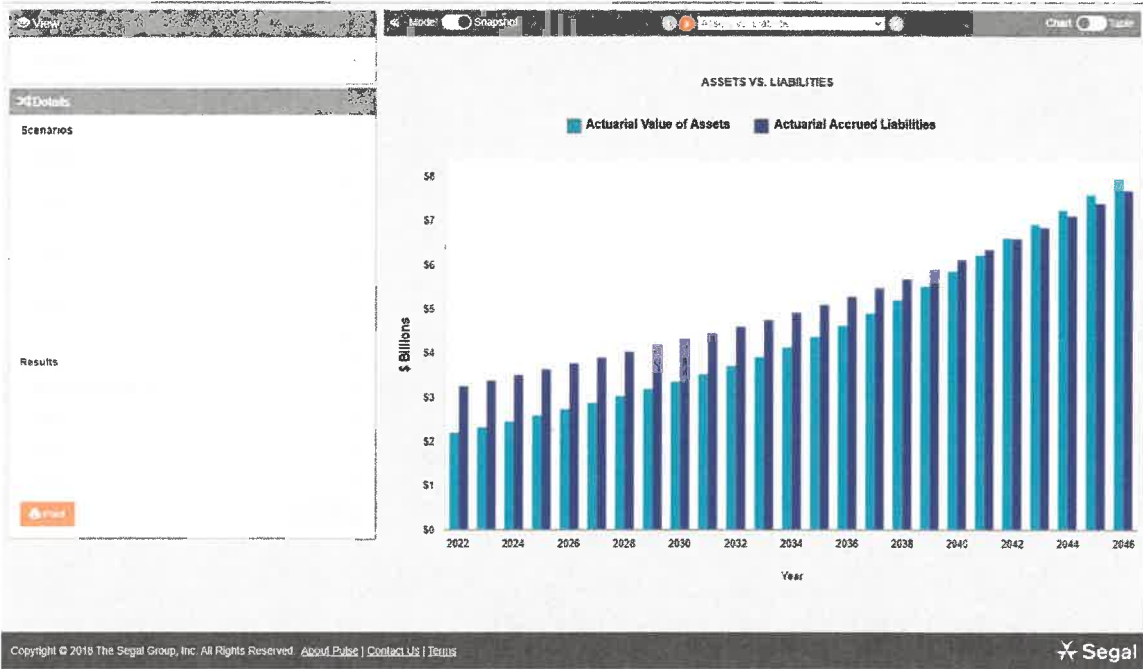
Segal Pulse<sup>®</sup> is a web-based forecasting tool available to our clients that dynamically generates financial and actuarial projections.

# Sample Forecasts from Segal Pulse®



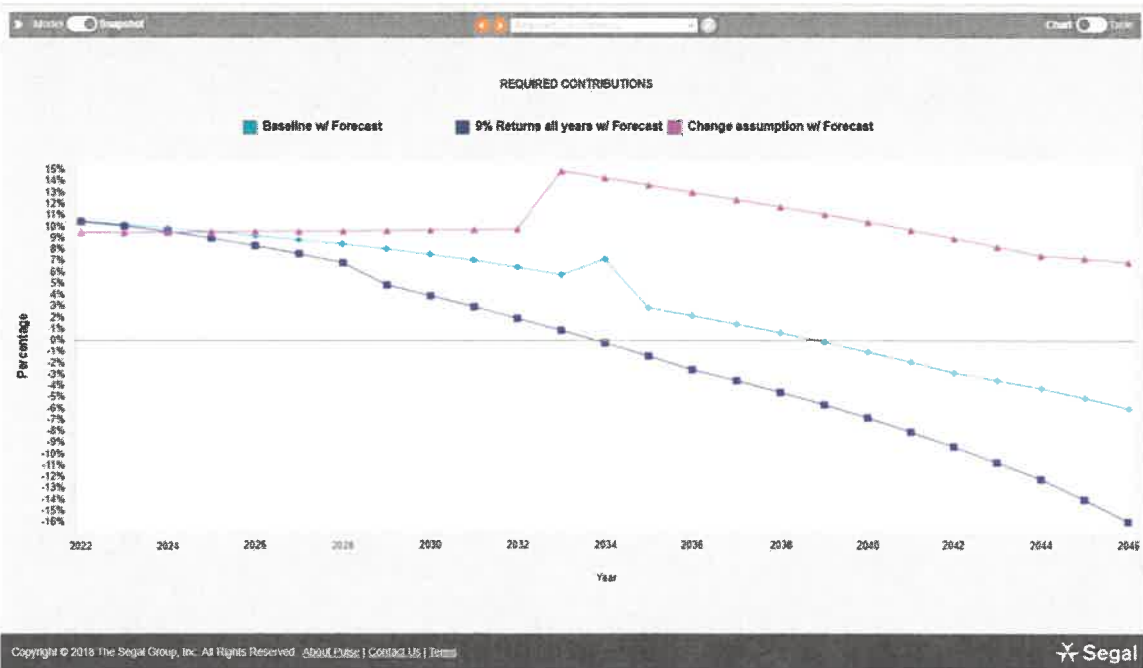
Teachers' Fund for Retirement - July 1, 2021

Need help? Settings



Teachers' Fund for Retirement - July 1, 2021

Need help? Settings





Segal deploys a user-friendly and secure extranet system utilizing secure Microsoft SharePoint technology to provide a portal for the Agency and consulting teams to share files, data, documents and other information. Segal's extranet uses encrypted login and password protection and is immune to indexing by external search engines.

*4.2.1.2. To procure the services of an actuarial firm with qualified actuaries to prepare the annual June 30 GASB Statement No. 67 and 68 Actuarial Reports (generally rolled forward from the July 1st actuarial valuation reports noted in Goal 1, above. These reports must be issued no later than September 25th of each year.*

As many components of GASB 67 and 68 are intertwined, we provide the following services:

**Calculation of the discount rate:** Segal will work with the Agency to project the benefits and assets for members in the system as of the measurement date. The benefits must be projected to the date of the expected last payment. Assets are projected by incorporating all cash flows for contributions from employers and non-employer contributing entities that are intended to finance the benefits of current active and inactive members. Projected contributions must be allocated to those made on behalf of current members based upon member payroll and the funding policy (including the seven-year stable contribution option). The crossover date is the date at which the projected assets do not cover the projected benefits. The benefit payment stream for the years prior to the cross-over date are discounted at the Agency's long-term expected rate of return (i.e., 8%). The benefit payment stream for years on or after the crossover date is discounted at a yield for 20-year, tax exempt municipal bonds with an average rating of AA/Aa or higher. The discount rate is the single rate that is equivalent to the present value of the two benefit payment streams.

**Determination of net pension liability (NPL) and change in net pension liability:** Segal will work with Agency staff to modify its valuation programs to determine the NPL. The NPL is equal to the total pension liability (TPL) minus plan assets. The TPL is the actuarial accrued liability, based upon the entry age normal actuarial cost method, and the discount rate. We understand the Agency's actuarial valuation is based upon the aggregate cost method, per statute. However, the entry age normal actuarial accrued liability is determined and included in the System's financial report. The new pension expense is the change in NPL, with deferred recognition of certain elements. The components of the new pension expense include:

- Service cost (i.e., normal cost)
- Interest on the TPL as of the beginning of the year
- Changes in TPL over the year (with certain deferrals)
- Differences between actual and projected earnings over the year (with certain deferrals)
- Projected investment returns over the year
- Employee contributions
- Other changes in plan net position (i.e., market value of assets)

**Financial statements, note disclosures, and required supplementary information:** Segal will work with the Agency to gather the data and develop the format for the financial statements, note disclosures and required supplementary information. Plan and employer disclosures are greatly expanded. Highlights of the required disclosures include:

- Description of the plan and assumptions
- Policy for determining contributions
- Sensitivity analysis of the impact on NPL of a one percentage point increase and decrease in the discount rate
- Changes in the NPL for the past 10 years
- Development of long-term earnings assumption
- Annual rates of investment return for past 10 years (plan only)

**Determination of the Agency employers' proportionate share:** the Agency employers must recognize their proportion of the NPL and the pension expense on their financial statements. A method that is based on the employer's projected long-term contributions to the pension plan as compared to the total projected long-term contributions of all employers is encouraged. The method could be based on the individual employer's share of the total employer contributions, payroll, or the method used by the cost-sharing plan to determine the employer contribution. Segal will analyze the method for determining the employers' contributions, including the seven-year stable contribution option, and will work with the Agency's staff to determine the methodology for determining the proportionate share. As part of this step, Segal will develop a spreadsheet and document that will allow the Agency's staff to prepare these calculations and reports on an annual basis.

**Assistance with requirements relative to reporting and disclosures to employers:** Segal will work with the Agency's staff to determine the level of assistance that the Agency wishes to provide employers with their financial reporting and disclosure requirements. Segal will identify the items that the Agency must provide to the employers and will develop a strategy for communicating with the employers. This step will include developing the format and process for gathering the information needed for the required financial statement reporting and disclosure items. Segal can also work with the Agency to educate employers on the new GASB 68 requirements.

All reports will include all the necessary material to comply with GASB Statements No. 67 and 68 reporting and disclosure requirements. We will provide our reports no later than September 25th of each year (or within five business days of receiving final asset information, if receipt of asset information occurs on or around September 25<sup>th</sup>).

*4.2.1.3 To procure the services of an actuarial firm with qualified actuaries to prepare an annual investment return projection and an annual inflation rate projection, based on a 10-year, 20-year, and a 30-year time horizon. The analysis should include the 25<sup>th</sup> percentile, 50<sup>th</sup> percentile, 75<sup>th</sup> percentile, expected return, and standard deviation based on arithmetic and geometric averages. These projections should be based on the June 30 investment summaries provided by the West Virginia Investment Management Board and include any investment restrictions identified in the investment portfolio. The projections are normally formalized each year by mid-August.*

Segal professionals will work with the Agency to deliver an annual investment return projection and an annual inflation rate projection, based on a 10-year, 20-year, and a 30-year time horizon. At a minimum, results will be shown at the 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> percentiles in tables and graphically where appropriate. These projections will be based on the June 30 investment

summaries provided by the West Virginia Investment Management Board and current plan provisions.

*4.2.1.4. To procure the services of an actuarial firm with qualified actuaries to prepare experience studies, under the following timeline:*

- *Public Employees' Retirement System (PERS) to be completed by June 30, 2024 for implementation in the June 30, 2024 GASB Statements No. 67 and No. 68 Actuarial Report and the July 1, 2024 Actuarial Funding Valuation Report.*

- *Teachers' Retirement System (TRS) to be completed by June 30, 2025 for implementation in the June 30, 2025 GASB Statements No. 67 and No. 68 Actuarial Report and the July 1, 2025 Actuarial Funding Valuation Report.*

- *West Virginia Uniformed Services Defined Benefit Plans:*

- *Department of Public Safety, Death, Disability and Retirement System (Trooper Plan A)*
- *State Police Retirement System (Trooper Plan B)*
- *Deputy Sheriffs Retirement System (DSRS)*
- *Emergency Medical Services Retirement System (EMSRS)*
- *Municipal Police Officers and Firefighters Retirement System (MPFRS)*
- *Natural Resources Police Officers Retirement System (NRPORS) to be completed by June 30, 2026 for implementation in the June 30, 2026 GASB Statements No. 67 and No. 68 Actuarial Reports and the July 1, 2026 Actuarial Funding Valuation Reports.*

- *Judges' Retirement System (JRS) to be completed by June 30, 2026 for implementation in the June 30, 2026 GASB Statements No. 67 and No. 68 Actuarial Report and the July 1, 2026 Actuarial Funding Valuation Report.*

*Generally, the experience studies are a joint project between the outside actuarial firm team and the CPRB actuarial group, where the outside actuarial firm Lead Actuary and Board Actuary both sign off on all assumption changes from the experience study. The outside actuarial firm will review the demographic assumptions including an analysis of recent experience from mortality, disability, retirement rates and turnover.*

*The CPRB actuarial group will review the economic assumptions including an analysis of interest rates, salary scale expectations and service loadings from military service and unused leave converted to additional benefit service and additionally for the Uniformed Services Plans, the probabilities of duty and non-duty related disability retirements and pre-retirement deaths.*

*The experience study reports will be completed by the Board Actuary with demographic experience exhibits provided by the outside actuarial team. For each of the experience studies outlined above, PERS, TRS, Uniformed Services and JRS, there will be a one-*

*day meeting, typically in-person, between the outside actuarial firm team and CPRB actuarial group to jointly develop the recommendations. An experience study is performed at least once every five years for each defined benefit plan administered by the CPRB. A typical five-year experience study cycle would be PERS year 1, TRS year 2, Uniformed Services and JRS year 3, no experience study in years 4 and 5. The next cycle begins with PERS in calendar year 2024.*

Segal will perform actuarial experience studies for the Agency, following the timeline outlined above. Each evaluation will be a comprehensive analysis of the Agency's experience. The reports will detail the reasons behind annual variations in the contribution rates.

Segal's experience studies 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:** Other economic assumptions that impact plan benefits, e.g., inflation impacting pay and benefit limits, covered compensation; the annual cost-of-living adjustment for pensioners and the increase in the Benefit Compensation Base
- **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 the Agency:

- **Actuarial cost method:** The method used to allocate the total cost of the Agency 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 experience studies reports within eight weeks of receipt of complete data. In order to complete a comprehensive five-year experience review investigation, the Agency would need to provide Segal with census data covering six 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.

## 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

Generally, actuarial assumptions are selected with a slight margin for adverse experience so that the financial strength of the system can be maintained.

Traditionally, salary increases have been separated among inflation, productivity and merit/seniority components. Each component is analyzed separately with only the merit/seniority component being a function of the system demographics. Frequently, we may discover that actual inflation has been lower than the actuary assumed, and that may be masking an understatement of the merit/seniority component. By separating those components and studying each separately, we can refine each component and produce more accurate and consistent figures.

With respect to economic assumptions, we analyze experience slightly differently for retirement as compared to health and welfare programs.

## Review of economic assumptions

With respect to the assumptions of inflation 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

With respect to the inflation 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 Economic Assumptions for Measuring Pension Obligations," addresses acceptable methodologies for setting the investment return assumption. This assumption is typically constructed by considering various factors including, but not limited to, the time value of money; inflation and inflation risk; illiquidity; credit risk; macroeconomic conditions; and growth in earnings, dividends and rents. In developing a reasonable assumption for these factors and in combining the factors to develop the investment return assumption, the actuary may consider a broad range of data and other inputs, including the judgment of investment professionals.

## 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, GDP growth 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, including a post-COVID world

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

Professional judgment also plays an important role in the actuarial assumption setting process. The demographic fallout surrounding the COVID pandemic is an example of why this is a vital component, particularly with experience reviews performed during the last several years and

those to be performed in the near future. The actuary must review all experience but must make decisions around what elements of actual experience will persist going forward and those elements that may have been anomalous due to pandemic-related ramifications. For example, if experience related to retirement from active status was more pronounced during the study period, the actuary must use judgment to gauge how much of that experience is related to one-time trends and apply a reasonable approach to adjusting the retirement assumption for expectations of experience going forward. Another obstacle in recent experience studies has been reflecting appropriate modifications to actual mortality experience, if any, to use as the basis for any adjustments made to published mortality tables. Again, professional judgment must be applied to determine what level of mortality may persist in the future that is not reflected in the existing underlying tables.

*4.2.1.5. To procure the services of an actuarial firm with qualified actuaries to provide other assistance and consultations to/with the CPRB Actuarial Staff, including but not limited to:*

- *Peer review of the annual July 1st Actuarial Funding Valuations prepared by the CPRB Actuarial Staff, for the following plans:*
  - *Deputy Sheriffs Retirement System (DSRS)*
  - *Emergency Medical Services Retirement System (EMSRS)*
  - *Municipal Police Officers and Firefighters Retirement System (MPFRS)*
  - *Natural Resources Police Officers Retirement System (NRPORS)*
  
- *Peer review of the annual June 30th GASB Statements No. 67 and No. 68 Actuarial Reports prepared by the CPRB Actuarial Staff, for the following plans:*
  - *Deputy Sheriffs Retirement System (DSRS)*
  - *Emergency Medical Services Retirement System (EMSRS)*
  - *Municipal Police Officers and Firefighters Retirement System (MPFR)*
  - *Natural Resources Police Officers Retirement System (NRPORS)*
  
- *Peer review of the experience study reports for each of the four experience studies outlined in Goal 4 above.*

Our actuarial team will peer review the annual July 1st Actuarial Funding Valuations and the annual June 30th GASB Statements No. 67 and No. 68 Actuarial Reports prepared by the CPRB Actuarial Staff, for the following plans:

- Deputy Sheriffs Retirement System (DSRS)
- Emergency Medical Services Retirement System (EMSRS)
- Municipal Police Officers and Firefighters Retirement System (MPFRS)
- Natural Resources Police Officers Retirement System (NRPORS)

We will peer review the experience study reports for each of the four experience studies outlined in Goal 4 of the RFP.

## **Our approach**

### **Determination if actuarial valuations and experience studies are technically sound and based on generally accepted actuarial standards**

Our analysis will specifically focus on the accuracy, consistency, reasonableness and appropriateness of the Agency actuary's work in the context of actuarial soundness and in light of the governing plan rules and regulations. Segal recognizes that "actuarial soundness" is neither an absolute nor a unique concept but must be considered in relation to the issues at hand and the accuracy with which future experience can be predicted.

Segal will assess the conclusions of the valuation report for completeness and accuracy. Segal will offer an opinion as to whether or not the valuation conclusions accurately portray the actuarial status of the Systems and accurately generate the required contribution rates. Segal will review the format of the valuation report with suggested recommendations for improvement.

Our review will allow us to make an assessment of whether the actuarial valuations and experience studies are technically sound and based on generally accepted actuarial standards.

### **Verification of data collection and validity**

We will complete an assessment of the validity, completeness and appropriateness of the data used by the Agency's actuary, the degree to which data is sufficient to support the conclusions of the actuarial valuations and the use and appropriateness of any assumptions made regarding the data.

We will review the financial information provided by the Agency and compare this information to that reported in the actuarial valuations.

We will review the plan provisions, as outlined in the statutes, to those included in the actuarial valuation reports to determine if the plan provisions being valued are consistent with those described in the statutes.

### **Review of actuarial assumptions**

We will review the economic and non-economic actuarial funding assumptions. This assessment will help determine whether the assumptions are reasonable, based on the Agency's experience and appropriate to the current benefit structure. A comparison with national benchmarks and recent trends in public retirement plan funding assumptions will be made. The most recent experience study will be assessed for the actuary's approach and recommendations. We will also identify areas, if any, not addressed in the current actuary's experience reviews that may be appropriate for future evaluation.

### **Evaluation of actuarial methods and procedures**

We will review the Agency actuary's valuation procedures and adjustments to determine whether they are reasonable and consistent with generally accepted actuarial standards and best practices and with the particular features of the Agency that they are intended to value. This assessment will determine whether the actuary's procedures and adjustments are



appropriate for the benefit structure of the Agency and any funding policies, and whether the procedures, adjustments and funding method are applied as stated by the actuary. The proper applications of actuarial assumptions and plan provisions can be verified based upon testing a sample of liability calculations for plan members (“test lives”), if desired. Test lives will be selected that allow for a stratified sampling of combinations of service, age and salary, as well as key benefit breakpoints and decrements. Test cases will check all plan provisions, including the benefits as they compare to the statutes.

## Review of actuarial valuation report

Segal will assess the conclusions of the valuation reports for completeness and accuracy. Segal will offer an opinion as to whether or not the valuation conclusions accurately portray the actuarial status of System and accurately generate the required contribution rates. Segal will determine whether the valuation reports include the information required to be disclosed. Segal will review of the format of the valuation reports with suggested recommendations for improvement.

Our review will allow us to make an assessment of whether the actuarial valuations are complete and based on generally accepted actuarial standards.

*• As needed, assist with the actuarial cost analysis of bills introduced during the regular or special sessions of the West Virginia Legislature. The regular session of the West Virginia Legislature normally commences on the second Wednesday of January and lasts for 60 consecutive days.*

Segal will assist with the actuarial cost analysis of bills introduced during the regular or special sessions of the West Virginia Legislature. In general, the fiscal impact statements will include:

- Brief summary of the proposed legislation
- Estimated contribution rate increase(s), if applicable
- Estimated change(s) in actuarial liabilities or unfunded actuarial liabilities, if applicable
- Description of underlying data, assumptions and methodologies
- Indication that estimates were prepared in accordance with generally recognized and accepted actuarial principles and practices

We understand that a quick turnaround time for providing these fiscal impact statements is critical when the Legislature is in session (commencing on the second Wednesday of January and lasting for 60 consecutive days). We plan to deliver each statement to the Agency within two weeks from the date of the request. ***In some cases and depending on the nature of the request, we have been able to provide a fiscal impact statement within 24 hours.***

*• Prepare the Annual Comprehensive Financial Report (ACFR) Actuarial Funding Valuation Certification Letters for the five plans outlined in Goal 1 above. Note, the Actuarial Section exhibits, and Financial Section exhibits for each certification letter are prepared by the CPRB and peer reviewed by the outside actuarial firm team.*

Segal will assist in the preparation of the Annual Comprehensive Financial Report (ACFR) Actuarial Funding Valuation Certification Letters. We understand that some aspects will be

prepared by the Agency and Segal will provide a peer review of those exhibits. Segal will provide the Agency with the signed certification letters within one week after delivery of final actuarial results (in electronic format) to the Agency via email.

- *Other consultations, as deemed necessary by CPRB Management and/or Board.*

The Segal team is available for other consultations, as deemed necessary by CPRB management and/or the Board. For example, given the volatility in the financial markets over the past several years, and the resulting fluctuations in employment levels and the economy, we often present deterministic projections in a “live” setting for clients. These projections can include the impact of future investment returns different than assumed, changes in plan design and/or contribution structure, and variations in active membership headcount (in addition to other variables). Segal has robust proprietary modeling software that can be custom tailored to the Agency’s specific situation. Once the baseline calculations are set up, alternate scenarios can be modeled “on-the-fly,” based on inputs requested by those present.

## 4.2.2. Mandatory project requirements

*The following mandatory requirements relate to the goals and objectives and must be met by the Vendor as a part of its submitted proposal. Vendor should describe how it will comply with the mandatory requirements and include any areas where its proposed solution exceeds the mandatory requirement. Failure to comply with mandatory requirements will lead to disqualification, but the approach/methodology that the vendor uses to comply, and areas where the mandatory requirements are exceeded, will be included in technical scores where appropriate. The mandatory project requirements are listed below.*

**4.2.2.1. Mandatory Requirement 1:** *Vendor shall provide only "qualified actuaries" for this assignment. A "Qualified Actuary" means an actuary who is an Associate or Fellow member of the Society of Actuaries with at least 3 years of experience with large public pension plans. The "Lead Consultant" should be a Fellow member of the Society of Actuaries and have at least 10 years of consulting experience with large public pension plans.*

<b>Name</b>	<b>Credentials</b>	<b>Public Pension Plan Experience</b>
<b>Matthew Strom*</b>	<b>FSA, MAAA, EA</b>	<b>Over 20 years</b>
Daniel Siblik	ASA, MAAA, FCA, EA	Over 10 years
Brad Ramirez	FSA, MAAA, FCA, EA	Over 20 years
Kathleen Riley	FSA, MAAA, FCA, EA	Over 30 years
Tatsiana (Tanya) Dybal	FSA, MAAA, EA	Over 15 years
Teresa Knapp	FSA, MAAA, EA	Over 7 years

\*Lead consultant

*4.2.2.2. **Mandatory Requirement 2:** Vendor shall provide a succession plan in the event the firm's actuaries are unable to perform the work due to illness, an accident, cessation of employment or for any other reason as determined by the vendor or by the CPRB.*

Our people-friendly culture, employee-owned structure, broad client base and commitment to employee enrichment and professional development have enabled us to have one of the lowest employee turnover rates – averaging 5.7% in the past five years – in the industry. As a result, we have the benefit of long-service employees and a dependable workforce to consistently meet the needs of clients such as the Agency. Some of the members of your Segal team have been with the company for over 25 years.

If there is turnover on the team, Segal will immediately notify the Agency of any changes in key personnel. Segal staffs client projects and assignments so that client deliverables are not impacted by employee unavailability, or in rare cases, turnover. The proposed team for the Agency will consist of three credentialed actuaries serving as lead consultants: **Matt Strom**, **Dan Siblik** and **Brad Ramirez**. This blend of experience guarantees varied and innovative perspectives, as well as allowing for continuity of service in the unlikely event that one is unavailable. Every effort will be made to ensure that the lead team members are available.

Each team member is also part of a department. The managers of these departments play an active role in supervising the client work produced by their staff members. They also ensure that appropriate backup is available. When we are put on notice that a member of the staff intends to leave the company, the managers immediately take the necessary steps to transition the work to another member of the staff. If needed, the managers themselves are available. Our team concept has proven to be successful in maintaining continuity of services to our clients.

In addition, Segal believes in our staff's professional development and growth. Today's analysts are tomorrow's leaders. While we have a deep bench of Secondary Actuaries that we can call on to serve you if needed, we anticipate that a number of our analysts and junior actuaries will develop into client-facing and leadership roles, enabling us to provide high-quality service, technical analysis and strategic guidance over the full contract term.

## **4.3. Qualifications and experience**

*Vendor should provide information and documentation regarding its qualifications and experience in providing services or solving problems similar to those requested in this RFP. Information and documentation should include, but is not limited to, copies of any staff certifications or degrees applicable to this project, proposed staffing plans, descriptions of past projects completed (descriptions should include the location of the project, project manager name and contact information, type of project, and what the project goals and objectives were and how they were met.), references for prior projects, and any other information that vendor deems relevant to the items identified as desirable or mandatory below.*

## 4.3.1. Qualification and experience information

*Vendor should describe in its proposal how it meets the desirable qualification and experience requirements listed below.*

**4.3.1.1. Qualification and Experience Desirable 1:** *Please describe the firm, the firm's qualifications for this engagement, the firm's experience in providing actuarial valuations/studies to state sponsored retirement systems, and the firm's experience working with government retirement systems.*

### Firm history

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.

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 aided 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 innovations first conceived, designed and introduced by Segal.

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 on the full range of health and welfare, retirement and human resource-related issues.

Segal's mission: "Trusted advice that improves lives"

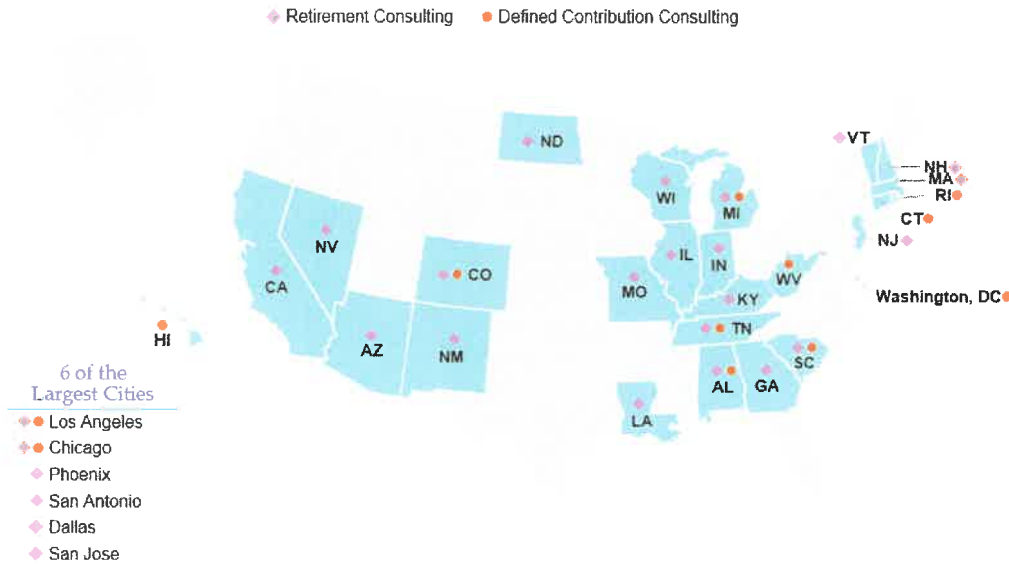
Through our 80+ year history, we've built a firm that plan sponsors came to count on for truly personal actuarial, benefits and investment expertise aimed at one mission: delivering trusted advice that improves lives. Today, we formally operate under one name – Segal – and members of the Segal family include Segal, Segal Benz and Segal Marco.

## Firm qualifications for this engagement

Segal serves more than 2,500 clients, of which approximately 900 are retirement clients, including more than 120 public sector retirement clients. We provide retirement actuarial consulting services and/or actuarial audits to 24 states and six of the largest cities.

## Segal's Large Public Sector Retirement Clients

*Retirement Consulting*



Segal has been helping public sector retirement systems and employers with their retirement plans for 70+ years – through multiple economic cycles and market volatility. We are known for designing retirement plans that reflect the special needs and priorities of public entities and their employees. Our public sector retirement practice provides a full range of services, including:

### Actuarial services

Segal's experts can help public sector plan sponsors:

- Forecast plan funding requirements
- Identify available options and explore alternatives for plan funding
- Identify industry changes and trends

### Plan design

Today's difficult economy and volatile financial markets demand careful planning and creativity to ensure that the design of pension and other retirement income programs will meet the goals and needs of plan participants over the long term.

## Plan governance

Benefit plan sponsors and administrators need to keep administration procedures up-to-date in order to comply with regulations. This need is more urgent than ever, making now a good time to take a fresh, intensive look at your plan's operations.

## Risk assessment and mitigation

Because retirement plans can face significant fluctuations in contributions from year to year, public sector plans need tools that can help:

- Predict how changes and economic and budgetary conditions could affect plan contributions
- What steps can be taken to mitigate risk

## Investment solutions

Through Segal Marco Advisors, our SEC-registered investment solutions affiliate, we work with defined contribution and defined benefit plan sponsors on:

- Investment manager selection
- Manager performance
- Policy development

Segal's public sector retirement practice is recognized for its in-depth knowledge of public sector retirement plan issues and for providing strategic, carefully crafted, individual solutions to difficult challenges. Our retirement practice leaders have decades of experience in guiding clients, and they figure prominently in industry associations and conferences.

## Firm experience

### Experience performing actuarial valuations of public plans

The following table 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

Client	Initial Contract Year	Total Membership	Asset Size
University of California Retirement System	2004	333,293	\$81 billion
Colorado Public Employees' Retirement Association	2018	649,581	\$64.8 billion
Illinois Teachers' Retirement System	2016	434,117	\$64.2 billion
Public Employees' Retirement System of the State of Nevada	1974	207,915	\$54.2 billion
City of Los Angeles Fire and Police Pension Plan	2006	27,315	\$27.9 billion
Police and Firemen's Retirement System of New Jersey	2020	89,070	\$27.8 Billion
Los Angeles City Employees' Retirement System	2004	57,695	\$20.4 billion
Orange County Employees Retirement System	2004	49,075	\$21.7 billion
The Water and Power Employees' Retirement Plan of the City of Los Angeles	1999	22,250	\$15.5 billion
San Diego County Employees Retirement Association	2003	47,217	\$14.5 billion
San Bernardino County Employees' Retirement Association	2002	45,342	\$13.3 billion
Sacramento County Employees' Retirement System	2004	30,815	\$11.8 billion
Alameda County Employees' Retirement Association	2003	25,127	\$11.8 billion
Contra Costa County Employees' Retirement Association	2003	24,095	\$11.4 billion
Boston Retirement System	prior to 2005	46,066	\$6.8 billion
Ventura County Employees' Retirement Association	2003	20,896	\$7 billion
Fresno County Employees' Retirement Association	2006	20,489	\$5.6 billion
Vermont Retirement Systems	2017	58,440	\$5.5 billion
Kern County Employees' Retirement Association	2011	22,106	\$5.1 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
Fire and Police Pension Fund, San Antonio	2003	6,976	\$3.4 billion
Sonoma County Employees' Retirement Association	2007	11,113	\$3.5 billion
North Dakota Teachers' Fund for Retirement	2011	23,856	\$3.3 billion
Los Angeles Department of Water & Power	2002	19,356	\$2.8 billion
Dallas Police and Fire Pension System	2016	10,592	\$2.0 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
East Bay Municipal Utility District Retirement System	2007	4,200	\$2.3 billion

<b>Client</b>	<b>Initial Contract Year</b>	<b>Total Membership</b>	<b>Asset Size</b>
Milwaukee County Employees' Retirement System	2017	18,142	\$2.0 billion
City of Fresno Fire and Police Retirement System	2006	2,426	\$1.8 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
Middlesex County Retirement System	prior to 2005	17,812	\$1.4 billion
Fulton County Employees Retirement System	2013	3,450	\$1.4 billion
City of Cambridge Contributory Retirement System	prior to 2005	5,899	\$1.3 billion
City of Fresno Employees Retirement System	2006	5,040	\$1.5 billion
City of Atlanta General Employees' Pension Fund	1994	8,549	\$1.3 billion
Retirement Plan for Employees of NJ Transit Bus Operations, Inc. Amalgamated Transit Union	prior to 2005	8,946	\$1.2 billion
Barnstable County Retirement System	prior to 2005	8,444	\$1.1 billion
County of Santa Clara	2011	30,597	\$1.4 billion
Firemen's Annuity and Benefit Fund of Chicago	2020	10,154	\$1.5 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
Imperial County Employees' Retirement System	2007	4,298	\$1 billion
Government Employees' Retirement System of the Virgin Islands	1993	18,000	\$769 million
City of Orlando Police Officers' Pension Fund	1995	1,548	\$623 million
Milwaukee County Transport Employees' Pension Plan	2017	2,334	\$636 million
New Jersey Transit Non-Agreement Retirement Plan	prior to 2005	2,557	\$564 million
Mendocino County Employees' Retirement Association	2011	3,696	\$621.9 million
Massachusetts Water Resource Authority	2013	1,788	\$530 million
Essex Regional Retirement System	2018	5,960	\$525 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
Hampden County Regional Retirement System	prior to 2005	4,897	\$370 million
City of Providence	2013	6,658	\$368 million
Fairfax County Water Authority Retirement Plan	2015	857	\$362 million
Newton Contributory Retirement System	2014	3,512	\$351 million
Park Employees' Annuity and Benefit Fund of Chicago	2012	5,615	\$415 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



<b>Client</b>	<b>Initial Contract Year</b>	<b>Total Membership</b>	<b>Asset Size</b>
City of Chattanooga Fire and Police Pension Fund	1998	1,705	\$241 million
Town of East Hartford Pension Plan	prior to 1995	1,187	\$255 million
City of Jacksonville Corrections Officers Retirement Plan	2010	926	\$220 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 Atlanta General Employees' Pension Fund Employees of the Atlanta Board of Education	1994	2,823	\$169 million
Employees Retirement Plan of the Town of Hamden	prior to 1992	1,104	\$167 million
Town of Needham Contributory Retirement System	2013	1,362	\$164 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
City of Bridgeport Public Safety Plan A	prior to 2000	573	\$169 million
Dedham Contributory Retirement System	2019	927	\$157 million
Town of Andover Retirement System	1998	1,317	\$144 million
Judicial Retirement System of Nevada	1976	210	\$166 million
Town of Natick Contributory Retirement System	2002	1,179	\$128 million
Boston Water and Sewer Commission	2006	722	\$114 million
City of Falls Church Basic Retirement Plan	2019	639	\$138 million
North Attleboro Contributory Retirement System	2019	1,014	\$111 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
Chicago Housing Authority Employees' Retirement Plan	2013	1,185	\$121 million
City of Vero Beach General Employee Retirement Plan	1998	724	\$96 million
Swampscott Retirement System	2019	632	\$67 million
City of Bridgeport Plan B (Police)	prior to 2000	135	\$83 million
Retirement Plan of Hampton Roads Transportation District Commission	prior to 2005	969	\$81 million
Pension Plan for General Employees of the Town of North Haven	prior to 1995	340	\$70 million
Town of Portsmouth, Rhode Island	2014	317	\$53 million
City of Falls Church Police Retirement Plan	2019	75	\$45 million

<b>Client</b>	<b>Initial Contract Year</b>	<b>Total Membership</b>	<b>Asset Size</b>
City of Birmingham Firemen's and Policemen's Supplemental Pension System	prior to 1990	1,791	\$35 million
City of Bridgeport Plan B (Fire)	prior to 2000	74	\$44 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 Middlebury Retirement Plan	prior to 2005	81	\$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	104	\$4.8 million
Massachusetts State College Building Authority	2004	21	\$4.3 million
University System of New Hampshire Additional Retirement Contribution Plan	2015	358	\$2.3 million
Fort Worth Police Benevolent Association	2016	1,707	\$1.6 million
Town of Westbrook Volunteer Fire Plan	Prior to 1995	69	\$2 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 Bethany Volunteer Fire	2016	49	\$0.2 million
Town of Westbrook Constables Plan	2006	11	\$0.3 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

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 sampling of our recent experience studies:

## Representative List of Segal's Experience Studies Clients

System	Number of Participants	Number of Plans or Tiers	Date
Alameda County Employees' Retirement Association	24,642	9 tiers	2020
Chicago Housing Authority Employees' Retirement Plan	1,000	1 plan	2023
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	2,900	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	2016
Fairfax County Water Authority Retirement Plan	857	6 tiers	2021
Fire and Police Pension Fund, San Antonio	6,400	1 tier	2019
Fresno County Employees' Retirement Association	19,950	9 tiers	2022
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

<b>System</b>	<b>Number of Participants</b>	<b>Number of Plans or Tiers</b>	<b>Date</b>
Illinois Teachers' Retirement System	429,137	2 tiers	2021
Imperial County Employees' Retirement System	4,098	2 tiers	2020
Kern County Employees' Retirement Association	21,136	7 tiers	2020
Los Angeles Employees' Retirement System	57,120	6 tiers	2020
Los Angeles Fire and Police	27,352	6 tiers	2019
Memphis Light, Gas and Water Division Retirement and Pension System	5,300	2 tiers	2019
Mendocino County Employees' Retirement Association	3,273	10 tiers	2020
Municipal Employees' Annuity and Benefit Fund of Chicago	74,000	3 tiers	2023
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	2020
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	2020
San Bernardino County Employees' Retirement Association	43,141	4 tiers	2020
San Diego County Employees' Retirement Association	47,217	9 tiers	2022
Sonoma County Employees' Retirement Association	10,882	2 tiers	2018
The Water and Power Employees' Retirement Plan of the City of Los Angeles	21,911	2 tiers	2022
Town of East Hartford Pension Plan	1,240	6 tiers	2017
Town of Johnston, Rhode Island Fire and Police Pension Systems	170	1 tier	2017
University of California Retirement Plan	314,854	6 tiers	2019
University of Missouri Retirement, Disability and Death Benefit Plan	34,234	2 tiers	2017
Ventura County Employees' Retirement Association	19,383	6 tiers	2021
Vermont Retirement System	50,000	3 plans, multiple tiers	2020
Milwaukee County Employees' Retirement System	18,000	2 plans	2022
Firemen's Annuity and Benefit Fund of Chicago	10,000	1 plan	2022

## Actuarial audit experience with public sector plans

Segal is a leading firm in performing independent actuarial audits of large government retirement plans for which we are not the ongoing actuary. We believe the reason we are selected to do these audits include the high level of respect in which we are held by the government plan community and our expertise and knowledge of the particular actuarial issues that are uniquely important for government plans. The following table shows a list of our public sector retirement clients where we have provided actuarial audit services:

### Representative List of Segal's Actuarial Audits

Client	Year(s)	Assignment	Asset Size
Alaska Retirement Management Board (ARMB)	2012	Full scope audit	\$17.5 billion
Arizona State Retirement System	2019	Full scope audit	\$40 billion
California State Teachers' Retirement System	2011 and 2016	Full scope audit	\$140 billion
City of Austin Employees' Retirement System	2014	Limited scope audit	\$2.1 billion
City of San Jose Federated City Employees' Retirement System	2017, 2021	Full scope audit	\$2.5 billion
City of San Jose Police and Fire Department Plan	2017, 2021	Full scope audit	\$4.2 billion
Denver Public Schools Retirement System	2015	Limited scope audit	\$3.1 billion
Houston Municipal Employees Pension System	2014	Full scope audit	\$2.2 billion
Illinois Municipal Retirement Fund	2011	Limited scope audit	\$22 billion
Illinois State Universities Retirement System	2012 and 2017	Actuarial audits	\$12 billion
Kentucky Retirement Systems	2015 and 2020	Limited scope audit	\$12 billion
Kentucky Teachers' Retirement System	2015	Full scope audit	\$16 billion
Los Angeles County Employees Retirement Association	2011, 2014, 2017	Full scope audits, other projects	\$49.3 billion
Merced County Employees' Retirement Association	2017, 2020	Full scope audit	\$686 million
Michigan State Employees' Retirement System	2017	Limited scope audit	\$63 billion
Missouri Local Government Employees Retirement System	2009, 2019	Limited scope audit	\$4 billion
New Hampshire Judicial Retirement System	2018 and 2021	Plan design analysis	\$58 million
New Hampshire Retirement System	2019	Actuarial audit	\$8.8 billion
New Mexico Educational Retirement Board	2014	Limited scope audit	\$10 billion
New Mexico Public Employees Retirement Association	2016	Limited scope audit	\$14 billion
Teachers' Retirement System of the State of Oklahoma	2022	Full scope audit	\$20 billion

<b>Client</b>	<b>Year(s)</b>	<b>Assignment</b>	<b>Asset Size</b>
Retirement Systems of Alabama	2011, 2016, 2018 and 2021	Limited scope audit	\$31 billion
San Diego City Employees' Retirement System—City of San Diego	2017 (contract end 12/31/2018)	Full scope audit	\$6.4 billion
San Diego City Employees' Retirement System—San Diego City Regional Airport Authority	2017 (contract end 12/31/2018)	Full scope audit	\$148 million
San Diego City Employees' Retirement System—San Diego City Unified Port District	2017 (contract end 12/31/2018)	Full scope audit	\$375 million
San Mateo County Employees' Retirement Association	2017 (contract end 12/31/17)	Full scope audit	\$4.4 billion
South Carolina Public Employee Benefit Authority	2017	Limited scope audit	\$28 billion
Stanislaus County Employees' Retirement Association	2013	Full scope audit	\$1.5 billion
Teacher Retirement System of Texas	2014	Full scope audit	\$117 billion
Tennessee Consolidated Retirement System	2020	Full-scope audit	\$52 billion
Texas County & District Retirement System	2012	Limited scope audit	\$20 billion
Wisconsin Retirement System	2011 and 2015-2017 and 2019	Actuarial audits	\$80 billion

### **GASB Statements No. 67/68 experience**

Segal has been active in the development and implementation of GASB Statements No. 67 and 68. Our consultants worked directly with the GASB during the Statement drafting process. In fact, Segal assisted with the examples that show the derivation of the discount rate included as Tables 1 to 3 in Statements No. 67 and 68. We have kept our clients informed of the changes throughout the process through client notices and webinars and submitted formal comments on statement drafts. Segal has also performed calculations of the net pension liability, pension expense and allocations to employers for cost-sharing multiple-employer pension plans under the new Statements. In addition, several Segal actuaries have served on GASB's task force during the drafting stage and in the development of the Implementation Guides.

## Experience with government retirement systems

Segal's pension team of actuaries and consultants functions as a center of excellence for public sector consulting, including the performance of actuarial audits and pension valuations. This team specializes in public sector systems, states, local governments and other public sector organizations and has extensive experience valuing the liabilities for retirement and retiree health benefits, as well as helping clients manage the magnitude of the liability.

### We provide expert advice

Segal has extensive experience providing actuarial services for state and other large public pension plans. Public pension plans are under ever-increasing scrutiny, and Segal partners with public sector entities to find thoughtful and sustainable solutions that work in today's environment.

- **We understand the changing landscape:** Despite recent changes in plan design, pressures still exist in the funded status of plans. Segal works with states and other public sector entities to find the appropriate solution, looking both at the strategic goals of the plan and the fiscal constraints of the plan's sponsors.
- **Our knowledge of public sector plans and compliance issues is a unique asset:** Segal works closely with national organizations representing state and other large public pension plans at the federal level and supports research organizations such as the National Institute for Retirement Security. Andrew Sherman, Segal's National Director, Public Sector Market, has over 30 years working with large public sector employee benefit plans and educating policy makers about large public sector entities.
- **The team proposed is recognized as leaders in the actuarial profession:** Our consultants testify before legislatures, lead professional associations and committees, and speak at national and regional conferences and forums.

We add value from our extensive experience and we have a proven track record of helping states and other public sector entities, coupled with our innovative ideas and technology, such as our live modeling software, to prepare for the future.

### State and other large public pension plan clients

Our actuaries and consultants provide extensive consulting services to state and other large public pension plans including:

- **Public Employees' Retirement Association of Colorado (PERA):** The Colorado Legislature recently passed a bill, which creates a direct link between actuarially calculated contributions and actual contributions in a systematic way, to meet PERA's long-term funding goals. To monitor progress of achieving these goals, Segal works with the PERA Board to create an annual "Signal Light" report, which provides sensitivity analysis of actuarial assumptions on certain full funding targets using stochastic modeling and deterministic projections.
- **Vermont Retirement System:** The State Employees' Retirement System and State Teachers' Retirement System are funded by member contributions in addition to State contributions that are determined on actuarial basis. In addition to providing routine valuation and accounting services, the Segal team often works with the Office of the State Treasurer to

project the level of future State contributions and model the impact of potential modifications to plan design.

- **North Dakota Teachers’ Fund for Retirement:** Segal worked with the Board of Trustees to develop a formal plan management policy that compares the current statutory contribution to the recommended contributions as calculated in the actuarial valuation. This policy allows the Board to track funding progress through a simplified scoring system.

*4.3.1.2. Qualification and Experience Desirable 2: Please provide at least three references. Please provide the contact information for the pension plan name, a contact person, their address, telephone number, and email.*

<b>Client name:</b>	<b>North Dakota Teachers’ Fund for Retirement</b>
Contact name:	Ms. Jan Murtha, Deputy Executive Director, Chief Retirement Officer
Address:	3442 East Century Avenue, Bismarck, North Dakota 58507
Telephone number:	701.328.9895
Email address:	<a href="mailto:janilynmurtha@nd.gov">janilynmurtha@nd.gov</a>
<b>Client name:</b>	<b>Vermont State Retirement System</b>
Contact name:	Mr. Tim Duggan, Director
Address:	133 State Street Montpelier, Vermont 05602
Telephone number:	802.828.5195
Email address:	<a href="mailto:tim.dugan@vermont.gov">tim.dugan@vermont.gov</a>
<b>Client name:</b>	<b>Teachers’ Retirement System of the State of Illinois</b>
Contact name:	Ms. Amy Reynolds, Director of Research
Address:	2815 West Washington Street Springfield, Illinois 62794
Telephone number:	217.814.2272
Email address:	<a href="mailto:Areynolds@trsil.org">Areynolds@trsil.org</a>
<b>Client:</b>	<b>Colorado Public Employees’ Retirement Association</b>
Contact name:	Ms. Koren Holden, FCA, EA, MAAA, Senior Actuary
Address:	1301 Pennsylvania Avenue Denver, Colorado 80203
Telephone number:	303.837.6256
Email address:	<a href="mailto:kholden@copera.org">kholden@copera.org</a>

*4.3.1.3. Qualification and Experience Desirable 3: Please provide a proposed staffing plan for this project, including the biographies of all staff identified for this project.*

The below table outlines the team assigned to the Agency’s account. Professional biographies for each team member are attached to this proposal as *Appendix A*.



Name	Role	Experience and Responsibilities
<b>Client Relationship Manager and Lead Actuaries</b>		
<p><b>Matthew Strom, FSA, MAAA, EA</b>  <i>Senior Vice President and Actuary</i>            312.984.8534  <a href="mailto:mstrom@segalco.com">mstrom@segalco.com</a></p>	<p>Client Relationship Manager (CRM) and Primary Actuary</p>	<p>Matt will serve as the CRM and Primary Actuary for the Agency. He has over 25 years of experience supporting the design and financing of retirement and other employee benefit programs for the public sector. Matt will review all correspondence and reports, present results to the Agency and manage the relationship. He will work closely with the team to ensure the Agency needs are met.</p>
<p><b>Daniel Siblik, ASA, MAAA, FCA, EA</b>  <i>Vice President and Actuary</i>            630.414.2695  <a href="mailto:dsiblik@segalco.com">dsiblik@segalco.com</a></p>	<p>Associate Client Relationship Manager (ACRM) and Secondary Actuary</p>	<p>Dan will serve as ACRM and Secondary Actuary for the Agency. He has over 25 years of experience, focusing primarily on public sector pension consulting. Dan will review all correspondence and reports and present the results to the Agency. He will work closely with the team to ensure the Agency needs are met.</p>
<p><b>Brad Ramirez, FSA, MAAA, FCA, EA</b>  <i>Vice President and Actuary</i>            303.714.9952  <a href="mailto:bramirez@segalco.com">bramirez@segalco.com</a></p>	<p>Secondary Actuary</p>	<p>Brad will serve as Secondary Actuary for the Agency. He has over 25 years of experience supporting the design and financing of retirement and other employee benefit programs for the public sector. Brad will review all correspondence and reports, and present results to the Agency.</p>
<b>Actuarial Team</b>		
<p><b>Tatsiana (Tanya) Dybal, FSA, MAAA, EA</b>  <i>Vice President and Actuary</i>            312,984.8671  <a href="mailto:tdybal@segalco.com">tdybal@segalco.com</a></p>	<p>Peer Reviewing Actuary</p>	<p>Tanya will serve as peer review actuary for the Agency. Her responsibilities will include reviewing the actuarial valuations, preparing actuarial cost studies and managing other special projects, as needed. Tanya will work closely with the actuarial team to ensure the Agency needs are met.</p>
<p><b>Teresa Knapp, FSA, MAAA, EA</b>  <i>Associate Actuarial Consultant</i>            517.898.6451  <a href="mailto:tknapp@segalco.com">tknapp@segalco.com</a></p>	<p>Reviewing Actuary</p>	<p>Teresa will serve as reviewing actuary for the Agency. Her responsibilities will include reviewing the actuarial valuations, preparing actuarial cost studies and managing other special projects, as needed.</p>
<p><b>Steven Shore</b>  <i>Actuarial Analyst</i>            312.984.8545  <a href="mailto:sshore@segalco.com">sshore@segalco.com</a></p>	<p>Actuarial Analyst</p>	<p>Steven will serve as an actuarial analyst and will perform valuations and projections, prepare reports, and assist with plan design and experience studies under Tanya and Teresa's supervision.</p>
<p><b>Laura Jeske</b>  <i>Actuarial Associate</i>            312.984.8663  <a href="mailto:ljeske@segalco.com">ljeske@segalco.com</a></p>	<p>Actuarial Analyst</p>	<p>Laura will serve as an actuarial analyst and will perform valuations and projections, prepare reports, and assist with plan design and experience studies under Tanya and Teresa's supervision.</p>

Name	Role	Experience and Responsibilities
<b>Weston Sterchi</b> <i>Actuarial Associate</i> 312.984.8635 <a href="mailto:wsterchi@segalco.com">wsterchi@segalco.com</a>	Actuarial Analyst	Weston will serve as an actuarial analyst and will perform valuations and projections, prepare reports, and assist with plan design and experience studies under Tanya and Teresa's supervision.
<b>Subject Matter Experts</b>		
<b>Andrew Sherman</b> <i>Senior Vice President, National Director, Public Sector Market</i> 617.424.7337 <a href="mailto:asherma@segalco.com">asherma@segalco.com</a>	Public Sector Market Leader	Andrew will serve as a subject matter expert, providing his knowledge and expertise to the team. Andrew has over 30 years of experience throughout the U.S. as a benefits consultant working with plan sponsors on a wide range of employee benefit issues and opportunities including plan design, benefit strategies, funding and plan management.
<b>Kathleen Riley, FSA, MAAA, FCA, EA</b> <i>Senior Vice President and Chief Actuary</i> 617.424.7336 <a href="mailto:kriley@segalco.com">kriley@segalco.com</a>	Chief Actuary	Kathy has overall responsibility for Segal's Actuarial practice, coordinating the activities of the Office of the Chief Actuary (OCA) and chairing the firm's National Actuarial Policy Committee. She has been with Segal for over 40 years and has been a member of the OCA since 2017.
<b>Vibha Mittal</b> <i>Consultant</i> 360.480.9553 <a href="mailto:vmittal@segalco.com">vmittal@segalco.com</a>	Administration and Technology Consulting	Vibha was part of the Deloitte implementation team of COMPASS therefore she is well versed in CPRB plans, calculations, and data. She will be available to help onboard the Segal team during the transition and potentially work with technical teams to identify the requirements to extract the data from COMPASS.
<b>Compliance</b>		
<b>Melanie Walker, JD</b> <i>Senior Vice President, National Compliance Practice Leader</i> 303.714.9942 <a href="mailto:mwalker@segalco.com">mwalker@segalco.com</a>	Compliance Resource	Melanie will be available to assist with any national or state legislative developments with respect to the retirement system and compliance related matters.

### 4.3.2. Mandatory qualification/experience requirements

*The following mandatory qualification/experience requirements must be met by the Vendor as a part of its submitted proposal. Vendor should describe how it meets the mandatory requirements and include any areas where it exceeds the mandatory requirements. Failure to comply with mandatory requirements will lead to disqualification, but areas where the mandatory requirements are exceeded will be included in technical scores where appropriate. The mandatory qualifications/experience requirements are listed below.*

*4.3.2.1. **Mandatory Qualification and Experience Requirement 1:** The firm must have provided actuarial services to governmental defined benefit pension plans for the past five years or more.*

**Segal meets and exceeds Mandatory Qualification and Experience Requirement 1.**

Segal has been helping public sector retirement systems and employers with their retirement plans for 70+ years – through multiple economic cycles and market volatility.

*4.3.2.2. **Mandatory Qualification and Experience Requirement 2:** The firm must have sufficient depth regarding Qualified Actuaries and Lead Consultants to ensure Goals are met in a timely manner and to provide adequate resources for the consulting team.*

**Segal meets and exceeds Mandatory Qualification and Experience Requirement 2.**

There are six credentialed actuaries assigned to the proposed team for the Agency. The role each will serve for the Agency is listed in the following table.

<b>Role</b>	<b>Credentialed Actuaries on the Proposed Team</b>
Qualified Lead Consultants	3
Subject Matter Expert	1
Peer Reviewing Actuary	1
Reviewing Actuary	1

Firmwide, Segal has over 160 credentialed actuaries. A total of 25 work in our Chicago office. Our deep bench of actuaries will provide more than sufficient depth to ensure all goals are met in a timely manner and adequate resources are available for the consulting team.

# Attachments

- A. Addenda acknowledgement form
- B. Vendor information form
- C. Designated contact form
- D. Certification form

**A. Addenda acknowledgement form**

**ADDENDUM ACKNOWLEDGEMENT FORM**  
**SOLICITATION NO.: CPR230000002**

**Instructions:** Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

**Acknowledgment:** I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

**Addendum Numbers Received:**

(Check the box next to each addendum received)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

The Segal Company (Midwest), Inc. d/b/a Segal  
Company



Authorized Signature

March 1, 2023

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

## B. Vendor information form



Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

State of West Virginia  
 Centralized Request for Proposals  
 Service - Prof

<b>Proc Folder:</b> 1161206		<b>Reason for Modification:</b>	
<b>Doc Description:</b> Outside Actuarial Services		Addendum No. 2	
<b>Proc Type:</b> Central Master Agreement			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2023-02-21	2023-03-01 13:30	CRFP 0203 CPR2300000002	3

**BID RECEIVING LOCATION**

BID CLERK  
 DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 2019 WASHINGTON ST E  
 CHARLESTON WV 25305  
 US

**VENDOR**

**Vendor Customer Code:**  
**Vendor Name :** The Segal Company (Midwest), Inc. d/b/a Segal  
**Address :**  
**Street :** 101 North Wacker Drive, Suite 500  
**City :** Chicago  
**State :** IL **Country :** USA **Zip :** 60606  
**Principal Contact :** Matthew A. Strom, FSA, MAAA, EA  
**Vendor Contact Phone:** 312.984.8534 **Extension:**

**FOR INFORMATION CONTACT THE BUYER**

Melissa Pettrey  
 (304) 558-0094  
 melissa.k.pettrey@wv.gov

**Vendor Signature X**  **FEIN#** 13-1975125 **DATE** March 1, 2023

All offers subject to all terms and conditions contained in this solicitation



**C. Designated contact form**

**DESIGNATED CONTACT:** Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) Matthew A. Strom, FSA, MAAA, EA, Senior Vice President and Actuary

(Address) 101 North Wacker Drive, Suite 500 Chicago, IL 60606

(Phone Number) / (Fax Number) 312.984.8534 / 312.896.9364

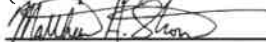
(Email address) mstrom@segalco.com

**CERTIFICATION AND SIGNATURE:** By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

The Segal Company (Midwest), Inc. d/b/a Segal

(Company)



(Signature of Authorized Representative)

Matthew A. Strom, FSA, MAAA, EA, Senior Vice President and Actuary March 1, 2023

(Printed Name and Title of Authorized Representative) (Date)

312.984.8534 / 312.896.9364

(Phone Number) (Fax Number)

mstrom@segalco.com

(Email Address)

**D. Certification form**

# REQUEST FOR PROPOSAL

(Agency Name and RFP #)

- 6.8. Availability of Information:** Proposal submissions become public and are available for review immediately after opening pursuant to West Virginia Code §5A-3-11(h). All other information associated with the RFP, including but not limited to, technical scores and reasons for disqualification, will not be available until after the contract has been awarded pursuant to West Virginia Code of State Rules §148-1-6.3.d.

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

The Segal Company (Midwest), Inc. d/b/a Segal  
(Company)

Matthew A. Strom, FSA, MAAA, EA, Senior Vice President and Actuary  
(Representative Name, Title)

312.984.8534 / 312.896.9364  
(Contact Phone/Fax Number)

March 1, 2023  
(Date)

# | Appendices

## A. Professional biographies

## A. Professional biographies

**Matthew A. Strom, FSA, MAAA, EA**  
*Senior Vice President and Actuary, Chicago*  
**Project Role: Client Relationship Manager and Primary Actuary**



### Expertise

Mr. Strom is a Senior Vice President and Actuary in Segal's Chicago office with over 25 years of experience consulting to sponsors of defined benefit pension plans. His responsibilities include presenting to boards of trustees, reviewing actuarial valuations, preparing actuarial cost studies and managing other special projects for public sector retirement plans. His expertise includes deterministic and stochastic cost and funding level projections, plan design analyses, experience studies, asset/liability modeling and actuarial audits. He serves as lead consultant and actuary to many public sector retirement systems including the Teachers' Retirement System of the State of Illinois and the North Dakota Teachers' Fund for Retirement. Mr. Strom is also a member of Segal's Public Sector Leadership Group.

### Professional background

Prior to joining Segal, Mr. Strom was a Senior Consultant at another large benefits consulting firm. In this position, he managed and analyzed defined benefit and post-retirement welfare benefit valuations and assisted clients with various administrative and plan design issues. His clients range in size from several hundred to over 600,000 members.

### Education/professional designations

Mr. Strom received a BS with high distinction in Actuarial Science from the University of Illinois at Urbana-Champaign. He is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries and an Enrolled Actuary. He also volunteers on the Society of Actuaries Retirement Plans Experience Committee, which is responsible for the ongoing reporting of mortality and other experience of defined benefit pension plans

### Publications/speeches

- "The Impact of Inflation on Public Pensions," *PERSist* (National Conference on Public Employee Retirement Systems), Fall 2022
- "Public Pensions Overview," 2022 National Association of Public Pension Attorneys Legal Education Conference, June 2022
- "The Effect of Inflation on Public Plan Design and Assumptions," 2022 Conference of Consulting Actuaries Enrolled Actuaries Meeting, May 2022
- "The Analytics of Managing Risk in Your Defined Benefit Plan," Segal Consulting Spring 2015 Public Sector webinar series, June 2015
- "Understanding Pension Obligation Bonds," *Benefits and Compensation Digest* (International Foundation of Employee Benefit Plans), July 2007

**Daniel J. Siblik, ASA, MAAA, FCA, EA**  
*Vice President and Actuary, Chicago*  
**Project Role: Associate Client Relationship  
Manager and Secondary Actuary**



### **Expertise**

Mr. Siblik is a Vice President and Actuary, working primarily with staff in Chicago's office. He has more than 25 years of experience as a benefits consultant and focuses primarily on public sector pension consulting, as well as retiree healthcare consulting.

Mr. Siblik's clients have included statewide pension plans, municipalities and counties, boards, transit authorities as well as Native American plans. He has also worked on valuations for the West Virginia Municipal Pensions Oversight Board. His primary roles include, but are not limited to, reviewing and delivering pension valuation results, preparing experience studies and developing recommended assumptions, actuarial audits, modeling projections, preparing cost-impact statements for proposed legislation and/or plan changes and reporting to the Governmental Accounting Standards Board (GASB).

In addition to his consulting responsibilities, Mr. Siblik also works with training junior staff and new business opportunities.

Mr. Siblik's pension exposure includes extensive involvement in GASB Statement Nos. 67 and 68 reporting. His retiree healthcare work involved GASB Statement Nos. 74 and 75 reporting. Mr. Siblik also spent more than a decade working on multiemployer pension plans. That work included a similar scope to his current public sector consulting.

### **Professional background**

Prior to rejoining Segal, Mr. Siblik was a consulting actuary at another benefit consulting firm.

### **Education/professional designations**

Mr. Siblik earned a BS in Actuarial Science from the University of Illinois Urbana-Champaign (Champaign, IL). He is an Associate of the Society of Actuaries, a Member of the American Academy of Actuaries, a Fellow of the Conference of Consulting Actuaries and an Enrolled Actuary.

### **Publications/speeches**

Mr. Siblik has authored publications for the Illinois Commission On Government Forecasting and Accountability newsletters.

**Brad Ramirez, FSA, MAAA, FCA, EA**  
*Vice President and Consulting Actuary,*  
*Denver*

**Project Role: Secondary Actuary**



**Expertise**

Mr. Ramirez is a Vice President and Consulting Actuary in Segal's Denver office and has over 25 years of consulting experience. He has specialized expertise in the funding, design and administration of defined benefit pension plans. Mr. Ramirez works with public and private institutions to help manage the financial risks of providing stable retirement income to their former employees. His clients include public retirement systems, funds established by regional transportation authorities and multiemployer trusts covering union-represented building trade employees.

Mr. Ramirez is a member of Segal's National Public Sector Retirement Practice and serves as lead consultant and actuary to many clients including the Colorado Public Employees' Retirement Association, the North Dakota Teachers' Fund for Retirement and the Public Employees' Retirement System of the State of Nevada.

**Professional background**

A former college mathematics professor, Mr. Ramirez has experience communicating complicated actuarial concepts to people of all backgrounds.

**Education/professional designations**

Mr. Ramirez received a BS in Mathematics and an MS with an emphasis in Abstract Algebra from the University of Nevada. He was awarded a Graduate Teaching Fellowship at the University of Oregon, where he taught Advanced Algebra and Statistics.

Mr. Ramirez is a Fellow of both the Society of Actuaries and the Conference of Consulting Actuaries, a Member of the American Academy of Actuaries and an ERISA Enrolled Actuary. He also volunteers on the Society of Actuaries Fellowship Examinations Committee.

**Publications/speeches**

Mr. Ramirez speaks and presents frequently at professional organizations, including the Enrolled Actuaries Meeting, the Conference of Consulting Actuaries, the National Association of State Retirement Administrators and the National Council on Teacher Retirement. Additionally, he often provides educational sessions for the Boards and Staff of public pension retirement systems. Mr. Ramirez has testified on pension matters before legislature and other governing bodies throughout the country.

Presentations and publications include:

- "Public Safety Pension Update," National Association of Police Organizations 33<sup>rd</sup> Annual Pension and Benefits Seminar, February 2022



- “Legacy Costs – The Elephant in the Room,” National Council on Teacher Retirement 2019 Annual Conference, October 2019
- “Public Plans Open Forum,” Conference of Consulting Actuaries 2018 Annual Meeting, October 2018
- “Plan Funding and Design,” National Association of Police Organizations 2018 Pension and Benefits Seminar, January 2018
- “What Comes First, the Actuarial Assumption of the Investment Allocation?” NCPERS 2017 Public Safety Employees Pension and Benefits Conference, October 2017
- “Multiemployer Plans for Non-Multiemployer Plan Actuaries,” 2016 Enrolled Actuaries Meeting, April 2016
- “Actuarial Analysis & Planning Considerations for Trustees,” National Association of Police Organizations 28th Annual Police, Fire, EMS & Municipal Employee Pension & Benefits Seminar, January 2016
- “GASB Grab Bag,” 2015 Conference of Consulting Actuaries Annual Meeting, October 2015
- “GASB 67/68 2015 and Beyond,” BKD Annual Governmental Seminar, August 2015
- “How Public Pension Plans Can Develop and Maintain Actuarially Responsible Funding Policies: Four Perspectives,” with Paul Angelo, *HR News*, December 2014

**Tatsiana Dybal, FSA, MAAA, EA**  
*Vice President and Actuary, Chicago*  
**Project Role: Peer Reviewing Actuary**



**Expertise**

Ms. Dybal is a Vice President and Actuary in Segal's Chicago office with over 15 years of experience in actuarial consulting. She is responsible for preparing annual valuations and projections and assisting with plan design and experience studies. Her clients include public sector and multiemployer plans and range in size from several hundred to over 500,000 participants.

**Professional background**

Ms. Dybal joined Segal in 2007. Prior to joining Segal, Ms. Dybal worked in the marketing department of a technology firm for seven years and managed the supply chain of a foreign diamond exchange.

**Education/professional designations**

Ms. Dybal received an MS in Physics and Mathematics from State University (Minsk, Belarus) and an MS with high distinction in Actuarial Science from DePaul University. She is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries and an Enrolled Actuary. Ms. Dybal has received the firm's prestigious Quality Star and One Company awards.

Teresa Knapp, FSA, MAAA, EA

*Actuary, Atlanta*

**Project Role: Reviewing Actuary**



### **Expertise**

Ms. Knapp is an Actuary in Segal's Retirement practice, with over seven years of actuarial experience. She specializes in public sector, corporate and multiemployer sector plans. Assigned to Segal's Midwest region, she is responsible for annual actuarial valuations of defined benefit plans, annual accounting reports for public and corporate plans, consulting with respect to public plan design, benefit communication and calculations, as well as data validation.

### **Professional background**

Prior to joining Segal, Ms. Knapp was an Actuarial Consultant at another national consulting firm, where she gained experience in the valuation of defined benefit plans and in consulting to public sector and corporate retirement plan sponsors. Her past work has included projects involving plan terminations, experience studies, data preparations, actuarial valuations, projections and benefit calculations.

### **Education/professional designations**

Ms. Knapp received a BS in Actuarial Science from the University of Michigan. She is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries and an Enrolled Actuary.

## Steven A. Shore

*Senior Actuarial Associate, Chicago*

**Project Role: Actuarial Analyst**



### **Expertise**

Mr. Shore is a Senior Actuarial Associate for the Retirement practice in Segal's Chicago office with over two years of experience. He specializes in evaluating and analyzing multiemployer and public sector defined benefit plans. His primary roles include preparing annual actuarial valuations and actuarial cost studies, modeling funding and solvency projections, as well as data reconciliation. He works on client's ranging in size from several hundred to over 200,000 participants.

### **Professional background**

Prior to joining Segal, Mr. Shore performed an actuarial internship at Jackson National Life Insurance Company in Lansing, MI.

### **Education/professional designations**

Mr. Shore graduated from the University of Michigan with a BS in Actuarial Mathematics. He has received credit for seven actuarial exams: P, FM, IFM, SRM, STAM, LTAM and PA.

Laura C. Jeske

*Actuarial Analyst, Chicago*

**Project Role: Actuarial Analyst**



### **Expertise**

Ms. Jeske is an Actuarial Analyst for the Retirement practice in Segal's Chicago office. She focuses on evaluating retirement plans and developing actuarial results. Her primary roles focus on analyzing plan data, financial statements, and deterministic projections. She works on public sector and multiemployer clients, which involves a large range of liabilities and diverse plan provisions.

### **Education/professional designations**

Ms. Jeske graduated from the University of Wisconsin - Milwaukee with a BA in Actuarial Science. She has received credit for five actuarial exams: P, FM, IFM, STAM, and FAM-S.

## Weston Sterchi

*Actuarial Associate, Chicago*

**Project Role: Actuarial Analyst**



### Expertise

Mr. Sterchi currently works as an actuarial associate in Segal's retirement practice, where he performs actuarial valuations for multiemployer, single employer and public sector pension plans.

### Education/professional designations

Mr. Sterchi graduated *summa cum laude* from the Illinois Institute of Technology with a BS in Applied Mathematics and a Masters of Mathematical Finance. He is working to attain his credentials with the Society of Actuaries.

## Andrew D. Sherman

*Senior Vice President, National Director,  
Public Sector Market, Boston, Washington, DC*

**Project Role: Subject Matter Expert**



### Expertise

Mr. Sherman is a Senior Vice President and is National Director of the Public Sector market. He is based in both the Boston and Washington, DC offices. He has over 30 years of experience in the Northeast and throughout the U.S. as a benefits consultant working with plan sponsors on a wide range of employee benefit issues and opportunities including plan design, benefit strategies, funding and plan management. Mr. Sherman managed the consulting practices for the firm's Boston and Hartford offices and served as a member of The Segal Group's Board of Directors from 2007 to 2016.

Mr. Sherman provides consulting services to public and private health, retirement and retiree health benefit plans. He focuses on public sector entities and consults to large public sector employee benefit plans as well as city and state health plans. Additionally, he consults to corporations and nonprofit entities as well as collectively bargained multiemployer health, pension and annuity funds.

Mr. Sherman has extensive experience consulting to benefit plan sponsors on all aspects of health benefit plans and an array of wellness and work/life benefit programs, as well as defined benefit and defined contribution retirement plans. His consulting expertise includes total health management, Affordable Care Act compliance, prescription drug benefit plan design, retiree health benefit programs including Medicare and Medicare Part D, cost analysis and benefit program implementation. He also assists clients with plan design review, funding alternatives, participant choice, eligibility provisions, provider reimbursement and public and private health insurance exchanges.

### Education/professional designations

Mr. Sherman has a BA in Economics, *magna cum laude*, from Brandeis University and a Masters in Public Policy with a concentration in Health Policy from The John F. Kennedy School of Government at Harvard University.

Mr. Sherman served on the board of directors of the New England Benefits Council from 2000 to 2012 and was President from 2008 to 2010.

### Publications/speeches

Mr. Sherman has been widely quoted in both the benefits press and general press, including the *Boston Globe*, *The New York Times*, and *The Wall Street Journal*. He has written several articles on employee benefit issues. Mr. Sherman has spoken on these issues at several universities, for the Massachusetts Bar Association and at numerous employee benefit seminars and national conferences. He has also testified before the Massachusetts State House and the Boston City Council.

Publications and presentations include:

- “Redesigning Retiree Healthcare in the Public Sector,” IFEBP Public Sector Benefits Institute, February 2017
- “Health Cost Trends: What’s Expected for 2017 and What Can Plan Sponsors Do About It?” National Labor and Management Conference, February 2017
- “Assessing ACA’s Big Issues — Grandfathered Status and the 40% Excise Tax,” National Labor and Management Conference, February 2016
- “The 40% Excise Tax Under the Affordable Care Act: The Tax that No Plan Sponsor Wants to Pay,” Segal Consulting webinar, September 2015
- “Getting Ready for New ACA Reporting Requirements for Sponsors of Multiemployer Plans” Segal Consulting webinar, July 2015
- “Navigating Your Plans for the 2018 ACA Excise Tax and other ACA ‘To Do’s,’” 38<sup>th</sup> Annual National Labor & Management Conference, February 2015
- “The Cost of Healthcare: Highlights from the 2015 Segal *Health Plan Cost Trend Survey*,” Segal Consulting webinar, November 2014
- “Affordable Care Act and the Employee Shared Responsibility Penalty,” Segal Consulting webinar, May 2014
- “Industry Strategies in the ACA Environment,” IFEBP Health Care Management Conference, April 2014
- “Self-Funding Health Benefits Can Help Plan Sponsors Control Costs,” Dean C. Hatfield and Andrew D. Sherman, *Benefits & Compensation Digest*, August 2009
- “Connecticut Licenses Same-Gender Marriages,” Joanne L. Hustead and Andrew Sherman, *Benefits Law Journal*, Summer 2009



**Kathleen A. Riley, FSA, MAAA, FCA, EA**  
*Senior Vice President and Chief Actuary,*  
*Boston*



**Project Role: Subject Matter Expert**

### **Expertise**

Ms. Riley is a Senior Vice President and Chief Actuary for Segal. Based in Segal's Boston office, she has overall responsibility for Segal's Actuarial practice, coordinating the activities of the Office of the Chief Actuary (OCA) and chairing the firm's National Actuarial Policy Committee. She has been with Segal for over 40 years, has been a member of the OCA since 2017 and managed the Boston office actuarial department from 1994 through 1998.

Ms. Riley provides retirement and retiree health actuarial consulting services to public sector and multiemployer clients. She serves as the lead actuary and consultant for many Massachusetts municipal and county clients, including the cities of Boston, Cambridge and Worcester, and the Vermont Retirement Systems. She also works with several Taft-Hartley clients, including the North Atlantic States Carpenters Benefit Funds, the Iron Workers District Council of New England Pension Fund and the Massachusetts Laborers Pension Fund. She served on the Governor's Special Commission on Pension Reform in 2009. Ms. Riley led Segal's actuarial team that completed the municipal actuarial analysis for the Massachusetts OPEB Commission Report in 2013, which was the basis of Governor Patrick's Retiree Healthcare Benefits Reform Legislation

Ms. Riley has assisted various retirement boards in determining whether to adopt the early retirement incentives, veteran's buyback provisions and COLA provided under Massachusetts pension legislation (Chapter 17 of the Acts of 1997). In addition, she has advised on the impact of other state legislative initiatives.

Ms. Riley worked with the Massachusetts State Board of Retirement to determine the cost of alternative retirement benefits for state and municipal public safety officers. She also has advised the State Police Association and has assisted the Essex County and Hampshire County Retirement Systems in evaluating the impact on the Retirement System and member communities of the various proposals to redesign and/or abolish county government in Massachusetts.

### **Education/professional designations**

Ms. Riley graduated from Harvard University where she earned an AB in Biology. She is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries, a Fellow of the Conference of Consulting Actuaries and an Enrolled Actuary.

Ms. Riley recently completed her second term on the Actuarial Standards Board, including as chairperson, and served on the Actuarial Board for Counseling and Discipline for five years. In addition, she has been Vice President of Professionalism for the American Academy of Actuaries and served on the Academy's Committee on Qualifications, including as chairperson. She also received the 2022 Jarvis Farley Service Award from the Academy, which recognizes

volunteer efforts on behalf of the Academy that have made significant contributions to the advancement of the profession.

### **Publications/speeches**

Ms. Riley has been a frequent speaker on professionalism topics for the American Academy of Actuaries.

## Vibha Mittal

*Consultant, New York*

**Project Role: Administration and Technology Consultant**



### Expertise

Ms. Mittal is a Consultant in Segal's Administration & Technology Consulting practice in the New York office. She has eight years of experience delivering technology solutions to public benefits administration clients. Ms. Mittal specializes in all facets of pension administration implementation, including, business analysis and design, software product development, database management systems, business process improvement, performance optimization and project management.

### Professional background

Prior to joining Segal, Ms. Mittal worked for Deloitte Consulting for over seven years, focusing on implementing large-scale technology projects for public pension and paid family and medical leave (PFML) systems. Her career began as a software developer and progressed toward leading the business management of Deloitte's proprietary pension administration system for large-scale multimillion dollar projects. She also worked with clients, prospects and vendors to define and translate business needs into technology solutions through various phases of the software development lifecycle such as requirements gathering, system design, and system implementation.

### Education/professional designations

Ms. Mittal received a BE in Information Technology from University of Pune, India.