



Proposal to Provide
Actuarial Consulting Services

to the

Ohio Retirement Study Council

ORIGINAL

Prepared by Cheiron July 23, 2014

Table of Contents

| <u>Page</u> | <u>e</u> |
|--|----------|
| Letter of Transmittal i | |
| 1.1 Proposal Summary1 | |
| 1.2 Capabilities and Experience1 | |
| 1.3 References5 | |
| 1.4 Staff Qualifications7 | |
| 1.5 Methodology and Work Product11 | |
| .6 Additional Information14 | |
| 1.7 Glossary19 | |
| .8 Cost Information21 | |
| VII. Supplemental Required Information23 | |

APPENDICES

Appendix A – Staff Résumés





July 23, 2014

Ms. Bethany Rhodes, Director Ohio Retirement Study Council 88 East Broad Street, Suite 1175 Columbus, OH 43215

Re: RFP to Provide Actuarial Consulting Services to the Ohio Retirement Study Council

Dear Ms. Rhodes:

Cheiron is pleased to present our proposal to provide actuarial consulting services for the Ohio Retirement Study Council ("Council"). As you review our proposal, we hope the following will stand out:

Extensive Experience: Our consultants have years of experience addressing the unique needs of some of the largest public pension funds in the country, and Cheiron's lead consultants have the highest level credentials.

Current and past accounts include the statewide retirement systems of Washington State, CalSTRS, CalPERS, Maryland, Florida, Maine, Montana, Delaware, Utah, Kansas, Connecticut, Vermont as well as the city retirement systems of San Diego, San Francisco, San Jose, Saint Louis, Kansas City, Philadelphia, Phoenix, Baltimore, Annapolis, and the District of Columbia.

Unique: Cheiron's success is based on creating imaginative, sophisticated and clearly understandable solutions to financial challenges that enable our clients to make the best policy, funding and design decisions. While other firms' actuarial reports and studies often focus on the present and the past, Cheiron's standard reports present projections under alternative economic scenarios and discuss the system's risks to allow our clients to focus on their risk management.

Dynamic: Our interactive modeling skills are perhaps the single greatest differentiator between our firm and others. These dynamic models permit "what-if" scenarios to be presented instantaneously at meetings, educating all interested parties of the impact of alternative assumptions and designs on the pension plan's funded status and contribution requirements. Thus, by the end of the meeting, you can make knowledgeable decisions based on the likelihood of the desired result.

Focused: Our focus is on our clients. For more than 30 years, our consultants have developed lasting relationships with our clients and gained their respect through high-quality work and value-added services. That client orientation has been rewarded by the steady growth of our client base.



Ms. Bethany Rhodes July 23, 2014 Page ii

We know we can do a superior job providing a unique experience for the Council and thank you for considering Cheiron. We look forward to answering any questions you may have.

Sincerely, Cheiron

Janet Cranna, FSA, FCA, MAAA, EA Principal Consulting Actuary Stephen T. McElhaney, FSA, FCA, MAAA, EA Principal Consulting Actuary

IV. Organization and Content of Vendor Proposal

4.1 PROPOSAL SUMMARY

Provide a narrative summary of all the services and work products that are being offered. The purpose of the summary is to demonstrate your firm's understanding of this RFP.

We understand that the Ohio Retirement Study Council is seeking an actuarial firm to:

- Conduct actuarial and cost analyses of various legislative proposals. On an annual basis,
- Review the adequacy of the contribution rates made under the Ohio Police and Fire Pension Fund (OP&F) and make recommendations to the legislature for the proper financing of the benefits provided by OP&F (Ohio Revised Code 742.311).
- Prepare an independent actuarial study every three years on the required employer supplemental contribution to be made on behalf of eligible employees of public institutions of higher education electing an alternative retirement plan in lieu of the retirement systems as required by R.C. 171.07 and detailed R.C. 3305.06.
- Provide consultation and advice on questions and issues that arise relevant to the powers and duties of the ORSC
- Lastly, Cheiron will provide information and technical assistance, including attendance at ORSC meetings, as requested, to present analyses, studies, and reports completed by the actuary and provide testimony to legislative committees.

4.2 CAPABILITIES AND EXPERIENCE

Describe your firm's capabilities and recent experience in performing actuarial evaluations, analyses, or studies of public employee retirement systems. Include information on the types and sizes of public employee retirement systems for which past work has been performed, including whether the systems were defined benefit or defined contribution plans, the types and number of participating employers, number of participants, and other relevant indicators of plan type, size, and comparability to Ohio's systems. You should include other information you believe may be relevant in demonstrating your capabilities in performing the consulting services, including other professional experience and data processing capabilities. Include a sample of any relevant research reports or analyses that you believe are applicable to this RFP.

The firm must meet the following minimum criteria:

• Have provided actuarial services similar to that requested under this RFP in the past three years.

There are seven states where we currently or in the recent past performed studies and analysis very similar to the services being requested by the Council: Florida, Maine, Montana, Illinois, Rhode Island, Maryland, New York, Pennsylvania and Utah.



- o For Florida, we provided extensive analysis, both qualitative and quantitative, of bills proposed in the 2013 session to close the defined benefit plan to new employees.
- As the actuary for the Maine Public Employees Retirement System, we are very involved analyzing proposed changes for the System. We have worked with special Legislative Commissions to evaluate the long-term funding of the System and develop recommendations for changes to benefits and funding mechanisms. We have developed and analyzed several optional plan designs to meet legislative proposals to fundamentally change the benefit structure of all the separate plans covering public employees in the state. We have worked closely with the System's Executive Director to prepare reports for both the Legislature and Governor's Office under very tight deadlines to demonstrate the impact of proposed changes on participants' benefits and the State's financial costs. Cheiron currently provides ongoing actuarial services for statewide defined benefit pension plans comprising approximately 102,000 participants.
- o For Montana, we are the ongoing actuary to the Public Employees' Retirement Board, since 2009. In this role, we are required to provide actuarial analysis regarding proposed legislation that would affect the systems. On more than one occasion, there have been proposals to close the defined benefit plans and have all new employees participate in a defined contribution plan. Our projections have assisted the legislature in understanding the short and long-term effects of this action. It should also be noted that the funding of Montana's retirement systems is based upon statutory contributions rates, similar to the situation in Ohio. MPERS is comprised of approximately 68,000 participants.
- o For Illinois, Cheiron provides statutory annual review of five state retirement systems, comprising approximately 520,000 participants, and reporting as State Actuary for the Illinois Office of the Auditor General, including reviewing the actuarial assumptions and methods of each system, the accounting disclosures, and the compliance with actuarial standards. We have completed two of these audits, of the 2012 and the 2013 valuation reports. This work requires extensive communication with the systems' staffs, the systems' retained actuaries, and the Office of the Auditor General. This work includes review of projections prepared by the system actuaries for each of the five systems.
- o For Rhode Island, we were retained by the state retirement system to perform an actuarial audit and full replication of the retained actuary's June 30, 2012 valuation results and assumptions. This work reflected significant changes to plan design and provisions and included projections of future contributions and funded status. In addition, we provided the State with feedback regarding the results of the actuary's most recent review of the experience of the System which was used to modify the actuarial assumptions used. The defined benefit plans have approximately 52,000 participants.



- We are currently the provider of consulting services to the Maryland State Department of Legislative Services. In this role, we are requested to review and provide fiscal impact statements for any proposed legislation that would affect the State Retirement System's defined benefit pension plans, comprised of approximately 200,000 participants. During the most recent session, we provided fiscal analysis under very tight deadlines for a variety of proposed bills. During the 2013 session, we were asked to provide projections for a bill that would have placed all new state employees and teachers into a defined contribution plan. These projections were incorporated into a fiscal note used by legislators during their analysis of the bill. Other examples of bills analyzed are: a bill which would move all state employees and teachers to a cash balance plan for future service – a companion bill would only put new employees into a cash balance plan; bills which would exempt certain retirees from pension offsets upon reemployment; a bill which would increase the mandatory retirement age for judges; and a bill which would transfer some of the state's costs to local government—this analysis included an investigation with respect to new GASB Statement 68 regarding how the retirement systems would handle cost sharing employers and special funding situations.
- o For Utah, we provided projections to the legislature in order to supplement work that had been provided by the retained actuary for the Utah Retirement System. Our projections and studies were used in developing legislation modifying the benefit and funding structure of the System. The System is comprised of approximately 180,000 participants.

While the above seven states are examples of work very similar to the work being requested by the Council, we have significant additional experience in providing consulting services relating to state public retirement systems to legislatures and regulatory agencies.

- o For the State of New Jersey, we provided consulting services to the Pension and Health Benefits Review Commission responsible for providing an actuarial opinion on any legislation involving health and pension legislation. We were also engaged from time to time in a special project including providing fact witness testimony in federal court on behalf of the State's Administration and Legislature.
- o Consultants at Cheiron have been involved in serving the Joint Legislative and Audit Committee for the State of Virginia where we were engaged in special initiatives driven by the Legislature.
- o For the State of Washington, we provide biennial audit services on the actuarial valuation and special projects.
- O We are a preferred provider to the Public Employee Retirement Commission of Pennsylvania to provide consulting services for the State through the Commission on an ad-hoc basis. When the Legislature was looking for a solution to the financial crisis and impact on its over 3,000 municipal retirement systems, we were



instrumental in analyzing the various alternatives and identifying areas of the law to provide funding relief that could result in cost deferrals pushed off too far into the future, creating excessive risks.

- In Oregon, the Governor's office retained Cheiron to provide expert testimony and analysis to help defend the State against multiple lawsuits totaling \$9 billion brought on by government employees and their unions challenging the 2003 PERS Reform Legislation. In order to perform this task, Cheiron had to review all work performed by the PERS actuary over the past ten years and provide an independent assessment of the current and projected financial condition of PERS to a Special Master appointed by the Oregon Supreme Court to hear the case. In the end, the court ruled in favor of the State; and in his written decision, the Special Master relied heavily on Cheiron's testimony.
- o In California, we have been retained by CalSTRS to provide independent assessment and analysis of the actuarial calculations and advice being provided by the State's consulting actuary. That effort involved the creation of forecasting tools to examine the adequacy of CalSTRS funding.
- o For the New York State Teachers Retirement System, we reviewed the Governor's proposed funding policy including 30-year deterministic and stochastic projections to formulate a sustainable, predictable cost.
- o In the District of Columbia, we were engaged to evaluate the benefits of the general employees who currently only have a defined contribution plan. We compared the benefits to nearby state and local governments, developed a number of alternative benefit designs, and forecasted the cost of each alternative.
- As of March 31, 2014, and for at least the five most recent continuous years, the firm must have a verifiable operating history with at least three institutional fund clients with similar size, complexity and asset mix to Ohio's systems.

As of March 31, 2014, and for the five most recent continuous years (March 31, 2009) Cheiron has provided actuarial services for the following clients similar to Ohio's systems:

| | | Total | Date of |
|---|---|---------------------|-------------|
| | <u>Client</u> | Participants | <u>Hire</u> |
| 0 | City & County of San Francisco Employees Retirement System | 55,000 | 7/1/2008 |
| 0 | City of Philadelphia Municipal Retirement System | 65,000 | 8/7/2007 |
| 0 | Delaware Public Employees Retirement System (9 plans) | 70,000 | 6/1/2006 |
| 0 | Maine Public Employees Retirement System (4 plans) | 102,000 | 3/1/2005 |
| 0 | Montana Public Employee Retirement Administration (8 plans) | 68,000 | 1/1/2009 |

As of March 31, 2014, the primary contact dedicated to the ORSC contract must have at least ten years' experience in providing actuarial consulting services to institutional fund clients.



Janet Cranna, Principal Consulting Actuary, is the proposed co-lead actuary for this engagement. Janet has 30 years of retirement consulting and actuarial experience with public sector and corporate clients. She is a Fellow of the Society of Actuaries, the highest level of accreditation in the actuarial profession.

Stephen McElhaney, Principal Consulting Actuary, is the other proposed co-lead actuary for this engagement. Steve has over 35 years of retirement consulting and actuarial experience with public sector and corporate clients. He is a Fellow of the Society of Actuaries as well. Steve also provided actuarial audit services to ORSC about 15 years ago when he was with a prior employer.

• The primary contact dedicated to the ORSC must be current member in good standing with the American Academy of Actuaries and be, at a minimum, Fellows of the Society of Actuaries. The firm will promptly advise the ORSC if it, at any time, the primary contact is no longer a member.

Both Janet Cranna and Stephen McElhaney are currently Fellows of the Society of Actuaries, Fellows of the Conference of Consulting Actuaries, Members of the American Academy of Actuaries, and Enrolled Actuaries under ERISA. We will promptly advise the ORSC if at any time if the primary contacts are no longer members of the aforementioned organizations.

The ORSC retains the sole right to decide whether any firm is qualified to bid, including determining whether any firm's qualifications are sufficiently comparable to satisfy the minimum qualifications.

Understood.

4.3 REFERENCES

Include a list of organizations that may be used as references for your work on actuarial studies. Selected organizations may be contacted to determine the quality of the work performed, personnel assigned to the project, and contract adherence. The following should be included for the references listed:

- Date of the study:
- Name and address of client;
- Name and telephone number of individual in the client organization who is familiar with the study; and
- Description of the work performed.



References

| Date of Study: | Cheiron client since 2002-ongoing; client with previous employer since 1986 |
|------------------------------------|---|
| Name and Address of Client: | Maine Public Employees Retirement System 46 State House Station Augusta, ME 04333 |
| Name and Telephone: | Sandy Matheson, Executive Director 207-512-3190 |
| Description of the Work performed: | Ongoing actuarial services and special projects as requested. |

| Date of Study: | Cheiron client since 2006-ongoing |
|------------------------------------|---|
| Name and Address of Client: | Delaware Public Employees Retirement System McArdle Building 860 Silver Lake Blvd, Suite 1 Dover, DE 19904-2402 |
| Name and Telephone: | David Craik, Pension Administrator 302-739-4208 |
| Description of the Work performed: | Ongoing actuarial services and special projects as requested. |

| Date of Study: | Cheiron client since 2009-ongoing |
|------------------------------------|--|
| Name and Address of Client: | Montana Public Employee Retirement Administration 100 N. Park Avenue, Suite 200 P. O. Box 200131 Helena, MT 59620 |
| Name and Telephone: | Barbara Quinn, Fiscal Services Bureau Chief 406-444-5457 |
| Description of the Work performed: | Ongoing actuarial services and special projects as requested. |

| Date of Study: | Cheiron client since 2011-ongoing |
|------------------------------------|---|
| Name and Address of Client: | Maryland General Assembly, Dept. of Legislative Services 90 State Circle Annapolis, MD 21401 |
| Name and Telephone: | Michael Rubenstein, Principal Policy Analyst 410-946-5520 |
| Description of the Work performed: | Review and provide fiscal impact statements for proposed legislation affecting the State Retirement System. |



References (cont'd.)

| Date of Study: | Cheiron client since 2008-ongoing |
|------------------------------------|---|
| Name and Address of Client: | City and County of San Francisco Employees' Retirement System 30 Van Ness Avenue Suite 3000 San Francisco, CA 94102 |
| Name and Telephone: | Jay Huish, Executive Director 415-487-7015 |
| Description of the Work performed: | Ongoing actuarial services and special projects as requested. |

| Date of Study: | Cheiron client since 2007-ongoing |
|------------------------------------|--|
| Name and Address of Client: | Philadelphia Retirement Board Two Penn Center Plaza, 16th Floor Philadelphia, PA 19102 |
| Name and Telephone: | Francis X. Bielli, Esq., Executive Director 215-496-7410 |
| Description of the Work performed: | Ongoing actuarial services and special projects as requested. |

4.4 STAFF QUALIFICATIONS

Describe the qualifications of all management and lead professional personnel who will participate in providing the actuarial services. Include: (1) a resume; (2) a summary of experience each has had in performing actuarial evaluations, analyses, or studies of public employee retirement systems; and (3) a management plan identifying the responsibilities each will have on providing the services.

The resume should include information on the current and past positions held with your firm, educational background, relevant credentials, and other relevant information to demonstrate the personnel's qualifications.

The experience summaries should include information on the types and sizes of public employee retirement systems for which the designated staff have completed actuarial services, including whether the systems were defined benefit or defined contribution plans, the types and number of participating employers, number of participants, and other relevant indicators of plan type, size, and comparability to Ohio's systems. You may reference, rather than repeat, duplicative information provided elsewhere in your proposal. The experience summaries should describe the work performed and detail the roles and responsibilities that the individual staff had on the projects.

The management plan should provide an estimated percentage portion of time each individual staff member would participate in providing actuarial services for each report.



• Janet Cranna, FSA, FCA, MAAA, EA, Principal Consulting Actuary, is the proposed colead actuary for this engagement. Janet has 30 years of retirement consulting and actuarial experience with public sector and corporate clients. Her experience includes the New Jersey Retirement Systems and the Pennsylvania Public School Employees' Retirement System. Janet is a Fellow of the Society of Actuaries, a Fellow of the Conference of Consulting Actuaries, a Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA.

Experience Summary of Significant Public Sector Engagements:

- O New Jersey Retirement Systems: Lead actuary with previous employer for regular ongoing actuarial services for 7 statewide defined benefit pension plans. Approximately 520,000 participants and 2000 employers. Services included actuarial valuations, experience studies, GASB disclosures, testifying before Boards and Legislative Committees, and consulting on plan design and funding policy.
- o Pennsylvania Public School Employees' Retirement System: Lead actuary with previous employer for regular ongoing actuarial services for statewide defined benefit pension plan. Approximately 598,000 participants. Services included actuarial valuations, experience studies, GASB disclosures, testifying before Boards and Legislative Committees, and consulting on plan design and funding policy.
- o United States Army Nonappropriated Fund Employee Retirement Plan: Backup actuary for defined benefit pension plans. Approximately 50,000 participants.
- o City and County of San Francisco Employees Retirement System: Backup actuary for regular ongoing actuarial services for defined benefit pension plans. Approximately 55,000 participants.
- Stephen T. McElhaney, FSA, FCA, MAAA, EA, Principal Consulting Actuary, is the proposed co-lead actuary for this engagement. Steve is a nationally respected public sector retirement consultant with over 35 years of extensive experience providing actuarial services for major public employee retirement systems. He joined Cheiron in April 2009. His experience with ongoing large public plans includes the state retirement systems in Montana, Oklahoma, and Minnesota. His actuarial auditing experience includes the state retirement systems in Virginia, Illinois, Ohio, Kansas, and Colorado. Steve has served on the Board of Directors of the Conference of Consulting Actuaries, and is a member of the Steering Committee of the Conference's Public Plans Committee. He is a Fellow of the Society of Actuaries, a Fellow of the Conference of Consulting Actuaries, a Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA.

Steve also participated on a GASB task force as they were developing the recently issued exposure drafts for changes in accounting for OPEB plans. This experience could benefit ORSC when the Ohio systems need to transition from GASB 43 to the new requirements.



Experience Summary of Significant Public Sector Engagements:

- o Montana Public Employees' Retirement Administration: Lead actuary for regular ongoing actuarial services for eight statewide defined benefit pension plans. Approximately 65,000 participants.
- O City of Newport News, VA: Lead actuary for regular ongoing actuarial services for City pension system as well as GASB 45 valuations of retiree health and life insurance benefits. Approximately 14,000 participants.
- o Minnesota Public Employee Retirement Association (with prior employer): Co-lead actuary for regular ongoing actuarial services for statewide defined benefit plan. Approximately 250,000 participants.
- Oklahoma Public Employees Retirement System (with prior employer): Lead actuary for regular ongoing actuarial services for statewide defined benefit plan. Approximately 70,000 participants.
- O Virginia Retirement System (with prior employer): Lead actuary for actuarial audit of statewide defined benefit plan. Approximately 500,000 participants.
- o Florida Retirement System (with prior employer): Lead actuary for transition to DB/DC choice plan. Approximately 800,000 participants.
- o Colorado Public Employee Retirement Association (with prior employer): Lead actuary for actuarial audit of statewide defined benefit plan. Approximately 250,000 participants.
- o Ohio Retirement Study Council (with prior employer): Lead actuary for actuarial audits of OP&F and HWPS. Approximately 50,000 and 3,000 participants respectively.
- O John Colberg, FSA, MAAA, EA, Principal Consulting Actuary, is the proposed health and welfare actuary for this engagement. John is one of Cheiron's founders and has over 23 years of actuarial experience in employee benefit plans and retirement plans including health care, group life and disability insurance, and employee leave plans. John has consulted to various public sector funds over his career and is presently the lead consultant to the State of Arkansas and the District of Columbia. John is a Fellow of the Society of Actuaries, an Enrolled Actuary under ERISA, and a Member of the American Academy of Actuaries.

Experience Summary of Significant Public Sector Engagements:

o Arkansas Employee Benefits Division. Lead actuary for health consulting including funding and rate projections; PPACA and State legislation analysis; IBNR calculations and other actuarial reserve calculations; monitoring reports; vendor negotiations; postretirement liability calculations. Approximately 100,000 participants.



- O District of Columbia. Lead actuary for health consulting including vendor negotiations; postretirement liability calculations; analysis of legislation. Approximately 27,000 participants.
- United States Army Family and MWR Command: Lead and backup actuary for health benefits program valuation, postretirement medical report, and special studies as requested. Approximately 10,500 participants.
- Delaware Public Employees Retirement System: Lead and backup actuary for regular ongoing actuarial valuations of statewide retiree health plans. Approximately 70,000 participants.
- O United States Department of Defense: Lead Actuary for special study in 2005; Lead Actuary for 10 years with previous employer ending in 2002 for ongoing actuarial valuations of retiree health programs; special studies; train DoD Actuaries to perform valuations in house. Approximately 5,000,000 participants.
- O State of Florida: Lead Actuary for 10 years with previous employer ending in 2002 for evaluation of active and retiree health costs for state employees; analysis of legislation; calculation of retiree and active employee contributions. Approximately 120,000 participants.
- Kevin Woodrich, FSA, MAAA, EA, Principal Consulting Actuary, is the proposed project manager for this engagement. Kevin has 14 years of experience mainly in the employee benefits pension and health arena, which includes actuarial valuations, benefit calculations, benefit statements, government filings, experience studies and programming actuarial models. His public sector experience includes working with the Delaware Public Employees' Retirement System, the US Army Non-Appropriated Fund, Arlington County Employees' Retirement System, and the employee retirement systems for the cities of Norfolk (VA), Roanoke (VA), and Hampton (VA). In addition, he was one of the lead actuaries involved in Cheiron's recent audit of the Employees' Retirement System of Rhode Island. He is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries, and an Enrolled Actuary under ERISA.

Experience Summary of Significant Public Sector Engagements:

- United States Army Nonappropriated Fund Employee Retirement Plan: Lead actuary for defined benefit pension plans. Approximately 50,000 participants.
- o Delaware Public Employees Retirement System: Special Resource for regular ongoing actuarial services for statewide defined benefit pension plans. Approximately 70,000 participants.
- o Arlington County (VA) Employees Retirement System: Lead actuary for defined benefit pension plans. Approximately 7,600 participants.



- O City of Hampton (VA) Employees Retirement System. Lead actuary for regular ongoing actuarial services for defined benefit pension plan. Approximately 1,300 participants.
- O City of Norfolk (VA) Employees Retirement System. Lead actuary for regular ongoing actuarial services for defined benefit pension plan. Approximately 8,600 participants.
- O City of Roanoke (VA) Pension Plan. Lead actuary for regular ongoing actuarial services for defined benefit pension plan. Approximately 4,200 participants.

Complete résumés for these individuals can be found in Appendix A.

Management Plan

All services provided to the Council would be coordinated by the co-lead actuaries, Janet Cranna and Steve McElhaney, and they will attend most of the meetings required. For much of the day-to-day activities, the Council will probably be dealing with our proposed project manager Kevin Woodrich.

Our co-leader approach is explicitly designed to avoid any potential for the need to transition professionals. We want to ensure our ability to maintain continuity with our clients at all times and be flexible to meet their scheduling needs. We will notify the Council immediately if any key individual would need to be replaced on the team, and obtain input from the Council before making the change.

Cheiron employs a team approach to servicing our clients and, in doing so, is committed to providing the appropriate consultant in any given situation to properly advise the Council with regard to any expected topic of discussion. Likewise, Council professionals are free to contact any member of Cheiron's professional staff in order to best service the needs of the Council.

The time spent by each of the proposed staff will vary based on the complexity and timing of each study request. However, we have estimated the overall time allocation of these individuals to ORSC to be as follows:

| Janet Cranna | 20% |
|-----------------|-----|
| Steve McElhaney | 20% |
| Kevin Woodrich | 20% |
| John Colberg | 5% |

The balance of the time (35%) will typically be performed by Cheiron's analysts and administrative staff. We do not outsource any of our work.

4.5 METHODOLOGY

Describe the specific techniques that will be used to complete the services specified under the Scope of actuarial services section of this RFP, including anticipated sampling



techniques and sizes, and proposed sources of data and information. You may propose alternative ways of addressing the elements of the project's scope.

In describing your proposed methodology, also identify the type and level of assistance that you anticipate will be needed from the staff of the systems and their actuaries, including assistance to understand the operations and records of the systems; to understand the actuarial assumptions, method, and procedures; and to access, obtain, and analyze information needed for the audit. Identify meetings, interviews, programming support, space needs, etc., that you anticipate needing from the Systems.

For Cheiron to perform the services under this RFP, we will require copies of the most recent actuarial valuation reports for each of the retirement systems for which we are asked to provide an analysis. Cheiron will also request from the systems' actuaries, the processed data that was used to produce these actuarial valuations, a full benefit payout projection and salary projection of the current participants to allow us to reflect projected benefit cash flows, and the full set of actuarial assumption tables used in the actuarial valuations. This information will be used in preparing many of the types of studies listed below.

• Conduct actuarial and cost analyses of various legislative proposals. Some of these analyses will have short deadlines.

Analyzing the fiscal impact of proposed pension plan changes is an area of Cheiron's expertise. Cheiron understands the sensitive nature of being responsive to such requests, and is committed to meeting this need. We currently provide these services for the States of Maine, Delaware, Montana, Maryland and Pennsylvania. We understand legislative procedures, having served as advisors to legislative audit and review commissions.

Our process is that upon receipt of new or proposed legislation, we will review and confirm our understanding with ORSC of the proposed changes, discuss any limitations or considerations, identify any additional information required from the Systems' actuaries and confirm deadlines and interim draft review dates if advisable.

To be capable of providing rapid analysis we will use our *P-Scan* model (details of this proprietary modeling software are discussed below) to effectively replicate the current valuation results and provide for flexibility to demonstrate the impact of changes to the current benefit structure as well as new tiers. This will allow us to handle most proposals very rapidly.



Our *P-Scan* model provides us the ability to address legislative proposals interactively, providing not only the immediate impact but the long-term implication on funding and cost. It should be noted that many proposed changes apply only to future employees, and therefore projections are critical in communicating the impact. We focus on appropriate levels of communications to ensure clear understanding of the cost/benefit analysis and the financial risk implications and alternatives. Finally, we also are aware that some requests have a high degree of uncertainty relative to the financial impact both immediate and long-term with no experience on which to base the assumption. In those situations, we internally prepare the estimates via interactive programs that allow sensitivity testing on assumptions, so that not only are the expected cost results known, but a sense of range of potential variance can be communicated if needed. By providing the Council with a range of costs enables legislators to understand the inherent risks so that they can make the most informed decision.

• On an annual basis, review the adequacy of the contribution rates made under the Ohio Police and Fire Pension Fund (OP&F) and make recommendations to the legislature for the proper financing of the benefits provided by OP&F (Ohio Revised Code 742.311).

Using our *P-Scan* model and information obtained from the actuary, Cheiron will not only review the current year's results for reasonableness, but will also analyze the future solvency of OP&F and the adequacy of the contribution rates. We will also comment on the appropriateness and reasonableness of the assumptions used in the valuation. Using *P-Scan*, we will have an interactive session to present projections into the future under a variety of economic scenarios. We believe these projections are a critical part of communicating the potential risks in the future to the Council so they are fully informed and can make whatever policy decisions are appropriate.

 Prepare an independent actuarial study every three years on the required employer supplemental contribution to be made on behalf of eligible employees of public institutions of higher education electing an alternative retirement plan in lieu of the retirement systems as required by R.C. 171.07 and detailed under R.C. 3305.06.

Using our *P-Scan* model and information obtained from the actuary, Cheiron will prepare an independent actuarial study to determine the required employer supplemental contribution to be made on behalf of eligible employees of public institutions of higher learning who elect the alternative retirement plan to mitigate any negative financial impact the alternative retirement plan has on the state retirement systems.

• Provide consultation and advice on questions and issues that arise relevant to the powers and duties of the ORSC.

Cheiron provides this type of advice to all of our public sector clients. Generally this advice falls into several areas:

o Cheiron Client Advisories: From time to time, we will issue advisories to all clients on matters of topical interest. An example was when GASB issued Statements No. 67 and 68.



- o Regular contact with consultants: Our consultants regularly will contact their clients with respect to issues that should be brought to their attention.
- o Response to specific client questions: Often clients contact us with respect to issues of concern and we will provide input as required.
- Provide information and technical assistance, including attendance at ORSC meetings, as requested, to present analyses, studies, and reports completed by the actuary and provide testimony to legislative committees.

Cheiron will provide such information and assistance, and welcomes the opportunity to attend ORSC meetings when requested. The primary and supporting actuaries will be involved in most instances. Cheiron (in general) and Janet Cranna and Steve McElhaney in particular have extensive experience in meeting with legislative committees and staffs. Our advantage is that the actuaries presenting the results are the same persons involved in completing the work. Therefore, the actuaries have a deep understanding of the numbers and can easily explain results to Board members. In addition our use of our interactive projection program *P-Scan*, permits changing parameters "on-the-fly" in response to questions raised during the meeting.

4.6 ADDITIONAL INFORMATION

You may include additional information that will be helpful to gain an understanding of the proposal. This may include diagrams, excerpts from reports, or other explanatory documentation that would clarify or substantiate your proposal. Any material included here should be specifically referenced elsewhere in the proposal.

Cheiron's Unique Consulting Approach

We feel that our approach to actuarial consulting is significantly unique from what is provided by other firms that it merits communicating our overall consulting approach. This approach is used throughout the range of pension actuarial consulting services that we provide, from supplemental services that augment the work of system actuaries, to a comprehensive suite of advisory services.

At the heart of our success and rapid growth is our use of interactive modeling for all of our work. This approach was developed over 15 years ago by Cheiron's founders, and is the foundation of this company and the basis for the trust of our clients and the other professionals who serve them. The highlight of our suite of services is our proprietary *P-Scan* product for pension funds. This product combines solid actuarial analysis with innovative applications of technology to enable Cheiron's consultants and their clients to instantly and interactively explore scenarios in ways that previously took weeks to analyze. On the following pages are screenshots of our *P-Scan* product. We would welcome the opportunity to personally demonstrate *P-Scan*'s capabilities in a finalist presentation in Columbus.

With valuation results and the future cash flow stream of benefit payments from the System's actuary, we are able to advise our clients about the implication for future funded status and plan



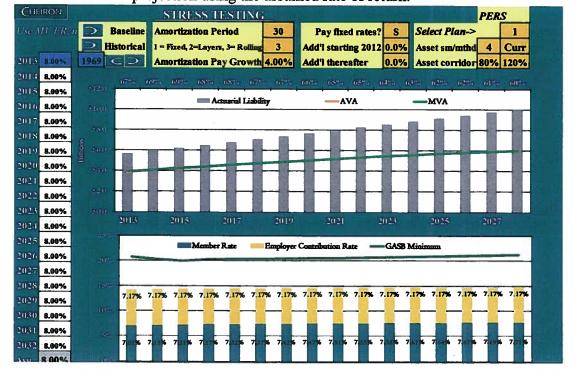
cost through our *P-Scan* model. Our model allows us to illustrate the range of possible long-term funded statuses (taking assets divided by liabilities) and demonstrate how this could change under different scenarios. This model will initially be developed and then tailored to meet your needs to allow us to demonstrate important considerations and specific risks that may face the system in maintaining your funding level objectives in the future in support of the requested cash flow projection. We will develop this model for the Plan based on either the cash flow streams developed by the System's actuary or based on our own independent valuation, under the direction of the Council.

The following screenshots from P-Scan are intended to help illustrate its capabilities and the distinctions of our consulting using P-Scan versus what our competitors provide. If selected for a finalist presentation, we will demonstrate the interactive capabilities of this tool.

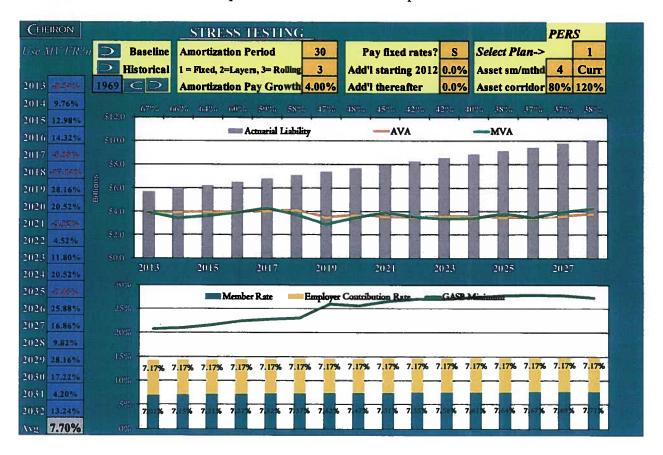
The first screenshot is referred to as the Stress Test page. In general, the boxes across the top represent variables tailored for a pension system and programmed into the model that can be changed during the presentation. For example, in this particular model, there are variables to change the asset smoothing method and the amortization policy. In addition, if we recommend any different assumptions as the result of our review, we will use this model to show the implications of the changes on the various scenarios under study.

The first graph shows the projected Actuarial Liability (gray bars) and the Actuarial and Market Value of Assets (orange and green lines, respectively). The numbers at the top of the bars represent the projected funded status. As shown, these are developed on an AVA basis, but we could add an option to allow these to be shown on an MVA basis The bottom graph shows the projected contribution rates for both the members and the employers, which in the instance below are set by statute. The line above the contribution rates show what the contributions would be based on a 30-year amortization of the unfunded actuarial liability. We can alter the amortization basis within the model to show the impact of different amortization policies.

On the left hand side of the screen, the actual investment return is shown for each year of the projection. These returns can be changed to develop different economic scenarios. This particular scenario is the baseline projection using the assumed rate of return.

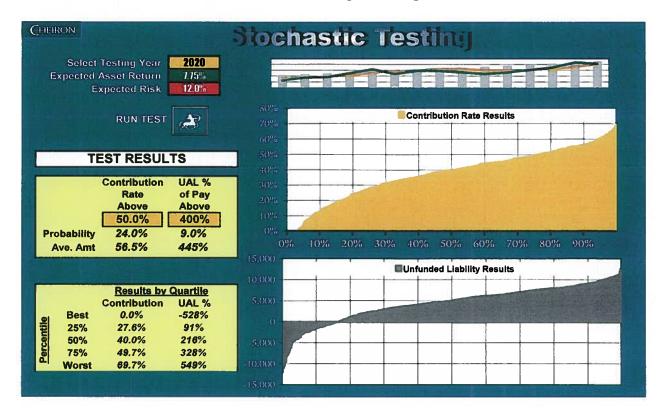


The next screenshot shows the same Stress Test page, but using historical investment returns beginning in 1969. That is, the investment return shown for 2013 is actually the historical investment return for 1969 for a portfolio invested 60% in equities and 40% in bonds.





The final screenshot is from the Stochastic Testing page of *P-Scan*. Based on a given expected investment return and standard deviation, this test shows the distribution of contribution rates and unfunded actuarial liability (UAL) for a selected testing year (in this case 2020). The graphs and box on the lower left show the distributions at percentile points.



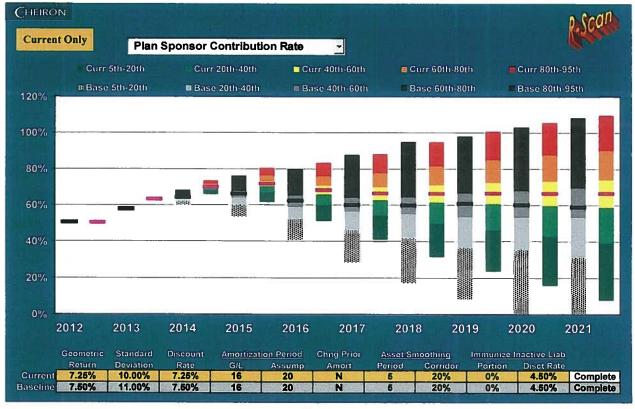
This modeling capability is fully developed by Cheiron consultants and would be tailored to address the Council's unique concerns.

Cheiron has recently modified its stochastic projection model to provide more options and more visual information. Cheiron's *R-Scan* platform uses our base *P-Scan* model to demonstrate a likely range of potential future outcomes and how that picture changes if the funding, investment, or benefit policies are adjusted. The colored bars in the graph shown on the following page represent the percentiles of possible results of a plan sponsor's future contribution rates for the next fifteen years. Consultants can program any number of statistics (funded percentages, contributions rates, compounded returns, etc.) that are of interest to the client and quickly switch between them.

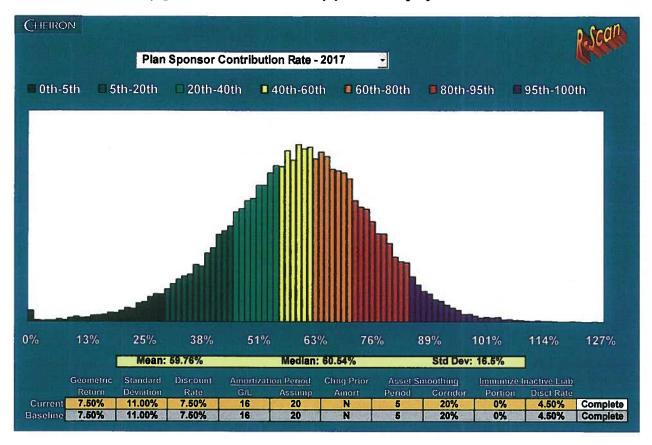




The next graph illustrates how *R-Scan* can be used to compare potential outcomes under two different sets of policies. In this case, the two policies represent two different investment portfolios with correspondingly different discount rate assumptions.



The final graph shows the probability distribution for a single year's results. This information can be isolated for any given test statistic and any year in the projection.



The costs of a defined benefit plan are fundamentally uncertain until investment returns, longevity, retirement behavior and other factors are known. Understanding the possible ranges of those costs is the first step in developing the appropriate policies to ensure the sustainability of the pension plan.

Each of the above models can be modified to include the costs of providing a defined contribution plan either as a supplement to the defined benefit plan, or as the only plan for a specified group of employees.

4.7 GLOSSARY

Provide a glossary of all abbreviations, acronyms, and technical terms used to describe the services or products proposed. This glossary should be provided even if the terms are described or defined when first used in the proposal response.

Actuarial Assumptions

Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, investment income and salary increases. Demographic assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often



modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

• Actuarial Gain (Loss)

The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial funding method.

• Actuarial Liability

The Actuarial Liability is the difference between the present value of all future system benefits and the present value of total future normal costs. The Actuarial Liability represents the budgeted cost for benefits attributed to service prior to the valuation date by the Actuarial Funding Method. It is also referred to by some actuaries as the "accrued liability" or "actuarial accrued liability".

Actuarial Present Value

The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

• Actuarial Value of Assets

The Actuarial Value of Assets equals the Market Value of Assets adjusted according to the smoothing method adopted by the Plan. The smoothing method is intended to smooth out the short-term volatility of investment returns in order to stabilize contribution rates and the funded status.

• Entry Age Normal Actuarial Funding Method

A mathematical budgeting procedure that allocates the cost of an individual's retirement plan benefits as a level percentage of pay over his or her working career.

Funded Status

The Actuarial Value of Assets divided by the Actuarial Liability. The Funded Status represents the percentage of assets in the Plan compared to the budgeted amount under the Actuarial Funding Method. The Funded Status can also be calculated using the Market Value of Assets.



• Governmental Accounting Standards Board

The Governmental Accounting Standards Board (GASB) defines the accounting and financial reporting requirements for governmental entities.

• Market Value of Assets

The fair value of the Plan's assets assuming that all holdings are liquidated on the measurement date.

Normal Cost

The actuarial present value of retirement system benefits allocated to the current year by the actuarial funding method.

Present Value of Future Benefits

The estimated amount of assets needed today to pay for all benefits promised in the future to current members of the Plan assuming all Actuarial Assumptions are met.

Present Value of Future Normal Costs

The Actuarial Present Value of retirement system benefits allocated to future years of service by the Actuarial Funding Method.

Projected Unit Credit Actuarial Funding Method

A mathematical budgeting procedure that allocates an individual's projected retirement plan benefits over his or her working career in proportion to service.

• P-Scan

Cheiron's proprietary modeling software used to project pension plan assets, liabilities, funded status, contribution rates, etc. under a variety of economic scenarios.

• Unfunded Actuarial Liability (UAL)

The difference between Actuarial Liability and the Actuarial Value of Assets. The UAL represents the shortfall of assets in the plan compared to the budgeted amount under the Actuarial Funding Method. The UAL can also be calculated using the Market Value of Assets.

4.8 COST INFORMATION

The cost estimates in the pricing summary must include all necessary charges to conduct the actuarial services on a per-hour basis and the anticipated time needed to



complete the study of the adequacy of rates under OP&F and the triennial supplemental contribution under RC. 171.07. The pricing summary should include per element: personnel costs (including hourly rates and estimated hours for professional and clerical staff assigned to reports), travel and lodging, data processing costs, materials, and any other potential costs.

Our fees for the study of the adequacy of rates under OP&F and the triennial supplemental contribution under R.C. 171.07 are estimated to be as follows based upon our current understanding of the work to be done. These estimates can be converted to fixed dollar fees after Cheiron has had an opportunity to review the scope of these projects with ORSC.

| | Estimated Hourly Rates | Estimated Hours | Total |
|--------------------------------|---------------------------|--------------------|-----------|
| Principal Consulting Actuaries | \$ 380 | 30 | \$ 11,400 |
| Consulting Actuaries | \$ 330 | 10 | \$ 3,300 |
| Associate Actuaries | \$ 225 | 10 | \$ 2,250 |
| Senior Actuarial Analysts | \$ 185 | 35 | \$ 6,475 |
| Actuarial Analysts | \$ 165 | 35 | \$ 5,775 |
| Administrative Staff | \$ 95 | 10 | \$ 950 |
| | | | \$ 30,150 |

For services, if any, outside the stated requirements, the fee would be based on the extent of the project and the number of staff hours required based on standard hourly rates. Our hourly rates vary by the credentials of the person performing the service and are shown below.

| Category/Consultant | 2014 Hourly Rate |
|--------------------------------|------------------|
| Principal Consulting Actuaries | \$340-\$465 |
| Consulting Actuaries | \$260-\$395 |
| Associate Actuaries | \$180-\$265 |
| Senior Actuarial Analysts | \$170-\$195 |
| Actuarial Analysts | \$145-\$180 |
| Administrative Staff | \$ 85-\$105 |

Hourly billing rates are expected to increase approximately 2% to 4% per year.



VII. Supplemental Required Information

1. Has your firm, or any of its principals, officers, or any affiliate ever been a party to any litigation or allegations concerning fraud, negligence, criminal activity, violations of law or regulations, or fiduciary responsibility?

No Cheiron principal or officer has been involved in litigation or other allegations relating in any way to the provision of actuarial consulting services since its inception.

2. Will the firm contractually agree to disclose all conflicts of interest that exist or occur and disclose all sources of revenue, affiliations, and details of other relationships that may present conflicts of interest? Does the firm have any active contractual agreements with any of the five state retirement systems? Has your firm, in the past two years, served as the consulting actuary of any of the state retirement systems? If so, what methods would be used to ensure that no conflict of interest is present in your work with respect to your contract with the retirement system or the ORSC?

We foresee no conflict of interest were Cheiron to be selected as actuarial consultant for the Ohio Retirement Study Council.

Cheiron's conflict of interest/code of ethics policy is as follows.

CONFLICT OF INTEREST/CODE OF ETHICS

Employees must never use their positions with the company, or any of its clients, for private gain, to advance personal interests or to obtain favors or benefits for themselves, members of their families or any other individuals, companies or business entities.

The company adheres to the highest legal and ethical standards applicable in our business. The company's business is conducted in the strict observance of both the letter and spirit of all applicable laws and the integrity of each employee is of utmost importance.

It is the purpose of this clause to set out Cheiron's Conflict of Interest Policy, to clarify and define conflict of interest and to identify situations, which might give rise to a conflict of interest. An employee stands in a fiduciary relationship to Cheiron, and a conflict of interest will exist when his/her judgment or action in the conduct of Cheiron's business affects the employee's duty to give undivided loyalty to Cheiron and act in the best interest of Cheiron's clients.

It is, therefore, the responsibility of each Cheiron employee to protect the interests of Cheiron and its clients in Cheiron's dealings with clients, subcontractors, and other employees.



Each employee shall avoid those situations which do, or which may, appear to present a conflict between his/her personal interest and the best interest of the client.

Cheiron's Chief Financial Officer and Secretary-Treasurer monitor compliance with this policy. In addition, all of Cheiron's employees are held to the Actuary's Code of Professional Conduct.

Cheiron has no active contractual agreements with any of the five state retirement systems, nor in the past two years, served as consulting actuary of any of the state retirement systems.

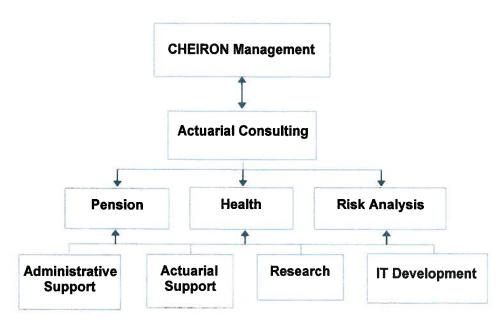
3. Does the firm intend to utilize any subcontractors in delivering any elements of investment performance evaluation services? If yes, explain.

Cheiron does not intend to subcontract any portion of the provided services. All deliverables and services will be provided by Cheiron staff.

- 4. Provide the following information about the firm:
 - a) A brief description of the structure of the firm, including the legal form of organization, the parent company and any affiliated companies, strategic partnerships, and joint ventures.

Cheiron, Inc. is an employee-owned, full-service actuarial and financial consultancy firm. We are a Type C corporation and have no parent company, any affiliated companies, strategic partnerships, or joint ventures. Cheiron's organizational chart is as follows:

CHEIRON ORGANIZATIONAL CHART





b) Within the past three years, have there been any significant developments in your organization such as changes in ownership, restructuring, or personnel reorganizations? Do you anticipate any significant structural changes in your organization in the next 12 months?

On January 1, 2013, Cheiron acquired the business and staff of EFI Actuaries, a highly respected consultancy focused on public pensions. EFI Actuaries had a ten year history of providing high quality services. Cheiron has no additional planned changes to ownership or organization structure in the near future. While we do not have current plans for additional or pending mergers or acquisitions, as a rapidly growing consulting firm whose growth is attributable to our unique style of communicating and educating our retirement and health system clients about financial risk, we anticipate continued significant growth.

Cheiron does not have any plans to acquire another entity or to sell itself or part of itself to another entity. Cheiron has not undergone a change in ownership structure since its inception and does not anticipate a future sale or acquisition that will impact the provision of our services.

5. Discuss rates of staff turnover for the past three calendar years, including the professional staff that left the firm in each period and reasons for departure.

Cheiron has had no senior professional staff leave during the past three years.

Cheiron's turnover rates are substantially below average for our industry. In addition, in the past 12 years, Cheiron has been consistently growing whereas many large actuarial firms have been contracting. Since our inception 12 years ago, only one senior consulting actuary has left Cheiron due to disability, and many have joined us from most other firms. Cheiron has experienced a low level of departures at the junior levels, but most of those departures were either situations involving a career change or someone who was not performing up to our standards.

6. Describe your firm's philosophy as it pertains to providing actuarial services. What role does the firm see itself playing for a client such as the ORSC? What do you see as the value your firm can provide to the ORSC?

Cheiron's mission statement is as follows.

MISSION STATEMENT

"To empower benefit plan sponsors to understand and better manage their benefit programs and their resulting financial risks through innovative technological applications and unsurpassed professional expertise."

Cheiron's philosophy towards providing consulting services is first, and always, to meet the requirements of the clients, and second, to tailor our services and our focus to the nature and



degree of financial risk our clients face. Our primary business focus is in the pension and health and welfare arenas, where we utilize our technical expertise to identify, measure, and monitor financial risks. We then help our clients understand how to most effectively deal with those risks.

As the consultant is ultimately hired by the Council, we always focus on working for the best interests of the Council, and the systems they oversee. However, we recognize that the Council is not typically available for communications on a daily basis and that the Director is the person which the Council has delegated reporting responsibilities to. Also there is the potential for confusion and misunderstanding when there are conflicting interests. Those conflicts can arise in several ways, between the Council and staff, or the full legislature, the administration, or even between Council members themselves. Our philosophy is to always be honest and objective, and to always focus on the fact that we serve the interests of the Fund. If we ever feel that goal is being compromised, we would immediately bring it to the attention of the appropriate parties, which would usually be the Director.

Over the years, our consultants have adhered to this philosophy as demonstrated by our track record of retaining clients, despite facing many contentious and political situations. However situations can arise where direction from staff may appear to conflict with what we understand the Board is seeking. In those cases, we try and work out the differences with staff first, and work toward reconciling any potential difference.



Appendix A
Staff Résumés

Stephen T. McElhaney FSA, FCA, MAAA, EA

Stephen T. McElhaney is a nationally respected public sector retirement consultant with extensive experience as an actuary for various state and local governmental retirement plans. Steve's background has included presentations before public retirement boards and legislative bodies, as well as presentations before public sector conferences and actuarial meetings.

Steve is a member of the Public Plans Steering Committee of the Conference of Consulting Actuaries. The Committee has been very active in submitting comments to the Governmental Accounting Standards Board (GASB) as they propose changes in pension accounting standards. The Committee has also submitted comments to the Actuarial Standards Board on proposed changes to actuarial standards. Steve serves on the Board of Directors of the Conference and previously served on the Conference's Annual Meeting Committee, chairing that committee in 2007.

Steve also served on a task force established by GASB during the time that it was developing Statements No. 43 and 45 for other postemployment benefit plans (OPEB).

Prior to joining Cheiron, Steve was a Principal with a large national benefits consulting firm where he served as national leader for public sector retirement consulting in the US. This role included managing the activities of four public sector centers of excellence as well as being national coordinator for consulting related to GASB Statement No. 45. He also served on its national Professional Standards Leadership Team, which developed and monitored professional standards for all US employees.

Some of his more significant consulting assignments have included:

- Serving as lead actuary for numerous state and local governmental retirement plans.
- Performing actuarial audits for more than ten state retirement systems, including systems in Virginia, Illinois, Missouri, Ohio and Colorado.
- Serving as lead consultant on numerous pension plan design studies. Several of these studies included evaluation of hybrid arrangements as well as assessment of alternative defined contribution plans.
- Assisting clients in implementing retirement choice for employees. The most significant of these assignments was serving as the lead actuarial consultant to the State of Florida when full retirement choice was offered to all state employees.
- Serving as primary retirement actuary for over 20 GASB 45 valuations for various state and local governments.

-CHEIRON

Janet H. Cranna FSA, FCA, EA, MAAA

Janet Cranna joined Cheiron in May 2013. She has over 25 years of retirement consulting and actuarial experience with public sector and corporate clients. Prior to joining Cheiron, Janet was with Buck Consultants for 24 years where she completed her tenure as a Principal, Consulting Actuary and a member of the Public Plan Practice Leadership Group. She was the lead actuary for several large state retirement systems, including the New Jersey Retirement Systems and the Pennsylvania Public School Employees' Retirement System. She has supervised, reviewed, and certified actuarial valuations and studies for retirement plans, including FASB disclosure for corporate plans and GASB disclosures for public plans. She has also performed experience studies and recommended changes to actuarial assumptions as needed, consulted on design and interpretation of plan provisions and their relationship to ERISA, IRS regulations, and state statutes.

Janet has presented and testified before boards and legislative committees regarding plan design and funding strategies. She has also been a speaker at professional conferences and organizations, including the National Council on Teacher Retirement Annual Convention and the Conference of Consulting Actuaries Annual Conference.

Janet is a Fellow of the Society of Actuaries, a Fellow of the Conference of Consulting Actuaries, an Enrolled Actuary under ERISA, and a Member of the American Academy of Actuaries. She graduated with a B.A. degree in Economics and a minor in Political Science from Bryn Mawr College.



Kevin J. Woodrich FSA, EA, MAAA

Kevin Woodrich joined Cheiron in June 2003 after working for three years at Milliman. He began working in the actuarial field upon graduating from Bowling Green State University in 2000. He graduated *magna cum laude* with a Master of Science in Applied Statistics.

His 14 years of experience are primarily in the employee benefits arena including actuarial valuations, benefit calculations and benefit statements, government filings, experience studies and programming actuarial models, most recently including both *P-scan* and *H-scan*. Kevin has also done work with retiree medical valuations.

The consulting and actuarial profession has given Kevin the opportunity to creatively develop solutions for common situations. He enjoys meeting with clients to discuss these solutions and listen to any feedback or suggestions they may have to offer. Kevin takes pride in his ability to maintain a business relationship with his clients yet establish a personal rapport as well.

Some of his recent projects include:

- Assisting in the development of a projection model for several multiemployer plans to aid in the current funding crisis
- Developing a spreadsheet program to compute liabilities which will provide a check to Cheiron's valuation system
- Assisting in performing an actuarial audit for one of the very largest state retirement plans in the country
- Programming an interactive model which evaluates welfare plan design
- Assisting in performing retiree medical valuations
- Involvement in the development of Cheiron's new employee hiring policy and directly communicating with potential candidates

Some of Kevin's experience includes working directly with the Army Non-Appropriated Fund, the Arlington County (VA) Retirement System, the Norfolk (VA) Employees' Retirement System, the City of Roanoke (VA) Pension Plan, the City of Hampton (VA) Employees' Retirement System, the Teamsters Local 639 Employers' Pension Trust, Plumbers & Pipefitters National Pension Plan, National Wildlife Federation, United Association of Plumbers & Pipefitters Local 51 Pension Plan, and the UFCW Unions & Participating Employers Pension Fund.



John L. Colberg FSA, MAAA, EA

John Colberg has over 20 years of actuarial experience in retirement plans and other employee benefit plans including healthcare, group life and disability insurance, and employee leave plans. His experience includes healthcare and retirement consulting assignments for government employers at the Federal, state, and local levels, Taft-Hartley funds, private corporations, and non-profit organizations. Prior to joining Cheiron, John was employed by Milliman. John's style of consulting merges communication skills, actuarial expertise, and computer knowledge to present complex concepts in an easily understood format. Examples of recent projects include:

- Selecting a national PPO vendor and restructuring the benefit designs of a national union fund to provide better benefits to fund participants without increasing costs.
- Projecting health care costs and contribution rates for a state government under a redesign of benefits to match gold, silver, and bronze levels under the Affordable Care Act.
- Assisting in the pricing and incentives to transition a national employer from a predominantly HMO/EPO benefit structure to a consumer-driven model.
- Assisting Taft-Hartley funds in collective bargaining by developing, modeling, and communicating alternative benefit options or healthcare delivery systems.

In addition to the above projects, John has also assisted clients in the development of RFPs; evaluated the performance of and assisted in negotiations with vendors; developed and analyzed cost-containment strategies; analyzed legislative reform proposals; compliance with Other Post Employment Benefit disclosures; and helping clients with their Medicare options.

His governmental client work has included the U.S. Department of Defense, the U.S. Army Community and Family Support Center, the States of Arkansas, Florida, Maine, Delaware, and the District of Columbia. His Taft-Hartley and related clients include work for plans covering members of the Communication Workers of America, the United Food & Commercial Workers, the International Brotherhood of Teamsters, the International Brotherhood of Electrical Workers, and the Hotel Employees and Restaurant Employees.

John is a Member of the American Academy of Actuaries, a Fellow in the Society of Actuaries, and an Enrolled Actuary. He graduated *cum laude* from the Wharton School of the University of Pennsylvania with a B.S. in Economics with concentrations in actuarial science and insurance.



