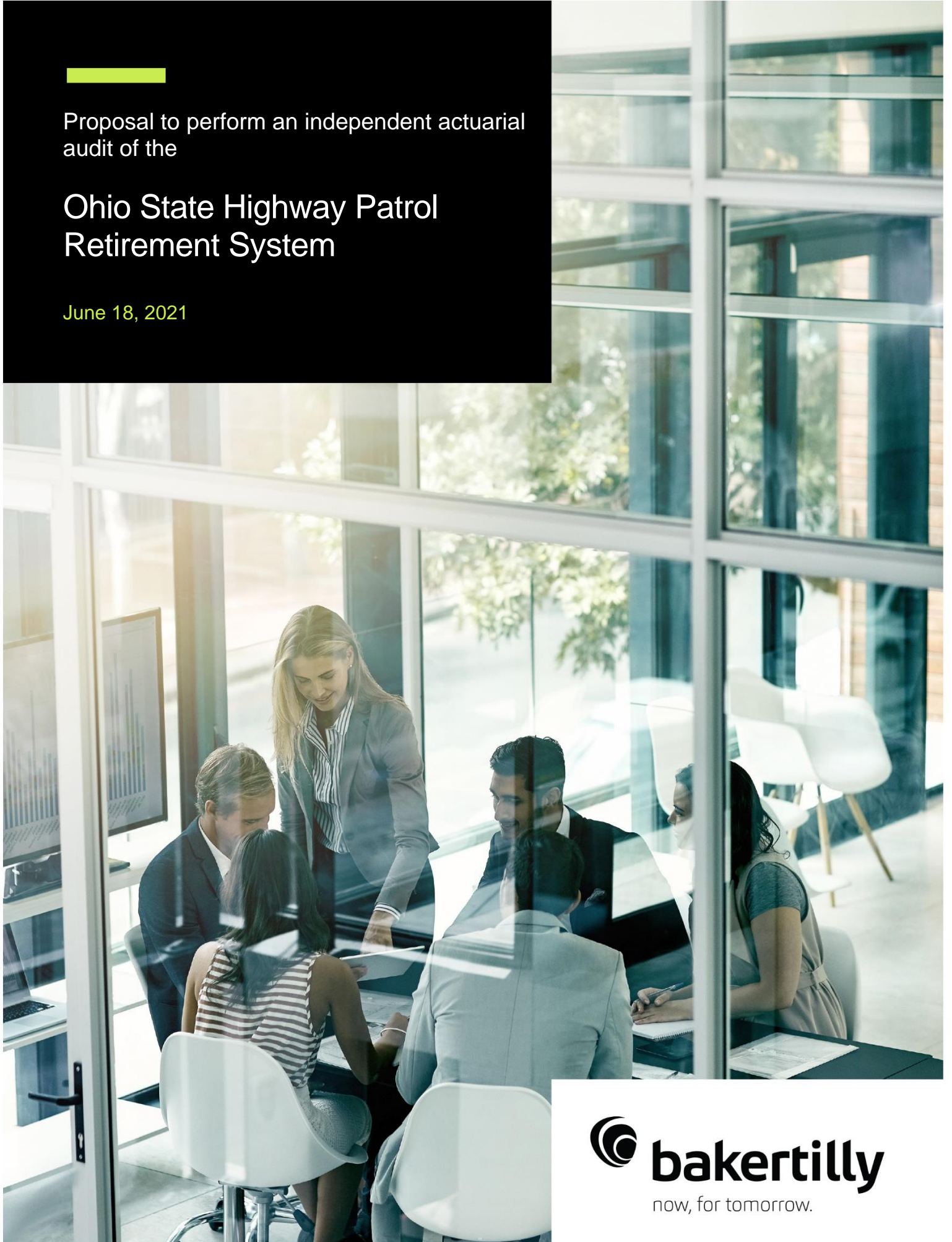


Proposal to perform an independent actuarial  
audit of the

# Ohio State Highway Patrol Retirement System

June 18, 2021



 **bakertilly**  
now, for tomorrow.



Baker Tilly US, LLP  
1650 Market Street  
Suite 4500  
Philadelphia, PA 19103  
+1 (215) 972 0701  
bakertilly.com

June 18, 2021

Bethany Rhodes  
Director  
Ohio Retirement Study Council  
30 East Broad Street  
2nd Floor  
Columbus, Ohio 43215

Dear Ms. Rhodes:

Baker Tilly US, LLP (Baker Tilly) appreciates the opportunity to provide a proposal in response to your Request for Proposal (RFP) to assist the Ohio Retirement Study Council (ORSC) in performing an independent actuarial audit of the Ohio State Highway Patrol Retirement System (HPRS). On behalf of the firm, we are pleased to respond.

The following pages illustrate why we believe Baker Tilly is your best resource to help the ORSC. Key attributes include:

- Proven experience providing independent actuarial analysis of state retirement funds
- Superior project management skills and a proven ability to bring projects in on time and on budget
- A qualified and motivated team with dedicated time available to give the ORSC the attention you deserve

The information contained in this proposal highlights our understanding of your needs and our commitment to provide the ORSC with thorough and responsive attention from our capable team of professionals. We are proud of our record of service, and are enthusiastic about this opportunity to work with the ORSC.

We hope you will find the accompanying information fully responsive to the RFP, and that ultimately you will agree that Baker Tilly is best qualified to assist the ORSC with its actuarial and consulting needs. We stand ready to meet with you and your colleagues to respond to any questions you might have about our proposal. In the meantime, if you have any questions or desire additional information, please do not hesitate to contact us.

Sincerely,

BAKER TILLY US, LLP

**John Romano, CPA, CIA, CFE, CITP, CSM**  
Partner  
+1 (215) 972 2277  
[john.romano@bakertilly.com](mailto:john.romano@bakertilly.com)

**Michael Dubin, FCAS, FSA, MAAA, FCA**  
Director, Actuarial Services  
+1 (215) 972 2363  
[michael.dubin@bakertilly.com](mailto:michael.dubin@bakertilly.com)

# Contents

<b>4.1 PROPOSAL SUMMARY .....</b>	<b>1</b>
<b>4.2 CAPABILITIES AND EXPERIENCE .....</b>	<b>7</b>
<b>4.3 STAFF QUALIFICATIONS .....</b>	<b>9</b>
<b>4.4 REFERENCES.....</b>	<b>12</b>
<b>4.5 METHODOLOGY, WORK PRODUCT AND TIMELINE .....</b>	<b>13</b>
<b>4.6 ADDITIONAL INFORMATION .....</b>	<b>15</b>
<b>4.7 GLOSSARY .....</b>	<b>18</b>
<b>4.8 COST INFORMATION.....</b>	<b>19</b>
<b>APPENDIX I: RESUMES.....</b>	<b>I</b>

This document contains confidential material that is proprietary to Baker Tilly US, LLP and other related entities (collectively referred to herein as Baker Tilly). The materials, ideas and concepts contained herein are to be used exclusively to evaluate the capabilities of Baker Tilly. The confidential information and ideas herein may not be disclosed to any outside parties and may not be used for purposes other than the evaluation of Baker Tilly's capabilities.



---

## 4.1 Proposal summary

---

*Each proposal shall provide a narrative summary of the proposal being submitted. This summary should identify all of the services and work products that are being offered in the proposal and should demonstrate the firm's understanding of the project.*

---

Based on information provided in the RFP and our research, we understand that HPRS is a defined benefit pension plan created in 1941 that covered Ohio troopers and communications personnel employed by the Highway Patrol. Today, membership in HPRS is limited to troopers with arrest authority and cadets in training at the Highway Patrol Training Academy. HPRS provides age and service, disability, survivor and death benefits, as well as healthcare coverage for retirees and eligible dependents. Healthcare is not a statutorily guaranteed benefit; it can be provided as long as there are available funds to do so. HPRS is governed by a Board of Trustees that is comprised of 11 members.

As of December 2019, HPRS has 1,447 active members excluding DROP members, 18 vested inactive members and 1,699 members receiving benefits. Additionally, 167 members elected the Deferred Retirement Option Program (DROP).

Below is a summary of our understanding of the services being requested in the RFP by the ORSC and HPRS:

### Actuarial audit

- Perform an independent verification and analysis of the assumptions, procedures and methods used by the consulting actuary Foster & Foster of HPRS for: HPRS annual pension actuarial valuation as of January 1, 2020; The five-year experience review for the period December 31, 2013 to December 31, 2018; and HPRS annual retiree health care actuarial valuation as of January 1, 2020, including GASB Statement 43 disclosures.

### Data validity

- Assess the validity, completeness and appropriateness of the demographic and financial data used by the consulting actuary in the valuation of HPRS for HPRS's structure and funding objectives.

### Actuarial valuation method and procedures

- Assess whether Foster & Foster's valuation method and procedures are reasonable and consistent with generally accepted actuarial standards and practices appropriate for HPRS's structure and funding objectives, and are applied as stated.
- If any, report on the reasonability and impact of deviations from accepts standards.

### Actuarial valuation assumptions

- Assess whether the actuarial valuation assumptions are reasonable and consistent with generally accepted actuarial standards and practices; are reasonable based on HPRS's experience; and are appropriate for HPRS's structure and funding objectives. The assumptions evaluated will include both demographic and economic assumptions, such as mortality, retirement, termination rates, salary increase rates, rates of investment return and disability factors. Consider and specifically address whether actual experience is appropriately evaluated in experience studies conducted by Foster & Foster at least every five years and whether recent changes in assumptions are appropriate, reasonable and supported by the experience studies. Additionally, review the gain/loss analyses from the last four actuarial valuation reports.

### Parallel valuation

- Perform parallel valuations of pension benefits as of January 1, 2020, and of retiree healthcare benefits as of January 1, 2020, using the validated member census data and the same actuarial assumptions as used by Foster & Foster.

### Review of healthcare

- Assess whether HPRS appropriately and consistently determines retiree contributions to healthcare and whether the implementation of the HPRS's healthcare policies differ from those determinations.

### Written report

- Provide a written report containing our findings, recommendations and conclusions.

### Meetings with key personnel

- Meet with Board of Trustees and ORSC Board to present our written report.

---

*In addition to the summary, please provide all of the following general information:*

- *The firm's primary contact for ORSC staff use and, if different, for HPRS staff use during the audit, including the contact's address, telephone and e-mail address*
- 

#### **Michael Dubin, FCAS, FSA, MAAA, FCA**

Director, Actuarial Services

1650 Market Street

Suite 4500

Philadelphia, PA 19103

[michael.dubin@bakertilly.com](mailto:michael.dubin@bakertilly.com)

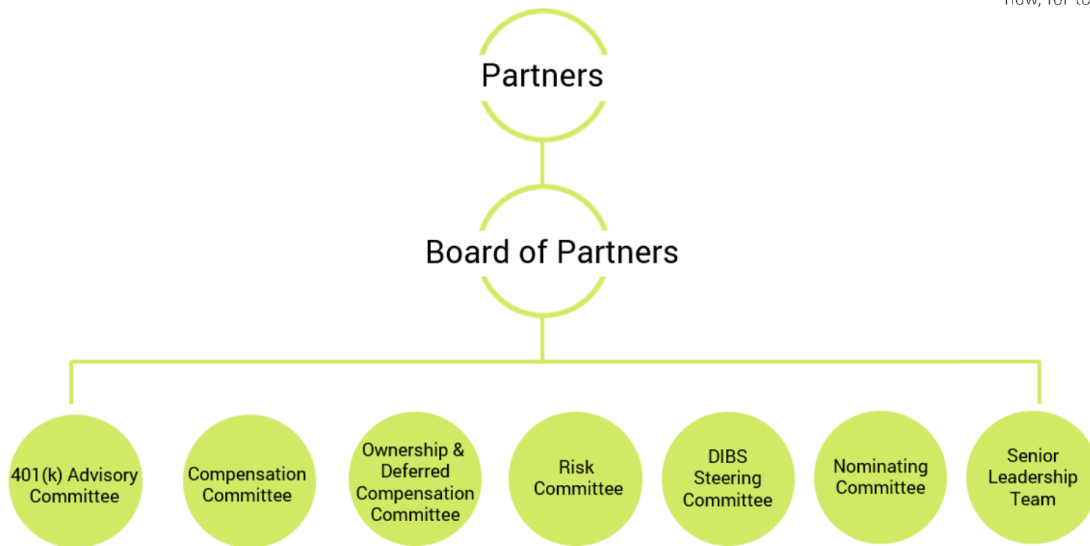
+1 (215) 972 2363



- General ownership structure of the organization, including subsidiary and affiliated companies, and joint venture relationships

Baker Tilly is a limited liability partnership, with no partner holding more than a 2% ownership stake in our firm. Each member of our governing board is a partner with Baker Tilly. Please see below for an overview of our leadership structure.

Governance and committees















Board of Partners



 Heather Acker Partner & Practice Leader Risk Advisory	 Ann Blakely Principal & Practice Leader Enterprise Solutions & Services	 Bill Bressette Principal & Practice Leader Government Contractor Advisory Services	 Jeff DeYoung Managing Partner Minnesota	 Chris Fenske Managing Partner & Practice Leader New York Financial Services
 Alan Whitman Chief Executive Officer Chairman	 Ahmed Hamdy Partner Assurance	 Vicki V. Hellenbrand Managing Partner & Practice Leader Public Sector	 Chris Johnson Partner Tax	 Wes Middleton Managing Partner Growth Activation
 Raina Rose Tagle Partner Risk Advisory	 Gabriel Torre Partner Tax	 Frank Walker Partner Business Advisory Services	 Tom Walker Managing Partner Illinois	

Senior Leadership Team



	 Chris Anderson Managing Partner Growth Strategies	 Ethan Bach Managing Partner Innovation & Solutions	 Chuck Droege Partner Chief Operating Officer	 Jeff Ferro Managing Partner Eastern & Central U.S.
 Alan Whitman Chief Executive Officer	 Angie MacPhee Managing Partner Consulting	 Steve Milner Managing Partner Western U.S.	 Theresa Nickels Principal General Counsel	 Joe O'Neill Managing Partner Tax Operations Private Wealth
	 Jere Shawver Managing Partner Assurance & Risk	 Todd Stokes Managing Partner People Solutions	 Craig Weaver Managing Partner Tax	



**Subsidiary and affiliated companies**

Baker Tilly has several subsidiary entities in which it has an ownership interest; however, these subsidiaries will have no involvement in this contract. The contracting party for the requested services will be Baker Tilly US, LLP.

*• Information regarding any material change in the firm’s structure or ownership within the last eighteen months, or any material change in ownership, staff, or structure currently under review or being contemplated by the firm*

As part of our firm’s growth strategy, Baker Tilly continually seeks opportunities to acquire firms that closely fit our culture. Various options currently are being considered; however, no specific information has been finalized. Baker Tilly is not looking to be acquired by another firm.

We anticipate no significant changes that would affect our commitment to the financial services industry or our level of client service from either a firmwide perspective or from our local offices.

• If available, a third-party assessment or report concerning client satisfaction and measures of the firm's strengths and weaknesses

## The Baker Tilly Client Experience program

Baker Tilly measures client satisfaction through the value of our client relationships. The ORSC's satisfaction is always our first priority. Because every client is unique, we believe in measuring each client's satisfaction holistically. **The Baker Tilly Client Experience (BTCX) program helps us dive deep into client relationships so we can serve as your Value Architect™.**

BTCX helps us better understand the ORSC, your needs and how we can better meet them. The better Baker Tilly understands you, the better the relationship we can build and the better the results we can deliver throughout the year.

### How it works

Our dedicated client service director measures satisfaction through a blend of client interviews and technology-enabled surveys. Firm leaders, including our CEO Alan Whitman, also get involved by meeting with a sampling of clients.


During the assessment, we verify that we are delivering on the promises made during the proposal process, as well as meeting your expectations as defined during the engagement's planning phase. Active involvement and follow-up by your Baker Tilly engagement team leaders is a critical element of our approach to addressing any concerns that may exist.

**We send relationship surveys to a random selection of clients on a quarterly basis. To truly capture the ORSC's perspective, BTCX goes beyond the numbers by measuring our work against both quantitative and qualitative metrics.**

For example, we ask for a Net Promoter Score (NPS) rating – the likelihood of recommending our services on a scale of 0 to 10 – and we ask probing questions to know why you chose that rating.

The ORSC will have the chance to provide input on various important areas:

- Subject-matter expertise
- Responsiveness
- Timeliness
- Delivery on promises made
- Level of communication
- Insights provided
- The efficiency of our team(s)
- Staff continuity
- Breadth of services available
- Value received from our services



### Benefits of BTCX and Qualtrics survey technology

BTCX provides us with **action-oriented data** that helps us make beneficial changes to our strategy in serving you.

Qualtrics, our **industry-leading survey technology**, is a convenient, automated and visual way to see the big picture of our client relationships.





**If engaged for the actuarial work, the ORSC can expect to receive a high level of satisfaction with our services.** How do we know? Because Baker Tilly is a leader in the accounting industry for client satisfaction with data to back it up. Last fiscal year, responding clients gave Baker Tilly an average score of 9.3 out of 10, where 10 indicates “highly likely to recommend Baker Tilly to a friend or colleague” – a score that places us nearly two points higher than the accounting industry average.

---

*· Any material litigation which has been threatened against the firm or to which the firm is currently a party*

---

In the normal course of business as a large accounting firm, Baker Tilly may be made a party to litigation alleging various common law and statutory violations. While Baker Tilly expects to resolve all pending matters without any material detrimental impact to the firm, like most accounting firms of any size, the firm does not disclose or discuss its litigation. Litigation is generally disposed of in the normal course of business and under any applicable professional indemnity insurance policy. We enjoy the benefits of a positive reputation.

---

*• A list and brief description of litigation brought against the firm by existing or former clients over the last five years*

---

In the normal course of business as a large accounting firm, Baker Tilly may be made a party to litigation alleging various common law and statutory violations. While Baker Tilly expects to resolve all pending matters without any material detrimental impact to the firm, like most accounting firms of any size, the firm does not disclose or discuss its litigation. Litigation is generally disposed of in the normal course of business and under any applicable professional indemnity insurance policy. We enjoy the benefits of a positive reputation.

---

*• A list of any professional relationships involving the ORSC, the five Ohio public retirement systems, the State of Ohio, or its political subdivisions for the past five years, together with a statement explaining why such relationships do not constitute a conflict of interest relative to performing the proposed review. In the event that the firm has had any professional relationships involving the ORSC, the five Ohio public retirement systems, the State of Ohio, or its political subdivisions for the past five years, the firm shall provide a statement explaining why such relationships do not constitute a conflict of interest relative to performing the proposed review, or, if necessary, an explanation of the actions that will be taken to ensure an independent review.*

---

N/A

---

## 4.2 Capabilities and experience

---

*Each proposal shall describe the firm's capabilities and recent experience (at least during the last five years) in performing actuarial valuations, audits, or studies of public employee retirement systems. The response should 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 HPRS. You should include other information you believe may be relevant in demonstrating your capabilities in performing the actuarial audit, including other professional experience and data processing capabilities.*

---

Baker Tilly provides the ORSC with broad knowledge and experience through its actuarial and state and local government practices.

### Actuarial practice

The Baker Tilly actuarial practice was created in 2017 with the hiring of Michael Dubin, FCAS, FSA, MAAA, FCA as the Director of Actuarial Services. Under Mike's leadership, the Baker Tilly actuarial practice has grown to four credentialed actuaries with combined actuarial experience of more than 100 years, with the bulk of this experience as consulting actuaries. Though the Baker Tilly actuarial practice currently does not provide actuarial services to similar clients as the Missouri Transportation and Highway Commission, the team we have formed to serve MHTC has the right experience to fulfill the full range of the services requested by MHTC including both the actuarial and non-actuarial services. Baker Tilly has provided a variety of services to the Transportation industry such as financial and single audits, employee benefit plan audits, and agreed-upon procedures (AUP) reports for the National Transit Database. In addition, our team will be available to provide periodic consultation services requested.

### State and local government practice

Our actuarial team will be backed by our state and local government practice that is led by 29 partners and directors. This practice provides a full range of services to entities like the ORSC, including:

- Financial statement audit
- Single audits and federal awards compliance audits
- Municipal advisory
- Public sector human capital services
- Disaster recovery
- Investment services
- Public sector executive recruitment
- Outsourced accounting and reporting services
- Cybersecurity
- Economic development for local governments
- Enterprise risk management
- Development advisory

This practice specialization approach allows Baker Tilly to provide specialized training and continuing education to its staff. Specialists are active in national and state organizations, participate in ongoing continuing education to obtain industry certifications and speak and author articles on industry trends.

Baker Tilly's industry-specific approach will ensure the ORSC is working with a team that is truly dedicated to state and local governments, translating into better service and greater value.

In the remainder of the proposal, we provide an overview of our team, including their experience and resumes, along with client references. We also explain the procedures we will use to show the ORSC we are ready and prepared to serve as your actuarial consultants.

---

## 4.3 Staff qualifications

---

*Each proposal shall, at a minimum, describe the qualifications of all management and lead professional personnel who will participate in the audit. Each personnel description shall include: (1) a resume; (2) a summary of experience each has had in performing actuarial valuations, audits, or studies of public employee retirement systems; and (3) a management plan identifying the responsibilities each will have on the audit.*

*Each resume should include information on the current and past positions held with the firm, educational background, actuarial and other relevant credentials, and other relevant information to demonstrate the person's qualification.*

*The experience summaries should include information on the types and sizes of public employee retirement systems for which the designated staff have completed actuarial work, 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 HPRS. You may reference, rather than repeat, duplicative information provided in Paragraph 4.2 Capabilities and Experience. The experience summaries also should describe the work performed and detail the roles and responsibilities that the individual staff had on the projects.*

---

### Proposed engagement team



#### **Michael Dubin, FCAS, FSA, MAAA, FCA – Director of actuarial services**

Mike joined Baker Tilly in 2017 to create our actuarial practice. He has extensive experience in property and casualty insurance, commercial insurance, underwriting, pricing and reserving, modeling, enterprise risk management, price monitoring, actuarial compliance standards, reinsurance and workers' compensation. Mike will be the peer reviewer for our work for the ORSC and will oversee all aspects of our services. Mike meets the American Academy of Actuaries' Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.



#### **Felix Peysakhovich, ASA, MAAA – Actuarial manager**

Felix joined Baker Tilly in 2018 as our actuarial practice has continued to grow. He has over 10 years of actuarial experience across the pension, health and life insurance industries, including extensive experience with long-term care. Felix will be our project manager for employee benefits actuarial services provided to the ORSC. Along with Mike, Felix will be responsible for the results of our work, and will help oversee our actuarial support staff. Felix meets the American Academy of Actuaries' Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.



#### **Jake Powell – Actuarial consultant**

Jake joined Baker Tilly in 2019 as an actuarial staff consultant in the financial services practice, where he supports the actuarial team by assisting clients with growth and ensuring regulatory compliance.

**Proposed engagement team**



**Boris A. Vaynblat, FSA, EA, MAAA, FCA – Subcontractor/Consultant**

Boris is currently a Fellow of the Society of Actuaries, an Enrolled Actuary under ERISA, a member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. Boris has extensive experience with actuarial valuations, including funding and accounting calculations. He is an expert with actuarial forecasts and modeling as well as with plan design, union negotiation strategy and actuarial audits. Boris has also provided expert witness testimony and has detailed knowledge of ERISA. His experience extends to complex benefit administration issues, including QDRO procedures, required minimum distributions, benefit suspensions and late retirement calculations. He also has overall expertise with due diligence and compliance under ERISA including DOL Form 5500 reporting, SPDs, SMMs and other plan notices and disclosures.

Complete resumes for all proposed engagement team members are included in **Appendix I**.

*The management plan should specify the roles and responsibilities that each of the management and professional staff will have on the actuarial audit and include an estimated portion of the audit’s time that will be spent by each on the audit.*

*Actuaries included on the project team should meet the following criteria:*

- *Be members of the American Academy of Actuaries*
- *Be enrolled actuaries with experience in governmental plans*
- *Be, at a minimum, associates with at least five years of experience in public practice, although preference will be given to actuaries that are Fellows of the Society of Actuaries*
- *Have performed an actuarial valuation, audit, or study of a public employee retirement system within the last two years*

All actuarial services will be performed by licensed actuaries or by staff under the supervision of a licensed actuary, Mike Dubin.

<b>Team member</b>	<b>Role and responsibilities</b>	<b>Time commitment</b>
<b>Michael Dubin, FCAS, FSA, MAAA, FCA</b> Director of actuarial services	Mike has extensive experience in actuarial audits for both private and public plans. He will provide guidance as needed.	10%
<b>Felix Peysakhovich, ASA, MAAA</b> Actuarial manager	Felix is the lead actuary and consultant for ORSC. He has extensive experience in actuarial audits for both private and public plans.	40%
<b>Jake Powell</b> Actuarial consultant	Jake has assisted in numerous employee benefit audits.	25%
<b>Boris A. Vaynblat, FSA, EA, MAAA, FCA</b> Consultant	Boris has extensive experience with actuarial valuations, including funding and accounting calculations.	25%



### 4.3 Staff qualifications

---

*In the event that the firm has had any professional relationships involving the ORSC, the five Ohio public retirement systems, the State of Ohio, or its political subdivisions for the past five years, the firm shall provide a statement explaining why such relationships do not constitute a conflict of interest relative to performing the proposed review, or, if necessary, an explanation of the actions that will be taken to ensure an independent review.*

---

Baker Tilly strictly adheres to all regulations governing independence. We are not aware of any existing or potential relationships between our firm and the ORSC, the five Ohio public retirement systems, and the State of Ohio or its political subdivisions that could affect our independence and objectivity because of an actual or perceived conflict of interest.

As part of the ORSC's engagement planning process, we will ensure the independence of your engagement team members, management-level personnel and other applicable individuals in our firm.

---

## 4.4 References

---

Each proposal must include a list of at least three organizations, but no more than five, that may be used as references for your work on actuarial audits or studies. References 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 actuarial audit work
  - Name and address of client
  - Name and telephone number of individual in the client organization who is familiar with the work
  - Description of the work performed
- 

### (Client reference 1)

Date of the actuarial audit work	6/30/2020
Name and address of client	Pennsylvania Employees Benefit Trust Fund (PEBTF)
Name and telephone number of individual in the client organization who is familiar with the work	Sharon Young (syoun@pebtf.org)
Description of the work performed	Actuarial audit

### (Client reference 2)

Date of the actuarial audit work	12/31/2018
Name and address of client	City of New Richmond (CONR)
Name and telephone number of individual in the client organization who is familiar with the work	Rae Ann Ailts (railts@newrichmondwi.gov)
Description of the work performed	Actuarial audit

### (Client reference 3)

Date of the actuarial audit work	2020
Name and address of client	Hagerstown Road Carriers and Teamsters Local 992 Pension & Health Funds Hagerstown, MD
Name and telephone number of individual in the client organization who is familiar with the work	Tom Krause (301) 739 7550 tomkrause@myactv.net
Description of the work performed	Actuarial valuation

---

## 4.5 Methodology, work product and timeline

---

*Each proposal shall describe the proposed methodology for each element of the components listed in Section II, Scope of Audit. The description should include specific techniques that will be used, including anticipated sampling techniques and sizes, and proposed sources of data and information. You may propose alternative ways of addressing the elements of the audit's scope.*

*In describing the proposed methodology, also identify the type and level of assistance that you anticipate will be needed from the staff of HPRS and the consulting actuary, including: assistance to understand the operations and records of HPRS; assistance to understand the actuarial assumptions, method, and procedures; and assistance to access, obtain, and analyze information needed for the audit. The description of the proposed methodology shall also identify meetings, interviews, programming support, space needs, etc., that you anticipate requiring from HPRS and the consulting actuary.*

---

### Kick-off/Initial meetings (Week 1)

Hold a kick-off meeting with OSRC to review deliverables, timelines, expectation, etc.

### Collect necessary data (Weeks 2-3)

Request, receive and initially review actuarial reports, actuarial calculations, actuarial valuations of HPRS pension and retiree healthcare benefits, and the most recent five-year experience review. We anticipate HPRS staff and Foster & Foster will require approximately five to 10 hours collectively to assist in sending the requested information.

### Review assumptions and methodologies (Weeks 3-8)

During this portion of our work, we will perform a deep review of all actuarial reports, calculations and valuations of both the pension and retiree healthcare benefits. This includes reviewing the actuarial cost method, asset valuation methodology, and all relevant demographic and economic assumptions selected by HPRS and used by Foster & Foster in their reports.

### Parallel valuation (Weeks 3-8)

Perform parallel valuations of pension benefits as of January 1, 2020, and of retiree health care benefits as of January 1, 2020, using the validated member census data and the same actuarial assumptions. We plan on using ProVal do perform the parallel valuation. In connection with the parallel valuation, we will review the unfunded actuarial accrued liability, amortization period, and retiree.

## 4.5 Methodology, work product and timeline

---

### Deliver draft report (Weeks 8-10)

We will prepare a written report with our findings and recommendations for discussion.

### Present draft report (Week 11)

We will present the written report with our findings and recommendations to key personnel.

### Deliver and present final report

If applicable, we will deliver and present the final written report with our findings and recommendations for discussion.

---

*Each proposal shall also include one or more examples of work product(s) from actuarial valuations or audits that may help to illustrate the proposed methodology and final work product.*

---

Please see section 4.6 Additional information.

---

*Each proposal shall provide an estimated date that the final report will be submitted and the projected timeline or the anticipated work requirements and milestone dates to reach that date.*

---

We understand that as a normal course of the services to be provided to the ORSC, Baker Tilly will provide a final written report following the ORSC's guidelines and including, at a minimum: a description of the work performed, an executive summary and findings and recommendations. We will provide one digital and 25 bound copies of the final report to HPRS and one digital and 25 bound copies of the final report to the ORSC not later than one week after completing the final report, and we shall separately present this report, in person, to both the ORSC and the HPRS Board. We will be ready to prepare additional reports as requested and agreed.

---

## 4.6 Additional information

---

*Each proposal shall include any additional information that might be helpful to gain an understanding of the proposal. This may include diagrams, excerpts from reports, or other explanatory documentation that would clarify and/or substantiate the proposal. Any material included here should be specifically referenced elsewhere in the proposal.*

---

Our reports and presentations are custom tailored to each client. Below are sample tables/excerpts that could be included in our final written report:

### Assumption review

#### Discount rate

The Actuary presented the estimate of benefit obligations on a discounted basis using a 3.00% discount rate based on the FTSE Pension Liability Index (FTSE). We believe that using the liability index is a reasonable approach to determine the discount rate.

#### Mortality table

The Actuary used the Pri-2012 Mortality Table with Scale BB mortality improvements to measurement date only. This mortality table is the most recent table published by the SOA using the most up to date experience. Each year, the Actuary reviews the selected mortality improvement assumption against the most current generational projection scale. We reviewed the Actuary's analysis, which shows that the selected static improvement scale is very close to using the most current generational projection scale. The selected mortality table and improvement scale is reasonable.

#### Participation rate

The Actuary assumes a participation rate of 100% upon retirement. This assumes that all eligible individuals will elect to participate in the plan upon retirement. This assumption is in line with industry standards of a plan of this size.

#### Healthcare cost trend

The selected assumption begins at 10.00% and decreases to an ultimate rate of 5.00% over 5 years. The selected assumptions are developed using an appropriate methodology. The selected healthcare cost trends are reasonable.

### Additional topic review

#### Pandemic considerations

The Actuary did not make any explicit adjustments for Covid-19. In considering the impact to the company on the Covid-19 pandemic, the Actuary believes that the current mortality tables already include a level of improved mortality rates that are justified by the lower mortality rates expected for those not dying prematurely because of COVID-19. We have reviewed the actuary's documentation describing his thought process surrounding COVID-19 mortality. We believe his process, which is described above, to be reasonable.



### Actuarial gain/loss

There was an actuarial gain of \$2.6 million between the beginning of the year and the end of the year. This gain was primarily driven by the increase in the discount rate from 2.76% to 3.00%, the Medicare premium decreasing 18% when it was originally assumed to increase by 10%, and a long-term participant retiring prior to being eligible for the benefits in the plan. The discount rate increasing by 24 basis points is in line with the yield curve that is being used. This higher discount rate accounts for a good part of the decrease the present value of the liability. The decrease in Medicare premium is consistent with the findings in a recent Centers for Medicare & Medicaid Services (CMS) report. Since there is currently only one active employee fully eligible for benefits and a small number of participants, it is reasonable to expect a single participant retiring close to eligibility to result in a significant decrease to the liability. Based on our conversations with the Actuary and review and supporting documents, the drivers for the actuarial gain appear reasonable.

### Exhibits

Pension liabilities comparison			
<b>Present value of future benefits</b>	<b>Foster &amp; Foster</b>	<b>Baker Tilly</b>	<b>% Difference</b>
Active members			
DROP members			
Vested inactive members			
Retirees			
<b>Accrued liability</b>	<b>Foster &amp; Foster</b>	<b>Baker Tilly</b>	<b>% Difference</b>
Active members			
DROP members			
Vested inactive members			
Retirees			
<b>Normal cost</b>	<b>Foster &amp; Foster</b>	<b>Baker Tilly</b>	<b>% Difference</b>
Active members			

OPEB Liabilities Comparison			
Present value of future benefits	Foster & Foster	Baker Tilly	% Difference
Active members			
DROP members			
Vested inactive members			
Retirees			
Accrued liability	Foster & Foster	Baker Tilly	% Difference
Active members			
DROP members			
Vested inactive members			
Retirees			
Normal cost	Foster & Foster	Baker Tilly	% Difference
Active members			

Pension census comparison			
	Foster & Foster	Baker Tilly	% Difference
Number of active members			
Number of retirees			
Number of terminated vested members			
Total salary			
Average annual salary			
Average service			
Average attained age - total members			
Average attained age - actives only			
Average attained age - retirees			

---

## 4.7 Glossary

---

*Each proposal shall 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.*

---

Below, we provide a glossary of all abbreviations, acronyms and technical terms used to describe the services contained in our proposal.

**Actuarial accrued liability** – The portion of the actuarial present value of projected benefits (and expenses, if applicable), as determined under a particular actuarial cost method, which is not provided for by future normal costs

**Actuarial cost method** – The actuarial cost method is used by actuaries to calculate the amount a company must pay periodically to cover its pension expenses. The two main methods used to calculate the payments are the cost approach and the benefit approach. The actuarial cost method is also known as the actuarial funding method.

**Actuarial value of assets** – The value of plan assets used in an actuarial valuation. The actuarial value of assets may reflect smoothing techniques intended to dampen year-to-year fluctuations in the market value of assets.

**Funded ratio** – The actuarial value of assets expressed as a percentage of the actuarial accrued liability

**FSA** – Fellow of the Society of Actuaries, the highest educational standard for actuaries

**GASB** – Governmental Accounting Standards Board

**OPEB** – Other Postemployment Benefits including medical, dental, vision, hearing and life insurance benefits

**ORSC** – Ohio Retirement Study Council

**ProVal** – Winkelvoss Technologies actuarial software used for funding and accounting valuations of pensions and OPEB.

---

## 4.8 Cost information

---

*The pricing summary should include a breakdown of costs per element listed in Section II, Scope of Audit, including: personnel costs (including hourly rates and estimated hours for professional and clerical staff assigned to the audit), travel and lodging, data processing costs, materials, and any other potential costs. The cost estimates in the pricing summary must include all necessary charges to conduct the audit and must include a “not to exceed” figure.*

---

We have prepared a fee estimate for the ORSC based on the scope of services outlined in the RFP and our experience conducting similar actuarial and consulting services engagements. Our estimate allows for thorough and insightful advice from experienced professionals without unnecessary add-ons or start-up charges.

### Personnel costs

#### Data validity

Actuarial personnel	Estimated hours	Hourly rate	Total fees
Actuarial director	1	\$375	\$375
Actuarial manager	2	\$275	\$550
Actuarial staff	3	\$225	\$675
<b>Total fixed fee</b>	<b>6</b>		<b>\$1,600</b>

#### Actuarial valuation method and procedures

Actuarial personnel	Estimated hours	Hourly rate	Total fees
Actuarial director	1	\$375	\$375
Actuarial manager	3	\$275	\$825
Actuarial staff	5	\$225	\$1,125
<b>Total fixed fee</b>	<b>9</b>		<b>\$2,325</b>

## Actuarial valuation assumptions

Actuarial personnel	Estimated hours	Hourly rate	Total fees
Actuarial director	2	\$375	\$750
Actuarial manager	10	\$275	\$2,750
Actuarial staff	10	\$225	\$2,250
<b>Total fixed fee</b>	22		<b>\$5,750</b>

## Parallel valuation

Actuarial personnel	Estimated hours	Hourly rate	Total fees
Actuarial director	1	\$375	\$375
Actuarial manager	5	\$275	\$1,375
Actuarial consultant	81	\$330	\$26,730
<b>Total fixed fee</b>	87		<b>\$28,480</b>

## Review of healthcare

Actuarial personnel	Estimated hours	Hourly rate	Total fees
Actuarial director	1	\$375	\$375
Actuarial manager	3	\$275	\$825
Actuarial staff	5	\$225	\$1,125
<b>Total fixed fee</b>	9		<b>\$2,325</b>

## Prepare/present written report

Actuarial personnel	Estimated hours	Hourly rate	Total fees
Actuarial director	5	\$375	\$1,875
Actuarial manager	10	\$275	\$2,750
Actuarial staff	20	\$225	\$4,500
Actuarial consultant	5	\$330	\$1,650
<b>Total fixed fee</b>	55		<b>\$10,775</b>



## Total estimated fee

Actuarial personnel	Estimated hours	Hourly rate	Total fees
Actuarial director	11	\$375	\$4,125
Actuarial manager	33	\$275	\$9,075
Actuarial staff	35	\$225	\$7,875
Actuarial consultant	86	\$330	\$28,380
<b>Total not to exceed fee</b>			<b>\$49,455</b>

The fixed fee is inclusive of all expenses. We understand the ORSC may need additional services during the term of the engagement. Such fees related to additional services will be charged at the hourly rates listed in the tables above.

In the event a unique or complex issue arises, we will work with you to determine the level of assistance required. We always will tell you if the assistance you require is outside the scope of our agreed-upon engagement.

## Travel and lodging

Baker Tilly's initial plan is to perform the engagement remotely. Our plan is to present the final written report on-site in person. Out-of-pocket travel-related expenses are included within the costs above.

## Other direct costs

We do not anticipate any other direct costs will be billed to the ORSC on this engagement.

## Assumptions

We based our estimate on the assumptions detailed below. Should any of these change during the engagement, we will bring the matter to the ORSC's attention immediately and prepare a change order detailing the new requirements and corresponding budget impact. We will not undertake additional work without the ORSC's written approval.

Assumptions include:

- Adequate support, preparedness and cooperation from the ORSC
- Organized books and records
- No major exposure changes, including acquisitions or expansions into new services
- Fees are based upon current auditing, accounting and tax standards
- No significant changes in scope

# Appendix I: Resumes

## Michael C. Dubin, FCAS, FSA, MAAA, FCA

Mike joined the firm in 2017 as the director of actuarial services and a member of the financial services practice.



**Baker Tilly US, LLP**  
**Director, Actuarial Services**  
 1650 Market Street  
 Suite 4500  
 Philadelphia, PA 19103  
 United States

**T +1 (215) 972 2363**  
[michael.dubin@bakertilly.com](mailto:michael.dubin@bakertilly.com)  
 bakertilly.com

### Education

Bachelor of Science in mathematics  
 Carnegie Mellon University

Mike has 33 years of actuarial experience delivering forward-thinking solutions to help clients drive growth, generate revenue, ensure regulatory compliance and achieve significant financial savings.

### Specific experience

- Experience in leading and performing actuarial specialist responsibilities as part of regulatory risk-focused examinations of mid-sized and large life and health insurance organizations
- Experience in property and casualty insurance, commercial insurance, underwriting, pricing and reserving, modeling, enterprise risk management, price monitoring, actuarial compliance standards, reinsurance and workers' compensation
- Served as Chief Actuary, Workers' Compensation at a public payroll services company
- Served as a director and consulting actuary at a national professional services firm, designing and leading regulatory actuarial examinations
- Served as professional actuarial advisor to attorneys involved in high-profile insurance-related disputes
- Served as actuarial consulting director at an international accounting and advisory firm

### Industry involvement

- Fellow, Casualty Actuarial Society (FCAS)
- Member, American Academy of Actuaries (MAAA)
- Fellow, Conference of Consulting Actuaries (FCA)
- Fellow, Society of Actuaries (FSA)
- Member, International Actuarial Association
- Member, Financial Regulatory Reform Task Force of AAA
- President, Board Member and Education Committee Chairman, CAGNY
- Member, Global ERM Steering Committee and Americas' Program Committee of IAA
- Member, IFRS Task Force, IAA
- Member, CAS Program Planning Committee; Ratemaking Committee; Committee on Review of Papers; Committee on Special Interest Seminars; CAS Examination Committee
- Judge, Risk Management and Insurance Competition, Temple University

---

**Mike Dubin, page 2****Industry involvement, cont.**

- Member, Conference of Consulting Actuaries' Annual Meeting Committee
- Vice President, College Relations and Education, CASE
- PAMIC, Claims Committee, Underwriting and Loss Prevention Seminar Committee

**Thought leadership**

- Economic Capital Models, Best Practices in ERM Webinar
- Model Risk, NAIC Webinar
- Mergers and Acquisitions, Casualty Actuarial Society (CAS) Annual Meeting
- International Actuarial Work, Casualty Actuaries of the Southeast (CASE) Meeting
- Privatization of State Workers' Compensation Funds, CAS Annual Meeting
- Insurance Accounting for Actuaries, CAS Spring Meeting
- Author, Life After Uncover, Best's Review
- State Second Injury Funds, CAS Annual Meeting
- Small Workers' Compensation Funds, UBA Meeting
- Insurance Risks, McGladrey Non-Profit Summit
- Actuarial Evaluation of Prospective Risks, SOFE Seminar
- Mortgage Guarantee Insurance, NAIC Webinars
- Pharmaceutical Liability, Casualty Actuaries of Greater New York (CAGNY) Spring Meeting
- Pharmaceutical Products Liability, CAS Spring Meeting
- Author, Sport Utility Vehicle Insurance, Best's Review
- Sport Utility Vehicle Insurance Rating, CAS Ratemaking Seminar
- Sport Utility Vehicle Insurance Rating, CAS Spring Meeting

# Felix Peysakhovich, ASA, MAAA

Felix joined the firm's actuarial services team in 2018.



**Baker Tilly US, LLP**  
**Manager, Actuarial Services**  
 1650 Market Street  
 Suite 4500  
 Philadelphia, PA 19103  
 United States

**M +1 (215) 715 3599**  
[felix.peysakhovich@bakertilly.com](mailto:felix.peysakhovich@bakertilly.com)  
 bakertilly.com

**Languages**  
 Russian

**Education**  
 Master of Science in actuarial science  
 Columbia University

Bachelor of Science in mathematics  
 Arcadia University

Felix delivers forward-thinking solutions to help clients drive growth, generate revenue, ensure regulatory compliance and achieve significant financial savings.

## Specific experience

- Extensive experience in actuarial pension audits, long-term care rate increases and long-term care experience
- Assisted various clients in producing and compiling rate increase documentation for all 50 states and responding to objections for the DOIs
- Reviewed and independence tested year-end reserves for health plans and life insurance plans for various clients

## Industry involvement

- Associate of the Society of Actuaries (ASA)
- Member, American Academy of Actuaries (MAAA)

## Continuing professional education

- Analysis Considerations for In-Force Management Webcast
- VM-20 Interpretation and Implementation Webcast
- Predictive Analytics & Actuaries: A Working Model for the Life Insurance Industry Webcast
- FSA Module Financial Economics
- FSA Module – Health Foundations
- An Actuarial Perspective on Tax Reform
- FSA Module – Pricing, Reserving and Forecasting

## Jake Powell

Jake joined the firm in 2019 as an actuarial staff consultant in the financial services practice.



**Baker Tilly US, LLP**  
**Actuarial Consultant**  
1650 Market Street  
Suite 4500  
Philadelphia, PA 19103  
United States

**T +1 (215) 999 5684**  
[jake.powell@bakertilly.com](mailto:jake.powell@bakertilly.com)  
bakertilly.com

### **Education**

Bachelor of Science in actuarial science  
Saint Joseph's University

Jake supports the actuarial team by assisting clients with growth and ensuring regulatory compliance.

### **Specific experience**

- Provides regulatory examination, consulting and audit support in life, health and property and casualty insurance pricing and reserve modeling
- Assisted in reviewing year-end reserves for health and life insurance companies
- Experience on large life insurance examinations such as MassMutual group and Brighthouse Financial Group

## Boris Vaynblat, FSA, EA, MAAA, FCA

Boris established RAE Consulting in 2019. RAE Consulting is an actuarial and administrative services firm with comprehensive capabilities and deep industry knowledge to help pension and health benefit plans solve actuarial and administrative issues.



**RAE Consulting  
Actuary & Consultant**  
12 Penns Trail, Suite 441  
Newtown, PA 18940  
United States

**T +1 (267) 879 1413**  
Boris@RAE-Consulting.com  
RAE-Consulting.com

### Education

Bachelor of Science in actuarial science  
Pennsylvania State University

### Specific experience

- From 2012 to 2019, Boris was a senior pension actuary for a local actuarial firm, specializing in the management of multiemployer pension and health programs. Prior to that, Boris was a senior consultant in a multinational human resource and actuarial firm for 11 years, where he advised mid and large size corporations on their defined benefit, defined contribution, non-qualified pension, and health plans.
- Boris has extensive experience with actuarial valuations, including funding and accounting calculations. He is an expert with actuarial forecasts and modeling as well as with plan design, union negotiation strategy, and actuarial audits. He has also provided expert witness testimony and has detailed knowledge of ERISA. His experience extends to complex benefit administration issues, including QDRO procedures, required minimum distributions, benefit suspensions and late retirement calculations. He also has overall expertise with due diligence and compliance under ERISA including DOL Form 5500 reporting, SPDs, SMMs, and other plan notices and disclosures.

### Industry involvement

- Member, American Academy of Actuaries (MAAA)
- Fellow, Conference of Consulting Actuaries (FCA)
- Fellow, Society of Actuaries (FSA)
- Enrolled Actuary (EA)