

PBR BOOT CAMP

**BASIC TRAINING AND BEYOND
FOR PRINCIPLE-BASED RESERVING IMPLEMENTATION**



SEPTEMBER 21–23, 2016

LOEWS PORTOFINO BAY HOTEL | ORLANDO, FL



AMERICAN ACADEMY *of* ACTUARIES

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PBR BOOT CAMP

BASIC TRAINING AND BEYOND FOR PRINCIPLE-BASED RESERVING IMPLEMENTATION

DAY 1

WEDNESDAY,
SEPTEMBER 21, 2016

7–8 a.m.

BREAKFAST
LIGURIAN

8–9:45 a.m.

PBR 101—The Basics

Overview of the PBR Valuation Manual; VM-20 overview; qualified actuary; and stochastic, deterministic, and NPR Reserves.

VENETIAN

OR

Advanced breakout group

A workshop for those who are more advanced; e.g., actuaries who have gone through AG 38 and AG 48 and want to discuss specific issues with others who have gone through the process.

LIGURIAN

9:45–10 a.m.

BREAK

10–11 a.m.

NPR, Deterministic, and Stochastic Reserves

Includes topics such as utilization of the exclusion tests, considerations for calculation of NPR, the deterministic and stochastic exclusion tests, and calculation of the minimum reserves.

VENETIAN

11–11:45 a.m.

Teaching session on NPR

VENETIAN

11:45 a.m.–12:30 p.m.

Discussion Groups on Deterministic and Stochastic Reserves

VENETIAN

12:30–12:45 p.m.

Reserves Wrap-Up

VENETIAN

12:45–1:45 p.m.

LUNCH
LIGURIAN

1:45–2:45 p.m.

Modeling Overview

This session will cover the requirements around PBA modeling, including specific inputs, projection capabilities, and output formats. Issues around in-force compression, scenario generation, platform development, cross-model leveraging, and model validation will also be discussed during the presentation.

VENETIAN

2:45–3 p.m.

BREAK

3–4 p.m.

Mortality Overview

This session will include consideration of aggregation of products in determining mortality rates and credibility percentages and blending into industry tables.

VENETIAN

4:05–4:50 p.m.

Mortality Teaching Session/ Discussion Groups

Teaching, small-group teaching, and discussion groups of reviewers/auditors.

VENETIAN AND LIGURIAN

4:55–5:15 p.m.

Mortality Wrap-Up

6–7:30 p.m.

RECEPTION

LOEWS PORTOFINO BAY HOTEL
PIAZZA CENTRALE

DAY 2

THURSDAY, SEPTEMBER 22

7–8 a.m.

BREAKFAST

LIGURIAN

8–9 a.m.

Additional Liability Assumption Overview

This session will cover the main assumptions necessary for a term and/or ULSG PBR model. Assumptions covered will include lapses, premium persistency, credited rate function, expenses, and taxes.

VENETIAN

9:05–9:50 a.m.

Assumption Teaching Session/Discussion Groups

Lapses, expenses, premium persistency.

VENETIAN AND LIGURIAN

9:55–10:15 a.m.

Case Study Wrap-Up

VENETIAN

10:15–10:30 a.m.

BREAK

10:30–11:30 a.m.

Practice Note, Sources of Information

A sneak preview of revised VM-20 practice note and a brand-new PBR model governance practice note, and a discussion of other sources of information.

VENETIAN

11:30 a.m.–12:30 p.m.

LUNCH

LIGURIAN

12:30–1:30 p.m.

Asset Overview

Includes considerations of choosing in-force assets for PBA testing, assets to be assumed for reinvestments, and use of tables for spreads and default assumptions.

VENETIAN

1:35–2 p.m.

Assets Teaching Session

VENETIAN

2–2:30 p.m.

Discussion Groups on Assets

VENETIAN

2:30–2:45 p.m.

Assets Wrap-Up

VENETIAN

2:45–3 p.m.

BREAK

3–5:15 p.m.

Reinsurance Overview

This session will include considerations by the ceding company and the reinsurer in projecting reinsurance cash flows, a brief refresher on risk transfer requirement, and highlights of AG 48 and the proposed model regulation to replace it.

VENETIAN

DAY 3

FRIDAY, SEPTEMBER 23

7–8 a.m.

BREAKFAST

VENETIAN

8–8:45 a.m.

PBR Model Governance Checklist

This session will explore the developments in the PBR Model Governance Checklist, consisting of a broad set of questions intended to solicit discussion and to capture model governance issues of concern to practitioners, auditors, and regulators. The list is categorized across the various modeling stages and distinguishes procedural questions from those intended for validation.

VENETIAN

8:45–10:15 a.m.

Regulatory and Other Considerations

Regulatory overview, reporting, experience studies, pricing considerations, a sample report, Annual Statement changes, and considerations for year 2 and beyond. This session will include a mock regulatory review of a PBR submission.

VENETIAN

10:15–10:30 a.m.

BREAK

10:30 a.m.–Noon

Considerations Teaching Session

VENETIAN

Noon–1 p.m.

Considerations Question-and-Answer Session

VENETIAN

PBR BOOT CAMP SPEAKERS



Mary Bahna-Nolan
MAAA, CERA, FSA

Mary Bahna-Nolan is an executive vice president and head of life R&D for SCOR Global Life. In that role, she is responsible for leading SCOR's global research initiatives regarding mortality and policyholder behavior, and the interaction of mortality, underwriting, medical research and business development. Bahna-Nolan is also responsible for experience analysis including support and expert judgment for best estimate assumptions as well as the mortality and policyholder behavior risk calibration for SCOR's internal model under Solvency II. She has 26 years of experience in product development, pricing, product and risk management, and reinsurance. She has a Bachelor of Science degree from the University of Michigan in actuarial mathematics and economics. She is a fellow and chartered enterprise risk analyst in the Society of Actuaries and a member of the American Academy of Actuaries, where she has served in many volunteer roles, including as vice president of the Life Practice Council.



Mike Boerner
MAAA, ASA

Mike Boerner is the director of the Actuarial Office within the Financial Regulation Division at the Texas Department of Insurance. His regulatory responsibilities include oversight of annual actuarial reviews and the actuarial portion of insurance company examinations in Texas. His NAIC involvement includes chairing the Life Actuarial (A) Task Force (LATF) and chairing the PBR Review (EX) Working Group. Involvement also includes member participation in the Principle-Based Reserving (PBR) Implementation (EX) Task Force and other NAIC groups. Significant NAIC involvement includes contributions with the LATF that led to the initial NAIC adoption of the Valuation Manual along with subsequent updates. Current involvement includes support to the PBR Implementation (EX) Task Force to ready the Valuation Manual for an impending operative date and to develop PBR review procedures and other support for regulators in the implementation and review of PBR. Boerner is a member of the American Academy of Actuaries and a member of the Academy's Life Practice Council.



Nadeem Chowdhury
MAAA, FSA

Nadeem Chowdhury is assistant vice president and actuary at USAA Life Insurance Company. He monitors and assesses key laws and regulations for USAA Life. He has been very involved with the development of principle-based reserving and its impact on the company. He also chairs the Assumption Forum, where he reviews and facilitates the discussions, agreement, and communication of all key actuarial assumptions. He reviews experience studies and reports on key trends. He participates in many work groups and committees of the Society of Actuaries and the American Academy of Actuaries. He graduated from the University of Illinois at Urbana-Champaign with a Bachelor of Science degree in mathematics. He is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries.



Donna R. Claire
MAAA, FSA, CERA, CLU, ChFC, FLMI

Donna R. Claire is president of her own consulting firm, Claire Thinking, Inc., which specializes in risk management and regulatory issues. She has been involved with various aspects of the principle-based approach to reserves and capital. Previously, Claire had served as vice president of the Life Practice Council of the American Academy of Actuaries and as vice president of the Society of Actuaries. Claire is the winner of the 2005 Jarvis Farley Award for volunteer service to the Academy and the actuarial profession.



Rich Daillak
MAAA, FSA

Richard Daillak is chief risk officer with Swis Re Life & Health America, where he has been since 2005. He has more than 30 years of experience in the industry, beginning his career with a large direct writer. Daillak serves on several committees of the American Academy of Actuaries, including the Life Practice Council, as chairperson of the Life Reinsurance Work Group, and as a member of the Academy's Board of Directors. Daillak received a bachelor's degree in mathematics from the University of California, Berkeley, and a Ph.D. in educational research methods and program evaluation from UCLA. He is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries.



Arnold A. Dicke
MAAA, FSA, FCA, CERA

Arnold A. Dicke is the president of AADicke LLC and president of New World Actuaries. He has been chief actuary or chief line of business actuary at three mutual companies and two stock companies in the United States. He was also a consultant with KPMG and Tillinghast and was an internal consultant at AXA-Equitable during its demutualization. He has extensive experience in life insurance product development, risk classification and financial reporting, an in life insurance and financial reinsurance. Since starting his own consulting practice in 2007, Dicke has conducted projects involving the development of international life insurance products and innovative products for the U.S. life insurance market, strategic planning, federal tax issues, and expert witness testimony on a variety of topics. Dicke graduated from Harvard College, cum laude in physics, and received his master's degree in mathematical physics from Princeton University. He attended the Advanced Management Program at Harvard Business School. He is a fellow and former vice president of the Society of Actuaries and a member and former vice president of Life Practice Council of the American Academy of Actuaries. Dicke currently chairs the Academy's Reinsurance Committee and is a member of the Academy's Life Reserves Work Group, the group that is responsible for developing the Academy's recommendations regarding principle-based reserving for life insurance products.



Brandon Dwyer
MAAA, FSA

Brandon Dwyer is a corporate vice president and actuary at New York Life Insurance Company. During the past four years at New York Life, he has worked on annuity modeling and principle-based reserving. Prior to joining New York Life, Dwyer worked for Generali in Dublin, Ireland, reinsuring Variable Annuity business. Before joining Generali, Dwyer began his career at MetLife in New York, where he rotated among the valuation, ALM, and pricing oversight teams. Dwyer is a member of the American Academy of Actuaries and is a fellow of the Society of Actuaries. He received a Bachelor of Science degree in mathematics from Bentley University.



Brian W. Fomby
MAAA, FSA

Brian Fomby is a sales executive for the Life Technology Solutions practice within Milliman (MG-ALFA, MG-Triton, and Integrate) and works from his home in Brunswick, Maine. Prior to joining Milliman a year ago, Fomby spent his entire eight-year career with a voluntary benefits carrier in a variety of different roles from valuation to pricing then back to valuation. In his last assignment with the insurance company, Fomby played a key role on the newly established global modeling team, leading the development and implementation of a model governance framework in the context of a modeling transformation.



Jason Kehrberg
MAAA, FSA

Jason Kehrberg is vice president of sales at PolySystems, where he heads up PBR readiness and works with clients to help them use PolySystems to meet their end-to-end actuarial modeling needs at the product and enterprise level.



Stephen Krupa
MAAA, FSA, CC

Steve Krupa has been working for the last three years as an actuarial client support specialist with GGY, a Moody's Analytics Company, with a focus on modeling universal life (UL) and annuity products. He resolves hundreds of questions from clients each year on a variety of topics including: model implementation, reporting, automation, efficiency, reconciliation, and new system enhancements. Over the past year, Krupa has visited several companies and regulators to provide onsite training on VM-20 as well as other UL and annuity products in AXIS. He recently wrote an article and reference guide discussing the VM-20 NPR reserve for UL with secondary guarantees in AXIS. Krupa previously worked for over 20 years at TIAA-CREF implementing industry, leading valuation automation, controls, and financial reporting for over \$500 billion in annuity and life insurance reserves.



Linda Lankowski
MAAA, FSA

Linda Lankowski is vice president and actuary at Prudential Financial. In her current role, she coordinates Prudential's response to emerging actuarial issues.

She is the chairperson of the Life Stress Test Work Group at the American Academy of Actuaries, and led both the Life Settlements Consumer Guide Work Group and the Life Settlements Investor Guide Work Group. Lankowski formerly served as chairperson of the Academy's Life Products Committee and as vice chairperson of the Life Practice Council. She also served on the task force that wrote the actuarial standard of practice covering life settlements mortality (ASOP No. 48). She sits on several American Council of Life Insurers committees. A longtime fellow of the Society of Actuaries and member of the American Academy of Actuaries, Lankowski has held actuarial roles at several life insurers including The Hartford, Lincoln, and MassMutual.



Alexandre Lemieux
MAAA, FSA

Alex Lemieux is a member of the Actuarial Service group at PricewaterhouseCoopers LLP.

Lemieux has over 10 years of insurance industry experience with particular emphasis on valuation, financial reporting, and risk management. He joined PwC from Great-West Financial, where he led the FP&A, capital, and financial risk functions. Lemieux had FP&A responsibilities for Great-West Financial including budgeting and management reporting responsibilities for products issued through the Great-West Financial and/or Empower Financial brand. Lemieux also oversaw the annuity valuation function including all variable annuities. This includes GMDB and GLWB riders written through the Great-West Financial and Empower Retirement brand. The financial risk function includes oversight of the dynamic hedging function (including review of trade execution), monitoring and reporting of macro hedge positions and updating of hedge triggers. Lemieux also oversaw the reporting of RBC requirement for the Great-West Financial (including Empower Retirement) to the relevant authorities including the board of directors. He also served as principal accounting officer for Great-West of NY, CEO of Great-West of South Carolina and served as the US representative to the global IFRS Phase 2 implementation committee.

Lemieux graduated from the Universite Laval with a Bachelor of Science degree specialized in actuarial science. He is a member of the American Academy of Actuaries and a fellow of the Society of Actuaries. He has participated on committees focused on contingent deferred annuities, annuity mortality experience, and economic capital calculations.



Russ Menze
MAAA, FSA

Russell Menze is a specialist leader with Deloitte Consulting LLP. He has more than 25 years of actuarial consulting and company experience for life and health

insurance companies, regulators, investors, legal firms, and other clients. Prior to joining Deloitte, Russ was a senior manager for Arthur Andersen, and he served as an office in corporate portfolio management at Phoenix Life Insurance Company. His experiences includes statutory, GAAP, and tax life insurance valuation and financial reporting; financial modeling, including economic and financial statement projections and MCEV consulting; mergers, acquisitions, and restructuring analyses, including actuarial appraisal and tax appraisal analysis; and regulatory consulting for insurance companies and state insurance departments. Menze has a Bachelor of Science degree in mathematics and economics from the University of Nebraska and is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries.



David E. Neve
MAAA, FSA, CERA

Dave Neve is vice president and chief actuary for Accordia Life and Annuity Company, and serves as the appointed actuary for Accordia. His responsibilities

include statutory valuation, financial modeling and forecasting, and experience studies. He is also responsible for monitoring new and emerging regulatory capital and reserve requirements. Neve has more than 35 years of actuarial experience in strategic planning, capital management, reserve valuation, financial reporting and forecasting, corporate finance, and enterprise-wide risk modeling. Neve earned the Chartered Enterprise Risk Analyst (CERA) designation in 2008. He is an industry leader in assisting the NAIC and the American Academy of Actuaries in developing a new principle-based valuation framework, and is a frequent speaker at industry and actuarial conferences, seminars, and webinars. Neve currently serves as vice chairperson of the Academy's Life Practice Council, and chairperson of the Life Reserves Work Group. He completed a three-year term on the Board of Directors of the Academy in October 2012. He is also a member of the ACLI Actuarial Committee. Neve holds a Bachelor of Arts degree in mathematics from Wartburg College, and a Master of Science degree in actuarial science from the University of Wisconsin-Madison.



Craig Roberts
MAAA, FSA

Craig Roberts is a principal with the life insurance consulting practice of the Seattle office of Milliman, which he joined in 1996. Roberts has managed the completion

of a broad range of asset-liability management projects, especially as it relates to pricing, U.S. GAAP, MCEV, AG-43 reserves, C-3 Phase II capital, and economic capital. In recent years, Roberts has assisted companies with model validation and governance, identifying gaps in corporate production models as they may diverge from best practices, company documentation, and intended computations. He has moderated and presented at Society of Actuaries (SOA) meetings on topics of model validation and governance, modeling efficiency, and asset-liability modeling techniques. Roberts co-authored the SOA sponsored report "Analysis of Proposed Principle-Based Approach," and has served on several Academy working groups related to the topic.



Sheldon Summers
MAAA, FSA

Sheldon Summers is a consulting actuary with Claire Thinking, Inc. He was previously chief actuary of the California Department of Insurance until his retirement in

September 2009. While there, he was a member of several NAIC committees, including the Life and Health Actuarial Task Force, on which he served as vice chair from 1995 to 2001. He also served as chair of the NAIC working group that drafted the Life and Health Reinsurance Agreements Model Regulation regarding risk transfer rules for life and health reinsurance agreements, and as chair of the PBR Reinsurance Subgroup of the Life and Health Actuarial Task Force. Summers holds a Bachelor of Science degree in business administration from Boston University and a Master of Business Administration degree from the University of Southern California. In addition to participating on various American Academy of Actuaries committees, he currently participates on and is the former chairperson of the Life Reinsurance Work Group and has for several years been part of the faculty that annually teaches the Life and Health Qualification Seminar to enable actuaries to become qualified to issue certain statements of actuarial opinion. In 2010 Summers received the American Academy of Actuaries Robert J. Myers Public Service Award in recognition of contributions to the public good.



Pete Weber
MAAA, ASA

Pete Weber is the chief life actuary at the Ohio Department of Insurance. He has regulatory experience in examination, new product filing, financial analysis, an

drafting and implementing new and amended legislation. Weber represents Ohio as vice chair of the NAIC Life Actuarial Task Force. He also chairs the C-3 Phase II/AG 43 Subgroup, the PBR Review Procedures Subgroup, and the IIPRC (Interstate Compact) Actuarial Working Group. Prior to joining the Ohio Department of Insurance 10 years ago, Weber spent 16 years performing life insurance valuation, financial reporting, business planning and forecasting, and asset adequacy testing in the insurance industry. He received his bachelor's degree in mathematics from Adrian College in Michigan.

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