# Fresh Perspectives on Assumption Setting

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# Agenda

- Introduction
- 430 valuations
- Time permitting…
  - Customary/recommended contributions
  - Plan termination liability estimates
  - Plan document
  - FAS

# Introduction

- Focus of today's presentation is on micro- and small plans, but some brief references to larger plans

- Target audience is pension actuaries and other professionals with experience preparing actuarial valuations

# Introduction

- JBEA 901.20(e)(1)(i) – except as mandated by law, use assumptions that are individually reasonable and reasonable in combination

- JBEA 901.20(e)(1)(i) – methods appropriate

- JBEA 901.20(b)(1) – complete work in a manner consistent with law and “relevant generally accepted standards for professional responsibility and ethics”

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# Generally Accepted Standards

- Do ASOPs determine what are generally accepted standards? No, but they are probably relevant in determining what are generally accepted standards.

- Other sources that may be relevant:
  - What is prevalent practice
  - Articles
  - Presentations

- ACOPA actuaries are subject to the Actuarial Code of Conduct and ASOPs

# ASOPs

- ASOP 27 – economic assumptions
- ASOP 35 – demographic and non-economic assumptions
  - Effective for measurement dates after June 30, 2015

# 430 Valuations

- Economic assumptions
- Decrements
- Other non-economic and demographic assumptions
- Disclosures

# 430 Valuations

IRC 430(h) actuarial assumptions and methods

(1) In general subject to this subsection, the determination of any present value or other computation under this section shall be made on the basis of actuarial assumptions and methods—

> (A) each which is reasonable (taking into account the experience of the plan and reasonable expectations), and
>
> (B) which, in combination, offer the actuary's <u>best estimate of anticipated experience under the plan</u>.

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# 430 Valuations
# Economic Assumptions

- Segment rates
- Investment return
- Variable interesting crediting rates
- Salary increase
- COLA

# IRC 430 Valuations
# Segment Rates – Who Chooses?

Who chooses the segment rate look-back and/or yield curve? The plan sponsor, the plan administrator, or the actuary?

- The plan sponsor by written election to the enrolled actuary.
- May choose:
  - Month of valuation date
  - Preceding four months
  - Full-yield curve
- Election may not be changed without IRS approval

# IRC 430 Valuations
# Segment Rates

On takeover plans, are actuaries requiring original signed election for segment rate?

1. Require the original signed election regarding the lookback month and/or yield curve or a statement saying that there was no election.
2. Since it cannot be changed, actuaries move forward using the segment rate lookback on the prior Schedule SB.

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# IRC 430 Valuations
# Segment Rates – Poll #1

How are actuaries collecting segment rate look-back elections/yield curve?

1. Don't prepare or send out elections
2. Rely on TPA to collect signed election
3. Require to have a signed election before signing first Schedule SB

# IRC 430 Valuations
# Segment Rates – No Choice?

- What happens if no choice is explicitly made?
  - Use segment rates
  - Look-back month is the month containing valuation date
  - Still can make choice

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# IRC 430 Valuations
# Segment Rates – Poll #2

Are actuaries generally asking their brand new plan sponsors to make an election on the segment rate in the first year or using the default?

1. No election
2. Election of segment rates with lookback
3. Election of yield curve

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# IRC 430 Valuations
# Investment Return – Smoothed Assets

- The assumed rate of return for a period must be the actuary's best estimate of the anticipated annual rate of return on plan assets from the valuation date until all benefits are expected to be paid, limited to third-segment rate
- If using the full-yield curve, limited to the average of the third-segment rates for the 24-month period ending with the month preceding the month that contains the valuation date for the plan year
- Handle expenses consistently

# IRC 430 Valuations
# Investment Return – Floor Offset

For a DB/DC floor offset arrangement, the actuary needs to make an assumption with respect to the DC account balances.

- Part plan document – date of benefit calculation to normal retirement date

- Part assumption chosen by actuary – from valuation date to date of benefit calculation

# IRC 430/436 Valuations
# Variable Interest Crediting Rates

For cash balance plans that use variable interest crediting rates, the actuary must make an assumption regarding future returns.

- 30-year treasury
- Segment rates
- Caps/minimums
- Plan investment returns

# IRC 430 Valuations
# Salary Increase

Salary increase assumption used for:

- Salary increase before end of year
- Maximum deduction
- Other?

# IRC 430 Valuations
# Salary Increase

Common for micro/small plans to use no salary increase assumption.

- This was true prior to PPA
- Post PPA – is a salary increase assumption material for principal or staff?
- Special situations for micro-plans
  - Self-employed income
  - S-Corp dividend versus compensation

# IRC 430 Valuations
# Cost of Living

COLA increase used for:

- Wage base
- Increase in salary limit for maximum deduction

# IRC 430 Valuations
# Case for No Salary/COLA Assumption

- Majority of the liabilities are attributable to the principal, who is at the 415 limit
- Computational ease
- Benefit formula is unit credit, flat dollar or has dollar cap on accruals

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# IRC 430 Valuations
# Case for No Salary/COLA Assumption

- Type of industry – cyclical business where salaries fluctuate significantly from year to year; industry in decline
- Post-PPA, for end of year valuations, salary increase assumption has no impact on minimum.
- No other relevance of COLA so no inconsistency issues

# IRC 430 Valuations
# Case for Salary/COLA Assumption

- Principal not at maximum pay/415 limit
- Final average pay plan
- Large number of rank and file
- Expect pay increases
- IRC 430 does not contemplate materiality

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# IRC 430 Valuations
# Consistency Between Economic Assumptions

- Cost of living
- Salary increase
- Investment return

# IRC 430 Valuations
# Decrements

- Single decrement versus multi-decrement
  - Retirement
  - Turnover
  - Mortality
  - Disability

# IRC 430 Valuations
# What Is a Decrement?

- A decrement assumption for a pension valuation is how an employee leaves active employment (retirement, disability, etc.)

- In a single decrement environment, people 100 percent retire at a particular age or combination of age and service.

- In a multi-decrement environment, people leave in fractions – not whole numbers.

# IRC 430 Valuations
# What Is a Decrement?

- Single decrement assumption:  100 percent at age 65 with no pre-retirement mortality assumption, turnover, or disability assumed

- Multi-decrement assumptions:
  - Five percent turnover each year before age 45, none thereafter
  - 50 percent at age 62, ten percent ages 63-64, 100 percent at age 65
  - Static combined pre-retirement mortality

# IRC 430 Valuations
# Single Versus Multi-Decrement

Threshold question: for micro/small plans what is the case for a single decrement and the case for multi-decrement assumptions?

- Traditionally micro plans have used a single retirement assumption with no pre-retirement mortality, disability, or turnover assumptions. Large plans use multi-decrement models.

- As computing power has increased, is this still appropriate?

# IRC 430/436 Valuations
# Case for Single Decrement

ASOP 35 – 3.10.2 Materiality – The actuary should take into account the balance between refined demographic assumptions and materiality. The actuary is not required to use a particular type of demographic assumption nor to select a more refined demographic assumption when in the actuary's professional judgment such use or selection is not expected to produce materially different results.

# IRC 430 Valuations
# Case for Multi-Decrements

- Best estimate – is it ever really a single assumption?
- IRC 430 does not contemplate materiality
- Smooths out results
  - With multi-decrement model - will definitely have a gain/loss, but may be a smaller.  With single-decrement model, may not have a gain/loss if assumption exactly realized
  - Switches between segment rates
- With currently available computing power, not as big as deal as it was ten years ago.

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# IRC 430 Valuations
# Retirement

Many small plans use a single retirement age assumption. What factors are relevant in choosing that assumption?

- Normal retirement age in plan document
  - Is NRA relevant or was it chosen to produce a deduction or testing result?
  - Even in single decrement environment, could assume 100 percent retirement prior to NRA
- Level of benefits/level of early retirement subsidies
- Availability of retiree medical benefits

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# IRC 430 Valuations
# Retirement

Many small plans use a single retirement age assumption. What factors are relevant in choosing that assumption?

- Statements by the principal about when he or she plans to retire or to sell the business – Are principal prediction accurate? Can they be self-serving?

- People are working beyond age 65

- RMD – More than five percent owners must commence benefits at RMD. How to reflect if assuming a retirement date later than RMD?

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# IRC 430 Valuations
# Turnover

- Common for micro/small plans to assume no turnover.
- At what size group would an actuary commonly start using a turnover assumption?
- Micro/small plans do not generally have enough credible experience for an experience study to develop a precise table. Experience may still bear on selection of a table.

# IRC 430 Valuations
# Mortality and Mortality Improvement

What are the possible choices for a funding valuation?

- Static separate tables
  - Static table – reflects future mortality improvements by applying an average mortality improvement
  - Separate – annuitant versus non-annuitant
- Generational tables – two dimensional
- Combined tables for small plans – combines annuitants and non-annuitants
- Substitute tables for very large plans – need IRS approval

# IRC 430 Valuations
# Mortality and Mortality Improvement

- General rule – IRC 430 valuation should use pre-retirement mortality decrement

- Special rule for plans with less than 100 participants not in pay status – may use no pre-retirement mortality assumption in the IRC 430 valuation if reasonable to do so 1.430(d)-1(f)(3)

# IRC 430 Valuations
# Mortality and Mortality Improvement

- Who chooses the mortality for funding purposes?
  - The plan sponsor
  - How is it documented?
- Can a plan change its mortality election?

# IRC 430 Valuations
# Mortality Elections– Poll #3

Do you collect signed elections of mortality elections from plan sponsor?

1. Yes
2. No

# IRC 430 Valuations - Valuation 2017 and Future?

- Delayed for 2016
- Will the “new” tables be out for 2017?
  - Is it already too late?
  - IRS silent
  - Will Congress delay if IRS acts?

# IRC 430 Valuations
# Disability

- Most micro/small plans do not provide special disability benefits, so common to assume no disability rates or special disability mortality

# IRC 430 Valuations
# Other Demographic and Non-Economic

- Form/timing of payment
- Administrative expenses
- Marriage
- Hours
- Missing data

# IRC 430 Valuations
# Form/Timing of Payment

IRC 430(h) Actuarial assumptions and methods

(4) Probability of benefit payments in the form of lump sums or other optional forms - For purposes of determining any present value or making any computation under this section, there shall be taken into account—

(A) the probability that future benefit payments under the plan will be made in the form of optional forms of benefits provided under the plan (including lump sum distributions, determined on the basis of the plan's experience and other related assumptions), and

(B) any difference in the present value of such future benefit payments resulting from the use of actuarial assumptions, in determining benefit payments in any such optional form of benefits, which are different from those specified in this subsection.

# IRC 430 Valuations
# Form/Timing of Payment

- Annuity versus lump sum
  - ASOP 35 – 3.5.5(b) – the actuary should take into account factors such as the following:  the historical or expected experience of elections under the plan being valued and similar plans

- Disregard AFTAP restrictions and top-25 restrictions when making assumption regarding percentage of participants who elect a lump sum
- Effect on 415 limit of annuity versus lump sum

# IRC 430 Valuations
# Administrative Expenses - WRERA

- Must have an assumption regarding administrative expenses paid by the plan
  - PBGC
  - Professional fees

- Generally believed that investment expenses should not be included

- Add to target normal cost

# IRC 430 Valuations
# Marriage

Marriage assumption may be relevant if assuming participants elect annuities or for certain pre-retirement death benefits

- Percent married – actual knowledge or assumption?
- Divorce/re-marriage
- Gender

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# IRC 430 Valuations
# Assumption Disclosures

- JBEA 901.20(e)(2) – report must include assumptions used
- Schedule SB Line 23 instructions – must include an attachment showing all non-prescribed assumptions
  - Decrements
  - Optional form elections
  - Expenses
  - Salary increase
- Schedule SB - change in non-prescribed assumptions and justification

# IRC 430 Valuations Assumption Disclosures

ASOPs

- Describe each significant demographic assumption used – estimate of future experience, the actuary's observation of the estimates in market data, or a combination thereof
- Disclose the information and analysis used in selecting each demographic assumption that has a significant affect on the measurement (not applicable to prescribed assumptions or methods set by another party or set by law)
- Disclose changes in significant demographic assumptions
- Refer to ASOP 27, 35, 41

# What Next?
# Poll #4

Please vote for topics that you would like to discuss with remaining time.

1. Customary/recommended contributions
2. Plan termination liability estimates
3. Plan document
4. FAS

# Customary/Recommended Contributions

- Discount rate
- Mortality
- Disclosures

# Plan Termination Liabilities

How do assumptions differ when estimating plan termination liabilities or lump sum window costs?

- Participant elections
- Lump sum
- Annuity cost
- Expenses

# Plan Document

- Actuarial equivalence assumptions must be reasonable.  What guidance do we have on what is reasonable?

- What to do with old plans that have assumptions that were once reasonable that may no longer be reasonable?

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# FAS 35 Liabilities

How do assumptions differ when preparing FAS 35 liabilities?

- Investment return instead of segment rates
- Mortality and mortality improvement
- Participant elections

# ASC 715/FAS 87 Liabilities

- Discount rate
- Mortality
- Expected return on assets
- Salary increase assumption

# ASC 715/FAS 87 Liabilities

**ACOPA Webcast: ASC 715 for Pensions: What Your Clients and Their Auditors Need to Know**

Tuesday, September 27, 2016 2:00 - 3:40 p.m. ET

Speaker: *Raymond D. Berry, MSPA, ASA, EA, MAAA, Grant Thornton LLP*

# Questions?