December 20, 2001

Mr. Karl Johnson
Governmental Accounting Standards Board
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Dear Karl:

On August 14, 2001, the GASB wrote to request the assistance of the American Academy of Actuaries in determining the feasibility of an alternative estimation method of calculating the obligations associated with small OPEB plans. Since then, we have had discussions with actuaries involved in establishing actuarial standards for these benefits, as well as with other actuaries and GASB staff members who helped clarify the issues. We have not reached consensus on the feasibility of a non-ASOP estimation method and will here indicate some of the outstanding issues.

Retiree health benefit plan analysis has three data foundations that are specific to a particular plan. These are the plan provisions, the demographics of those participating in the plan, and the recent cash flows (for payments to beneficiaries and administrators, or contributions from participants). An actuary needs to spend time understanding each of these foundations before establishing economic and demographic assumptions and applying actuarial techniques to determine results. The potential complexity of these three building blocks requires significant professional involvement of time and leads to fees that can appear disproportionate when an employer has only a small number of participants.

Setting assumptions and applying techniques can also be time-consuming, but we think they could more easily be adapted to a simplified method such as you seek. For instance, GASB could limit the choices of the assumptions and techniques. Such limitations are harder to imagine for the plan provisions, demographics and costs, which are likely to be unique to the plan and already in place.

The simplified method that has received most of our attention is one that would assign a present value of health benefits, probably similar to the APBO of FAS 106, to an employee or retiree. The assigned value would be a function of plan provisions and participant demographics, at a minimum. Even ignoring variables for historic plan costs, turnover patterns and retirement patterns, however, we find a very wide range of values within plan provisions and participant demographics.

<u>Plan Provisions – Benefits and Eligibility</u>

The variations within plan provisions appear to present the largest range of variations and will be presented first, followed by comments about variations from demographics and plan costs. To be specific here, a variation has to be likely to have a 10 percent swing effect on FAS 106 results (although this is not an exhaustive list of all such possible variations).

Variations in plan provisions can be listed under two categories – the benefit plan, used to decide how much is to be covered and paid for a claim, and the retirement eligibility plan, used to decide which retirees and dependents receive the benefits and for how long.

Under the benefit plan, there are variations in:

- Covered services – even if we assume hospital and physician charges are covered by all plans, variables will remain for services such as prescription drugs, dental, and nursing care – each of which can affect average annual values by 10 percent or more – as well as less common or costly coverages that in combination can exceed 10 percent of value. Many plans cover payment of Medicare premiums or in another way define a dollar amount to be paid.
- Cost-sharing provisions such as deductibles, copayments, and plan maximums (either lifetime or annual) obviously affect plan payment levels and those effects can, alone or in tandem, exceed 10 percent variation.
- Delivery systems now vary considerably and may effect cost levels significantly. At the extremes are fee-for-service indemnity plans and health maintenance organizations, but there are other important vehicles, such as PPOs or POS plans, that are commonly seen.
- Medicare integration methods have a great affect on plan costs after age 65. While it would seem a simple matter to determine which of several well-defined formulas are being used for a particular plan, experience has taught us that identifying the method may be more complex. The least costly method is often adopted, but too frequently that method turns out to be ignored in practice.

Before going on to indicate variables of the retirement eligibility plan, we would note the implications to a simplified method of the four benefit plan variables mentioned. Each is independent of the other. If the covered services could be encompassed by just three groupings (e.g., hospital, drugs, and dental), the deductible provision by another three ($0-499, $500-999, $1000+), the copayments by three (0-79 percent, 80-89 percent, 90-100 percent), the maximums by two (no annual maximum to $199,999 and $200,000 and above), the delivery systems by three (indemnity, HMO and everything in between), and the Medicare integration by three (coordination, exclusion and carve-out), there would already be 486 (3x3x3x2x3x3) possible combinations.

While the same value might be assigned to more than one combination, each would have to be determined individually by some authority sanctioned by GASB (directly or indirectly) and updated periodically, probably once a year. The groupings selected above would be open to some interpretation and would often need a professional to interpret. Many would say the groupings laid out are too broad, and yet narrowing them moves us far beyond the 486 combinations. More importantly relevant to your request of August 14, assigning an acceptable confidence interval to each combination would be immensely complicated.

Assuming it is feasible to define the benefit package in some way, there remains the question of who will be eligible to receive the benefits and for how long. There can be substantial variation in eligibility provisions. Some variations resulting in likely cost differences in excess of 10 percent of APBO are discussed here.

Some plans only cover the years before Medicare eligibility. Most cover the period from retirement to the retiree's death, but some offer coverage that begins only after Medicare. If the period before Medicare eligibility is covered, a single factor will not be sufficient, since a retirement at age 55 will be much more costly than a retirement at age 64. Some plans cover dependents, but that coverage may cease with the death of the retiree, extend for a period of time after the death, or last for the lifetime of the dependent. The longer life expectancy of women, combined with the lower payment levels women seem to incur at ages above 55, suggest these factors should be separate by gender to the extent permitted by law.

A simplified method for retirement eligibility provisions might have the following implications for the independent variables mentioned. Retiree eligibility in relation to Medicare might be encompassed by just two groupings – to age 65 and age 65 to death. Then a retirement-to-death period would necessarily be the sum of the first two. But this would necessitate an analysis of both the before-age-65 plan and the age-65-plus plan, since there is often a change of design between the two. The before-age-65 variables might be set at five retirement ages (before 55, 55-57, 58-59, 60-61, 62-64) and three dependent groupings (none, spouse, family) for fifteen combinations. The age-65-plus variables might be limited to four – retiree only for life, spouse to retiree's death, spouse to retiree's death plus five years, spouse for lifetime. These 19 combinations would be needed for each gender, giving 38 combinations.

Each of these 38 eligibility combinations could apply to any of the 486 benefit combinations identified above, so there are **18,468 combinations**, some of which would have to be added together if a retirement-to-death coverage is offered.

Many plans require contributions from retirees and dependents to participate. The new ASOP emphasizes the importance of projecting the contributions separately, because they are subject to many variables, but a simpler approach would be needed for an alternative non-ASOP method. The approach would need to quantify the associated likelihood that some otherwise eligible participants will not pay the contribution and be eligible for the benefits. A multiplicative factor could be applied to the selected combination to account for contributions, but distinctions might have to apply, particularly in those cases where the contribution varies by age or service at retirement, or for retirees and dependents.

Demographic Variation

Having simplified the plan combinations down to a barely manageable 18,468 (before the possibility of additive and multiplicative factors), we are faced with the reality of demographic variation. A 95-year-old retiree would only coincidentally have the same present value as a 25-year-old employee.

Present value combinations for active employees are particularly complicated. While it is easy to choose some broad age ranges within which there is limited variation for a given employer (e.g., 18-29, 30-39, 40-44, 45-49, 50-54, 55-58, 59-61, 62-64, 65+), the variation across employer is substantial because of differing turnover and retirement patterns. Except at the highest age ranges shown above, a minimum of three turnover and three retirement patterns are needed, for nine turnover/retirement combinations at those age ranges. Even a simplified method probably needs 60 combinations for active

employees. While retiree combinations do not have to deal with turnover and retirement probabilities, the present values are higher and five-year age ranges are too broad, so at least another dozen age groupings are needed. This makes a total of over 70 combinations for age and employment status, which need to be established for each of the 18,468 plan possibilities.

At this point we have exceeded a million possible present value cells in a *simplified* matrix that would be needed to separate variations in plan and demographics. We have not yet addressed administrative cost differences or the geographic variations, which might be confined to three or six variations, but could need a detailed U.S. map to make sure regional variation was handled consistently. All of this assumes GASB would in some way dictate the discount rate, trend rate, mortality table, and actuarial cost method so that additional variations would not arise. However, I do not believe that the GASB would in fact want to be involved in the setting of such assumptions.

The compilation of such a matrix would obviously be complicated. The APBO-like value in each cell would have to be determined from an actuarial calculation. Those calculations, however, would not be as certain as a normal postretirement benefit calculation, because additional assumptions would be needed. For instance, for the values using a deductible between $0 and $499, a decision would have to be made about the deductible. Would it be modeled as a $100 deductible, a $250 deductible or some other deductible? One would have to be chosen, but a plan that has a deductible within the range but different from the one chosen will have an introduced error. The same thing would happen for many of the other groupings, leading to potential for significant differences from the value if an actuarial valuation were to be performed.

These complexities led us to suggest that a more manageable alternative might be to have a similar matrix, but one with even wider ranges and, thus, smaller number of combinations. The values within each combination would be set to be on the high side for most individuals likely to fall into that category. Thus, the value that emerged for the group would almost certainly be on the high side. The plan sponsor could then use that value in the financial reporting or could seek an actuarial valuation. It would be our hope that if enough small plans were driven to seek an actuarial valuation, a market would be created that could serve these smaller plans. It would probably develop through the association of various small plans, which an actuary might be able to value with economies of scale if they were similar enough. The plan sponsor would always have the option of going back to the matrix method. This would still necessitate GASB or some other entity hiring an actuary (or someone else) to develop the matrix, which is likely to still need 10,000 cells.

The development of a method along the lines of what we are discussing here would be extremely complex and costly. It is not clear that the cost savings to the individual reporting entities would not be completely offset by the incremental cost of the development and maintenance of an alternative method. Additionally, it is not clear who would pay for the development and maintenance of such a method.

I hope this provides you with the benefit of our thinking about the complexities and difficulties associated with an alternative method for small plans. We would be pleased to discuss this further or answer any questions you may have.

Sincerely yours,

Dennis M. Polisner
Chair, Pension Accounting Committee
American Academy of Actuaries

cc: Jeff Petertil