



WORKING FOR AMERICA'S RETIREMENT

[Home](#) -fs > [Web](#) > [Asppa.org](#) > [Public\\_html](#) > [Archive](#) > [Gac](#) > [2004](#) > [Mortality Table Comments](#)

## Comments On Mortality Tables

### Comments to the Department of the Treasury Internal Revenue Service

Notice 2003-62

Filed February 20, 2004

4245 N. Fairfax Dr., Suite 750  
Arlington, VA 22203  
Phone 703.516.9300  
Fax (703) 516-9308  
[www.aspa.org](http://www.aspa.org)

The American Society of Pension Actuaries ("ASPPA") offers the following comments in response to Notice 2003-62, which requests comments regarding the mortality table used to determine various current liabilities. ASPPA is a national organization of 5,000 members who provide actuarial, consulting, administrative, legal, and other services to qualified plans.

#### Introduction

Notice 2003-62 requests comments regarding the mortality table used to determine current liabilities for various purposes. ASPPA opposes making any change to the mortality table for current liability purposes at this time for the following reasons:

I. The current liability is not a true reflection of the actual plan benefit liabilities or funded status, so the concept of an "accurate" current liability is illusory.

II. The Service has yet to issue regulations on how to calculate the current liability. Other issues in the calculation of the current liability have a much larger impact on the amount of the current liability than the mortality table. These other issues should be settled in conjunction with any change to the mortality table.

III. Requiring actuaries to use prescribed assumptions for some portions of the current liability calculations, while allowing non-prescribed assumptions for other parts of the calculations, can produce actuarially inconsistent results.

IV. The use of a generational mortality can represent significant additional work for the actuary. There is no quantitative proof that there is an increase in accuracy when an actuary uses generational mortality in actuarial valuations.

V. Non actuaries do not have a complete understanding of what the current liability is and its relation (or lack thereof) to the plan's funded status and liabilities. Were an actuary to claim a greater accuracy in calculating current liability, the effect would be to further mislead the lay public.

VI. Variations in other factors in the current liability calculation, such as interest rates, have a greater impact on the amount of the current liability than the proposed change in mortality. Consequently, to be meaningful, changes to current liability should be addressed in a more comprehensive manner.

VII. There are actuarial and social issues regarding the appropriateness of using some of the proposed approaches to mortality tables that have not been addressed. Furthermore, actuaries will be confronted with new data collection issues if the changes to the mortality table rules are adopted. These new data collection issues will significantly increase the time and expense that must be

expended to generate the current liability, particularly for factors that may change for a given participant on a year-to-year basis.

These considerations are discussed in more detail below.

#### Discussion

I. The current liability is not a true reflection of the actual plan benefit liabilities or funded status, so the concept of an "accurate" current liability number is illusory.

It has been said that, "An actuary is somebody who uses questionable data and overly precise techniques to produce foregone conclusions." The proposed change to the mortality table used to calculate the current liability is an example of an overly precise technique that will produce significant additional work and expense with little or no attendant increase in accuracy.

It is important to remember that the current liability is an artificial number and has no connection to any real-world value. The current liability does not accurately estimate the value of the plan's liability to pay benefits, the employer's legal liability should the plan be terminated, the progress of funding, or the value of benefits accumulated in a plan. It is simply a means by which the Tax Code and the regulations dictate the level of funding in a plan for purposes of the deduction and minimum funding rules. Therefore, there is no "correct" current liability value, other than the number that is produced by the calculations. As a result, using a more accurate mortality table does not produce a more "accurate" current liability; it produces only a different measuring post for Tax Code purposes.

II. The lack of regulations in relation to the determination of current liability leads to inconsistencies that are much more critical than those caused by the mortality table concerns

While the law indicates the interest rate and mortality an actuary can use for the current liability calculations, the absence of broader rules can cause significant variations in the amount of the current liability, depending on the method an actuary uses to perform this calculation. Consider the following two examples.

#### Example 1

Plan A, Plan B, and Plan C are identical in all respects. All have only one participant, currently age 50, who has a monthly accrued benefit of \$100, payable as a life only benefit at age 65. Each plan provides that participants who retire as early as age 62 receive a fully subsidized early retirement benefit, and that participants who retire late receive no actuarial increase for the delayed retirement date.

In all three plans, the funding assumptions are (1) no decrement before retirement, and (2) 1983 group annuity mortality after retirement. The current liability interest rate is 6%, and the plan funding method is traditional unit credit.

Plan A assumes 5.5% interest for funding purposes and retirement at age 65. Plan A's funding liability is \$4,465, and the current liability is \$4,965.

Plan B assumes 8.0% interest for funding purposes and retirement at age 62. Plan B's funding liability is \$4,410, and the current liability is \$6,401.

Plan C assumes 5.0% interest for funding purposes and retirement at age 69. Plan C's funding liability is \$4,459, and the current liability is \$3,486.

This example shows that, in the absence of rules regarding retirement ages, the impact of retirement at different ages on the current liability can be significant, even though the funding may not be similarly affected. Logic would dictate that the current liability for all three plans should be similar, and further that the current liability of Plan A should be different than if Plan A did not have the subsidized early retirement benefit. Reflecting the timing of benefit payments significantly overshadows the refinement of the mortality assumption in terms of the impact on the amount of the current liability.

#### Example 2

Plan A, Plan B, and Plan C are identical in all respects, except with regard to the lump sum benefit option. All have only one participant, currently age 50, who has a monthly accrued benefit of \$100, payable as a life only benefit at age 65.

In all three plans, the funding assumptions are (1) no decrement before retirement, (2) retirement at age 65, and (3) 6% interest and 1983 group annuity mortality after retirement. The current liability interest rate is 6%, and the plan funding method is traditional unit credit.

Plan A provides lump sums calculated using 5.0% interest, and the plan assumes all participants elect lump sum payments. Plan A's funding liability is \$5,350, and the current liability is \$4,965.

Plan B provides lump sums calculated using 4.0% interest, and the plan assumes all participants elect lump sum payments. Plan B's funding liability is \$5,791, and the current liability is \$4,965.

Plan C provides no lump sum option, and the plan assumes annuity payments (i.e., no participant may elect a lump sum payment). Plan C's funding liability is \$4,965, and the current liability is \$4,965.

This example shows that, in the absence of rules regarding form of benefit payment, the value of a lump sum payment or other forms of benefit payment can have a significant impact on funding, but has no impact on the current liability. Logic would dictate that the current liability for these plans should be different. The impact of reflecting differences in the benefit form significantly overshadows the refinement of the mortality assumption.

Other similar problems exist in the absence of more precise rules about these actuarial factors. ASPPA recommends that the changes in the mortality table rules be delayed until regulations providing additional guidance in the calculation of the current liability are promulgated.

III. The current liability calculation permits the use of inconsistent assumptions that have a much more significant impact on the current liability than the proposed mortality changes

When the actuary selects assumptions for valuing a plan, the assumptions should be consistent. For example, the actuary may select an underlying assumption of high inflation or low inflation. An actuary who assumes that inflation is high would generally use not only a high interest rate, but also a high salary scale and would also assume that participants will behave in a manner consistent with high inflation (e.g., by electing later retirements). Conversely, a low inflation assumption would lead an actuary to also assume factors consistent with a low inflation environment.

#### Example 3

Consider Plan A and Plan B. Both plans are identical in all respects. Both plans provide a benefit of 1% of final 5 year average pay per year of service, payable as a life only benefit at age 65. Each plan has one participant, currently age 50, with 10 years of service, and earning \$70,000. The actuary for each plan assumes (1) no decrements before retirement, (2) retirement at age 65, and (3) 1983 group annuity mortality after retirement. The current liability interest rate is 6%. A reasonable interpretation of the rules governing the calculation of the current liability would allow the following:

The actuary for Plan A assumes high inflation, so the actuary assumes 8.0% interest and a 6.0% salary increase per year. The sole participant's current 5 year average pay would be \$62,511, the participant's accrued benefit is \$520.93 per month, and the expected increase in the participant's accrued benefit during the year is \$31.26 per month. Plan A's current liability would be \$25,866 and the increase in Plan A's current liability for the benefit accruing during the plan year would be \$1,552. Plan A's funding liability would be \$42,804 and the normal cost would be \$4,280.

The actuary for Plan B assumes very low inflation, so the actuary assumes 5.0% interest and a 2.0% salary increase per year. The sole participant's current 5 year average pay would be \$67,308, the participant's accrued benefit is \$560.90

per month, and the expected increase in the participant's accrued benefit during the year is \$11.23 per month. Plan B's current liability would be \$27,851 and the increase in Plan B's current liability for the benefit accruing during the plan year would be \$557. Plan B's funding liability would be \$41,746 and the normal cost would be \$4,175.

This example shows that the selection of the interest rate should be consistent with other assumptions in the same calculation, such as the salary scale. When only two assumptions are prescribed, but the other assumptions are held constant, the results can become distorted. This same distortion can exist if there is a prescribed mortality table.

IV. Generational Mortality adds significant complexity to the current liability calculation, without an attendant increase in accuracy. Furthermore, its use is inconsistent with other components of the current liability calculation.

The election to use generational mortality is of particular concern. Using generational mortality contrasted with using a static table can cause a significant increase in the amount of work involved in actuarial valuations—particularly for small plans. On the other hand, as can be seen above, the appearance of increased accuracy in results is illusory, at best.

In addition, many theories exist about generational mortality, with conflicting conclusions. While it appears clear that overall mortality in the United States has been improving, the improvement has been at a declining rate. Many observers question whether some unforeseen major medical advancement would be required to make any significant improvement in mortality beyond what has already occurred. Projecting future changes in mortality, while assuming that interest rates will stay static at a current five-year weighted average is an inconsistent approach to two significant components of the current liability calculation.

V. The use of the proposed mortality assumptions implies that the current liability is an accurate indicator of the plan's funded status, and it is not.

Currently, the general public misunderstands what the current liability represents. In particular, many non actuaries believe that a plan with sufficient assets to cover the current liabilities is a "well funded" plan. This is partly due to the fact that the term "current liability" does not represent what a layperson would reasonably expect. Sometimes, actuaries find it difficult to explain to non-actuaries that the current liability does not reflect accurate actuarial assumptions for predicting the liability of the plan.

The use of more refined assumptions implies to the lay public that the assumptions are more accurate when, in reality, the package of assumptions would be no more accurate than they were before.

VI. Changes in mortality for the purposes of "improved accuracy" make little change in the amount of the annuity costs, whereas other unaddressed considerations, such as retirement age or interest rate, have much greater impact.

Consider the impact of various mortality assumptions versus other assumptions, such as the interest rate. As an example, the difference between the 83 GAM and 83 IAM tables produces about a two-year difference in life expectancy at age 65. At 6% interest, this difference is reflected in an annuity cost of \$118.00 versus \$126.91 per dollar per month for a life only annuity. This is over twice the impact of changing from a collar-neutral table to a white-collar or blue-collar table. However, using the 83 GAM as a base, changing the interest rate to 5% would produce an annuity cost of \$128.22, and using age 63 instead of age 65 would produce an annuity cost of \$125.59. Therefore, other factors will have significantly more impact on the results than minor mortality adjustments.

Changes to the rules for calculating current liability should be addressed in a more comprehensive manner.

VII. The use of other factors to determine the proper mortality rates vastly complicates the actuarial determinations for the plan and will involve significant increased expenditures of time and money. Furthermore, these factors may

produce socially unacceptable results.

The Notice suggests consideration of varying mortality based on additional factors, such as tobacco use, gender, job classification, annuity size, or income level. Other than gender, ASPPA believes that using any of these suggested factors would cause problems.

First is the question of shifting status. A participant who is a smoker, blue collar, lower paid, or projected to have a smaller annuity at a younger age, easily may have a change in status at an older age. This change in status may occur after employment with the current employer ends. In addition, it may be difficult to get some of the information needed to utilize these other factors, such as a participant's tobacco use, total income (for plans covering employees who work for multiple employers), or current income (for terminated employees).

Second, the use of some of these factors without actuarial judgment can be questionable. For example, consider two identical employers: in one, the employees belong to a union, and in the other, they do not; or in one, there is a single defined benefit plan, but in the other is a less generous DB plan (i.e., smaller annuities) provided in conjunction with a DC plan. Clearly, in both instances the anticipated mortality would be the same, but without allowing for any actuarial judgment, the proposed rules could require the use of differing mortality rates.

Third, some choices could be socially unacceptable. The use of a table by collar will require the white-collar plan to be funded more heavily than the plan covering the blue-collar workers. But the white-collar plan would likely cover participants of different socioeconomic status than the blue-collar plan. This would be significant in the case of a plan taken over by the PBGC since from the current perspective of the PBGC, there are no differences in mortality other than those reflecting age and gender. This coincidental greater funding for plans of different socioeconomic class could easily be considered to be socially inappropriate.

One suggested solution is to make the use of these additional factors optional. However, the result of optional use is that a plan actuary would likely select only those options whose use would be beneficial to the plan sponsor—a form of adverse selection. This would cause an actuarially inappropriate result. Another suggestion would be to impose the requirements only on larger plans. Besides adding complexity that will increase the cost of these plans significantly, this would create problems for plans with populations that are right near the "large plan" cutoff—particularly, if a plan fluctuates above and below the line from year to year.

If the decision is made to proceed with refinements beyond age and gender, ASPPA strongly suggests that such refinements be thoroughly studied in order to completely evaluate their implications.

#### Conclusion

Because of the questionable positive impact of the proposed changes in the mortality table rules for calculating current liability, as well as the outstanding concerns about other factors in the current liability calculation, ASPPA recommends that the proposed changes be delayed until final regulations regarding the current liability calculation are issued. Furthermore, ASPPA recommends that, if the mortality table is updated prior to the issuance of comprehensive regulations, the new table maintain the current structure of a single, static table, varying solely by age and gender.

Sincerely,

Ed Burrows, MSPA, Co-chair  
Actuarial Resource Group

Brian Graff, Esq.  
Executive Director

Martella Joseph, MSPA, Co-chair  
Actuarial Resource Group

Jeffrey C. Chang, APM, Esq., Co-chair  
Government Affairs Committee

Sal Tripodi, APM, Esq., Co-chair  
Government Affairs Committee

Ilene H. Ferenczy, Esq., CPC  
Administration Relations Committee