P: 720.274.7270 | www.grsconsulting.com

November 16, 2022

Officers' and Firefighters' Continuation Benefits Board/Treasury
Colorado Treasurer's Office
140 State Capitol
Denver, CO 80203

Re: Initial Analysis of the Implementation of Senate Bill 18-247

Dear Members of the Board:

Per your request, we are submitting an initial analysis of the implementation of Senate Bill 18-247 which establishes a voluntary insurance fund to pay work-related death benefits to dependents of Colorado Law Enforcement Officers and Firefighters, specifically one year of medical and dental benefits.

Covered Population and Anticipated Claims

Claim Size

We have assumed that the claim size associated with a year's worth of benefits associated with a single duty death would be $30,000. This is expected to provide a sufficient amount to cover COBRA premiums for family coverage for one year under most employer plans.

Covered Population

The next step in determining the anticipated claims is to determine the potential covered population. GRS was granted permission to use the census data for the Statewide Death and Disability (SWDD) Plan which is administered by the Fire and Police Pension Association (FPPA) of Colorado and which covers a wide swath of the potential population. GRS initiated communication with the Staff at FPPA as well as representatives of the Fraternal Order of Police to try to identify a possible data source regarding additional covered populations not currently covered by the Statewide Death and Disability Plan. Ultimately, there was no available dataset identified regarding additional members outside the SWDD Plan. GRS finds this to be a red flag in the potential future administration of the benefits under SB18-247. If it is difficult to even identify the potential covered members, maintaining ongoing membership data and collecting annual premiums associated with those covered members is likely to prove a significant task.

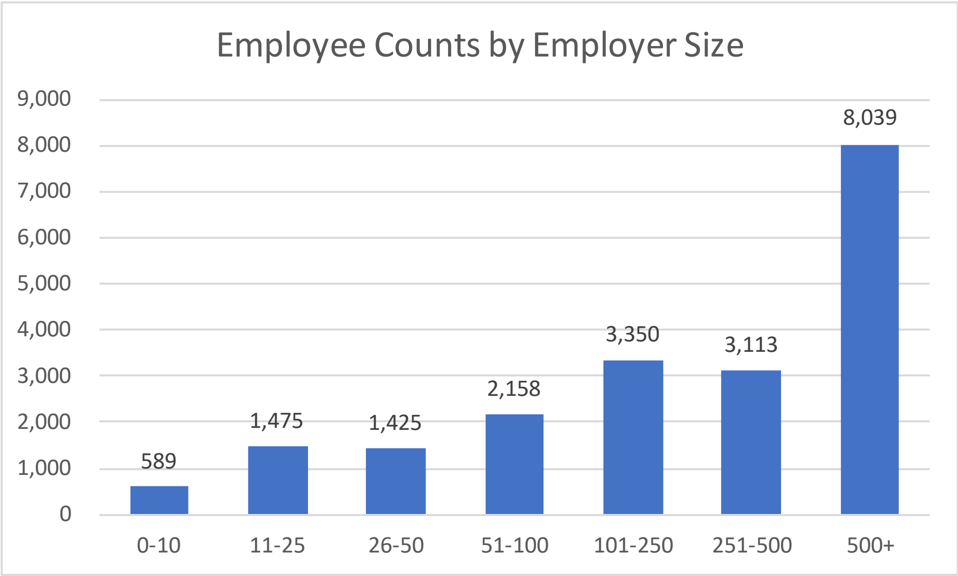
Through discussions with FPPA Staff and their contacts, we found that the primary source of covered population outside the SWDD Plan is likely to be County Sheriffs across the State. Again, a source regarding the exact number of sworn personnel was difficult to obtain. Given the lack of available data, GRS took known counts from Arapahoe County and extrapolated these amounts to the other Colorado counties based on relative census counts in those counties. On this basis, GRS estimated that there are roughly

6,800 County sheriffs across the state. Subsequent to this initial estimation, GRS was able to ascertain employee counts directly from 26 departments. GRS found that the counts from those departments substantiated the overall approximation. Total counts for those departments responding were 4,263 as compared to the extrapolated counts for those departments of 4,133.

The SWDD Plan covers roughly 13,300 members, thus the anticipated total potential covered population including both SWDD Plan members and the estimated County Sheriffs is about 20,100 actives. This is a rough estimate, but given the extremely limited anticipated frequency of claims which will be shown in the next section, it is likely sufficient for the purpose. Given the limited anticipated frequency of claims, if instead the total population were 15,000 or 30,000 would not change the ultimate conclusion of our analysis.

Given that the participation would be voluntary and on a by-department basis, the actual covered population, were this to be implemented, would likely be much less than the estimated 20,100. Given that the proposed benefits are only for a single year, most employers could absorb the variable cost without much trouble and would not need to insure the benefit as proposed by SB18-247. Thus, we expect that those likely to consider paying the voluntary premiums would be very small employers who would benefit from insuring this relatively small benefit.

GRS has grouped the 20,100 covered members by employer size below:



If, for example, we assume participation only by employers with 100 or less employees, the number of covered members would be about 5,600 rather than 20,100.

Expected Number of Claims Per Year

GRS examined the data from the Statewide Death and Disability Plan over the last 20 years. We found that there have been only 18 work-related deaths during that time. The number of lives covered during that 20-year period was 227,600 (an average of around 11,400 per year), indicating that the probability of work-related death is about 0.00008 (18/227600).

If we apply this probability to the total covered population of 20,100, the expected number of claims per year is 1.6 or $48,000 per year. In regards to our earlier comments on the data estimations, even if the total covered population was, in fact, 30,000, the expected number of claims would still only be 2.4 or $72,000. Thus, the ultimate conclusion that the amount of claims does not lend itself well to an insurance pool of the nature described in SB18-247 would be unchanged.

However, much more likely, the covered population would be substantially less than 20,100, not more. If we instead apply this probability to what we consider to be the more the likely-sized covered population reflecting the voluntary nature of the program of 5,600, the expected number of claims per year is 0.4 or $12,000 per year.

We can also think of the expected claims on a per person basis to get a sense of the expected benefits paid as compared to the ongoing administrative burden. Given the rate of 0.00008 claims per person per year and $30,000 claim value, the dependents of the average covered person are expected to be paid $2.40 in benefits per year. It is highly likely that the administrative cost per year of tracking and collecting premiums for that member would far exceed the expected claims.

Claims Different Than Expected

Normal Year to Year Volatility in the Context of High Participation

During the 20-year period which GRS examined the data, the 18 work-related deaths were either 0, 1, 2 or in one instance 3 deaths during a calendar year. Given the low expected cost of benefits per person and *assuming reasonable participation by employers*, this amount of volatility could simply be dealt with by setting the initial premiums higher than the benefit cost and building up the trust before bringing premiums down closer to expected claim levels. For example, if we ignore the administrative costs for the moment, premiums could be set at $10 per member per year which is four times the expected cost of benefits. We find that in the high participation scenario, administrative costs are the primary concern to the viability of implementing the benefits as proposed.

Claim Volatility in the Context of Low Participation

In general, insurance pools rely on the laws of large numbers and the idea that things will average out about as expected over a large population. However, the design of SB18-247 does not guarantee any particular level of participation. The example we included with only employers less than 100 employees resulted in 5,600 covered members, but the reality could be far less. In scenarios of low participation, it is hard to determine any reasonable premium which can guarantee the sustainability of the fund.

For example, consider a scenario in which there are 1,000 covered members. The expected claims are 0.08 instances and $2,400 per year. If $10 per year per member premiums are charged, $10,000 per year will be collected, four times the expected claims. However, even collecting premiums which are four times expected claims, a single claim, which is anticipated to be around $30,000, could leave the trust with insufficient funds to pay benefits.

Anomalous Event (High or Low Participation)

We do also think that there is risk of a one-time event which could pose sustainability challenges to the insurance fund. Although difficult to assign a probability, a 9/11 type event in Colorado could create a large number of claims in a single year. The premiums could be set well in excess of expected annual benefits to create a reserve to protect against this type of incident, however, given the voluntary nature of the program and the fact that the higher the premiums are, the less participation will be, it may be better to rely on the backing of the State in this type of incident.

Initial Setup and Ongoing Administration Challenges

To implement the fund, a trust would need to be established which would require significant upfront involvement from legal counsel. Once the trust was implemented, contact would need to be made with all the individual employers to find out if they wish to participate. GRS estimates that there are about 350 law enforcement and firefighter employers across the state.

The trust would require some sort of seed money to guarantee that claims could be paid in the early phases of implementation while participation is ramped up. If participation continues to be low on an ongoing basis, additional funds could be required to bolster the fund in future years if there is anomalous experience.

<u>On an annual basis</u>, contact would need to be made with employers, ongoing participation established and employee counts established and premiums collected from the employer. Given the difficulties of establishing the covered population as part of this project, as well as our experience with data collection associated with small departments and establishing a responsible contact at those departments, we find this may be a monumental task. It is also not clear who would be responsible for this task. It is unlikely that a current State staff member could incorporate this task into their normal duties and an additional position may need to be established.

We also expect that many employers may lapse payment simply because no one is aware that payment is due as the contact person has since changed or an email got missed. We also expect, that those employers in that situation would likely still expect claims to be paid which could present legal and public relations issues.

It is also possible that the creation of this program could create new reporting requirements. There could be ongoing legal and accounting needs, as well as the need for reasonably regular assessment of the premiums charged.

We find that in the likely situation where only the smaller employers opt into the program, the costs to set up and administer the plan for a decade could easily be 5-10 times the expected benefits paid from the program.

Initial Assessment of Implementation of SB18-247 as Written

We recommend that Senate Bill 18-247 not be implemented as written, and recommend that instead an alternate approach be used to provide benefits to survivors of work-related deaths.

The primary reasons for this recommendation include:

1. The small dollar amounts associated with the benefit make it a poor candidate for an insurance-type pool. These amounts can be absorbed by most employers who would like to provide this benefit.
2. Item 1, combined with the voluntary nature of the program, would likely result in low participation in the program.
3. Establishing and maintaining ongoing contact with the employers for purposes of establishing participation and collecting premiums would be a considerable ongoing undertaking.
4. The small dollar amounts payable, the likely low participation, and the low incidence of duty-related deaths result in very low annual expected claims from this program. This combined with item 3, would likely result in administrative costs which far exceed the benefits payable.

For these reasons, we recommend the Board consider identify ways to provide similar benefits in an alternative manner.

Alternative Approaches to Provide Benefits in the Spirit of SB18-247

Alternative 1

The State could establish an initial fund and simply pay the work-delated death benefits from that fund, rather than making this a voluntary, employer-paid benefit. Although it would be a cost to the State, it would completely eliminate the administrative challenges associated with the ongoing premium collection. It would also eliminate the low participation concern and legal issues regarding claims in cases of employers who lapsed payment.

Survivors could apply for the benefits and the fund could pay benefits based on the employer's family coverage rate for COBRA for 12 months or the fund could simply pay a flat dollar benefit, such as $30,000 to avoid administrative complexity.

A committee could be established for purposes of determining eligibility, but there could be automatic triggers to avoid committee involvement when unnecessary. For example, qualifying for duty-related death benefits under the SWDD Plan or employer-provided duty-related death benefits could be an automatic trigger for eligibility.

An initial fund could be established, and the legislation could be written such that benefits are paid until the fund is depleted. The fund could be funded using a lump sum amount or annual budgeted payments in excess of expected claims to build up a reserve. For example, It is anticipated that an initial lump sum of $1,000,000 would provide benefits for 10 to 20 years and additional funding could be secured in the future to avoid the fund's eventual depletion. Alternatively, something like $150,000 per year could be contributed annually which would provide for ongoing claims and provide for adverse experience. This amount could be adjusted in the future as budgetary constraints allow/require. If claims are about as expected (~$50,000 per year), a reserve will begin to build up that would help protect against extreme events and eventually annual contributions could be decreased to something more similar to the expected ongoing costs.

Alternative 2

It is possible that the State's current insurance contracts could be leveraged to provide accidental death benefits to law enforcement officers and firefighters across the state. This would need to be provided as a flat dollar benefit (such as $30,000). Providing this benefit through the State would eliminate the participation concerns, and an insurance carrier would likely be better equipped to handle the administrative burden associated with this program.

This alternative likely still presents a significant administrative burden as it is likely that an insurance carrier would still require that an accurate count of covered members be established on an annual basis. However, it would reduce the premium collection burden and given that participation would be 100%, the ratio of administrative expense to benefits paid would be reduced as compared to the approach presented in SB 18-247.

It would be a cost to the State, but it may be found to be a minimal cost within the State's budget, and the benefits could be provided on a much more cost-effective basis than the current legislation. The most cost effective is Alternative 1 because it reduces almost all administrative burden and does not pay profits to an insurer.

GRS has not fully fleshed out this Alternative 2 and its viability, but is happy to contact staff with the State who work on the insurance negotiations to further investigate this idea, should the Board wish to pursue it.

Alternative 3

This option would require that employer healthcare policies/programs allow the coverage to extend to the beneficiaries for one year at the cost of the employer. Some carriers may allow the coverage to be in the form of a rider which increases premiums each year and provides the coverage as a life-insurance type arrangement. Others may utilize more of a COBRA type arrangement, with the full premium paid only when applicable. There would need to be research into which carriers would allow this and how the increase in annual premiums or the additional COBRA benefits would be funded. This would likely be the least costly to administer as it piggybacks on the benefit packages already in existence, but would need cooperation from the insurance carriers. To the extent the insurance carrier does not allow the life insurance type arrangement of the healthcare benefits, a single event could cause significant stress on the annual budget for a small employer.

Disclosures

Although historical work-related death experience is likely to be a good indicator of future experience, actual work-related death experience can and will deviate from the incidence rate developed.

Joe Newton and Dana Woolfrey are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. They are independent of the Board and the State.

Sincerely,

Joe Newton, FSA, FCA, EA, MAAA
Pension Market Leader

Dana Woolfrey, FSA, FCA, EA, MAAA
Senior Consultant

cc: Leah Marvin-Riley - Colorado Treasurer's Office
Eric Rothaus - Colorado Treasurer's Office