INFORMATION MEMO

Self-Insuring Workers’ Compensation

Find out how the League of Minnesota Cities Insurance Trust (LMCIT) can help cities with workers’ compensation premiums over a quarter million dollars evaluate whether self-insuring is feasible and economical. Understand loss development, the special compensation fund, projecting next year’s losses and accounting issues.

RELEVANT LINKS:
LMC information memo, LMCIT Workers’ Compensation Coverage Guide.

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I. LMCIT assistance in self-insurance analysis

In cities whose workers’ compensation premium costs are over a quarter million dollars or so, the question of whether the city should consider self-insuring often comes up. Sometimes consultants, agents, and third party administrators push the idea very aggressively.

In the right circumstance, self-insuring can be an effective way for a city to handle its workers’ compensation exposure. For this reason, the League of Minnesota Cities Insurance Trust (LMCIT) is more than willing to work with a city that is interested in self-insuring by:

- Providing actuarial loss data to help the city evaluate its loss exposure and the economic feasibility of self-insuring.
- Providing aggregate excess coverage to protect the city against the risk that total losses will exceed budgeted amounts.
- Providing specific excess coverage with a lower attachment point than that available from the Workers’ Compensation Reinsurance Association (WCRA), to help control the year to year volatility of loss costs.

The decision to self-insure shouldn’t be made lightly. Self-insuring has long-term consequences and carries significant risk with it. A permanently disabling injury could require the city to make weekly benefit payments for as much as 20, 30, or even 40 years. For example, LMCIT presently makes payments on an injury that occurred in 1980. Because liabilities for workers’ compensation injuries can affect the city’s finances for many years in the future, it is very important to understand and evaluate carefully the nature and the potential extent of the risks the city is retaining when it decides to self-insure.

A key question, of course, is which approach is the most economical way for the city to address its workers’ compensation exposure. Unfortunately, simply comparing a "projected" cost of self-insurance with the annual premium doesn’t necessarily give a complete picture.
That kind of simple comparison doesn’t reflect the fundamental and critical difference between retaining risk yourself and transferring risk to someone else. To help evaluate whether a self-insured approach is right for your city, we’ve tried in this memo to identify some key issues to be aware of when thinking about self-insurance as an option.

II. Loss development

Member cities receive a loss run from LMCIT which shows the total current estimated cost of each incurred claim for each year. The incurred cost of each claim includes both the amounts already paid on that claim and the "reserve," which is the amount estimated to still be paid on that claim. Each claim is periodically reviewed, and the reserve estimates are revised if necessary.

At any one time, the figures shown on the claims run represent the adjuster’s best current estimate of the total ultimate cost of that claim. But until the claim is closed, these figures are estimates. The actual ultimate cost will almost always be different; sometimes lower, sometimes higher.

If we look at LMCIT’s total incurred loss figures for a given year at any specific time, and then again some time later, we most often find the later estimate of the total incurred losses for that year is greater than the earlier one. Sometimes too, a claim which we think is closed (and therefore has no remaining reserve) reopens, which means the final cost of that claim is going to be more than what we previously thought. And sometimes injuries simply aren’t reported until some considerable time after they occur.

In other words, as we continuously close claims and revise the reserve estimates on individual claims, the estimated cost of any individual claim may increase or decrease over time. But the overall effect of all the individual increases or decreases most often adds up to a net increase. To put it another way, any estimate of the total cost of a claim will almost certainly be wrong.

On the following page is a graph that shows an actual example of LMCIT’s loss development. As of June 2008, LMCIT’s best estimate of the total cost of indemnity payments – in other words, the total of all indemnity payments and indemnity reserves on each individual claim – for injuries that occurred during the 2007 calendar year was $2.98 million. A year later, that estimate had increased to $3.9 million. By June 2014, it stood at $5.4 million, with our actuaries later projecting that the 2007 indemnity benefits totals could ultimately reach $6.1 million.
Here’s another example, this time looking at cost development on medical payments. As of June 2008, LMCIT’s best estimate of the total cost of medical payments for injuries that occurred during the 2007 calendar year was $7.99 million. A year later, it increased to $8.5 million. By June 2014, it stood at $10.5 million, with our actuaries projecting later that 2007 medical cost totals could ultimately reach $14.7 million.
It is extremely important to understand this concept of loss development if you’re considering self-insurance. In practical terms, it means that even though your loss runs show the best current estimate available of the total ultimate cost of your city’s claims for a particular year, the actual ultimate cost will almost certainly turn out to be different. And on the average, the real ultimate cost of claims for a given year more likely than not will turn out to be more than whatever the current estimate is.

By studying the patterns of how these incurred loss estimates have historically grown over time, LMCIT’s actuaries can estimate how much our current estimates are likely to increase in the future. For any one year’s claims, they can estimate based on the past patterns how much more that year’s claims are likely to increase by the time all claims for that year are closed, which can be many years from now.

LMCIT’s premium rates take into account this projected loss development, and are designed to fund that cost. Because of this, when you compare your city’s reported claims with your premiums for a relatively recent year, the premiums may very well be substantially higher than the reported claims. If you only look at what the reserves are currently, it can appear that self-insuring will be very much cheaper. But it’s extremely important to remember that the final total claim costs for that year will almost certainly be different from what shows on the loss run, and chances are it will be higher.

A common way to evaluate self-insurance as an option is to look at how much it would have cost the city in past years based on the actual reported claims for those years. But in doing so, it’s important to keep loss development in mind and to factor it into your calculations. One way to do so is to apply to the city’s claims the projected development factors which LMCIT’s actuaries have calculated for LMCIT’s overall claims.

But for an individual city’s claims, these kinds of estimates have a very wide margin of error. We can be reasonably confident in projecting that by the time all claims are closed, the ultimate total indemnity costs on LMCIT’s indemnity claims in recent years will probably still be about 30% more than current total paid costs plus case reserves for those injuries. Applying that same development factor to an individual city’s 10 or 12 indemnity claims for a recent year is one way for the city to come up with a plausible estimate of its ultimate claims cost for that year. But the city needs to recognize that the final costs on those claims may vary widely in either direction from that projection.

Consider, for example, a back injury which looks now like a minor strain. If it turns out later to be a more serious problem requiring surgery, this $5,000 or $10,000 claim might suddenly be a $50,000 or $100,000 claim.

In summary, three key points to keep in mind are:
The ultimate cost of your claims for any given year is likely to be different than the current best estimate of the cost of those claims.

For an individual city, that variation can be substantial as a percentage of the total.

The variation can be in either direction, but it’s more likely the ultimate cost will be greater rather than less.

### III. Special compensation fund

Anyone who pays workers’ compensation benefits to employees is also responsible for paying assessments to the state Special Compensation Fund (SCF). For self-insurers, those assessments are based on the amounts paid as indemnity benefits to injured employees. The rate is adjusted periodically.

Indemnity benefits typically are about 30% of total workers’ compensation claim costs. Thus, a quick and dirty rule of thumb is that SCF assessments will on the average add about 10% to claim costs. Of course, an individual claim may vary from that average. If an employee with dependents is killed on the job, the claim may be almost entirely indemnity benefits with very little medical cost.

SCF costs are not considered to be part of the claim for purposes of the excess coverage provided by the WCRA. Thus, even if the city buys WCRA coverage at the lowest retention option, a single claim could easily cost the city more than that amount.

Finally, it’s also important to remember that SCF costs are subject to development as well, since they’re based on indemnity payments. If your indemnity claims turn out to be more than your current estimates, your SCF assessment costs will grow along with the claims.

### IV. Employer’s liability

The workers’ compensation statute precludes most tort claims against an employer for injuries to an employee, but there are a few ways such claims can occur. For example, if an employee is injured while operating a piece of equipment, the employee may collect workers’ compensation benefits from the city and also decide to sue the equipment manufacturer for injuries that may have been caused by poor product design. The manufacturer in turn sues the employee’s supervisor for negligent supervision.

WCRA does not cover the city’s potential tort liability for injuries to an employee. Therefore, the city must self-insure this exposure, or find a provider that will write a supplemental policy for this risk. LMCIT can provide coverage to cities that self-insure.
V. Projecting next year’s losses

To project the cost of a self-insured approach, the city must estimate what the cost of next year’s claims will be. One common approach is to base the estimate on what the city’s actual losses in the past three to five years or so have been. While this technique is a reasonable approach, it can produce misleading results if a couple of points are overlooked. It’s important to keep in mind the limitations of this or any other method of projecting probable losses in a future year.

In using past loss data to project future losses, it’s again important to keep loss development in mind. Remember, the goal is to project the ultimate cost of loss for that future year. If you’re trying to do so based on annual loss figures for past years, this means you need to use the projected ultimate costs for those prior years. In other words, the current incurred total plus an adjustment for projected loss development as described above. Using the raw numbers shown on the loss run is to ignore the possibility of future loss development which in turn would result in understating the likely ultimate cost of a self-insurance program.

You also have to keep inflation in mind, especially in projecting medical costs. For the past couple years, LMCIT’s average medical cost per claim has increased about 9% per year, and there’s no sign medical inflation will ease in the near future. Since indemnity benefits are based on wages, the indemnity benefit trend should roughly track the city’s salary increases. The key point to keep in mind is that an injury now will likely cost more than that same injury two or three or four years ago.

It’s important not to confuse the trend in claims from year to year with the development of claims in any one year. In other words, when you’re using past loss history to project future losses, you need to remember to make two adjustments to those past loss figures. First, you need to apply a development factor, to get a reasonable estimate of the likely ultimate cost of each of those past years’ claims. Second, you then need to apply a trend factor to reflect the year to year increase in the average cost of a claim.

VI. Uncertainty of loss projections

A sound technique for projecting your city’s losses is to start with your past loss history and apply appropriate development and trend factors to develop a projection of next year’s losses. It’s important, though, to be aware of the limitations inherent in that technique because it can only produce a projection, not a prediction.
To put it another way, this kind of technique will tell you what next year’s losses would be if next year is like past years. However, next year may or may not be like past years. The larger the numbers involved, the more likely it is that the next year will resemble past years.

For a group the size of LMCIT, loss projections based on past experience can be reasonably certain. For an individual city, any projections are necessarily much less certain, and actual losses can vary a great deal in either direction from the best projection possible.

We’ve seen a few examples where people have used standard statistical techniques to project the likelihood that losses will be less than some particular figure. Such techniques can be useful in developing funding targets for a self-insurance plan, for example. But you do need to make sure that those techniques are properly applied. For example, to apply standard deviation techniques to calculate the likelihood that losses will be less than a specific amount, you need to make some assumptions about the shape of the severity curve; that is, how frequently do losses of a specific severity actually occur. Workers’ compensation loss severities don’t follow a "normal" or "bell curve" distribution.

It’s also important to be careful about the conclusions drawn from these calculations. If someone hands you a calculation that says there’s a 98.7% likelihood that losses will be less than “x” dollars, it’s tempting to conclude that the risk that costs will be higher is so small that it’s not worth worrying about or funding for. But for most cities, adding even one WCRA retention level claim in a year would put the total cost well over any projected levels. Remember, if your premium is a quarter million dollars, you don’t have enough to cover even one loss up to the lowest available WCRA retention, let alone the rest of your losses plus expenses, SCF assessments, and reinsurance costs.

Most of the time, if a city looks at its last five years or so, you won’t see a catastrophically large loss; that is, a loss that exceeds the minimum WCRA retention. If those five years don’t contain a catastrophic loss, basing next year’s projection solely on those five years’ experience is equivalent to assuming a big loss won’t occur next year either. And, of course, it probably won’t; most cities don’t have a big loss in most years.

But simply assuming it won’t happen isn’t a sound way to plan for the possibility of a large loss. Projecting losses and planning your funding based solely on your past experience can turn out to be nothing more than a complicated way of assuming nothing bad will happen next year, rather than planning for that possibility.
Try applying the same reasoning and the same arithmetic to the risk that city hall will burn down. The city hall probably didn’t burn down last year or in the five previous years. Based on that experience we’d conclude it’s not likely to burn down this year either. In other words, there’s a very high likelihood the loss cost will be zero. But most people wouldn’t conclude from that calculation that self-insuring that risk is the soundest way to fund it.

VII. Your loss history

The city’s annual premium volume is one important factor to look at in evaluating whether individual self-insurance is feasible for the city. But just looking at premium volume alone can’t tell you whether self-insurance makes sense. If the reason the city’s premiums are high is because the city’s experience modification is high, the city may not be a good candidate to self-insure on its own.

The experience modification formula is designed to respond more to the frequency of claims than to the severity. Ten $5,000 losses will affect the experience modification much more than would one $50,000 loss, for example. A high modification means the city has had more claims than the average city with the same payrolls.

Generally, how good the city’s safety practices are is a major factor in determining how likely it is that an injury will occur. But when a loss does occur, how serious it turns out to be is much more a matter of chance.

An example might help illustrate this. Whether or not I’m likely to slip on an icy sidewalk largely depends on how good a job the city does of keeping the sidewalk free of ice. But if I do slip, it’s much more a matter of chance how badly I’m hurt. I might land on my tail and bruise only my dignity; I might land on my arm and break a wrist; or I might land on my head and suffer a brain injury. How expensive my injury turns out to be can also be affected by other random factors: how old I am, how many dependents I have and how old they are.

The city with a high modification has had a lot of injuries. That’s a sign the city may have some work to do to improve safety practices. Unless safety is improved, it’s pretty likely the city will continue to experience a lot of injuries. In the past, many of those injuries may have been relatively minor and inexpensive, so the total dollars of past losses may not seem great compared to the premiums. But the more injuries you have, the greater the chance that one of them (or five of them) will turn out to be very serious and very expensive. Roll the dice enough times and the chances are pretty good that eventually you’ll roll a double six.
A high modification is a sign that you have a high risk workplace. If you self-insure, you’re assuming that high risk rather than transferring it to someone else. It makes sense to try to reduce that risk as much as possible before assuming it.

VIII. Accounting issues

Governmental Accounting Standards Board (GASB) standards require cities that self-insure to show on their financial statements the accrued liability for outstanding claims relating to a self-insurance operation. This would be the estimated ultimate cost of settling those claims. In other words, it would reflect projected loss development based on past experience. The liability can, at the city’s option, be discounted to its present value.

A city that self-insures will therefore have to show the total accrued liability including estimated development and Incurred But Not Reported (IBNR) on its financial statements to meet GASB standards. Thus, cities going into a self-insured program need to make sure the liability for future claims development is being accurately estimated and accrued on the city’s financial statements.

Note that GASB does not require that liability to actually be funded. However, it certainly seems wise for a city to fund those liabilities, since they would otherwise appear on the financial statements as long term debt. That in turn could affect bond ratings, for example.