CHIEF'S FILE CABINET

Ronny J. Coleman

What If No One Showed Up?

What would happen if someone had a fire and nobody showed up? It has happened you know. There are parts of this country where there is no formal fire protection. Moreover, there have been fires that have occurred in buildings that have never been reported to the fire department. Some of them might well have happened right there in your own town. And, in my personal experience I went to see a building that had burned down in the middle of the night and it was never reported to the fire department. The following morning when people woke up and looked out their bedroom windows they were astonished to see the home next door gone but not a soul knew the fire had occurred.

The answer to the rhetorical question in the previous paragraph has a second question that almost always has to accompany it. That question is what are the factors that will cause the fire to spread? Therein lies the essence of the entire dilemma of fire protection. If we are not called to go to the scene of a fire then we can't take responsibility for the outcome. And, if we are called to the scene of a fire, we may or may not make a difference depending on a lot of factors that have little to do with response time.

The same might be said for fire prevention. What happens if we don't try to prevent fires? Well, there are entire parts of this country that have never seen a code enforcement officer more or less one with a citation book. Yet they don't seem to burn down in epidemic proportions. There are also communities that expend an awful lot of resources expecting buildings to still have terrible fire records. There are communities that can actually demonstrate to you that their fire loss ratio has decreased in spite of growth. The answer to this question is, do you make a difference in fire prevention? And the answer is, maybe!

Currently the fire service is spending 96.5 percent of their budgets on one concept. Making sure that some does show up when there is a fire. That is because the experience of society in general is that if a fire is allowed to grow beyond a certain stage in most occupancy's it is likely to destroy the building. While we all recognize that intuitively, statistics also demonstrate that unintended fires for the most part have catastrophic outcomes.

Now let's go to that 3.8 percent of our national level of effort that is focused on fire prevention. Do we really make a difference? This is at the essence of several national studies and is a lot more complicated than it might appear.

I was once asked during a budget session "how many fires have you prevented?" My answer was, "all of them!" My interpretation was that every fire that never happened I guess I can take credit for as a fire chief. While there is a certain degree of facetiousness in getting involved in this retort to the council

there is a lot more to it. That is because we have absolutely no data to prove that without a fire inspection program fires are less likely or more likely to occur on a specific basis.

In researching this phenomenon I was exposed to a concept called "strategic impact assessment", this is a concept in looking at the risk to an organization from a standpoint of what would happen if the actions that you were contemplating simply were not taken. In short, this concept is based upon the idea that if you don't make a difference, then why bother. One of the concepts contained in this theory is the idea of counterfactual information. What counterfactual information means is that you have to have evidence that something is going to happen that can be altered by a course of action you anticipated. This entire body of knowledge is based upon the idea that before you make a decision to make something happen, you ought to figure out if it would happen with or without your own intervention.

In attempting to apply this concept to fire prevention in a simplistic statement that is Benjamin Franklin's observation that "an ounce of prevention is worth a pound of cure" implies that there is a nexus between those two. There may not be.

In spite of a decades old battle to try to get really good fire statistics in this country we are willfully behind in fire department participation and/or the development of a national database that provides the nexus that we are interested in developing. I will not take a public forum of this nature and criticize any individual or organization for the failure in that. Instead I would like to merely state that I think it is a professional shortcoming because we have allowed it to occur to ourselves.

We often criticize our law enforcement brethren for beating us at the budget battle for having more numbers to crunch than we do. Guess whose fault that is? The fact is that the law enforcement community has recognized a long time ago that the devil is in the details and the details are in the data. They have supported a lot of projects that have been paid for by the federal government to really drive the development of databases that are searchable almost all the way down to a street cop level.

As much as I admire the documentation that I see that comes out of our national fire reporting system I always know that there is a dirty little secret associated with it. The data is not comprehensive nor is there any real quality control over the accuracy of the information.

Recently it was added to the Assistance to Firefighter Grant Program that you could not be a recipient under that program unless you were a participant in the national incident reporting system. That was an attempt to begin to close the gap on this particular issue. Unfortunately it is woefully inadequate in the fact that it has been rendered almost unenforceable due to breakdowns at both local and state levels on incident reporting information.

That doesn't mean we ought to give up. To the contrary, it provides a tremendous arena for potential improvements over time. The interest in this type of information is increasing almost daily. Several studies have been commissioned at the national and international level to deal with the issue of closing the gap on efficiency and effectiveness in code enforcement. Every one of them recognizes that until we are doing a much better job of collecting data at the local level we will never have a sufficient body of knowledge at the national level to make strong statements.

Nonetheless, there are some stunning contradictions in what we already know. For example, we already know that most of the people who do die in fires don't die in regulated occupancies. Granted there are more and more requirements going into the residential occupancy up to and including smoke alarms and residential sprinklers. On a nationwide basis your chances of dying in a fire in your own bedroom are much higher than you dying in a fire of tragic proportions like the highly controversial nightclub fires of recent years. If you are a young child or an elderly person the probability of you becoming a fire casualty is out of proportion with the numbers you represent in society.

The kinds of questions we cannot answer very effectively are at a much more granular level of knowledge. For example, how much do we really know about how fire codes are reducing death in public assemblies? We can look at the national statistics and realize that the total number of casualties is relatively small but to what do we attribute that reduction?

Shifting gears slightly, where is the national database on the number of fire code violations that are found in relationship to the number of inspections actually being conducted? The answer, nowhere. While we have created a national fire incident reporting system, we have yet to create a National Fire Code Violation Reporting System (NFCVRS).

There is a good reason for it probably. We do not have the ability to communicate that type of information even at the local level between fire and building departments for the most part. There is no system that I am aware of on a statewide basis that collects performance measures of fire prevention nor is there any database at the national level that compiles and aggregates such data. I can be so bold as to say that it is probably not ever going to occur for the very simple reason that it would be incredibly expensive to accomplish.

What about at the local level?   What about at the county? There are many decisions that remain to be made about the commitment of resources to accomplish fire prevention that need to be data driven.

There is a considerable amount of rhetoric exchanged in the literature talking about risk focused prevention. But, without data how do we know what we are talking about. Frankly, most of the concepts of risk have to do with exposure and not necessarily experience.

One of the more popular formulas for talking about risk is to multiply frequency time's consequence and establish the risk factor. This raises the question of what frequency and what risk. As the number of fires continues to go down in non residential occupancies and the number of fires continues to stay the same in residential occupancies, it kind of makes me wonder whether or not we really understand the concept of priority. Why aren't we doing something about the residential fire problem? The answer is, a combination of a community attitude that a man's home is his castle accompanied with the fact that basic community perception is fire is going to always happen to someone else and not to the person in a specific home.

I would prefer that we should be looking at risk from a prevention point of view. Instead of it being frequency time's consequence perhaps we should be looking at risk factors as reduced by mitigation factors. In other words, going back to the idea of impact assessment, what would happen if the code was not there? As you add or subtract code provisions you are in effect attempting to reduce that risk to be the acceptable level of risk in the community. That is why the code is there in the first place. Let's use a very simple example. Let's say we are talking about looking at a building that is housing a church. Because it is a church it could be used as a school and it definitely serves as a public assembly at different points. Some of the risk factors in that church might include exiting, extinguisher, electrical, housekeeping and other factors. If there was no code common sense would be the only thing that would keep that building from burning down. We do have codes. We have such things as exist requirements, exit lighting, locate fire extinguishers, have housekeeping requirements, maybe even install a sprinkler system or alarm system.

If you look at frequency times consequence church fires occur all the time. Maybe not the newer church. If you look at them in terms of what would the building look like without any code intervention and compare it to what happens after mitigation has been applied then the answer is that you have taken a fairly severe problem and turned it into a moderate risk.

This way of looking at risk puts the fire prevention bureau in the role of being a risk manager instead of a risk responder.

So, as we proceed forward with this line of reasoning a fire prevention bureau and the resources devoted to that bureau is all about managing risk not just developing an inventory of them. The concept of code enforcement is not just about preventing an ignition but it is about a set of conditions under which losses will be minimized. One cannot consider an exit as a fire prevention measure. It is a life safety measure. If we go back to our earlier question is what difference does fire prevention make you can actually quantify what would not be there if it wasn't for the code.

There is an edge to this article that likely relates to your own set of circumstances. Do you have enough data locally to justify a fire prevention bureaus existence? And if you don't, where are you going to get

it? Can you prove that your fire prevention bureau actually makes a difference in the community? If you have never been asked that question, consider yourself lucky. If you have been asked that question and have survived it consider yourself lucky. However, if you have not been asked that question yet you ought to be contemplating how you come up with your answer when it does occur.