

# Stop Chasing GHOSTS

## AND START DEALING WITH REALITY

by Larry Wilson

There are many theories about what causes accidental injuries and incidents in the workplace. And some of these theories are quite pleasing, especially the ones that state that all injuries are management's fault. But theory isn't what's causing accidental injuries and fatalities. Reality is. However, as it turns out getting at reality means getting at the truth and whenever fault plus blame have the potential to come into play, the truth can be very illusive.

When you think about it, when do most people get asked questions about accidental injuries? Where do we get the data? During an "accident investigation" at work, or after the car wreck when the police officer is filling out the "accident report"? In both of these situations the potential for fault or blame coming into play is very real indeed.

So most of the information that gets recorded, tabulated and analysed has been "filtered" at least once. In many cases it has been filtered as thoroughly as the limits of credibility that the situation allows. Now, we have lots (and lots) of records, but when so much of it has been filtered—how reliable is it? What if the cumulative effect of all this filtering skewed everyone's perspective on reality? Theories could be developed to deal with what the filtered data said but if the data didn't reflect reality, the theories at best, would be incomplete or they wouldn't or couldn't possibly deal with the part that's been filtered out. This means, as the title suggests, that we could be "Chasing Ghosts" or if that's too sensational, at the very least we are not solving high yield problems. We're wasting a lot of time and we're wasting a lot of money doing things to theoretically prevent accidental injuries instead of doing the things that do actually prevent injuries.

If you've been in the safety business for a while, you can probably remember when a whole lot of people thought audit scores should correlate with accident frequency and severity. When they didn't, they just kept changing the audits or the weighting, or the categories—chasing ghosts.

Without going into all the theories and their validity or lack thereof—suppose we took another approach altogether: start with what we know for sure (that nobody was ever trying to get hurt) and then ask people questions about what they know for sure (how they have been hurt).

We know that nobody was ever trying to get hurt—and if they were, it wasn't an accident. And for that matter, nobody was ever trying to hurt anybody else (excluding contact sports and combat). Nobody ever plans to get hurt, that much we know for sure, which means something unexpected must have happened. Barring acts of God, there are really only three sources of unexpected events:

1. The equipment does something unexpectedly (breaks, malfunctions).
2. The "other guy/somebody else" does something unexpectedly (error, mistake, miscalculation, etc.).
3. You do something unexpectedly (error, mistake, miscalculation, etc.).

See Figure #1

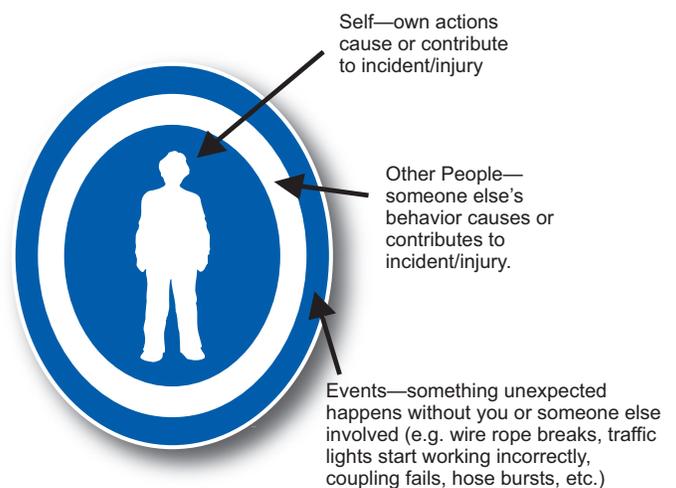
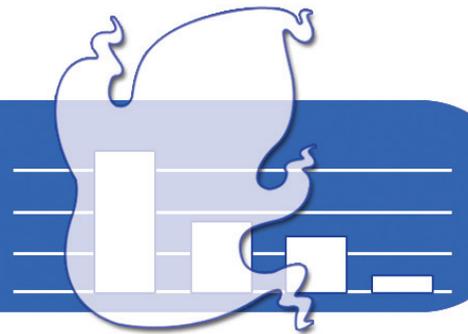


Figure #1

2000 Audit Score (%)



Ok, so we know that nobody was ever trying to get hurt (which means that something unexpected had to happen) and we know that there are essentially only three sources of unexpected events.

Now, we need to ask people about what they know for sure: how and when they got hurt. Many people think they know why, when and how *somebody else* got hurt but—as mentioned before—they might not know all of the contributing factors.

With your *own injuries*, the likelihood that you will know all of the contributing factors, like whether you were thinking about what you were doing and the risk of what you were doing—at that moment—is much higher and hence, much more reliable.

So, the first thing we want to know is which source of unexpected events is highest. But before just asking people if they can think of a time when the equipment did something unexpected got them hurt, or for a time when the other guy did something unexpectedly got them hurt, it's usually worthwhile to get them thinking about *all* of the times they have been hurt first. One of the best ways to do this is to get the people in the room to build their own risk pyramids.

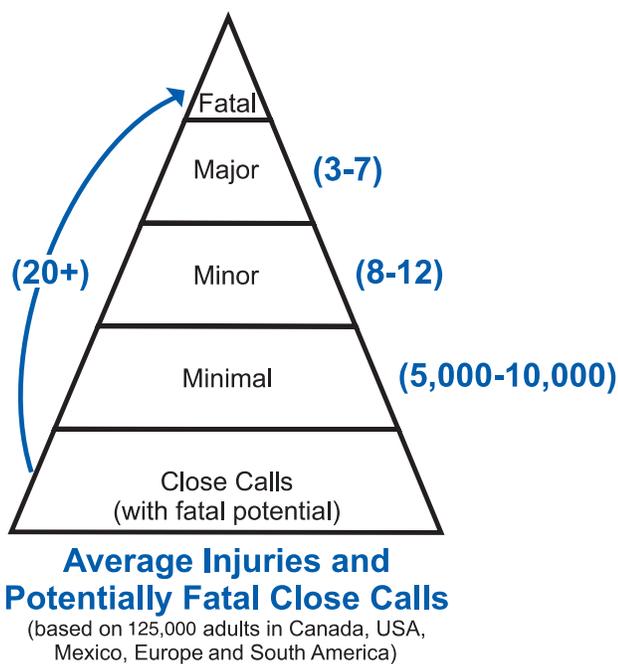


Figure #2

Ask them how many serious injuries they've had (broken bones, torn ligaments, dislocations, dismemberments, concussions, etc.). Then ask them how many minor-serious injuries they've had (stitches, sprains, strains, minor burns, etc.), and then—although this always gets a laugh/groan—ask them how many cuts, bruises, bumps and scrapes they've had. You might even get them to think about the number of serious or potentially fatal close calls they've had. The average numbers based on approximately 130,000 people (mostly in North America) are in Figure #2.

Ok, so now that we've got everyone in the room thinking a bit more about all of the times they've been hurt, we can ask them about the three sources of unexpected events.

Many people have been led to believe that the equipment breaking or malfunctioning causes a very high percentage of workplace injuries. However, if you have a room with around 100 people, only two or three hands will be raised for people who have been hurt—on-the-job, off-the-job or on the highway because the equipment they were working with or the car they were driving broke, failed or did something screwy unexpectedly. Now, if you ask the same group of 100 the same question about the other guy, or somebody else doing something unexpectedly, you normally get about 10–15 hands in the air. And if you ask how many have more than one example of the other guy doing something unexpectedly, all but one hand or at the most, two stay up.

So, over 95% of the time the unexpected event, the one that started the chain reaction that led to an accidental injury was not the equipment or the other guy. It was us! (This is definitely not pleasing news for the injury lawyers...)

We have asked these questions to over 300,000 people, mostly in the United States and Canada and also a bit into Mexico, South America, Europe, Australia and Asia.

We know that no one was ever trying to hurt themselves, so an error, mistake, miscalculation or misjudgement must have been the unexpected event that started the chain reaction...

**States** (cause) **Errors** (which cause) **Less Risk** (to become) **More Risk**

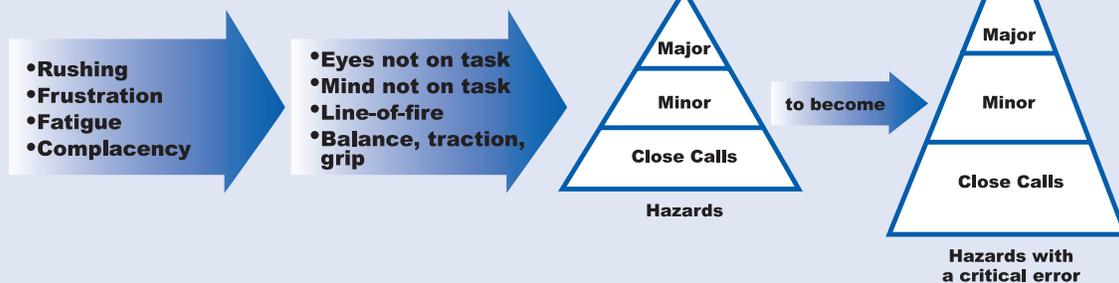


Figure #3

Another thing we know for sure, in order to experience an acute injury, either the hazardous energy contacts you (line-of-fire) or you move into it. But you wouldn't move into it if you could see it, or you were thinking about it unless you couldn't stop yourself from moving into it in the first place (loss of balance, traction or grip). One or more of these four Critical Errors: Eyes Not on Task, Mind Not on Task, moving into (or being in) the Line-of-Fire or somehow losing your Balance, Traction or Grip are involved in every one of the injuries in the "self-area", which is over 95%.

So what causes people to make mistakes, especially injury causing mistakes? Rushing, Frustration, Fatigue and Complacency or a combination of these states cause 99% of the Critical Errors. (Extreme joy, extreme sorrow and panic are less than 1%.)

So, in the "self-area" it's one or more of these four states causing one or more of the four critical errors. Or, if you look at Figure #3, it was this state to error pattern that increased the risk of accidental injury or unintentional equipment damage.

A more pleasing theory would be just about the opposite, that over 95% of the time it was the equipment or the other guy that was the problem. If you were spending 95% of your time and energy worrying about the equipment or the other guy—you'd be worried about the wrong thing. But lots of people do spend 95% of their time and effort on the other guy or the equipment—and rarely, if at all—do they spend any time worrying about themselves making a critical error.

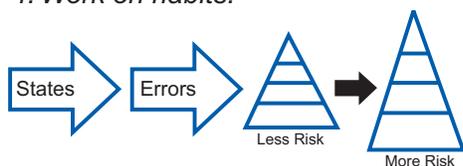
From a company's perspective, how many companies spend 95% of their time and effort trying to minimize human error vs. legal compliance and equipment inspection? Not many. What this means is that most people and most companies spend a lot of time and effort *chasing ghosts*, which is unfortunate because when you study the state to error risk pattern, four Critical Error Reduction Techniques emerge—that anyone can use—anywhere: at work, at home or (most importantly) on the road. (See Figure #4)

So, stop chasing ghosts (outdated theories) and focus on what really causes injuries: Rushing, Frustration, Fatigue and Complacency and you will significantly decrease injuries both on and off-the-job. Over 7,000 worksites in 40 countries have done so already.



### Critical Error Reduction Techniques (CERT)

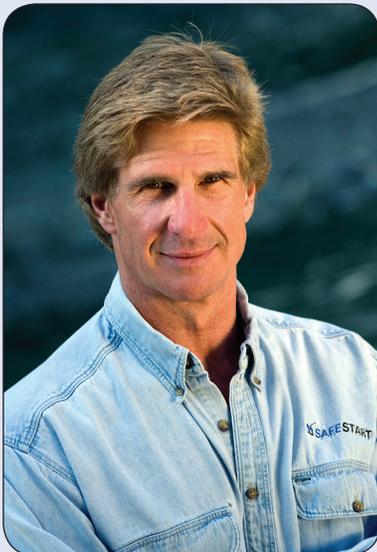
1. *Self-trigger on the state (or amount of hazardous energy) so you don't make a critical error.*
2. *Analyze close calls and small errors (to prevent agonizing over big ones).*
3. *Look at others for the patterns that increase the risk of injury.*
4. *Work on habits.*



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Figure #4

## About the Author



Larry Wilson has been a behavior based safety consultant for over 25 years. He has worked with over 2,500 companies in Canada, the United States, Mexico, South America, the Pacific Rim and Europe. He is also the author of SafeStart, an advanced safety awareness program currently being used by over 2,000,000 people in 50 countries worldwide and 30 languages.

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