



# Safety, Risk Management, and Judgment in Modern Organizations

Athena Assessment Inc.

C. Stephen Byrum, PhD

Barry W. Hull, CDR, USNR (Retired)

Mark and Jimmy are great guys. They work for an oil refinery that sits along the Houston ship channel north of Galveston, and they are fairly well educated for the type of technical work they do. They are also passionate football fans. Mark and Jimmy, and Dr. Steve Byrum of Athena Assessment Inc., talk often during Athena's work for their oil refinery company. Dr. Byrum loves Peyton Manning, but Mark and Jimmy are sure Roger Staubach and Don Meredith (Dallas Cowboy legends) were better. Mark and Jimmy are Texas Longhorns. Dr. Byrum is a Tennessee Volunteer.

One afternoon these two great guys were making their regular rounds to check valve closures along the crude oil waste lines feeding out of the refinery. It was pouring down rain, what Jimmy called a "frog strangler." They drove their small company pickup truck within fifty feet of the vital valve assembly that had always worked perfectly on its automatic settings. Again, it was pouring down rain. Mark said, "Looks closed to me." Jimmy responded: "Me, too." They checked "closed" in their logbook and relaxed for a few minutes listening to Willie Nelson on the radio.

By the next morning, well over one thousand barrels of waste had spread out across two acres. Two workers were hurt in the ensuing, expensive cleanup, there were EPA investigations and penalties, and two breadwinners were out of very good jobs. Mark and Jimmy were very sorry. They had not meant to create the problem. The automatic settings had always been right when they had checked them in the past. They are still great guys. They simply exercised **bad judgment**.

Rather conservative and generally incomplete data suggest that **bad judgment** causes accidents costing in excess of \$38 billion in direct costs, and perhaps as much as \$125 billion in indirect costs, annually in the United States. Over 5,000 died in workplace accidents in 2008. Another 3.9 out of every 100 employees in this country were injured. The construction industry had a rate of 4.7, and the manufacturing industry had a rate of 5.0 out of every 100 workers injured. It is hard to calculate the money lost in equipment damages, insurance costs, medical bills, workers' compensation, over-contract time penalties, and—not to be forgotten—incalculable pain and suffering when accidents take place. Interestingly enough, most experts in safety and risk management agree that 75% or more of accidents are caused by **bad judgment**, not bad people, but **bad judgment**.

However, who could have *predicted* that Mark and Jimmy might have had a problem with judgment, especially a problem with that kind of judgment that "guides" them to follow directions with accuracy and commitment? For Jimmy, all that the recruiters who hired him into the company might have had to go on was his nickname. "Stubby" was the result of a lost finger to a fireworks accident when he was in elementary school. Would it have been helpful if the recruiters had known that Mark

and Jimmy lacked certain kinds of judgments? Of course, it would, but how can recruiters predict a lack of judgment? That sounds like guess work.

In fact, there is a mechanism for being predictive about judgment, both in hiring and developmental activities within modern organizations. It is possible, individually, within key groups, and across whole organizations, to place a measurable matrix around the entire issue of judgment. One well-known and respected CEO recently remarked, “If what you are saying is even a little bit true, we needed it yesterday.”

For over 40 years, we have used the insights of *The Athena Quotient* to make critical determinations about human judgment. We have perfected ways to look at individual judgment as a critical part of the hiring and placement process. We have also perfected ways to improve judgment of existing employees, and to monitor that improvement to verify that it is taking place. We are also able to look at entire organizational databases and make precise determinations about conditions within an organization that may have a negative impact on good judgment. High-risk employees and departments, those with poorer judgment can easily be identified, coached, and counseled, subsequently lowering risk. High-risk applicants can be avoided.

Our signature byline reads:

**Exceptional Work =  
(Competent Skill Sets + Competent Processes + Good Information)  
X Good Judgment.**

You can have all of the skills, processes, and information in the world, but without good judgment, every aspect of the organization becomes vulnerable. Even if there is an absence of, or limitations on, the first three elements in our formula, if there is good judgment, organizations still have a chance to succeed. We are confident—although it may sound somewhat audacious and braggadocios—that judgment can be measured with a simplicity and accuracy not unlike measuring carpet.

*The Athena Quotient* has over forty key indicators relating to various aspects of critical decision-making. Consider, for example—and this will make perfect sense to those who best understand the consequences of bad judgment in organizational settings—the implications relating to just the following four indicators:

1. **Noticing**—measuring a person’s ability to notice the dynamics of situations that surround a person in a work setting that are not blatantly obvious, sometimes merely “paying attention”;
2. **Focus**—measuring a person’s ability to remain intently focused even in the midst of distractions, noise, and “traffic” in an environment;
3. **Directions**—measuring a person’s ability to follow directions, and to give directions, with precision and accuracy; and,

4. **Priorities**—measuring a person’s ability to prioritize, do that which is most important, and the active capacity to distinguish between that which is of high necessity and that which is only of peripheral importance.

Imagine, then, someone who scores poorly in all of these easily and accurately measured indicators. They are the proverbial accident looking for a place to happen.

Many additional areas of judgment can be measured, but even with just these four, you will have found better workers, those who advance your most important agendas, and those whose safety and management of risk will bring immediate benefits to the bottom line of the organization—not to mention the organization’s reputation for quality and excellent work.

Recently, we studied in critical detail the *Athena Quotient* results of thirty employees of a major construction organization. These particular employees had been involved in lost-time accidents. They had either been hurt, or they had hurt others, or expensive equipment was damaged and work processes interrupted. Conservatively, the average cost of each accident was placed at over \$80,000—a total well in excess of \$2.3 million.

*Athena Quotient* data was available on these individuals because of general data gathering early in the organization’s implementation of the *Athena* processes. Had the organization been using the hiring templates for these thirty individuals, *twenty would not have been hired to begin with*. Three more would have been provisional to the degree that managers would have been alerted to the need for closer safety instruction and supervision. The six people who would have been recommended by *Athena* were legitimately involved in real accidents that even people of best judgment might not have prevented.

In the end, we know that work takes place through people, and often through people working together in teams. Therefore, we hope to be able to find, and then to hire, the right people. By the “right people,” we mean people with great skills *and* people with great judgment. Clearly, part of great judgment is the ability to be safe and manage risk. *The Athena Quotient* can help find these safe people, help develop the people we now employ, and help avoid hiring high-risk individuals of poor judgment.

If the oil refinery had assessed Mark and Jimmy, they would have discovered judgmental deficiencies, which they could have coached and counseled. If the construction company had assessed the thirty employees with accidents beforehand, and taken action, they would have prevented at least 24 of those accidents, saving over \$2 million and a few hurt employees. If there is, in fact, an assessment that can help us accurately and reliably measure judgment, we need that—like the CEO recently said—*yesterday*.