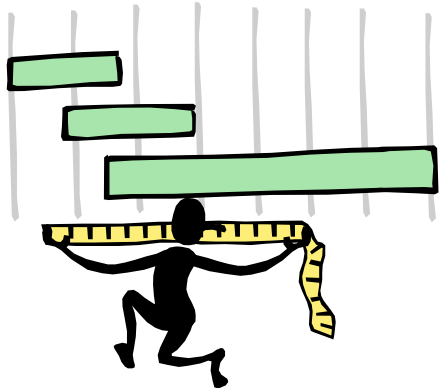
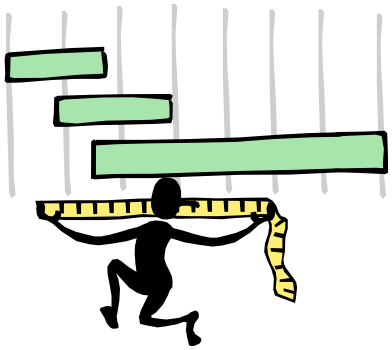


Identifying Measurable Safety Goals

Identifying Measurable Safety Goals:



A Practical Approach

MANAGEMENT LABOR CAL/OSHA

WHAT Goals for Safety?

- **"Traditional Safety" is Compliance**
  - (Doing the minimum required to keep out of jail!)
- **VPP is about Excellence**
  - (How do you improve beyond regulatory standards?)
- **Continuous Improvement & the *RIGHT GOALS* will Break the "Boom and Bust" cycle of Safety.**

Chart 1:

The Classic " Boom and Bust" Cycle of Safety

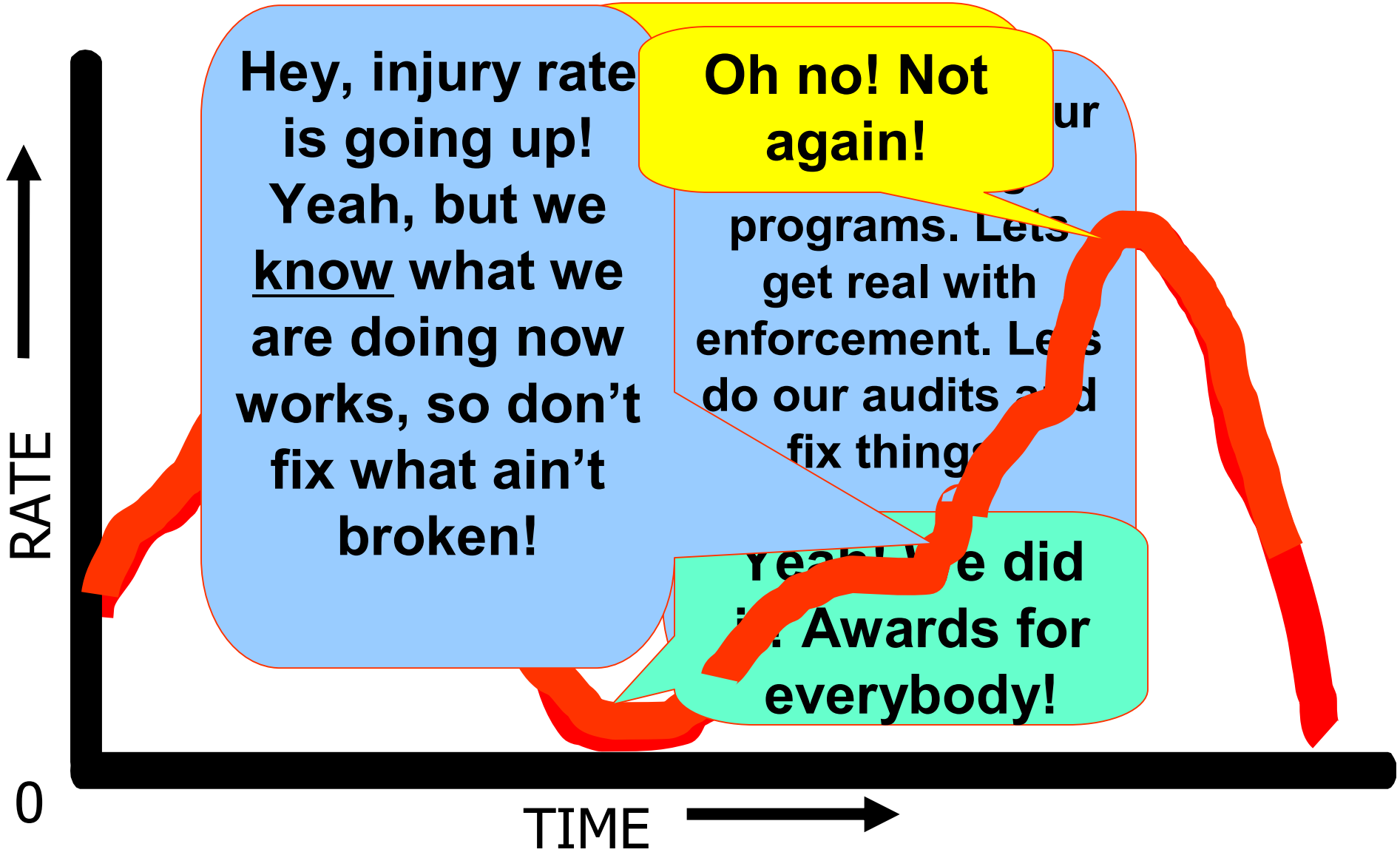


Chart 2:

"The Law Of Diminishing Returns"

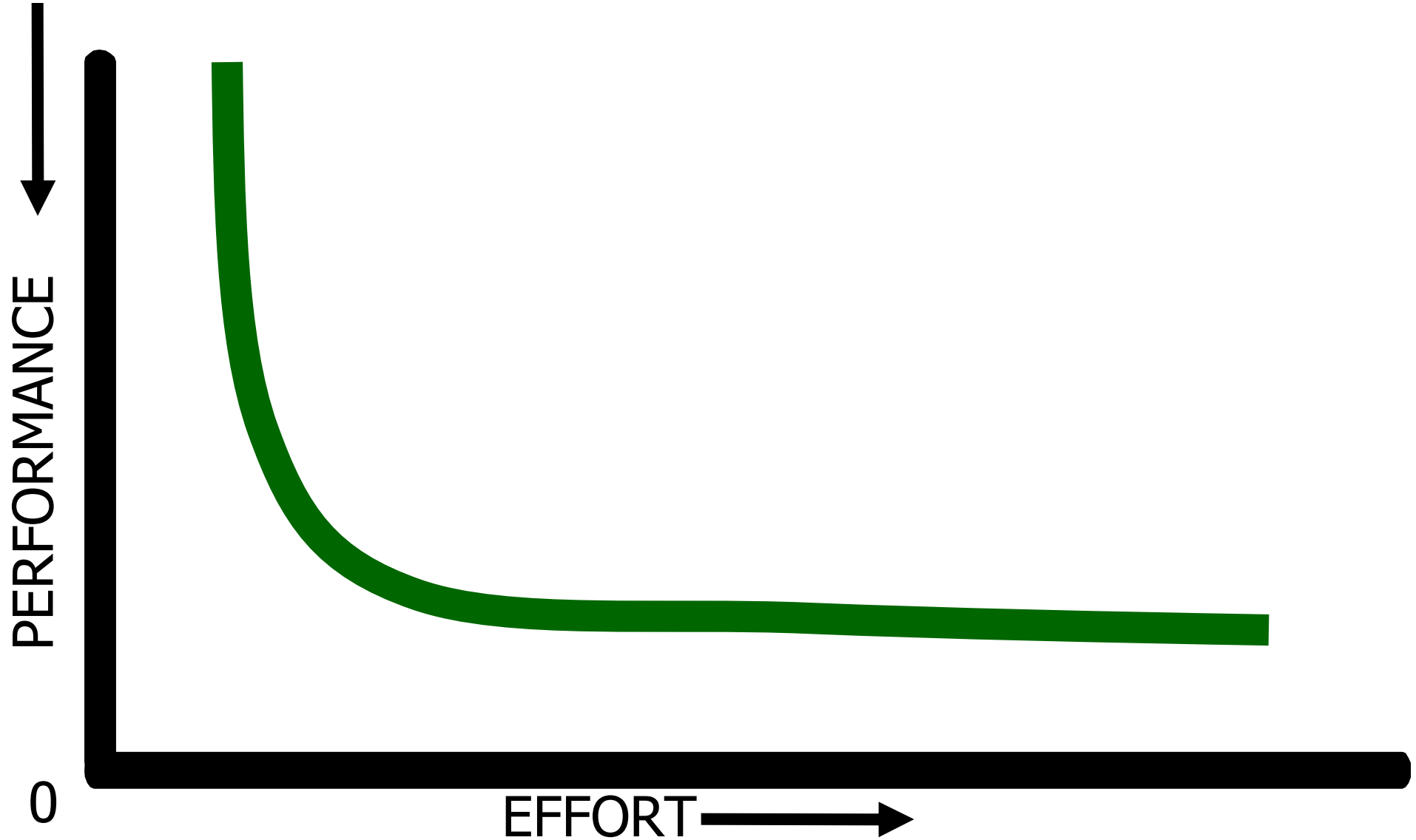


Chart 3:

The First Way to Break "The Law Of Diminishing Returns":
Change the Paradigm

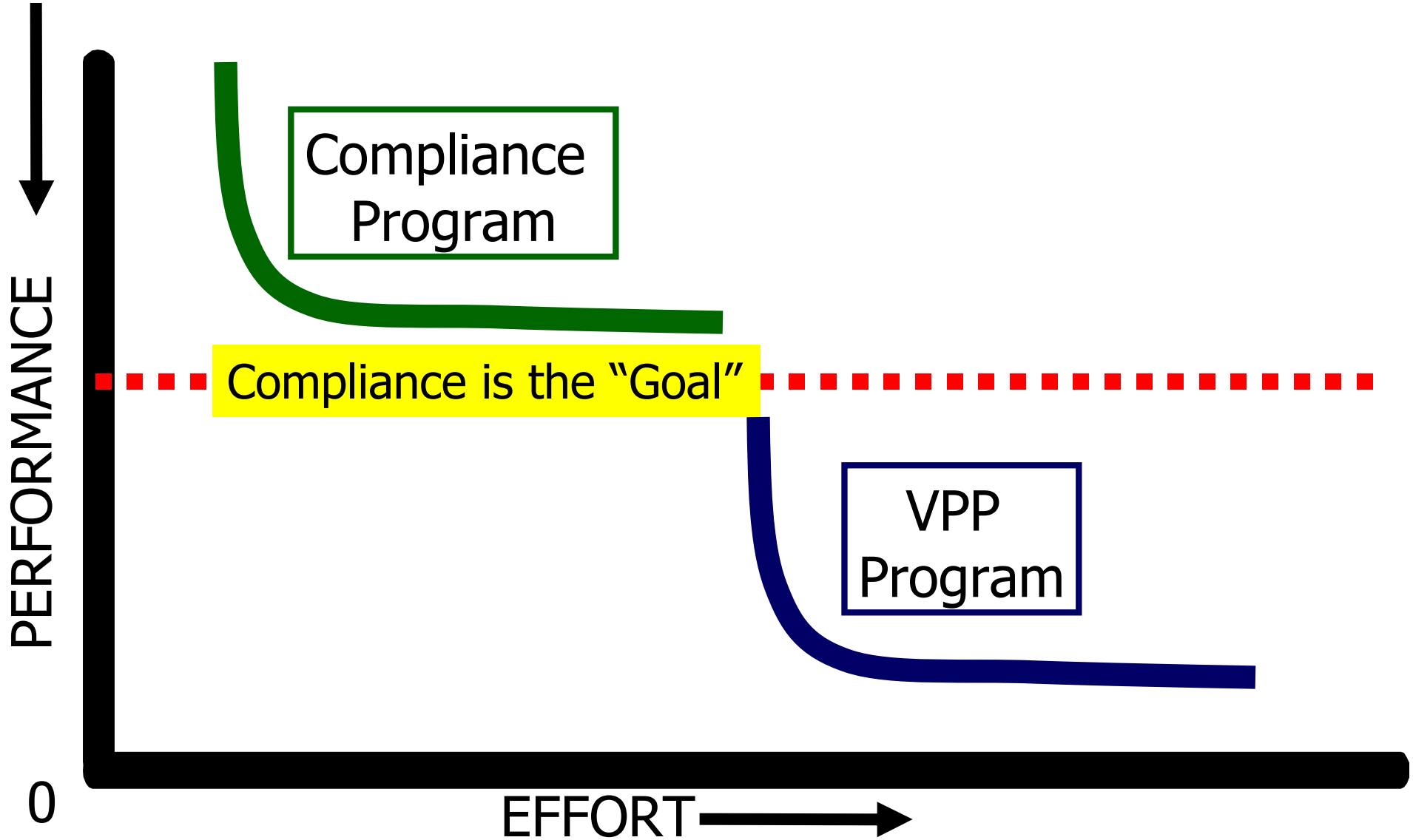


Chart 4:

Second Way to Break "The Law Of Diminishing Returns":

Measure The Results

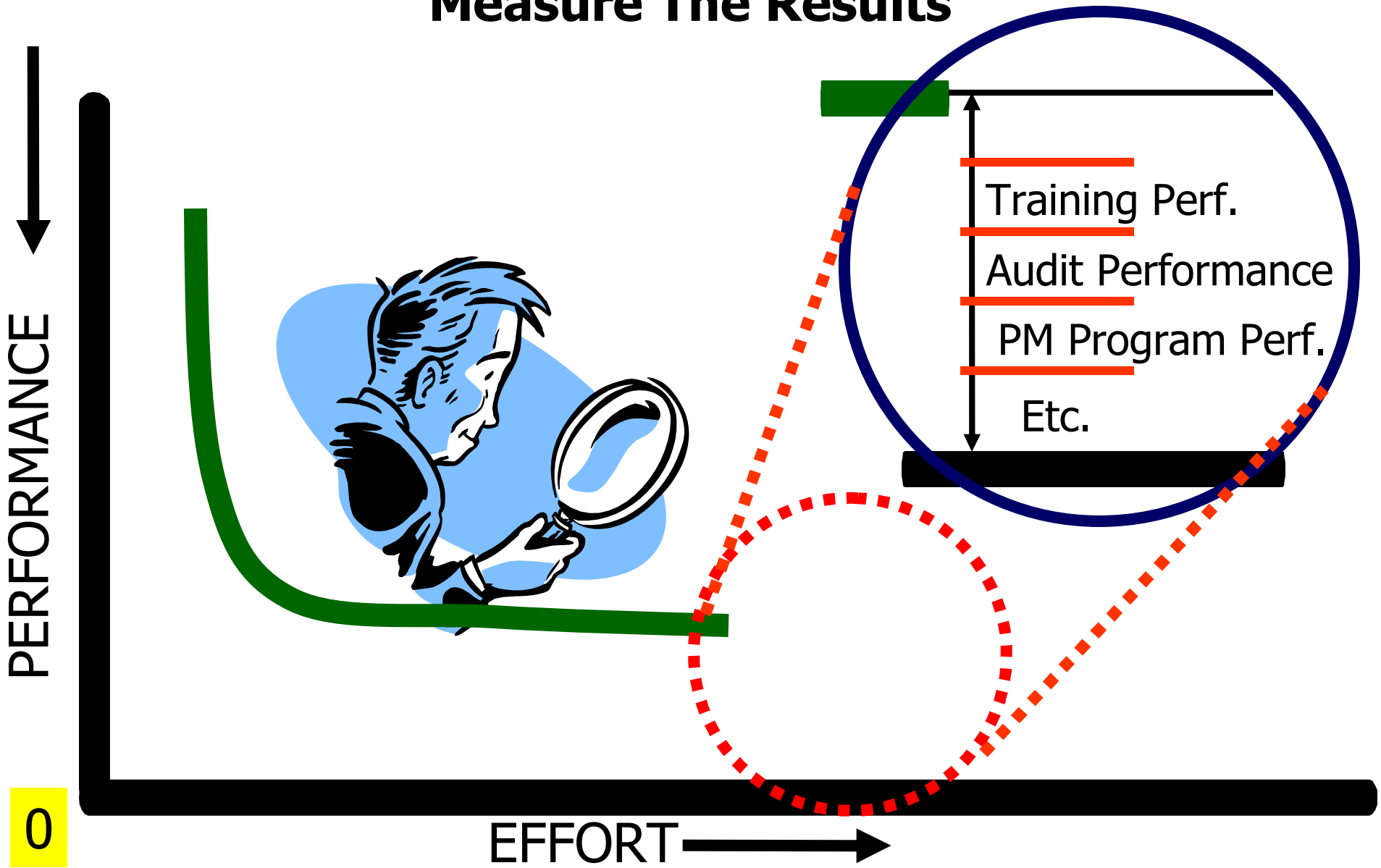
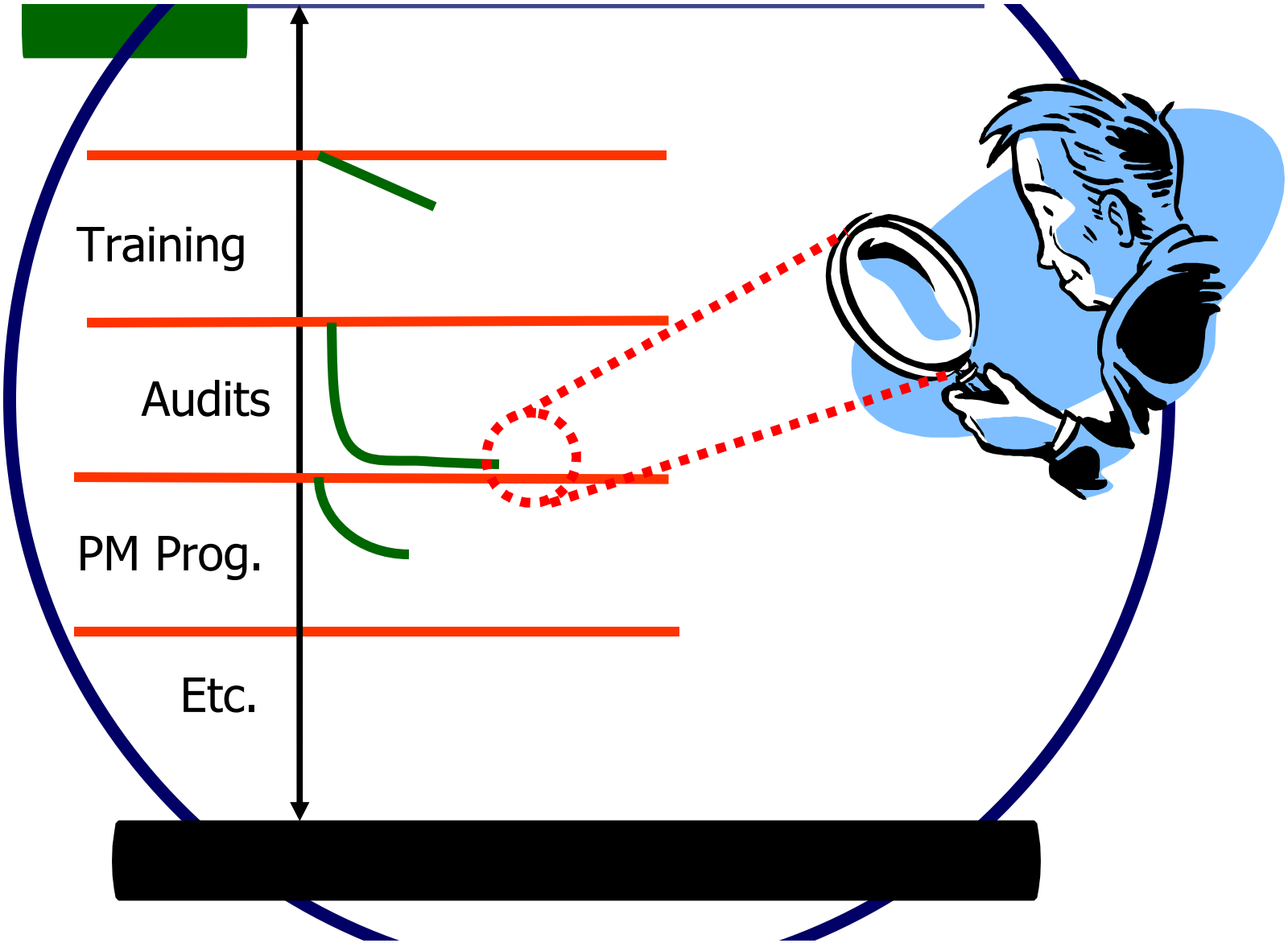


Chart 5:

Remember the "The Law Of Diminishing Returns":

Once you are ~95+%, you need to take a closer look and get new measurements.



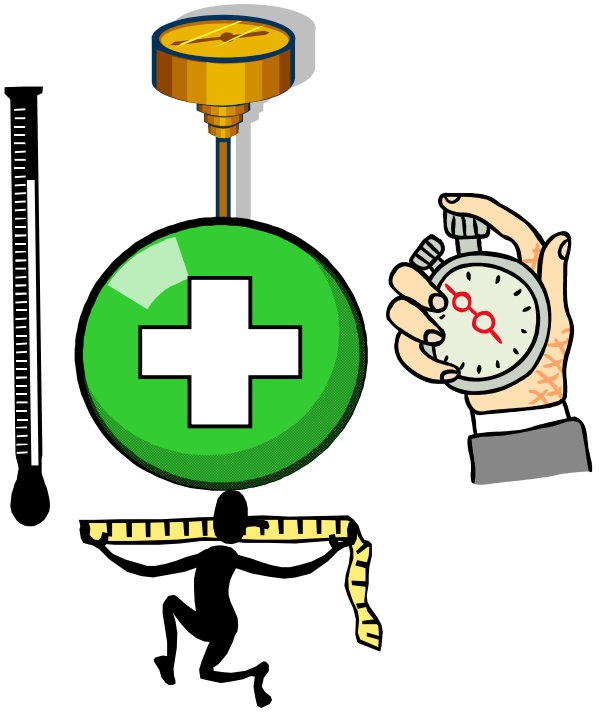
In other words:

- That same old training list and methods won't get you lower.
- But a more comprehensive list and more effective methods will.
- Measurement tells you what is happening. Goals are targets.

Turn Safety into a Respected Loss Control Tool in Your Organization:

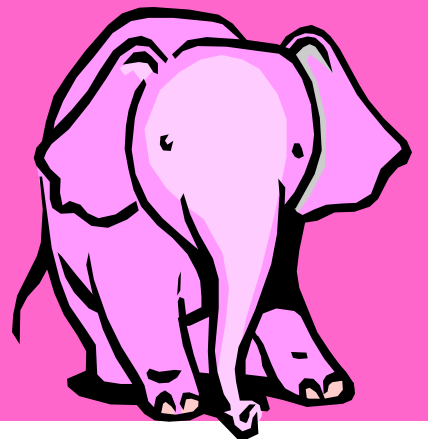
Measure it, make Goals and Continuously Improve

- Accounting systems aren't detailed enough to show the true financial results from Safety.
- But, Safety activity and performance can be reliably measured. "MBA types" do respect measurement, even if its not dollars.



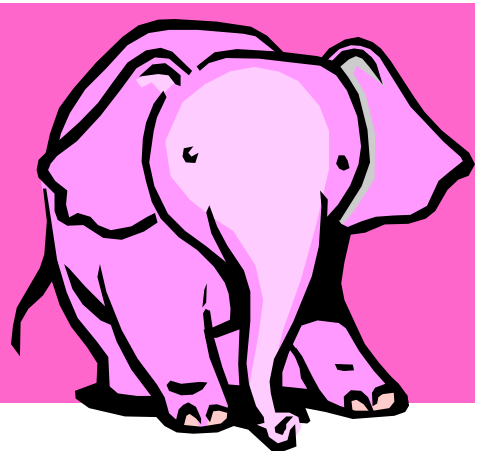
Injury Rates:

The ”PINK ELEPHANT” in Safety Measurement.



- Lets play a game. This room is a Small Country called “Safetytonia”. I am “El Presidente” for Life. You are the Mayors of my cities.
- **I have decided *we must eliminate crime.***
- ***We will measure only the worst possible crime – cold blooded murder!***
- **You will measure this and report it to me.**

The "PINK ELEPHANT" Safetytonia – cont'd.

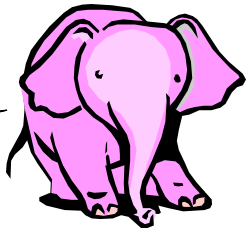


- If you have a LOW rate, you and your town will receive extra money – according to **HOW** low the murder rate is. Less Murder = More Money!
- **If you *eliminate* crime in your city by having a Zero Murder rate, I will give you a huge bonus.**
- **One year later, what Murder Rates will be reported to me?**

Traditional use of Injury Rates- The Problem:

- If Injury Rates are the only “Measure” we give Management: Reduction goals are set with no thought as to how those goals will be attained. Supervision has no concrete means to reduce those numbers. Frustration sets in.

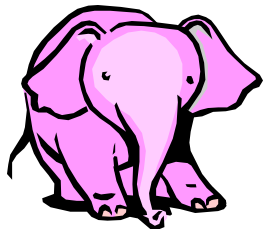
- Anger & Disrespect for the Safety Function and Programs that “Aren’t working”.



Working well enough to get me my bonus You mean!

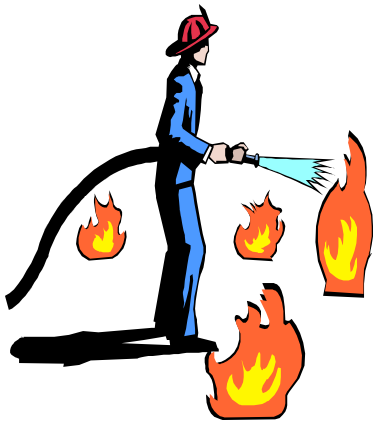
Traditional use of Injury Rates- The Problem:

- With no actual way to reduce numbers, some explanation must be found.
- Its always easier to blame the employee than to blame yourself.
- Employees feel the heat, even disciplinary actions as **a direct communication**: **"Don't bring it to my attention, or you will suffer!"**

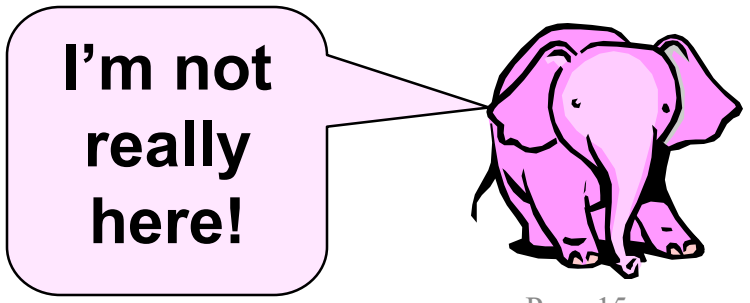


Traditional use of Injury Rates- The RESULT:

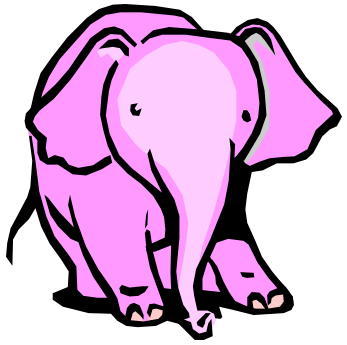
- Extreme pressure at every level to under-report.
- Problems become hidden. We spend our time putting out fires.



- Hidden Problems suddenly go “BOOM”!



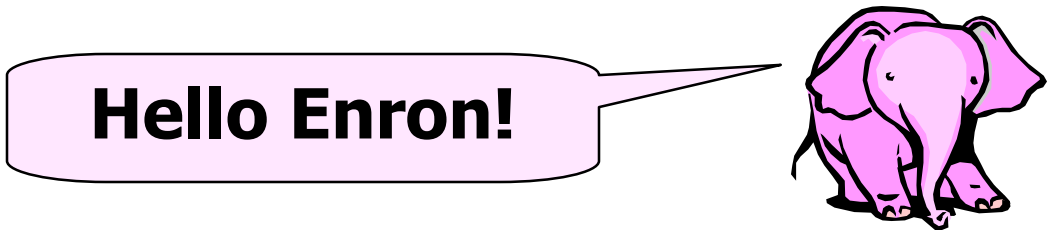
"Zero Incident" Goals:



- **We don't expect perfection from machines!**
- No one chooses to be injured! You can only choose to hide injuries.
- **Too often "Zero Incidents" becomes the Safety Program, not the goal.**
- **To solve a problem, you have to admit you have a problem.**

Two Long Term End Results of Traditional "Injury Rate Goals"

- **1) *Reported rates* become unrealistic.**
  - People's bonus and performance becomes tied to how well they cover up, not how they benefit the organization Actual Safety efforts are reduced and unsupported!



- 2) Alternatively- **Once an organizations ACTUAL rate is low, any injury bumps up the rate. Statistically this should be expected!**
  - But people only see they aren't making their goal and become disenchanted with the Safety Program (Rather than remember how small the rate has become).

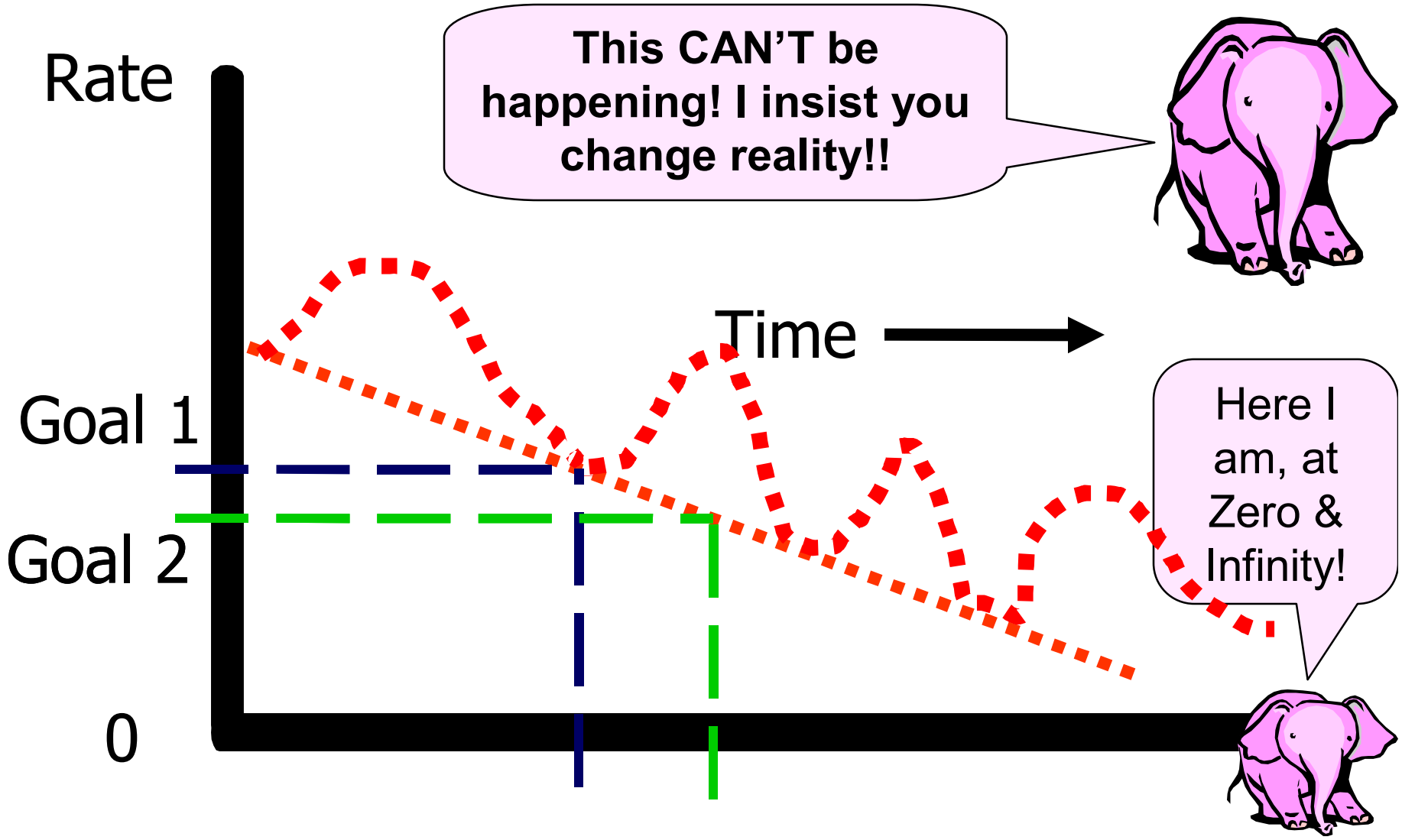
The Solution Is Obvious:

- Management is being held accountable for injury rates (which they have no immediate control over)

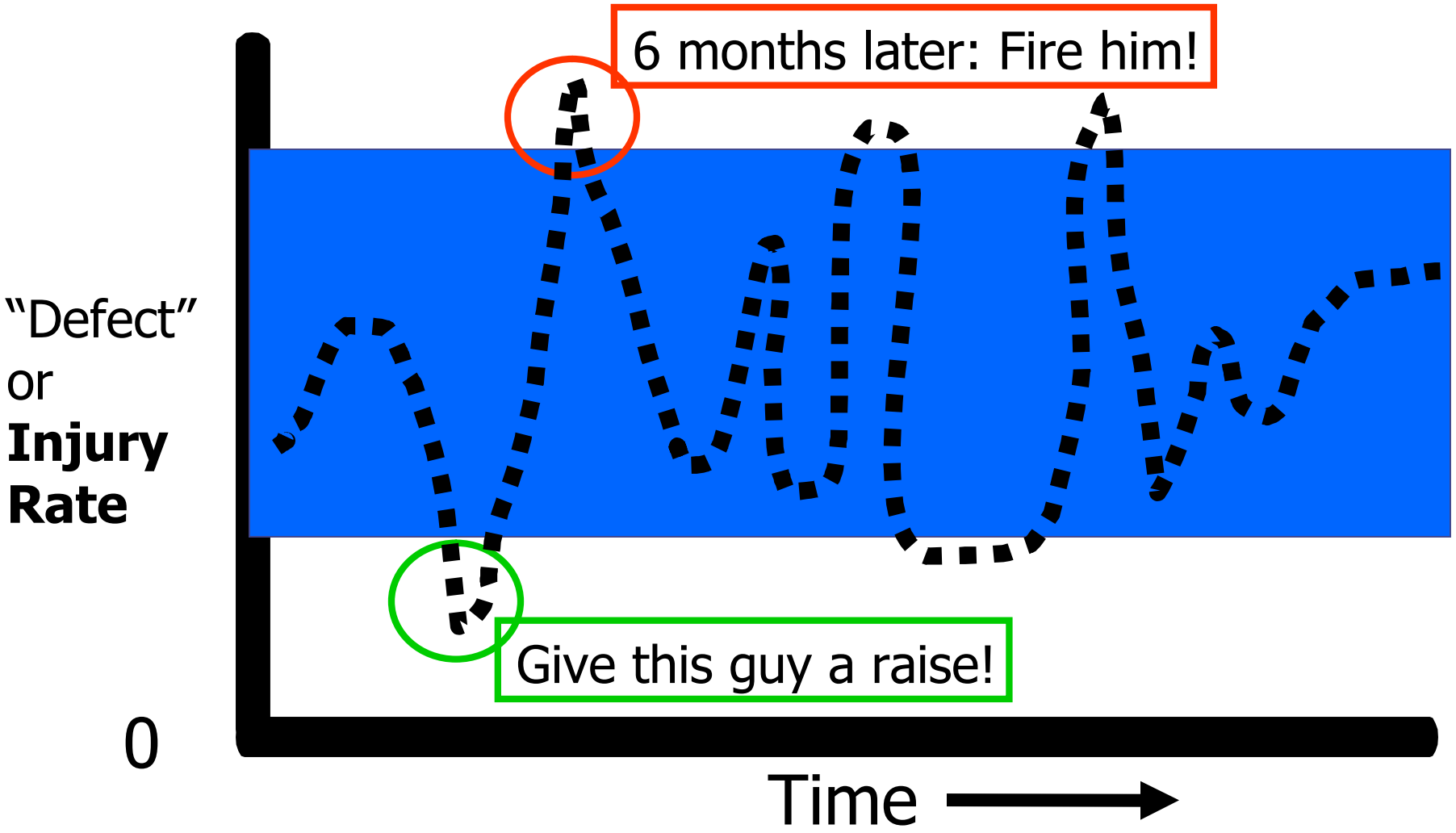
- But, Management is **NOT** held accountable for training, audits, etc. which they **DO** have direct control over!
- Hold the organization accountable for WHAT WE TELL THEM THEY SHOULD BE DOING!

Chart 6:

Injury Rates: Wishful Thinking Vs. Reality



W.E. Deming's "Red Bead" Experiment



W.E. Deming's "Red Bead" Experiment Applied to Safety:

- **From Quality (W.E. Deming):**
  - **"What gets measured gets done."**
- **Until the process is controlled, the outcome can not be controlled.**
- **So, measure Safety Process Improvements that reduce injuries.**

Choosing Good Goals

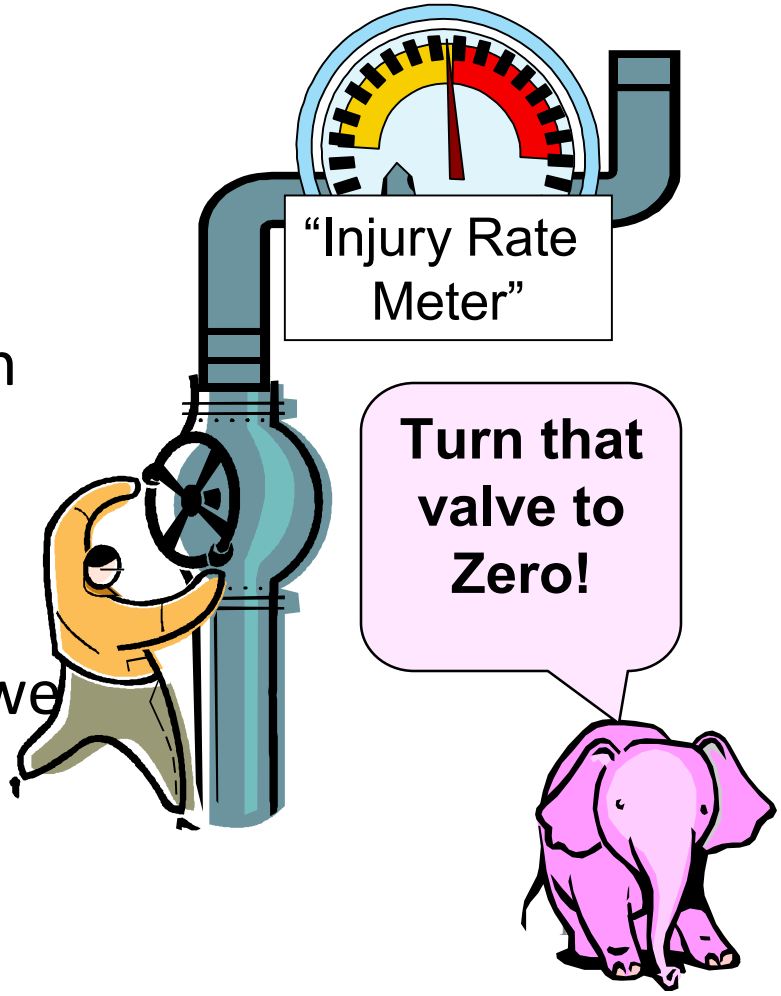
- Goal: Low Injury Rate
- Measurement: You won't know when an injury happens unless ***they*** decide to report it, so the measure is 2nd-3rd hand, subjective and not accurate.
- Group Pressure: Some not to have injuries, possibly lots more pressure not to report injuries – "the easiest way to look good"

- Goal: High Safety Glasses Use
- Measurement: They won't know when ***you*** decide to measure them, so measure is accurate, objective, and first hand.
- Group Pressure: Some not to get caught, probably more to wear safety glasses – "the easiest way to look good"

Injuries are DISCRETE Events –

Not Continuous Phenomena!

- MGMT: Reduce Injury Rate from 12.53 to 10.59!!!
- Organization: You bet!, I'll just turn this valve here, and PRESTO!
- The Implication is; we are actually letting some injuries happen that we could easily stop!



Goals must be easy to Comprehend –And- Call for action!

EXAMPLES:

- Injury Rate =23.4, up 1.6 from last month. Goals is 10!
  - What does that mean? should they do about it?
- Eye Protection Use = 94%. Goal is 99%
  - Is it clear what that means? Can they do something about it?
- Training Attendance = 73%. Goal is 90%
  - Is it clear what that means? Can they do something about it?

What Goals for Your Group?

- Some goals everyone can use – training – inspections – PPE – maintenance, etc.
- What Safety Activities are meaningful in your organization?

Smart (Practical) Goals:
Using What You Already Do

- **Your Training Data:** Already collected – Attendance, Subjects, and Expiration Date
- The product of these is = "% Required Training Performed"
- Split off manager & supervisor attendance
  (indicates support & involvement with safety program)
- **Your Audits:** % of audits done.

Adding New Measures/Goals
(Without too Much Work!)

- Audit items: # open and time to close.
- "% PPE Compliance" – An unobtrusive spot check audit done each month.
- **"Employee Participation Rate"**

More Advanced Measures:

- IF you have a rigorous and systematic audit process:
  - **Graded and Handicapped "Scores" on Housekeeping & Safety Audits. (Allows fair comparison of different departments for competition)**
- IF you have GOOD (I.E. difficult) Training Tests and they are administered objectively to all:
  - **Training Comprehension**
- **Process Safety Program Measures**
- **PM and Maintenance Program Measures**

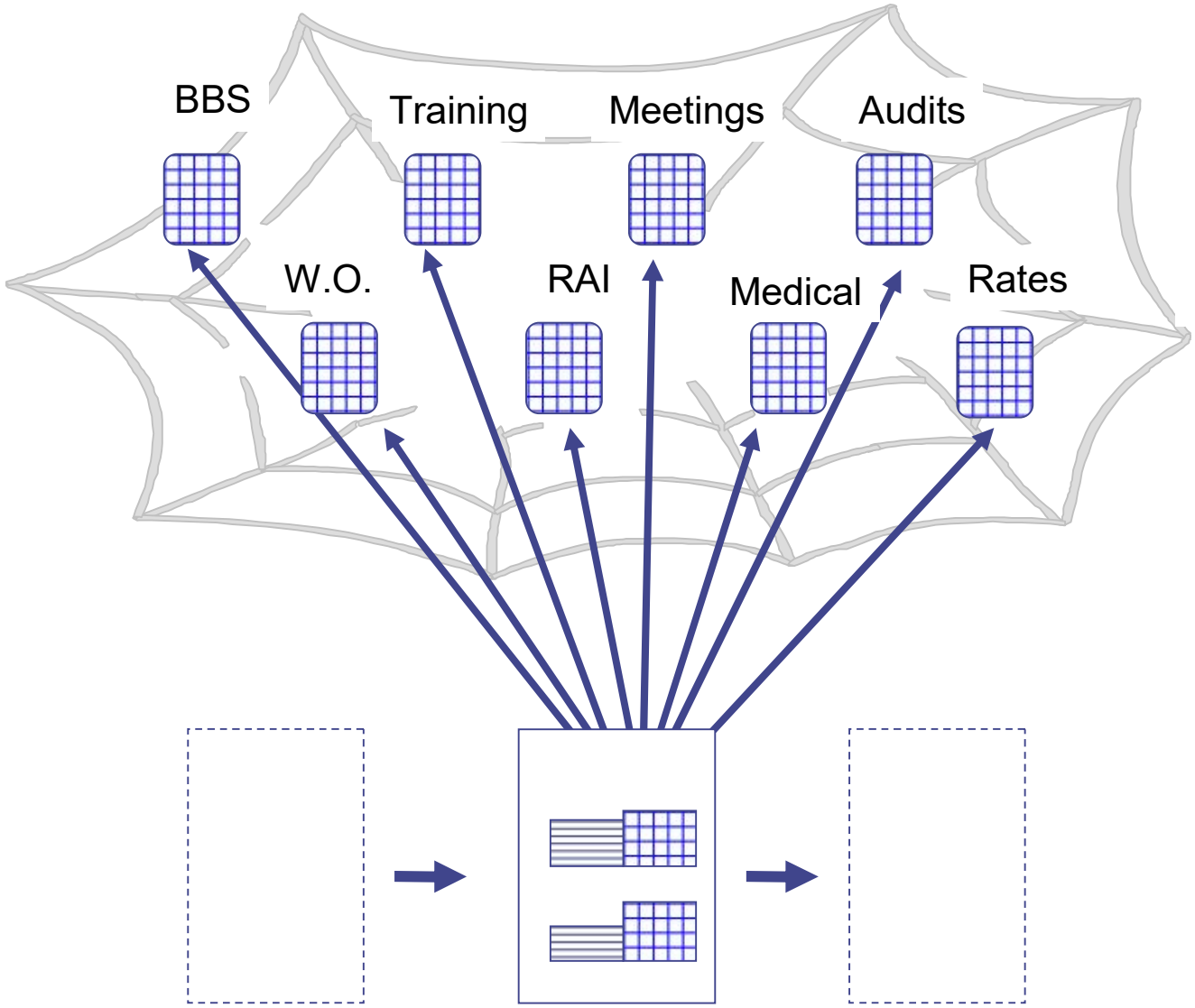
Goal Setting

- **Don’t allow people unfamiliar with your process to set your goals!!!!!!!**
  - That means **you need to take the lead.**
- Goals must be realistic and achievable.
  - Unrealistic goals are not just unobtainable, they harm the program. (Disappointment after a big organizational effort)

Example Solution:
A Monthly Safety Performance Report

- Gather all your Safety "Records" / Performance Measures into a simple one page report.
  - "Proactive" Measures (Directly affected by individuals.)
  - "Results" (Injury and Incident Rates)
  - Compare to historical results and target goals
- Why One Page? Avoid Information Overload!
  - The easier you make it for them, the more attention they will pay to safety.
- **It's not what you know – it's what they understand!!**

Monthly Safety Report- Conceptual Model



Safety "Databases"

Example Report:

SAFETY STATISTICS: Highlights are as follows:

Injury Rates

Oct. 2003 and YTD, vs. 2002	Oct. 2003	*Oct. 2002*	YTD 2003	*YTD 2002*	*YEAR END 2002*
Total Case Rate	**18.1**	*25.6*	**12.4**	*13.9*	*10.9*
OSHA Recordable Rate	**7.2**	*12.8*	**6.4**	*5.8*	*4.9*
Lost Time Case Rate	**0**	*0*	**0.7**	*0.0*	*0.0*
Lost Time Day Rate	**112**	*0*	**35.9**	*0.0*	*0.0*

Safety Training, Audits. And other Key Indicators

(September Records)	Sept. 2003	*Sept. 2002*	YTD 2003	*YTD 2002*	*GOAL*	*Year End 2002*
Supervisors/Managers/Trainers Total Attendance, %	**75 %**	*74*	**75 %**	*76*	Requirement: 100 %	*73*
Employee Safety Training Attendance, %	**71 %**	*20*	**70 %**	*69*	Requirement: 100 %	*70*
% of Required Safety Training Performed (Average)	**135 %**	*14*	**86 %**	*73*	Requirement: 100 %	*79*
% of Monthly Safety Audits Performed	**50 %**	*55*	**57 %**	*37*	Requirement: 100 %	*34*
*'Silver Star' Audit Score	**73**	*77*	**74**	*80*	Goal: > 80%	*80*
* % All PPE Compliance	**97%**	*96%*	**95%**	*97*	Requirement: 100 %	*97*
"Employee Active Participation Rate", % (Those who Directly Participate In The Safety Program)	**7 %**	*5*	**13 %**	*13*	Goal: > 10%	*11*

Example Report:

Details are available by "clicking" on the hyperlinked numbers (**in blue**).

PROACTIVE MEASURES

	August 2004	2004 YTD	2003 YTD	Target
Change in Number of BBS Observers	91%	70%	0%	5%
Number of Observers / Number of Observations	145 / 384	922 / 3531	392 / 1076	300 / 1200
Mandatory Safety Training Completed	96%	94%	98.6% (Y-E)	99%
Safety Meeting Attendance (Operations), %	37	58	66%	85%
EH & S Audits / Inspections Done, %	36	87	93%	100%
Safety Work Orders Closed	100%	66%	57%	65%
PHA Recommended Action Items (#)	90	69	103	65
Open Incident Reports (#)	17	34	92	55
Medical Surveillance Completed	88%	92%	99% (Y-E)	100%

Example Report, Cont'd:

RESULTS

					Contractors			
	Aug. 2004	**2004 YTD**	2003 YTD	12 - Month Rolling Avg.	**Aug. 2004**	**2004 YTD**	2003 YTD	12 - Month Rolling Avg.
First Aid Injury Rate (FAIR)	2.01	2.69	1.59	3.30	0.00	5.19	10.3	2.06
Total Recordable Incident Rate (TRIR)	0.00	0.22	1.06	0.31	0.00	0.00	0.00	1.14
Lost Time Incident Rate (LTIR)	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00
Non-Injury Incidents Rate (Near Hits, Fires, Equipment Damage, etc.)	10.0	18.2	13.2	15.3	9.9	5.0	4.1	7.3

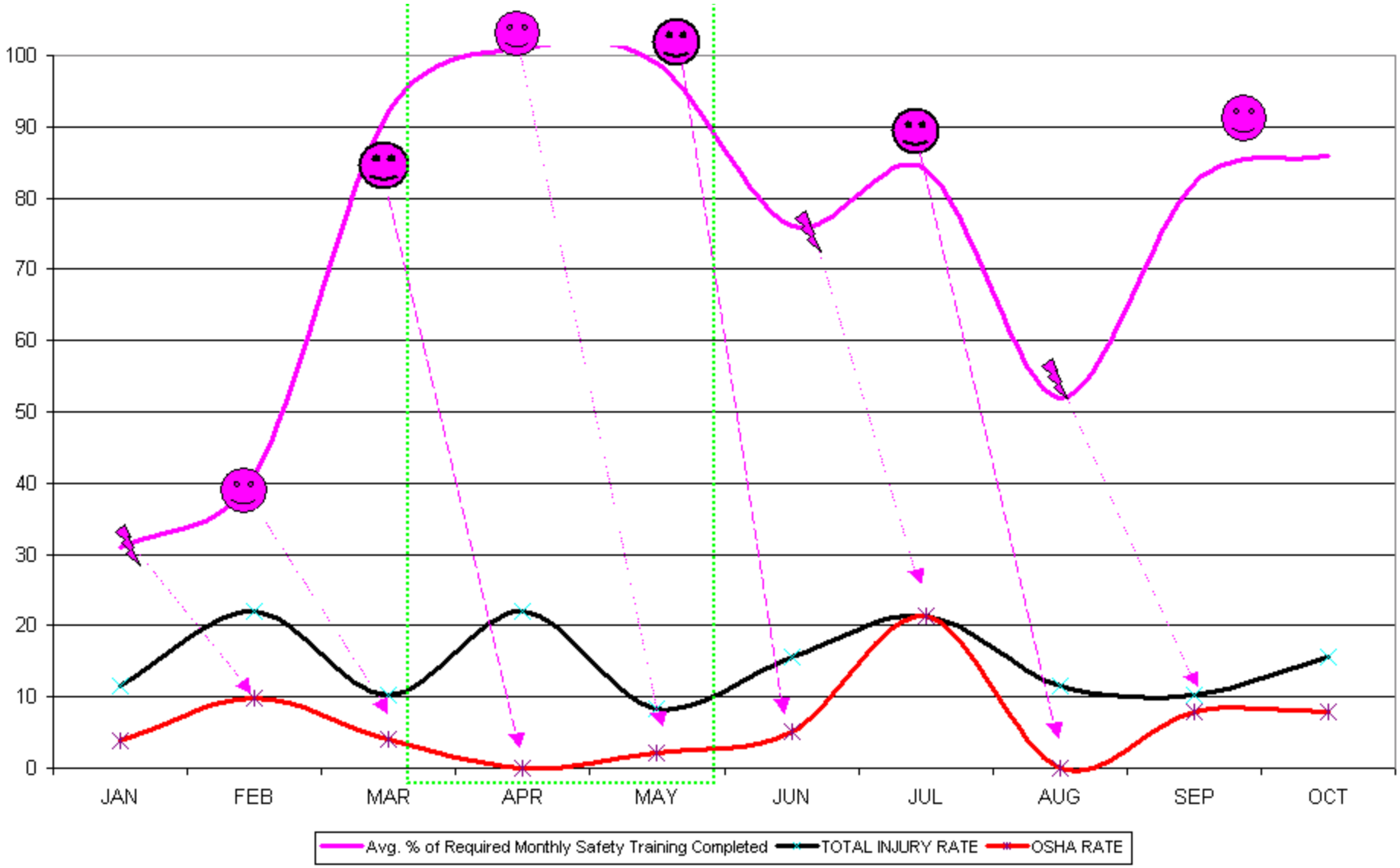
Will You Be Able to See Problems Coming?

1) Gather historical data

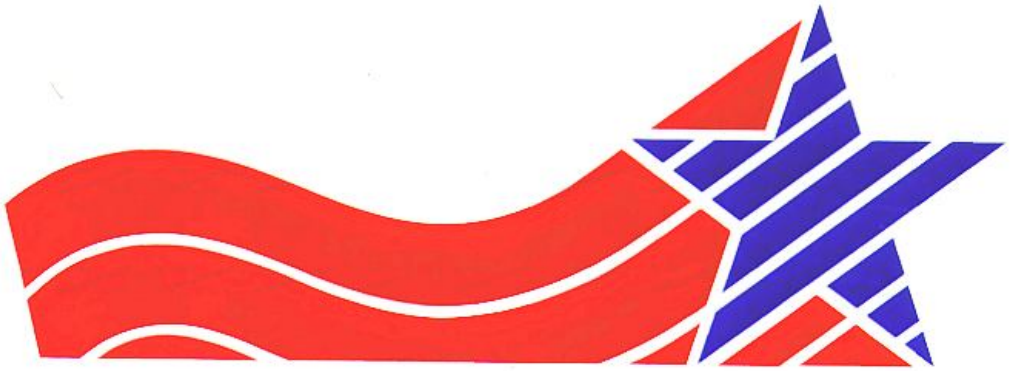
2) In a stable work environment and safety program,

3) The answer is Yes*

ACTUAL EXAMPLE: Training Rates as a "Leading" Indicator:



Clarification & Discussion



Michael Norder, safetyNhealthNorder@gmail.com

For Cal-OSHA VPP Meeting, April 2011