

Forensic Laboratory Efficiency

Focusing on Simplicity

The Alabama Department of Forensic Sciences appreciates the opportunity to share with you some of the successes the agency has made over the last year with regard to efficiency. Due to the abundance of valuable information available from other presenters, the oral presentation time available for this topic is limited to approximately 20 minutes.

Our efforts to date have addressed two contrasting disciplines of our laboratory, Toxicology and Drug Chemistry. While Drug Chemistry and Toxicology are analytically similar, the toxicology service provided by our system utilizes the team approach, while the Drug Chemistry service is an individual effort. Management of a team effort differs somewhat from that of an individual effort. As you can imagine, there is no way one can adequately exchange the volume of information learned from our endeavor in the available time frame. Therefore, this oral presentation focuses on managing the individual effort; specifically, Drug Chemistry. To supplement the oral presentation, we provided the full Drug Chemistry Power Point Presentation, to include a written narrative to help fill in some of the gaps, supplemented by actual examples of letters & spreadsheets.

Slide # 1 (*Forensic Laboratory Efficiency*) - This title slide is intended to summarize the information to be exchanged. In one word think '*Simplicity*'. When a problem has been as persistent a problem as ours was, it is almost unthinkable that there exists a simple answer. Likewise, it is almost unthinkable to believe such simplicity is worth sharing in this format.

Slide # 2 (*Where are you now? & Where do you want to be?*) - Picture your agency on the "*Backlog*" continuum that persists nationwide. If you have already achieved a satisfactory "*Backlog*" then there may be little to learn here. However, if you identify with where we were last year, "*Enduring A Crippling Backlog*", then we trust you will find some useful information in what we have to provide.

Slide # 3 (*A Re-tooling Initiative of the Alabama Department of Forensic Sciences*) – The Alabama Department of Forensic Sciences Re-Tooling Initiative, to date, has largely focused on '*efficiency*'. Marked improvements in *Defensibility*, "*Auditability*" (the ability to withstand peer audits) and *Scope of Service*, although less focused, have been made. In other words, there is a coordinated effort to increase '*efficiency*'; however, as opportunities for improvement present themselves in other areas, they have not been passed over.

Slide # 4 (*There's no magic here!*) - The quote pertaining to our individual awareness of how we spend our time perhaps identifies the single biggest “*bang for the buck*” problem. If our work force is typical and your work force is typical, how can so much conscientious activity be questioned?

Consider a hypothetical analyst who arrives to work on time, identifies three tasks to be performed and promptly initiates activity. Their activity on that day is much like every other day in that it proceeds uninterrupted until the end of day. Knowing that on a good day there is a small chance of completing all three tasks, the analyst leaves work day after day, year after year, with a feeling of accomplishment after completing two of the three tasks. Even if our day were mired with routine meetings, phone calls, evidence transfers, court, crime scenes etc. the analyst after completing only one task would believe they have done everything they could under the circumstances. Despite all the efforts of the analyst, the “*Backlog*” remains static or grows. The analyst’s supervisor, witnessing all the activity, acknowledges their conscientious effort and bolsters the analyst’s perception of their work ethic.

Focus on action, not activity. What if someone points out that the two tasks performed by the analyst are not directly linked to completing casework, but rather, more supportive in nature? Worse yet, what if someone points out that frequently, supportive or other tasks are completed in favor of tasks that complete cases? How many times have we heard “the day has just gotten away from me, I’ll get to it tomorrow.” The following presentation is intended to offer our experience in implementing daily organizational change. To effectively implement change one needs to be prepared for the seemingly inevitable clash between deeply rooted emotional equity developed after years of conscientious activity, and a new organizational culture. The clash or the anchor to change originates from those who view your change initiative as authoritarian. Your success will be driven by those who become your partners in redirection; your new culture.

Slide # 5 (*How Do Forensic Laboratories Define Success?*) – To begin our discussion on Forensic Laboratory efficiency and assuming the intent is to increase efficiency, we must correlate any increased efficiency with achieving greater success. So, how do you define success? This slide provides the gist of how the Alabama Department of Forensic Sciences defines success. Although your definition will likely differ to some degree from ours, I trust your presence at this presentation is indicative of your commitment to your customers.

Slide # 6 (*Backlog*) – ‘*Backlog*’ is the genesis of our efforts to improve efficiency. A successful change initiative can be thwarted by preconceived notions embedded in your organization. The old saying is: “*What you don’t know won’t hurt you.*” But it’s what you know that’s ...**WRONG**... that defeats you. Our particular situation was static for many years, thus providing ample time for some individuals to solidify their perceptions and build their emotional anchor to the status quo. Throughout the remainder

of the presentation, we will identify some of the common perceptions we encountered and how or why they were unfounded.

Slide # 7 (*Causes of Backlogs*) – Whether your laboratory is privately funded or a part of a governmental entity, we are likely never to escape the constraints of funding. Because funding is always limited in some fashion, it opens the door to being the “throw down” excuse for the presence of a *‘backlog’*. Recently, one state legislator made the following comment *“It doesn’t matter...no matter how much money we give you, you will always be behind.”* Sadly, one can understand this perception if one considers, year after year, administrators, armed with optimistic projections, requested and received additional funding with no tangible long term result.

Slide # 8 (*Effects of Backlogs*) – The long term effects of unreasonable *‘backlogs’* not only alienates your customers, it drives your most valuable asset (your personnel) into the ground. Most administrators understand the value of their personnel and likewise make every attempt to create a thriving work place. The insidious nature of a long term *‘backlog’* becomes apparent when well-intentioned administrators quickly rebuff change initiatives, when employees complain about short term inconveniences. The administrator seeks to provide short term comfort to a vocal minority because they themselves cannot see the relief provided by a backlog-free future. To put this idea in perspective: the short term pain incurred to become debt free is far outweighed by the peace of being debt free.

Slide # 9 (*Backlog...Who’s Job Is It Anyway?*) – The larger your organization the higher the probability that one or more obstacles to change will be those very people in charge of the problem; a supervisor. Our agency, not unlike other agencies, fell into the trap that the most senior analyst in good standing was the one promoted. Even exceptional analysts do not necessarily equate to good supervisors. Unfortunately, some exceptional analysts possess *“glass half empty”* mindsets. One of the most frustrating and undermining scenarios you are likely to encounter in any significant change initiative is when people in influential positions take either a public or behind the scenes negative position to the change effort.

Slide # 10 (*Clarify the Managers Role!*) – Once again the larger the organization the more likely that one or more managers define their mission in terms of protecting their troops (employees). Clearly and frequently defining a manager’s role is essential. Every decision should be made in the best interests of the agency. It is providence when a decision meets the needs of the agency: as well as, those of its personnel.

Slide # 11 (*Backlog is a Red Herring!*) – *“To focus on backlog, is to focus on the end (no need for direction). To focus on the process is focusing on the beginning (much need for directions, leaders and energy).”* It’s all about the process and to change the process you have to define a new *‘Mind-Set’* of shared values and vision.

Slide # 12 (*Identifying Your Obstacles*) – Understand the power of the individual ‘*Mind-Sets*’. Individuals with an overall positive ‘*Mind-Set*’, often silent and reserved in the background, can be very instrumental in accomplishing lasting meaningful change. Likewise, individuals with a less than positive ‘*Mind-Set*’ frequently express themselves in a variety of ways. The expression of a negative ‘*Mind-Set*’ (squeaky wheel) often effectively occupies management’s attention/efforts, while silencing those with a positive ‘*Mind-Set*’. Identifying obstacles (‘*Mind-Set*’) early in a change initiative will undoubtedly pay off when making those crucial decisions that guide the course of progress.

Describing your colleagues and peers as obstacles sounds harsh and destructive. Many will not understand or condone such a thought. The premise here is that your agency has a mission. If your colleagues and/or peers detract from the mission then they made themselves an obstacle. Listen closely, key in on the subtle ways negative ‘*Mind-Sets*’ present themselves.

Slide # 13 (*Emotional Equity*) – Unfortunately or fortunately, some of your obstacles will present themselves in a more straightforward approach. It’s *unfortunate* that there exists strong emotional equity to the past. What is *fortunate* about this situation is that this type of obstacle often presents itself early in the process. Picture two grown puppies (black labs). The first pup is always first to the car whether or not you’re going for a ride. If you are going for a ride, you crack the door open and he forces his way in. He’s just happy to be going for a ride. The second pup on the other hand, senses you’re headed for the car. Immediately, all four brakes are applied and the fight is on to get him in the car. This pup believes he’s going to the Vet and he’s getting a shot! You will have a hard time convincing some of your obstacles that your destination is a better place.

Slide # 14 (*The Disclaimer Approach*) – As your project progresses, small groups of opposition will begin to present themselves. Some, believing they’re being clever, will try the disclaimer approach. This approach is often easily identified by statements that begin such as: “*Well I’d like to share with you what I’ve been hearing lately...*” This approach offers the participant the false security of proclaiming an ideology that they identify with and want to promote.

Slide # 15 (*Inferences From The Ivory Tower*) – The larger your organization is the more likely it is, that one or more of your obstacles to change has received a degree or certificate reflecting some type of formal management training. If your agency is like our agency, most of you were practicing scientists before becoming practicing managers. You are familiar and comfortable with the fact that science, when tested correctly, will yield reproducible results.

Over the last century management theory has taken on a more scientific flavor with titles such as: “*Science of Management*” & “*Principles of Scientific Management*”. There is no challenge here that much of the published work on management theory has probably worked at one time or another. What you will have to challenge is the seemingly authoritative regurgitations of theories that were taught to your colleagues in a vacuum of experimental proof or demonstration. In other words, the referee read the rules...but they never played the game.

The most common presentation you are likely to encounter will start with your well intentioned colleague assuring you they understand what you’re trying to accomplish. They point out the staff is unhappy. They are concerned you are “*riding roughshod*” over the staff. They continue by asserting that the contemporary management theories they were taught in class will achieve the results you desire while assuring the staff will be happy. While all of this may be true, it is ultimately misguided. The focus of their concern is the current level of satisfaction of the staff and not the immediate need for your organization to effect lasting meaningful change.

This is not meant to be an indictment of management theories, but rather, a recommendation that before you begin any major change initiative, the essential vision from top management is unified and well-defined. Consider the turmoil that could be created when two opposing management theories (i.e. the traditional command hierarchy and the alleged up and coming “workplace democracy”), are being promoted by different factions at the same time.

The larger and more spread-out your organization is, the greater the risk of getting mired down in the honorable quest of seeking consensus and satisfaction. “*The change process needs to move forward quickly or it won’t go anywhere at all. “If you use a strategy of slow change, chances are organizational inertia will take over...”*” At the end of the day consider this response: “*I agree with you that **my** delivery of the vision “sucks”..., but if the message is true..., then it doesn’t excuse **your** resultant poor behavior.”*

Slide # 16 (Management By Rumor) – The need for effective communications in any organization is universally accepted. Typical communications at the extremes, constructive or destructive, are easily identified. It is in the shadow of grays that communication with an agenda will be found. Some managers will openly cultivate the rumor mill in hopes of gleaning some nugget of information. Astute managers will recognize any short term gain in information collection (often erroneous) is far out weighed by the long term energy drain of undercurrents (dissent).

There are a number of ways for an organization/individual manager to send the signal that rumors are unwelcomed. One of the most effective ways is to ‘*challenge*’ suspect information. Anyone offering what they believe to be factual information will have no issue in committing that information to writing. This ‘*challenge*’ not only works in dispelling rumors; it also quells hollow technological arguments.

Slide # 17 (*Quantifying the Process*) – This topic is one of the most fertile battlegrounds for conflict. No matter what you name it (minimum requirements, performance objectives, performance indicators etc.) there are those who will cry foul, ‘*it’s a quota*’. In their mind the Word ‘*Quota*’ bears a negative connotation associated with an unreasonable expectation. It is baffling how such a learned group of people, who spend most of their careers making measurements applying concepts of traceability and uncertainty, lock up at the thought of measuring their own performance.

Critics to performance-based initiatives will present arguments, some logical and some emotional. When a critic falls short of providing a logical argument to demonstrate that a performance expectation is unreasonable, they play an emotional card. The emotional card attempts to redirect focus from acceptable productivity to something that cannot be compromised, quality. They purport that ‘*quota*’-based initiatives directly and negatively influence quality. Additionally, they may suggest that because of the emphasis on quantity, quality is of secondary importance.

Slide # 18 (*Quota Systems*) – Successful productivity initiatives must start with engaged management. Engaged managers will study the system and acquire valuable data. Data mining allows managers the ability to make informed decisions. The paramount question at hand is: ***What is a reasonable goal (Quota)?*** With carefully crafted reasonable goals, you can deny critics of performance-based initiatives to a logical argument.

Successful performance based initiatives must also include a well-defined underlying Quality System. Critics playing the emotional card will purport to be defending quality. ***Ironically, the premise that performance based initiatives negatively strain the Quality System is an indictment of the Quality System!*** The quality system prescribes the system of checks and balances that have to take place before a case goes out the door. The Quality System must be as robust and reproducible as the very methods it’s applied to. Therefore, in theory, it would be impossible for a reasonably derived ‘quota’ to run afoul of the Quality System.

Don’t rely on theory, buy insurance. When implementing any new process, build in additional surveillance designed to detect any unforeseen negative consequences. In our case the Quality System provided for, among other things, 100% administrative and technical review (generally intra-laboratory). When we implemented the performance-based initiative we added an inter-laboratory layer of review. This extra layer of review, as expected, not only revealed there was no increase in the frequency of quality issues, but the quality was becoming more standardized.

Slide # 19 (*Newton’s Third Law of Management*) – Armed with logic and vision, managers may find themselves not making any headway changing ‘*Mind-Sets*’. Find

ways to supplement your logical argument with emotion. For example, mine data that accurately depicts the cost (dollars & increased backlog) of under achievement.

Slide # 20 (*Litmus Test*) – To this point, we have talked about where you are now and where you would like to be. We identified the need to affect the underlying process and not the symptom, ‘backlog’. Surprisingly, we ignored the perceived traditional obstacles/causes to dealing with ‘backlogs’ (facilities, number of staff, funding, etc.) We have zeroed in on ‘Mind-Set’. Are you prepared and ready to embark on a process that will be as incredibly **frustrating** as it is **rewarding**?

Slide # 21 (*Traveling Without a Map*) – When we started this endeavor, our destination was essentially unknown. Recently a new administration took over, new eyes for an old problem, trying anything was better than attempting to put the square peg in the round hole one more time. Today, with the ready availability of GPS navigation systems, it’s amazing how reliant we have become on them. During difficult times of criticism, experience in solving long-term problems with no clear path provides the **confidence to identify the most fruitful path** and stay the course.

Slide # 22 (*So Where do we Begin?*) – Armed with an objective and developing ideology you’re committed to the endeavor, where do you begin? The remainder of the presentation will focus on the mechanics of what worked for us. **It is surprisingly simple!**

Slide # 23 (*First Meeting With Troops*) – Experience...We learned an important lesson working with Toxicology prior to developing this approach. The strategy of slow change and the practice of consoling (enabling mitigation) did not achieve lasting tangible results. Convinced that telling and showing someone the need to change was not enough, the concept of ‘*The Meeting*’ evolved. ‘*The Meeting*’, as we will refer to it, is not intended to be used when the need for change is first identified, but rather, used to initiate a change for persistent long term problems. ‘*The Meeting*’ not only will tell and show the participants the need to change; ‘*The Meeting*’ should be designed to incite a sense or make the participants “*feel*” the need to change.

Given the importance of this first meeting, preparation is essential. By being brutally honest and sharply critical you will find the emotion to supplement your logical argument for change. You need data. Data will lead the way by allowing you to make timely informed decisions (i.e. switch from monitoring cases worked to items worked). It is highly recommended that you start each day by updating spreadsheets and mining data. By doing this, decisions made later in the day will reflect a better understanding of where you stand now. Review existing sources of data; identify what data to track, create spreadsheets and plot...plot...plot.

Once you are armed with sufficient data, wait for a defining moment or incident that will provide the emotional back drop for ‘*The Meeting*’. The defining moment should be

some expression of ideology that exemplifies or defines your past. Mine your data to find '**Truths**' that will bring clarity to the false logic supporting the suspect ideology. Verify and re-verify your data, you must be factual to be credible.

Deliver the plan face to face. Although you would like to simply share your logic of why there is a need to change, you are challenging long term institutional emotional equity. What you prepared for and what you will deliver will likely hurt feelings. What you have identified are the products of the flawed ideology. The preferred result would be, clarity spawns an acknowledgement of suspect ideology. However, the likely result is that clarity unleashes a stream of individual and collective efforts to rationalize and mitigate the circumstances.

"*Kill two birds with one stone*"...You need to know if '**The Meeting**' was effective. Craft a questionnaire that rates various topics on a scale of one to ten. Include subjective topics like how hard does your staff work, rate your production, efficiency, defensibility etc. Pass out and collect your completed questionnaires before you start. Do the same after you're done. By doing this you can gauge the effectiveness of your call for change. Both positive and negative feedback will emerge. Future leaders (*we're going on a trip*), as well as those anchored to the past (*Oh no we're going to the Vet!*) will begin defining themselves.

Slide # 24 (*Developing the Plan*) – Although this presentation touches upon some complex issues pertaining to human interactions the vision in the beginning and goal in the end are simple. Our plan to eliminate the '*backlog*' by changing our institutional '*Mind-Set*' focuses on **Daily Wins**. The use of the word **Daily** provides the frequency required to update our awareness to our current situation. This awareness takes on two components, analyst awareness and supervisor awareness. The use of the word **Wins** provides the simple goal of striving to complete more cases than come in each day.

In our case, monitoring the casework produced by each analyst was not only simple enough; it was precisely what we had been doing for decades. Our very first venture into data mining revealed the following revelation. The lowest case producing analyst reported 24 cases throughout the course of a particular month. However, if productivity were measured in terms of items produced, this analyst produced 214 items making her the highest producing analyst. Measuring by cases produced can lead to '*cherry picking*' if analysts or supervisors are allowed to choose which cases get worked first. Probably we can all associate with a situation that an analyst or section has found itself behind in production. It's nearing the end of the month and to get numbers up they scramble to do easy cases (i.e. one item marijuana's, blood alcohol only cases, DNA burglaries). If this practice persists month after month, year after year, not only do you have a '*backlog*', you have a '*super-backlog*'. There are no easy item marijuana's left.

The energy expended to monitor productivity need only be that required to accomplish the goal. Several people are likely to '*weigh in*' on how to monitor production. The more people the more opinions. The more opinions you try to accommodate the more

complex the monitoring system. If you go for the '*Homerun*' you'll likely walk away with a '*Strikeout*'.

Slide # 25 (*The Yardstick*) – With the decision to monitor productivity in terms of items finalized, it became necessary to define an item. The literal definition was simply a physical item. However, our system has multiple laboratories and the casework review duties vary slightly. In some laboratories, the section chief performs the majority of reviews; whereas, in others, review duties are shared equally with the analysts. Through anecdotal conversation, the decision to define four reviews as being equivalent to one item was made.

As mentioned earlier, an important variable that you need to establish is the frequency in which to monitor production. Monitoring productivity daily is an important diagnostic tool. By creating a culture of daily awareness, both analysts and supervisors have up-to-date information to guide their decisions. The one limitation to monitoring productivity on a daily basis is interruptions, such as court, crime scenes, meetings, continuing education, personal leave, etc.

Monitoring productivity daily is only half of the equation. The analysts need daily goals. Our plan started off with anecdotal information suggesting an analyst could work ten items per day. This first approximation was backed up by theoretical number crunching and preliminary data, and later verified by experimentation (i.e., actual working of cases).

At this stage of our developing plan it was important to introduce and consider what we call the '*70% approach*'. Failure to introduce this concept into your plan could inadvertently fuel the quota critics. The key aspect of the '*70% approach*' is that it is unreasonable for management to expect 100% production from its entire staff, all of the time, but it is entirely reasonable to expect 70% production. Therefore, application of our daily goal of 10 items per day per analyst translates into approximately 150 items per analyst per month. The goal of 10 items per day sets the pace and 150 items per month provides accountability.

This plan allows for anticipated and unanticipated interruptions/circumstances. If an analyst were able to maintain a 10 item per day pace they would obtain the minimum goal of 150 on the 15th working day. This would allow from four to seven days to accomplish other supportive tasks. Likewise, as with all good plans on paper, there will be interruptions and achieving the minimum goal after the fifteenth day will be the norm.

Slide # 26 (*Can we Quantify the Probability of Success*) – Yes! Theoretically one can simply do the math. In our case, the fact that we receive 30,000 cases per year was well defined by our existing LIMS. However, we scrapped monitoring productivity by cases worked in favor of items worked. You can make a reliable assessment of the average number of items per case by monitoring of the number of items reported per case. By doing this we realized very quickly that the average number of items per case was approximately two. A year has now passed and this average is still valid.

With an anticipated 30,000 cases expected to come into the laboratory annually, our plan had to account for the production of 60,000 items annually. The number of staff dedicated to perform this activity exclusively was 30. Therefore each analyst has to work approximately 2000 items annually, 167 items per month, 38 items per week or 7 - 8 items per day. The theory seems to fit the plan.

So, how does 'theory' stack up against 'actuality'? To answer this question, we made a simple correlation of the number items worked daily to whether more cases were completed (a win) or more cases were received (a loss) that day. It doesn't take long for the numbers to tell the story. In our case, during the '*dig-out*' phase, we won 65% of the days. Interestingly, our average win of 292 daily items was almost double that of our average loss of 163 daily items. The more reliable and robust your production, the closer the number of items associated with the average loss will approach that of the average win.

Slide #27 (Plot) - One very valuable way to plot the degree of your success is to plot each day's items chronologically in a typical bar graph format. Winning and losing days can be distinguished by color (i.e. blue v. red). This type of presentation of the data provides the requisite frequency and magnitude of your wins and losses; it can also be an indicator of your staff's '*Mind-Set*'.

Years of monitoring cases on a monthly cycle instilled the '*drift and catch-up*' '*Mind-Set*'. This '*Mind-Set*' is typified by higher than normal production during the last week of the month followed by a week of 'recuperation' at the beginning of the next month. This same type presentation can be applied to the individual analyst (although not depicted in this slide) to identify the '*drift and catch-up*' '*Mind-Set*' of a particular individual.

Throughout the course of our project, obstacles to change presented themselves ('*Mind-Sets*' described earlier). By monitoring daily the win v. loss pattern, 'mind-set' issues were readily identified.

The most notable 'pseudo' mindset issue presented itself as analysts working well over 150 items in the month, but only reporting the 150 '*minimum*' for that month. The hoarded cases (remaining items) were reported the following month. Although, the attainment of 150 items is considered to be '*satisfactory*', the practice of hoarding cases was indicative of '*lone-wolf*' analysts who are not embracing the new culture. Our plan to reduce/clear the backlog relied on the premise that a proportion of our analysts were '*over-achievers*'. Over achievers will set themselves apart and work more than the minimum 150 items per month. "***A picture is worth a thousand words***", armed with data supervisors can intercede and effectively counter negative '*mind-sets*' when they present themselves.

Slide #28 (Plot) - This plot depicts the number of days where more cases were completed (**won, blue**) than cases received (**lost, red**) or vice versa (on the y axis). The x axis depicts the average number of items worked per analyst (on the x axis). For example, if 30 analysts produced one item each on a given day, the total items produced would be 30. In our case, this did happen and on those days where the total production did not exceed 30 items, more cases were received than were produced. Likewise, when each analyst produced 15 items each on a given day, the total items production would be 450. In our case, this did happen and on those days where the total production exceeded 450 items, more cases were produced than those received. Interestingly, as theory predicted, our break point between a winning day and a losing day was around 7 items per analyst per day (*winning becomes more probable*).

Slide #29 (Plot) - Another way to depict the win to loss data is to plot the percentage of wins to the number of items produced per analyst.

Slide #30 (The Plan) - With our pace setting goal of 10 items per day and our accountability goal of 150 items per month established, there was still one subtle nuance that remained to be conveyed. Analysts should focus on working 10 items per day, each and every day, **FIRST!** The third slide of this presentation said it all: “*We are remarkably unaware of how we spend out time.*” Earlier we described the hypothetical analyst who never produced his/her share of items, despite all their hard work. It is the supervisor’s responsibility to redirect that analyst’s efforts to compliment the overall mission.

The second priority for the analysts (upon completion of 10 items) was to work older cases, followed by routine/supportive laboratory activities. Finally, if time permitted, analysts could work more items. “*In successful change efforts, an empowered group of people are very selective in how they spend their time. They focus first on tasks where they quickly achieve results*”.

Slide # 31 (The Plan (Expectations)) - For our plan to be successful/stable, our under-achievers had to rise to our expected minimum production performance. If all of the analysts perform the minimum, theory suggested we would only meet the demand of incoming case receipts. Digging-out of the ‘backlog’ was therefore dependent on our ‘over-achievers’. It is the over-achievers who will dictate the rate in which the ‘backlog’ is cleared. It is your ‘over-achievers’ who exemplify your new culture. Cultivate this group of people and rebuff accusations that they are ‘brown-nosers’.

Slide # 32 (Managing the Plan) – Supervisors are paid to get work done through others. By accepting their pay they are accountable for the production of their staff. They’re responsible for being aware of each analyst’s status and interacting with an analyst in a timely fashion when necessarily. Documentation of this supervisor/analyst

interaction will be imperative to identifying and removing obstacles preventing analysts from being successful.

Slide # 33 (*When is the Defining Moment?*) – Remember logic alone is not enough to uproot well entrenched emotional equity. To overcome resistance you'll need to supplement your logical argument with an emotional cause. Be patient, you'll know it when you see it (your cause). Your cause can present itself in a variety of ways such as unusually low production, to the more likely, human confrontation. Your emotional cause will provide the backdrop in which to package your logical argument.

Your emotional cause will also provide the backdrop that change must begin **now!** *“The change process needs to move forward quickly or it won't go anywhere at all. If you use a strategy of slow change, chances are organizational inertia will take over...”* Remember your goal here is quick measurable forward movement, not how palatable the message. You cannot afford to sanitize your delivery at the expense of clouding your message. In other words, if the avoidance of hurt feelings dictates your delivery, then your ability to create an emotional urgency likely suffered.

Slide # 34 (*Deliver*) – Ultimately, your first meeting will differ in content based on differing circumstances, but your goal will be the same. Remember they like it the way it is or they would have already changed it. Through emotionally charged logic, create a sense of urgency in as many of your staff as possible that change must occur now. In our case we choose to begin with a logical basis for change; simply, the money dedicated to the task is capped and we're not gaining any ground (on the 'backlog').

Slide # 35 (*Show a Truth*) – Slowly begin to allow emotion to appear. Be careful to select undeniable '*truths*' to create your emotion. You want as many of your staff as possible to identify with your situation. In our case, we choose to exploit money and the universal emotion created when our money is not well spent. The personnel cost of managing each analyst is dependent on the fact we have nine facilities performing Drug Chemistry services. Illustrate examples where there has been low return for the investment and you're on the way to creating the desired emotion to effect change.

Slide # 36 (*Show a Truth (that is Eye Opening)*) – Continue to raise your building emotional argument with '*Transparency*'. Our philosophy with regard to '*Transparency*' is that we are public employees. We are paid to perform public business. How we go about performing public business is public; unless there are statutory exceptions crafted. What we do day in and day out is everybody's business. Therefore, if your commitment to '*Transparency*' is similar to ours, the posting of your staffs work habits and work product for the first time will likely be eye opening.

Slide # 37 (*Dispel Excuses with Truths (that may Sting)*) – You will not have to look hard for well entrenched deep rooted ‘*emotional equity*’ (resistance); it will find you (excuses). Excuses are apparent obstacles that bear no validity. During the months you were collecting data in preparation of this first meeting you were undoubtedly provided unsolicited examples of apparent obstacles to success. Thoroughly research each obstacle to assess its validity but more importantly, to what degree does the obstacle inhibit success. It is expected that the larger than life assessment of apparent obstacles contain some small kernel of reality.

In our case, such an analysis revealed, that the justified unexpected mandatory did not rise in magnitude to that of the optional duties clearly pointing to a ‘*lapse in supervision*’. Additionally, the ‘*lapse in supervision*’ was compounded when poor decisions led to the accrual and eventual taking of compensatory time.

Slide # 38 (*Dispel Obstacles with Truths (Undeniable)*) – Some obstacles so universally effect the organization that it becomes unquestioned as to its existence. Just as it has been customary to throw money (more staff) at ‘*backlog*’ issues, we find ourselves blindly throwing money at these universal obstacles.

In our case the LIMS was unquestionably slow. It was passionately argued that any expectation of increased performance was unreasonable given the speed of the LIMS. Interestingly enough LIMS was slower the last week of every month. Why, because we (management) had allowed a culture of ‘*drift and catch-up*’ to thrive.

Slide # 39 (*With Truths*) – Identify bad habits and corroborate them with ‘*truths*’. Bad habits such as the previously described ‘*drift and catch up*’ introduce several unwanted consequences. Provide the logic of why a particular practice is destructive and provide the evidence that some individuals/sections exhibit that behavior. The key is to link unwanted, inefficient, and/or destructive work habits to unsatisfactory performance (short term and long term). By illuminating short term under achievement and magnifying that under achievement to a yearly loss/cost, your emotional argument jumps into overdrive.

Slide # 40 (*Assure Them They Can’t Compete Without:*) – At this point you have delivered your logical and emotional call for change. It’s now time to transition from the past to the future. Assure them without a departmental/individual plan they cannot compete. What will be expected of managers moving forward? Conceptually, managers must be engaged!

Slide # 41 (*Discipline Management*) – Managers will be expected to foster an environment where steady output thrives. In other words, there should be no significant difference in productivity between Wednesday, September 2nd and Wednesday, September 30th.

The desirable theoretical output will be typified by an essentially linear plot of analyst productivity. This behavior is desirable because stress and strain on the system is equally distributed. At the other extreme, the *'drift and catch up'* folks, post (completely complete) few if any cases until the last week of a given month. During the last week, or even the last couple of days, there is a flurry of activity to post cases. They exhibit this behavior month after month. In the middle are the *'tweener's'* ('tweener's are those who live in-between), they exhibit a more *'drift and catch up'* behavior than those with essentially linear productivity. The key characteristic is that *'tweener's'* will make one or more corrections during the course of the month that will produce a stair step appearance when plotted.

It is management's job to monitor and assess the work habits of each of their analysts. Ultimately, a managers monitoring and assessment must translate into effective coaching.

Slide # 42 (Accountability) – Year after year, erratic productivity seems to be inescapable due to the myriad of circumstances that may arise in a Forensic Laboratory setting. Before long, the notion that our underachieving analysts are just *'victims of the system'* becomes well entrenched. Rarely, if ever, is underachievement confronted in any effective way.

We all recognize the need for accountability and even our underachievers will associate with accountability. The problem is that accountability alone is useless. For accountability to be of any value there must be consequences. It is consequences that activate the *'mitigators'*. It is this group of professionals who will unleash every emotional response that we painstakingly described earlier. Many of them were born professional *'mitigators'*. At a very early age they learned the fine art of mitigating consequences. Instead of a boss, they perfected their craft on their parents, teachers and friends. You, on the other hand, see this onslaught coming and counter one by one with data and research that will rebuff their claims. Then and only then-frustrated-they will play their last but best card: "they're managing by fear and intimidation".

If this card effectively derails your change initiative let there be no better epitaph: "***They lead by fear and intimidation.***" This tactic belongs on "*Boot Hill*" with every other dead hand.

Slide # 43 (Accountability Letter) – So how do you confront underachievers in an effective manner and instill accountability? Included on your CD is a generic copy of what we call the *'accountability letter'*. Whether or not you are confronting an old or new problem, the *'accountability letter'* should only be used after verbal instructions failed to achieve the desired goal.

The reason for this is you want to cultivate a new culture that can take ideas (casual conversation) and turn them into action. Flush out *'the stall'*. Not happy with an impending change initiative, some of your underachievers will freely elect to take the

path of inaction. Here the misguided hope is that the manager will somehow forget; thereby, effectively quashing the change initiative without a shot fired: “***Well it’s not in writing.***” They play ‘***the stall***’ only because it’s worked in the past. The ‘***accountability letter***’ is designed to break this cycle.

As with any well crafted letter identify the problem clearly and early. Remind your underachiever that they were previously provided with verbal instructions. Inform them you would like to convey the new departmental goals and the plan to achieve those goals in a more formal written format. Beyond fleshing out the department’s goals and the plan to achieve those goals it is important that the ‘***accountability letter***’ contain the following four elements:

- 1- (Initial) I have received both verbal and written instructions/details pertaining to the new Drug Chemistry productivity goals.
- 2- (Initial) I understand the new Drug Chemistry productivity goals.
- 3- Detail any obstacle preventing you from accomplishing these goals.
- 4- (Initial) Without the aforementioned obstacles I can obtain the department’s Drug Chemistry productivity goals.

It is management’s job to remove or dispel obstacles, thereby getting work done through others. Reiterate that the role of the ‘***accountability letter***’ is to provide written instruction (clarity); the role is not punitive by design.

Finally, the ‘***accountability letter***’ is intended to form a partnership between the analyst and management. Management is vested; is the analyst vested? It should be clear that in the absence of any substantiated obstacle, each analyst must be productive. Upon relapse, an underachiever will enter into progressive discipline.

Slides # 44-46 (*I Can, I Can’t, I Won’t*) (*I Can’t or I Won’t*)(*I Won’t*) – Your staff can be separated into three categories: ‘***I can***’, ‘***I can’t***’ and ‘***I won’t***’. Each variant can be coached effectively if the right diagnosis is made. The easiest ‘***Mind-Set***’ to identify is your ‘***I cans***’. Their productivity numbers will speak for themselves. With the ‘***I cans***’ readily identified, the real work is separating the ‘***I can’t***’ analysts from the ‘***I won’t***’ analysts. This is easier than it seems. First, to be defined as ‘***I can’t***’ or ‘***I won’t***’, the analyst had to fail to meet their minimum production goal of 150 items per month. Use the ‘***accountability letter***’; the ‘***I can’t***’ analyst with effective coaching will quickly become an ‘***I can***’ analyst.

What about the ‘***I won’t***’ analysts? ...We didn’t have any! “*People in change-successful enterprises do a much better job than most in eliminating the destructive gap between words and deeds. Deeds speak volumes.*” The ‘***accountability letter***’ is the deed that will clarify the line in the sand. Management is vested.

Slide # 47 (*Challenge Suspect Ideology*) – The heart of the matter here is: do you view ‘***conflict***’ as a positive or negative occurrence? There are those managers

who associate '*conflict*', generally, as a negative event. These managers strive to minimize strife. Unintentionally, by actively seeking to minimize '*conflict*', issues fester and persist unresolved. '*Conflict*' is the catalyst for creativity (growth).

Actively cultivate '*conflict*'. Challenge suspect ideology. The sooner an issue is thrashed out by two opposing ideologies the quicker you will move forward. The key element here is the '*conflict*' is about '*business*'. Remember Newton, progress is impossible with out friction.

Some managers, in an effort to minimize '*conflict*', prescribe to the notion of "*Praise in Public, Scold in Private.*" This approach is effective in taking '*conflict*' behind closed doors. If the '*conflict*' is about business, it's everybody's business (remember we're public employees). When '*conflict*' goes behind closed doors the organization ultimately suffers. The department scribe cannot possibly put into words all the expectations and nuances of its culture. Can our departmental scribe ever prepare and distribute an exhaustive treatise on our current work culture, when our work culture is dynamic and ever evolving? Open public '*conflict*', about '*business*', effectively informs every one in a timely manner, of the norms and expectations of the current '*culture*'.

Are there limits to challenging suspect ideology? Yes. Work cultures that effectively embrace and cultivate '*conflict*' encourage not only challenges with subordinates and more importantly challenges with peers, they encourage challenges with supervisors. Supervisors should accept and posture that no individual has a monopoly on what is right or good. Evaluate disputes for merit using two criteria: First, is the matter at hand a matter of taste or a matter of principle? "*In matters of taste, sway like the wind...In matters of principle stand like a rock.*" The second criteria: can you articulate why a particular resolution is best for the organization? Sometimes these two criteria won't completely sort out or resolve the dispute. Provide subordinates and peers with the opportunity to defend their ideas in a formal setting. The defense should be both oral and written. Ensure both sides have had ample time to review each others written argument. By doing this, the oral debate will be more comprehensive and thus more effective. An important note is: if it's worth fighting over, it's worth writing down. Surprisingly, many arguments will go away when pen goes to paper.

What about challenging your supervisor? Be prepared, be organized and deliver. Let your supervisor know you have a concern and would they be willing to accommodate debate. Assure your supervisor that you know there comes a time when the organization needs to move on. Both sides have presented and considered the available information, you had your say and regardless of the decision you are ready to move forward (*it may sting awhile*). It **ENDS** with the decision!

Finally, you have influential voices all around you, sometimes they're subordinates and other times they're peers. Titrate the intensity of your challenge to appropriately match

the degree of influence your counterpart enjoys. Consider a very influential voice promoting hollow suspect ideology. “*Put some skin in the game.*”

Slide # 48 (*Short-Term Wins*) – The plan is now implemented, how do we keep it going? In today’s society there is little patience for the long term, we want it NOW! The longer it takes to post visible wins, the more fueled your obstacles to change will become. Embrace ‘*transparency*’. Not only can ‘*Transparency*’ provide the emotional spark to initiate change, ‘*transparency*’ can be used to maintain the pace. Publish daily statistics on where the organization stands (at this moment). A public forum will accomplish two goals beyond keeping us aware of our current situation (*keep your eye on the ball*): First, publishing daily statistics acknowledges those successful initiatives (visible wins). Second, publishing daily statistics is a daily reminder of those areas where improvement is still needed. Be prepared, those managers striving to avoid conflict will present themselves at this point.

Slide # 49 (*A-Game Analysis*) – One extremely useful presentation of data indicative of the effectiveness of your change initiative is what we call the ‘*A-Game Analysis*’. Data for each analyst’s item production collected daily and ultimately monthly, is arranged from highest to lowest (Two examples are included on your CD). The idea here is that if every analyst brought their best months productivity each and every month for 12 months that would define the theoretical maximum production for the system (not that we would ever expect this, remember the 70% approach). By having access to this type of information administrators can dial in their personnel needs.

In our case, the month before our change initiative began we had collected six months of data. From this ‘*pre-game*’ we knew that theoretically our system could produce 40,825 cases with 29 analysts. We also knew that if each of our analysts brought their 3rd best game we could produce 30,192 cases just matching our expected case receipts. However, on the flip side, if each of our analysts brought their 4th, 5th, or 6th best game our system would be upside down.

To illustrate the phenomenal (to us anyhow) success the change initiative produced consider our ‘*A-Game Analysis*’ at the 17th month. The ‘*A-Game Analysis*’ improved steadily throughout the duration of the project (take *advantage of early visible wins*). Our theoretical maximum cases our system could produce rose to 48,054. The amazing point here is that, if each analyst brought their **12th** best month each and every month for twelve months, our system could still produce 30,000 cases. Remember the ‘70% approach’, 70% of our theoretical maximum (48,054) is 33,637 cases. To cover 33,637 our analysts need only bring their 8th best month each an every month!

Slide # 50 (*Reward*) – Organizational growth relies on ‘*over-achievers*’! Ensure your new ‘*culture*’ thrives; recognize and reward ‘*over-achievers*’. Our way of recognizing ‘*over-achievers*’ was to create the ‘*200 Club*’. To gain entrance into the ‘*200 Club*’ each month an analyst had to work beyond the minimum 150 items, the

analyst had to work 200 items or maintain a sustained average of 200 items. Very quickly a core group of analysts will emerge. In our case 8 analysts sustained averages of over 200 items per month. Surprisingly, 21 of 30 analysts worked 200 items in a month during the course of the project.

The ‘200 Club’ members were allowed (optional) to travel once a month to our headquarters location for their meeting. The meeting addressed two important concepts: First, the ‘200 Club’ members are the core of our new culture and they are the vehicle for the organization to move forward. Each meeting provided either technical or managerial training. The second concept was that a change has been implemented in our system and with that change we needed increased surveillance of the work product. In our case we had always had 100% technical and administrative review of casework before reporting the case. The nuance here is that the existing review was almost exclusively intra-laboratory review. The ‘200 Club’ took our system of review to a new level of inter-laboratory review. Very quickly differences between laboratories were identified and resolved. Not only did our productivity increase the quality of the work product improved.

Remember reward need not be limited to promotions, get you’re A-Players in the game.

Slide # 51 (*Dale’s Perspective*) – If you are leading a change initiative you set the tone. The quicker you can bring clarity to your position; your ‘Mind-Set’, the more effective you will be in implementing change. One way to bring clarity to your ‘Mind-Set’ is to craft a position statement, or in my case, I crafted the following four commandments to that I felt would make our organization stronger:

1- (“***Thou shall not Whine***”) This commandment chastises those willing to “spout-off” without doing their homework; debate without a defensible position is ‘whining’. Take Responsibility!

2- (“***Thou shall not make ordinary conversations ‘Squirrelly’***”). This commandment mocks those who repeatedly fail to capture the context of an ordinary conversation and their extraordinary ability to get thing “stirred-up”. Mitigation and Manipulation!

3- (“***Thou shall not participate in ‘Analysis Paralysis’***”) This commandment is meant wake-up those who will ‘what if’ anything to death. Make a Decision!

4- (“***Thou shall not “Transfect” other with Anonymous suspect information***”) If it’s worth sharing its worth full disclosure. Confront!

Remember, this position statement, how ever disseminated, defines you and your ‘Mind-Set’. It is not necessary that the organization in it entirety adopt your ‘Mind-Set’. What is important is that your colleagues know where **you** stand.

Slide # 52 (*Make Change Stick*) – As you progress through your change initiative, frequently ask or evaluate, will change stick? By asking this question you are less likely to become transfixed on your problem (*backlog*) at the expense of casting adrift your solution. If you don't support the process and the new culture that drives the process, **you will eventually do it all over again.**

Slide # 53 (*You Have Good People!*) – Vision is essential. To successfully implement a large scale change initiative, you must be able to make an honest and critical assessment of your situation. The Alabama Department of Forensic Sciences has good people - **FACT!** You have good people! Provide focus and direction and the results will come.

Slide # 54 (*End Results of Simplification*) – At the beginning of this presentation we stated, “*Focus on simplicity*”. Without the use of any magic, we were able to produce significant results. The pride our analysts have in their accomplishments and the relief of being debt free is the essence of professionalism.

Slide # 55 (*Beware of the Status Quo Hamster Wheel!*) – Good Luck!