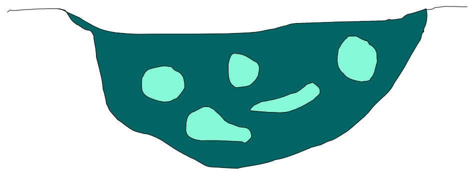
Excess Costs are like Pockets of Ore...



= Hidden Costs (Excess Cost and Inefficiencies)

...To remove them, you must "mine" with the right tools!

By Kay Sever, Continuous Improvement Coach and Consultant, CQIA

Mining starts with the discovery of a valuable metal or mineral that is locked up in proven and probable reserves. Sometimes ore resides in pockets and drilling is required to locate them. When found, the ore is brought to the surface and processed using equipment designed for that purpose to create value. Similarly, **excess costs can be "mined"** (i.e., discovered, separated and eliminated from total costs) using tools and methods designed especially for that purpose.

TRADITIONAL COST REPORTING HIDES OPPORTUNITY FOR COST REDUCTION.

Traditional reporting systems for any mining, manufacturing or service organization tell us that Total Costs = the sum of all cost elements (labor + benefits + operating supplies + maintenance + utilities + parts + fuel + freight + all other costs). However, there is more than one way to express total costs.

- **Total Costs = the cost of all procedures or work processes.** We know this is true because policies, procedures and standards dictate how resources are directed, how products are produced and how services are performed. This establishes the cost structure for each product and service, and the link to processes and process breakdowns when looking for a root cause of cost overages.

- **Total Costs = Value-Added Costs + Excess (Non-Value Added) Costs.** Excess costs are dollars that did not have to be spent or could have been avoided in the production of a product or service. Excess costs occur when 1) policies and procedures are not followed, 2) procedures or communications are inefficient or break down, or 3) process standards or customer requirements are not met. To be effective at reducing and optimizing costs, we need to understand the events or conditions that trigger excess cost so that we can eliminate or reduce them. A partial list of these drivers includes unplanned downtime (operations and maintenance), rework, process upsets, spills, and poor product quality

The illustration above shows pockets of costs in an "orebody" of total costs. These pockets are "buried in variable and fixed cost categories" on the ledger and tend to remain hidden while significantly impacting the size/volume of total costs. There is usually not a special account for wasted or excess dollars, with the exception of fines and penalties. Types of excess or non-value added dollars include overtime, contractors, overnight freight, wasted reagents, fines, penalties, etc. These dollars exist in every functional area – mining, crushing, milling, smelting, refining, marketing, accounting, etc.; if they are discovered and removed (i.e., "mined"), overall costs are reduced but value-added costs remain.

Excess costs tend to be propogated because we unintentionally plan for them. Here's what I mean by that. The cost portion of budgets is often based on historical cost. Since excess costs are buried in total costs, if you base your projected spending on historical totals, you will be budgeting and forecasting wasted dollars. Unless process changes are made to prevent the events that trigger excess spending, the excess costs will continue. You may meet your budget and think you did a good job, when, in fact, costs would have been lower had the triggers for creating them been eliminated.

Lost revenue related to poor product quality should also be considered an excess cost, since it has the same effect as a cost increase on profit margin. Events or process inefficiencies that result in lower revenue must not be overlooked as opportunities for improvement.

GO AFTER EXCESS COSTS FIRST!

Mandates for cost reduction often read something like "cut all costs by 10%". The strategy behind this goal is usually "reduce costs in the budget now and figure out how to meet the budget later". This approach sets employees up for failure and misses a huge opportunity for "focused cost reduction" so that the right costs are reduced.

An across-the-board cut is immediately problematic because:

- It sets an expectation with the Board of Directors (and Wall Street if you have gone public with your cost reduction goal) that will result in a loss of credibility if the goal is not met. It may drive the wrong behavior to achieve the goal, resulting in outsourcing or other strategies that are not in the company's best interest but allow management to meet the goal.
- Some costs are value-added and some are excess or non-value-added. Due to inadequate data on excess cost trends, managers may "shoot from the hip" when developing action plans to cut costs, some of which may destroy more value than they create. If non-value-added costs have not been properly identified and addressed, companies tend to reduce headcount as a first step. If processes are not examined for waste or rework before a layoff, the people left behind find it more difficult to continue to "manage around the recurring problems" that are eating their lunch and keeping them from productive work.

THE BEST APPROACH TO COST REDUCTION IS A SURGICAL ONE.

Symptoms of poor health tell you when to see a doctor. If the doctor recommends surgery, only the body part affected is treated or removed. A successful cost reduction effort is very much like managing your health and requires a 3-step surgical approach:

1. **Identify what needs to be fixed!**
2. **Fix the most important things first!**
3. **Prevent future problems from occurring when possible!**

The good news is that, despite tracking and reporting systems that do not easily report excess cost data, an effective surgical approach is possible and doable. So, how do you begin? I ask my clients to begin with a list of recurring problems. Then we assign excess cost (not total cost) to each problem. The process of assigning cost is an enlightening one as the group lists all parts of the organization that are impacted. Most of the time, the excess cost of a problem is bigger than anyone thought it would be.

I teach managers and employees in all departments and organizational levels how to value problems. Having all employees learn this skill has several benefits:

- It creates urgency to fix problems that happen so often that they are perceived as "part of the process".
- Once people attach a value to a problem, they work more cooperatively to correct it, knowing that their work will result in an improved bottom line.
- Knowing that several departments are affected by a problem creates another level of urgency to get it fixed.
- Sometimes we find that we are staffing to respond to recurring problems. This creates a whole new level of opportunity for resource re-allocation and right-sizing a labor force.

I have personally witnessed significant and lasting culture change centered around this concept. Problems that were ignored for years became the most important thing to fix after managers and employees participated in this work. Examples include:

- A 10-minute recurring delay was a million dollar opportunity for improvement.
- A plant water leak was fixed once the value of water was known.
- Tire life was managed based on value of hours lost, not warranty payments.
- Planned furnace rebuild supplies were better managed when wasted materials were valued.
- Process control in concentrator was modified after $66K/mo wasted reagent cost was identified.
- Waiting for parts delays were reduced or eliminated after supplies were organized (kittling for haul trucks, belt splice and belt move work underground).
- Loadout operators were given customer specs to prevent significant quality penalties and minimize prep plant losses.

TO BE SUCCESSFUL LONG-TERM…

Employees will do what they can to prevent problems and fix the existing ones once they learn how to assign cost to them. Even equipment operators will use excess costs to find better ways to work. Management must continue to be responsive to the opportunities identified and valued by the workforce to keep the energy going. They must also set the expectation that everyone should value events when they occur. Everyone must communicate and behave as if "problems = opportunities". If that happens, all bets are off on the results your company can achieve and the degree to which the culture responds to opportunity.

Kay Sever implements continuous improvement with a unique and balanced approach between continuous improvement concepts/tools and the people side of improvement. She works with every organizational level to remove barriers that hide opportunity and promote cooperation and measurable improvement. She coaches management teams on Improvement Leadership to help them drive and sustain improvement initiatives. Kay speaks frequently on lost opportunity and barrier removal. More detail about her services is available at her website: miningopportunity.com. Kay can be reached at 480-545-9095 or via email at kay@miningopportunity.com.