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QUARTERLY INTERVIEW

Building a Culture of Excellence Through Leadership Development: An Interview with Russ Becker, APi Group

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This Quarter: Value Drivers

Dear Reader:

Someone once posited, "It is the business of every business to make a profit." We might stretch that notion to propose that the business of every business is to build value for its stakeholders: shareholders, employees, customers, suppliers, vendors and communities. This issue of *FMI Quarterly* deals with basic strokes in building value in your enterprise.

Home runs (and huge losses) are possible in the hard-money world. Mike Clancy offers us "Estimating for Advantage," wherein he identifies both strategies and tactics that will enable a greater level of confidence and increased success in procuring lump-sum work.

Stuart Phoenix, principal and director of FMI Capital Advisors, contributes a significant feature in this issue, titled "Value Creation in the Engineering and Construction Business." Stuart's focus is primarily upon how value is created over the life of a business. He also provides three methods whereby prospective buyers or sellers may determine a financial value for the entity.

Ethan Cowles suggests that both now and in the future, prefabrication of assemblies is one answer to significant value creation for the construction business. His article, "Prefabrication: To Invest or Not to Invest?" may well prompt investigation in your own enterprise as to where investment in this emerging methodology can bring profitable results.

One of the big keys to building value in the construction business has to do with the company's skill in project execution. Frequent contributor Gregg Schoppmann captures highlights from *FMI's 2010 Project Management Survey* in his piece, "Leading New Normal Projects." Michael Kanaby and Michael Putzer's article, "Project Controls: A Key to Profitability," builds on this aspect of value creation.

Andrew Patron interviews Zurich's Karen Schwartzkopf and former Zurich associate Tom Miller for the article, "Adding Value Through Risk Management." Zurich is *FMI Quαrterly*'s sponsoring partner. Long-time contributor Cynthia Paul interviews best-selling author Leigh Branham in "Re-Engage: Igniting Customer Contact," where Leigh presents insights in re-engaging one's workforce to drive the company toward winning and retaining customers.

People create the value in any service business. When times are changing we all need to examine our toolboxes. The tool-sharpening assistance provided by "Making Difficult People Decisions in Tough Times: Preparing for the Future Today," contributed by Jake Appelman and Tim Tokarczyk, can help preserve and increase value.

Our own editor, Kelley Chisholm, gives us new terminology, cautionary notes and a guide to better management techniques in her article, "Are You a Helicopter Boss?"

Tom Alafat and Peter Nielsen interview the CEO of APi Group, Russ Becker. APi Group is the holding company for 35 independently managed companies with some 9,000 employees. You will certainly want to hear how APi builds value with its people as its primary competitive advantage.

Jay Bowman, Chuck Jones and Kevin Haynes wrap up their three-part series on customer investigation with their piece "Managing Expectations" that examines how companies realize the value of managing to their clients' expectations.

Briston Blair and Jake Appelman explain how strategic thinking is one of the key value drivers in best-of-class firms in their shorter article, "Strategic Planning Versus Strategic Thinking."

If you read and reflect on this issue cover to cover, decide on a few key strategies or tactics and rigorously implement your decisions, you will certainly enhance the value of your organization. FMI exists to assist in the value-creation process. If you would like to investigate that assistance further, please give us a call.

Next quarter our theme will be Integrity ... and it involves more than just honest, ethical behavior. Look for that issue in October.

Sincerely,

Sello

Jerry Jackson FMI Quarterly Publisher and Senior Editor

Departments

STRATEGY Strategic Planning versus Strategic Thinking

FMI recently worked with a general contractor that has always been highly relationship-focused, committed to doing whatever it takes to satisfy the client, believing in a long-term investment with its partners. With cleareyed, data-driven analysis from strategic planning, this company aims to transform early opportunistic plays in the renewable energy market into its primary growth engine by matching its unique value proposition to the marketplace. Historically, its strengths as an organization did not align with the hard bid, often adversarial and transactional nature of its primary heavy civil markets. The company had been only marginally profitable and somewhat successful in those markets. This limited success resulted from its culture and passion for long-lasting relationships and client focus leading it to be less competitive in a marketplace that did not value its strengths. The company had survived due to its good reputation and strong local relationships. Early, opportunistic forays into the renewable energy market were successful because of the relational mind-set of that client base — a small number of clients who were looking for long-term partners they could trust. The company's management recognized this was a market that matched its competencies. This realization came through the use of fact-based analysis in its strategic planning.

Highly successful strategy flows when a company understands its core values and purpose. This company had to make some hard decisions when faced with facts, but it was able to adapt and throw its people, resources and finances behind this new market. Now it is one of the dominant players in the renewable energy market and significantly profitable.

In the example above, the ability of the leadership team to assess the changes in the business environment by incorporating fact-based analysis, coupled with its business instincts, drove the decision to pursue a "best fit" between the company context and the marketplace. However, the true driver of lasting value in any organization is developing leaders who can think strategically versus simply producing a strategic plan document. While many organizations develop a strategic plan every three to five years, great leaders integrate strategic thinking into their everyday decisions and actions. This

relationship between strategic planning and strategic thinking is significant, but often misunderstood.

Strategic Planning

Does a strategic plan really create value? We know from our experience in the industry that those firms that take the time to think about the long-term future facing their organizations tend to achieve superior financial performance. However, is it the strategic plan itself that drives these organizations into viable opportunity areas, or is it actually the leadership teams' ability to think strategically that guides their firms to the top?

To succeed in the construction industry, a leadership team must be excellent tacticians, skillful at the systematic management of business and project processes. Unfortunately, the process-oriented nature of our industry often relegates development of strategy itself to a process exercise that, once completed, has limited impact on the success of the company. FMI frequently

encounters strategic plans that lack any substantive strategic insight. Too often, we find strategic planning to be an exercise in incrementalism, a "do-better" plan, if you will. Those firms who understand the significance of an episodically crafted strategic plan, coupled with the continuous skill of thinking strategically, are the ones that create more value for their shareholders year after year.

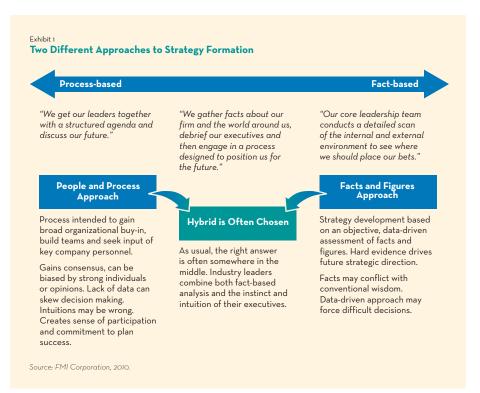
Strategic Planning: Limitations and Pitfalls

The labels "strategy" and "strategic" mean different things to leadership teams across our industry. The illustration in Exhibit 1 portrays two of the alternative methods of strategy formation. To succeed in the construction industry, a leadership team must be excellent tacticians, skillful at the systematic management of business and project processes.

Henry Mintzberg, Bruce Ahlstrand and Joseph Lampel cataloged 10 schools of strategy formation in their seminal book, *The Strategy Safari* (The Free Press, 1998). However, these two methods will serve our needs for this article.

Where your firm's approach falls on this spectrum is a function of the objectives of your key leaders, your market position, your organizational culture and various other factors. FMI has seen incredibly compelling strategic plans result from each of the above approaches. However, we see the most innovative thinking and strategic insight from plans with a strong dose of facts, figures and a concentrated leadership team.

Why is that? Many executives view strategy formation as a process that results in a plan document with some good ideas, but those executives do not expect to find game-changing solutions to the long-term challenges their organizations face. Innovation is in greater demand in today's market



environment. Innovative strategy work tends to be more answer-focused than process-focused, more of a product from a few people rather than what a larger group would likely produce.

The strategic planning process is further challenged when it becomes so routine and tactically oriented that the participants involved do not stretch their thinking. Often, participants act to avoid controversy and conflicting ideas when engaging in the process. Their thinking becomes mired in the status quo, and few strategic insights emerge.

Additionally, even seasoned industry veterans sometimes fail to understand the merits of fact-based analysis. Strategic analytics are often viewed as superfluous to the process of planning, when in fact it is usually of high value to study the myriad shifts in the evolving business environment. Such research can identify which opportunities to seize that emerge quickly and are gone just as fast. Part of the challenge is that leaders often view their business as too conventional (e.g., "we just need to find more project opportunities, bid more work, reduce overhead, etc.") versus driving fundamental long-term change, positioning for the future and creating lasting competitive advantage. That said, the data alone would do little to improve the positioning of the firm without the ability to bring insight to the interpretation of the data and the leadership to guide the organization to act on the implications of the fact-based analysis.

How does an organization avoid simply going through the motions of strategic planning? Is it the process itself that needs refinement, or is it more a matter of challenging the firm's current modus operandi and broadening the executive team's thinking? To understand the answers to these questions, we need to examine the role strategic thinking plays in leadership.

Great strategy drives value in construction firms in many ways. When done thoughtfully and intentionally, a strategic plan aligns the time, energy and attention of an entire organization toward opportunities supporting the firm's collective aspirations for the future. Another less celebrated function of the strategic plan is informing leaders what not to do, what markets they should stay out of, which projects to pass on and which opportunities to let go.

Strategic Thinking Defined

How do the best firms arrive at the foundational elements of their strategies? The answer lies in strategic thinking. FMI's more than 55 years of experience in the industry has afforded us the opportunity to sit with thousands of executive teams. One of the key value drivers that we have discovered through these myriad interactions is that the most effective organizations have strategic leaders who:

- Compile, analyze and organize information and market intelligence in a way that supports fact-based decision making.
- Think dispassionately and objectively about the factors and forces shaping the business environment in which they operate.
- Focus and rely on both instinct and market intelligence, which allows them to spot market patterns and opportunities in advance of the competition.
- Challenge the status quo and continually seek to incorporate outside insights into their view of the future.
- Solicit input and insight from key stakeholders in their organizations and use this information judiciously to look for gaps between internal perceptions and market realities.

One common misperception about strategic thinking is that great leaders solely use instinctive "gut feel" to make strategic decisions. In fact, the most effective strategic One common misperception about strategic thinking is that great leaders solely use instinctive "gut feel" to make strategic decisions.

thinkers combine intuition developed through years of experience with the highly rational ability to scan the environment for data revealing patterns that uncover opportunities others do not see.

The rise and subsequent crash of the residential housing market provides a timely example of strategic thinking. The confluence of a number of factors, including low treasury yield, resulting cheap credit and consumer demand, led to rapid growth in the residential housing market. Many residential contractors took advantage of this trend to make incredible profits during the stretch between 2000 and the crash in 2008. However, with the benefit of hindsight, it is clear there was a deep hole in this market that some strategists exposed using a different strategic frame of mind.

While many experts felt the housing market had rapidly outpaced any reasonable valuation, the rising surge of home prices quickly silenced many of those voices. However, a deeper analysis of the facts revealed a pattern in the market most did not recognize.

In 2004-2005, most residential contractors were enjoying the spoils of a white-hot housing market and their greatest challenge was finding enough staff to execute on their backlogs. For most, a rigorous analysis of whether

The story of the crash of the housing market is clear now in hindsight. The episode offers an opportunity to learn from the distinction between true strategic thinking and opportunism. or not the housing market was just another bubble or a sustainable structural change was the last thing on their minds. Yet data revealed that from 1975 to 2000, housing prices appreciated at an inflationadjusted annual rate of slightly more than 1%. Between 2000 and 2005, returns skyrocketed to more than 7% a year, revealing that prices would have to fall more than 40% to return to the historical mean. These results are startling, revealing clear evidence that the housing bubble was being held up simply by rising home prices without any of the necessary foundational support. With data revealing a pattern in the market, strategic thinkers saw a story others did not see.

Contractors armed with similar data confirming their intuition were able to protect the downside of

the inevitable crash while others who never invested the time to look at the market with a strategic-thinking lens found themselves exposed by the receding tide of a market coming back to reality.

The story of the crash of the housing market is clear now in hindsight. The episode offers an opportunity to learn from the distinction between true strategic thinking and opportunism. A rigorous, fact-based approach, combined with deep knowledge and insight into a market paired with the discipline to question shared assumptions ("What do we believe that is not supported by the facts?"), is an essential component of building lasting, great construction companies.

Conclusion

During the boom years, many A/E/C firms found themselves confusing their ability to ride an industry wave with the ability to think strategically about their company and markets. The sinking tide of our national great recession has exposed many of these companies, and many more will be exposed as the construction industry adjusts to a permanently changed environment. The organizations that will not only survive, but also prosper in our new normal, are those who are investing deeply in developing strategic thinking in the next generation of leaders.

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STRATEGY Managing Expectations

So much of our success depends on managing expectations: remain hopeful, but be sober in thought in action. This applies not only to those we seek to serve, our clients, but also to us. The majority of problems contractors and specialty trades encounter regarding client management can be avoided if realistic expectations are established. This should happen prior to starting a new project or, better yet, before services or solutions are proposed, and then aggressively managed throughout the contracting and building process. Simple enough said; difficult to do. Regardless of the outcome, your clients will judge the totality of their experience against their expectations, right or wrong. So how will you direct these expectations such that they can be met?

Some of the most respected firms in the construction industry those valued by their clients but that may not appear on any top this or that lists — reap the benefits of managing to their clients' expectations. These firms realize rates of repeat business that are best described as exclusive relationships and in turn, demonstrate superior financial performance. Moreover, in a business environment characterized by uncertainty and

volatility, they will likely be viewed as brothers-in-arms, sharing the same foxhole with these same clients, each looking out for the other.

Managing your clients' expectations does not imply doing anything and everything the clients request without question. You are not, or should not be, anyone's lap dog. Most clients do not respect a company like that and eventually begin to question its managerial competence. In fact, this type of behavior has quickly turned off the lights for more than one business. Rather, managing is an active Regardless of the outcome, your clients will judge the totality of their experience against their expectations, right or wrong. process. Consider how the dictionary defines the word "manage." A quick thumb through Webster's' reads, "to handle or *direct* [emphasis added] with a degree of skill" This indicates you have a role, and a responsibility, in *directing* or shaping your client's expectations. The trick is how.

One of the habits in Stephen R. Covey's seminal bestseller *The 7 Habits* of *Highly Effective People* is to "begin with the end in mind." The most successful contractors and specialty trades do just this, at the business development stage. Few owners perceive endless lunches, sporting events and the like to be of any great value. Instead, they want to see what the contractor is capable of, its experience and unique skill sets. One impressive response to this is a contractor that hosts receptions at buildings that have been completed but are not occupied. The company invites owners, architects, subcontractors and others to see its work firsthand and speak with the staff members who were involved. Problems encountered and solutions employed are discussed, and clients walk away with a mental image and understanding of what they could and should expect in kind.

What about during the proposal phase? These same firms would not dare think of beginning a project or starting a task without understanding their client's expectations and reorienting them as necessary. How do they do this? They listen. Then they direct. With amazing regularity, owners report that they only receive questions about their RFPs or design/project intent, maybe one out of 10 times. Not questions regarding drawings or similar clarifications, but questions such as, "What do you hope to have accomplished at the end of this project?" and "What concerns you most about the process?" or "Tell me about a similar project that went exceptionally well or poor and why." These are the types of investigations that identify the hot-button issues for the owners and other stakeholders.

Once you have these "background" questions answered, direct your client's expectations. It is hard to tell a client "no," particularly in today's economy. However, this may be the best way to shape your client's expectations and save your wallet in the process. Consider this point with a bit of family lore.

A son shared some wisdom he received from his father when he entered the family business. As he recalls, he asked his father, "Dad, how can I make a success in business?" "Integrity and wisdom. These are the keys to business success," his father said. "By integrity, I mean when you promise the delivery of goods on a certain day at a certain price, you must do so, even if it bankrupts you." The son replied, "Yes, Dad. I understand the meaning of integrity, but tell me, what is wisdom?" His father answered, "Don't make such a promise!"

Survivors — make that thrivers — know when to say "no" and to say it without hesitation. Yet with every "no," there is a corresponding "but." This is where the expectations, the true expectations, begin to emerge.

If you stop at just setting expectations, disaster will follow eventually. Equally important is managing expectations. Everyone on your project team must be made aware of these expectations and plans put in place to ensure that these expectations are managed aggressively. This applies to the tasks sometimes seen as trivial. For example, is a client particularly concerned about a clean jobsite? If so, jobsite behavior must follow suit, and staff must clean up after themselves.

Two things that help the most to manage expectations during construction are matching personalities and establishing the sundown rule.

- Match personalities. Nonverbal communication is as important as the verbal kind. If you have a field supervisor who has traditionally managed projects in a competitive, low-bid environment, it may not be the wisest thing to do to assign him or her to a project that needs a lot of client hand-holding.
- Establish the sundown rule. If you receive a call, text message or e-mail from a client, respond that same day, within reason. This does not require an answer, just a response. It may be as simple as acknowledging your client's call and letting him or her know you will have an answer by a certain date. Take the guessing out of the equation. As the old saying goes, people can deal with bad news, but they cannot handle uncertainty.

No project, or at least very few, go completely as planned. Unforeseen events occur. However, expectations can help focus your staff members' attention when all seems to be crashing down around them. Professor Emeritus Don Boldt of East Carolina University collects several "Laws of Management."

No project, or at least very few, go completely as planned. Unforeseen events occur. However, expectations can help focus your staff members' attention when all seems to be crashing down around them. One law is based on the old expression, "When you are up to your ass in alligators, it is hard to remember that your first objective is to drain the swamp." Setting and managing expectations helps you remember to drain the swamp.

The most differentiating factors among those contractors and specialty trades that seem to have the best client relationships are 1) a sense of what psychologists have termed α *ctive* passiveness, and 2) the ability to empower the field.

You probably think that these firms are always on pins and needles trying to keep everything perfect for the client. However, you would be wrong. In establishing expectations, they have already prepared their clients for disruption. Active passiveness means recognizing when to stop and when to go. Chief

chaplain of the Third Army, Msgr. James H. O'Neill, wrote in his Training Letter No. 5 in response to the rain that had plagued Gen. Patton's army throughout the Moselle and Saar Campaigns of World War II. "We are not trying to make the best these days. It is our job to make the most of them." Perhaps a subtle difference on the surface, but so much more at the core. The best contractors and specialty trades seem to live this by establishing daily wins, even in the face of adversity.

Professor Boldt has another law that helps sum up the second factor in establishing great client relationships. "In an organization, structure is important, formality is not." Great construction firms trust their field staff to make good decisions. Moreover, they know when things should be run up the flagpole, but also recognize those cases where doing so will result in bigger

Customer investigation is essential to building strong customer relationships, a real competitive advantage in the construction environment. problems and a frustrated client. This means training your field staff to think like business-people and not just employees.

A couple of key questions that will help drive successful client management tactics and strategies include: 1) Why do our clients choose us? and 2) How unique and valuable are our services? The answers to these two questions will put you in a position of knowing how to direct your clients' expectations and ensuring you are among "the most respected."

In two previous *FMI Quarterly* articles, we discussed the term "customer investigation," which focuses on understanding your customers' behaviors and their

perceptions of the value and benefits that your company provides. Customer investigation is essential to building strong customer relationships, a real competitive advantage in the construction environment. A successful competitive strategy includes a plan to strengthen customer relationships and increase the number of satisfied and loyal customers in your company's portfolio, resulting in more customer recommendations.

FMI's research on customer investigation shows the five performancerelated factors that most influence the likelihood of a contractor being recommended are:

- Overall value provided
- · Ability to exceed expectations
- · Commitment to solving problems
- · Focus on responsiveness to the customer
- Contractor morale

By addressing each of these areas, any contractor can increase its chances of bringing more work to its doors. By understanding the customer, contractors to gain an appreciation for not only what drives customers to select a particular provider of construction services but also the perceived uniqueness and value of the company's service offerings. This insight will help you defend your market position and share and pursue future opportunities with lower costs and greater chances of success. ■

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' Webster's Ninth New Collegiate Dictionary.

STRATEGY Project Controls: A Key to Profitability

Construction projects are temporary endeavors, having a defined beginning and end. They are dissimilar in complexity, magnitude and scope, with different customers and often different teams. The unique and temporary nature of construction projects makes it difficult to create a system allowing a contractor to collect and analyze information on projects or make use of project controls.

For those contractors who have realized the importance of project controls, the approach to design and implementation has been diverse. More often than not, it has been the perception of contractors that project controls cannot be applied

consistently to temporary, unique projects. In today's economic climate. contractors are being awarded projects with little to no margin. Due to this shift, it is now more important than ever that contractors implement solid project control processes to minimize risk and maximize margin. A myriad of software is available to assemble the information and generate the necessary reports, and it is not the intent to review these in this article. It is important, regardless of what software is chosen, to ensure the proper information is being collected and that necessary actions are taken based on the information.

The generic category of project controls includes the tools and techniques required for monitoring The unique and temporary nature of construction projects makes it difficult to create a system allowing a contractor to collect and analyze information on projects or make use of project controls. and controlling the success criteria of a project. Basic project controls criteria include:

- Where we are: Measure the project activities describing the actual expenditure and tangible progress made.
- Where we are supposed to be: Compare the intended project variables (scope, cost, schedule) with the amount of work accomplished, the budget expended and the baseline schedule.
- Where we are heading: Anticipate factors that influence scope changes, and accurately assess the cost and duration of the work to be completed.
- How we get back on track: Identify corrective actions to address issues and risks properly to realign the scope, budget and schedule success criteria.

To have effective project controls in place with the intent of minimizing risk and maximizing profit, the data reviewed need to go deeper than schedule and costs. Project controls must include the information to gain a comprehensive understanding of the status of change orders, cash flow, billing and customer relationships.

Without accurate and timely information, contractors are unable to address the four criteria of good project controls. In the words of Lewis Carroll,

Project controls must include the information to gain a comprehensive understanding of the status of change orders, cash flow, billing and customer relationships. "If you don't know where you are going, any road will get you there."

Where we are

The current state of the project is the easiest and most widely used project control in the construction industry. It is a measurement of what has already occurred on the project and can be as simple as adding up invoices, tallying time sheets and assessing how much work has been completed. However, a simple approach like this does not give the whole picture. Knowing where a project stands at a point in time can be much more complicated. To know precisely and thoroughly the current state of the project

requires accurate timesheets with the correct cost codes, reconciled invoices and a scientific approach to percent complete. In addition, it is necessary to understand the level of satisfaction of the customer, the current cash flow of the project and the state of change order approval and collection.

There are multiple ways to measure percent complete on a construction project. Three of these are 1) measuring spending versus budgeted, 2) an educated guess based on the perceived amount of work completed, or 3) a more scientific approach called Earned Value. To estimate percent complete based on actual spend versus budgeted requires that the project being measured be perfect. Costs are estimated with precision, production rates are exactly as estimated, conditions are exactly as foreseen, and things will continue this way. These are not realistic expectations.

The second method is the most common method used to estimate the amount of work that has been put in place against the amount contracted to put in place. Although this is one of the most common methods, it is extremely difficult to secure a quantitative assessment when actual components are not being counted. A team member walks the project and, based on experience and an intimate familiarity with the work being performed, estimates how much work has been completed and how much is left. The more complicated

the project, the more difficult speculating the percent complete becomes. In one field study, FMI asked four members of a project team to estimate the work completed against the contracted work to be performed. All four participants submitted varying answers with the range between the lowest and highest estimates being 20 percentage points.

The most methodical and accurate way to measure percent complete is through the earned Facts that are not current are a historical record of where a project was, not where it is now.

value method. Earned value is the real tangible value of put in place work. It is the actual value to the customer of the work completed. To calculate earned value requires a detailed schedule of values of the work contracted to complete. It is then a summation of this work, e.g., yards of concrete, lineal feet of pipe, tons of steel, etc., of units installed correctly that enables comparison of work installed to planned work. This is a much more accurate basis for determining percent complete.

Knowing a project's current state also requires timely information. All too often, project managers work with outdated data. Facts that are not current are a historical record of where a project was, not where it is now. The older the information is, the less relevant it becomes to making informed decisions.

Having an accurate and timely understanding of a project's current state is one of the most fundamental project controls. It is the foundation to making informed decisions and minimizing risk. Often FMI hears from its clients that it is difficult to receive and process timely and accurate information due to the nature of construction. The article "So You Think Your Jobsite is Tough" demonstrated that robust construction data could be collected and processed in an exact and timely manner, even from the Green Zone in Iraq.

Where we are supposed to be

The next category of good project controls is a comparative analysis of where we currently are and where we expected to be at the current point in the project's completion. This is an objective view of the project, based on resource expenditure and time elapsed. It includes what was to be accomplished, how much it should have cost based on the budget, and how much time it should have taken to get from the start of the job to its current state of completion, based on the schedule.

In order to have an accurate picture of where we are supposed to be on the project, it is necessary to have an accurate budget before beginning the project. If the estimate used in obtaining the project is not accurate, it is the project manager's and field manager's responsibility to identify these discrepancies and create an accurate budget, prior to the start of the project.

Earned value is used to calculate the cost and schedule performance indices, Cost Performance Index (CPI) and Schedule Performance Index (SPI)² (See Exhibit 1). The CPI is an evaluation of the value of the work in place in reference to the actual cost. The SPI is similar. It is the same evaluation of the work in place, in reference to the amount of budget to be expended over time. To calculate the indices, it is necessary to have the following information:

- Planned Value (PV): Budget spread out over time which is also occasionally referred to as a cost-loaded schedule
- · Actual Cost (AC): Expended and committed costs accumulated to date
- Earned Value (EV): The real, tangible value of the work in place

For a project team to make accurate conclusions on where the project is heading and what corrective action to undertake, it must have a reliable comprehension of where the project currently is and where it should be.

Where we are heading

Once we have an accurate and timely understanding of the project and where it is expected to be, we can begin forecasting where it is heading. This forecast typically is reported as an estimate to complete. Nothing is more important than knowing how much labor, material, equipment, information and time will be required to do the work that still needs to be completed.

Exhibit 1

Sample Metrics: What the Numbers Mean

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
EV	100.00	120.00	100.00	100.00	120.00	100.00
AC	100.00	100.00	100.00	120.00	120.00	120.00
PV	100.00	100.00	120.00	100.00	100.00	120.00
CPI	1.00	1.20	1.00	0.83	1.00	0.83
SPI	1.00	1.20	0.83	1.00	1.20	0.83
The Meaning	On Budget	Under Budget	On Budget	Over Budget	On Budget	Over Budget
	On Schedule	Ahead of Schedule	Behind Schedule	On Schedule	Ahead of Schedule	Behind Schedule

Key: CPI = EV÷AC SPI = EV÷PV CPI >1.0 Under Budget SPI >1.0 Ahead of Schedule CPI <1.0 Over Budget SPI <1.0 Behind Schedule

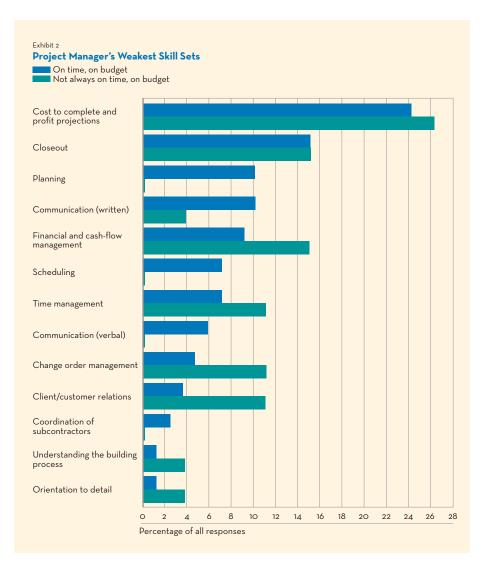
Source: FMI Corporation

To create or build the estimate of cost to complete in accordance with the contract, we accurately need to know these anticipated expenditure of resources:

- **Labor:** Cumulative number of trade hours it will take to complete the put in place work.
- Material: Cumulative committed material costs.
- Equipment: Rental or internal costs projected to be utilized.
- **Information:** Unfinished, uncommitted contract work to purchase for that scope that we do not self perform.
- **Time:** Number of calendar days it will take to get from where we are to completion.

As seen in Exhibit 2, the ability to accurately compute "cost to complete" and profit projections was the greatest area of weakness indicated by the respondents to *FMI's 2010 Project Management Survey*.

As previously described, earned value is a more reliable approach to

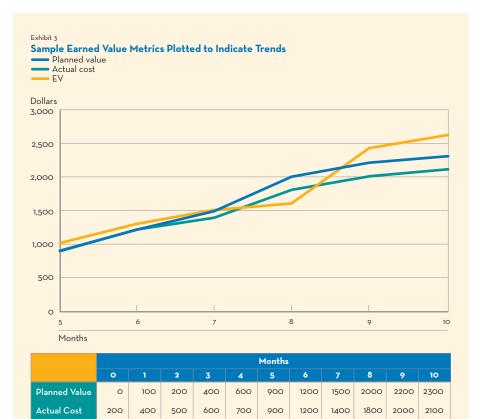


establishing a percent complete than the methods most construction companies typically employ. Likewise, earned value provides a more reliable cost to complete. The CPI and SPI can provide a graphical representation of the trajectory of project success or failure, as seen in Exhibit 3. If CPI and SPI are broken down by cost code, it is relatively simple to identify trends for the unit construction operations being performed.

How we get back on track

We can make informed decisions, not only about where the project is heading, but also about what corrective actions need to be taken, through interpreting the trends of the CPI and SPI. Accurate interpretation is key to re-establishing what the productivity quotas need to be and designing processes to achieve these while continuously striving to drive out waste.

By setting up the way the earned value data is recorded, we have the ability to drill down into the collected data that generated the CP and SP indices. With the correct level of detail, it is easy to spot the category of cost code data that is causing the upset. If we are collecting data on 100 cost codes, and we apply the philosophy behind Paretos' Law, or the 80/20 Rule, we can identify those 20 cost codes that are most likely to cause the budget overrun and/or the schedule delay. Identifying the offending construction



Source: FMI Corporation

0

100

300

500

700

1000

1300

1500

1600

2400

2600

Fν

unit operation cost codes is key to getting back on track. For example, if the PV for putting 20 units in place is supposed to be 50% complete, and only five units are defacto complete, we know that the productivity quota for this cost code is an issue. Whether it is means and methods, complexity of scope,

differing site condition or maybe even a budgeting error — the people who need to take action can take that action. It should be clear that those who are in a position to take the corrective action be authorized to do so.

Conclusion

A thorough understanding of the scope of work; a realistic, achievable budget; and an actionable, practical schedule are all prerequisites for a project control system, whether we apply earned value techniques or not. The means to collect accurate, timely input from the field, whether it is manual or technology-based, cannot The most sophisticated software system and elegant reports are a futile exercise if the information does not lead to making a project outcome successful.

be a compromise. The skills, knowledge and techniques to assess the amount of work that is complete and predict the work that still needs to be completed are required by the field and office personnel who have responsibility and accountability. It is leadership's role in an organization to ensure the information flow is accurate and timely, and that all roadblocks to receiving this data are removed.

Finally, it is the responsibility of those being held accountable for a project's success or failure to utilize the project controls to make corrective actions. The most sophisticated software system and elegant reports are a futile exercise if the information does not lead to making a project outcome successful. In today's economy, there is little to no room for error. As one contractor stated in *FMI*'s 2010 Project Management Survey:

"As competition increases, we will demand higher levels of accountability with regards to customer satisfaction and job profitability. Higher levels of productivity, better fiscal management and better sub-trade management."

With effective project controls and the ability to meaningfully interpret the results, contractors have the ability to remain profitable and maintain good customer relationships in the face of economic adversity. ■

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' Putzer, M & Chisholm, K. (2010). So You Think Your Jobsite is Tough? FMI Quarterly, Issue 1.

² PMI (2008). A Guide to the Project Management Body of Knowledge (PMBOK® Guide), 4th ed.

Quarterly Interview

Building a Culture of Excellence

Through Leadership Developmen

Russ Becker



To survive and thrive, it is essential to develop a unique and valuable position in the marketplace outside the traditional "quality, budget and schedule" approach. Many construction leaders use the well-worn refrain "our people are our most valuable asset" or "our greatest competitive advantage is our people." In fact, it is a rare leader and a unique organization that truly believes its employees to be a driver of competitive advantage.



APi Group, led by Chairman Lee Anderson and **President and CEO Russ Becker**, is an example of a company where investment in people continues to drive significant top- and bottom-line growth in a highly competitive industry. In fact, Lee Anderson sometimes is referred to as the chief leadership officer because of his unwavering passion around leader development.

The roots of APi Group extend back to 1926 with APi Inc., a small insulation contracting and distribution division of the mechanical company Reuben L. Anderson-Cherne. Lee Anderson became president of the family business in 1964. Now under CEO Russ Becker's leadership,

APi Group is the holding company for 35 independently managed companies. APi Group, at 9,000 people strong, is fast approaching \$1.5 billion in annual revenue in spite of the current economy. While some of its amazing growth is due to wise strategic decisions, timely acquisitions and strong operational focus, one of the key drivers of the firm's success remains its unwavering commitment to creating a culture of leadership development. APi drives it through leaders who embody company values and share a commitment to mentoring the next generation, and sustains it with a systematic process of leader development. To understand more about how this process is enabling APi to leverage its investment in people to create and sustain strategic advantage in its competitive markets, FMI recently interviewed CEO Russ Becker. This is how he sees it.

FMI Quarterly: Let's start with some background. Tell our readers a little bit about where you grew up and how you came to APi Group in St. Paul, Minn.

Russ: I grew up in northern Minnesota, graduating from high school in 1984. From there I went to Michigan Technological University on a hockey scholarship and earned my civil engineering degree. Although the New York Islanders drafted me, I was not good enough to get a contract with the team, so I stayed at Michigan Tech and received my master's degree in civil engineering. I started with APi Group in 1995 as manager of construction for one of the APi Group subsidiaries, a mechanical contractor based in Duluth, Minn. I worked there for seven years, and at that time APi was doing \$240 million in sales. By 2002, when I came to APi Group as president/COO, we did \$635 million in sales. I was promoted to CEO in 2006. In 2008 revenues were \$1.6 billion and our 2009 revenues will be just short of \$1.5 billion. Given the current business climate, this revenue represents significant achievement by our people. We had 21 companies when I started and now have 35 independently run subsidiary businesses.

FMI Quarterly: Let's begin with a philosophical question. What would you say are the basic components of leadership — what makes a leader?

Russ: This is such an interesting question. First, you have to have the desire to lead; not everyone wants to lead. Second, you have to set the example. You cannot ask anybody to do something that you have not done or are not willing to do yourself. Third, you have to put the well-being of everyone else

WHAT MAKES A LEADER?

- Need to want to lead
- Be the example to follow
- Put others before self
- Be honest have integrity
- Work hard
- Do it with humility

in front of your own personal well-being. Fourth, you have to have integrity and honesty in everything you do. Fifth, you must have a good, strong work ethic. And finally, do all of the above with humility.

FMI Quarterly: Are leaders born or made?

Russ: I love this question and I ask it to the high-potential leaders we bring into APi each year. I think the answer is both/and. It is partly something you

either have or you do not have, but at the same time, it is also something that can be developed. However, you must possess some of those basic components of leadership mentioned earlier. Otherwise, you can participate in all kinds of training and development, but you still will not have it.

FMI Quarterly: What characteristics are you looking for in the leaders you bring into APi?

Russ: At APi we have our Leadership Development Program, where the purpose is to hire top leaders, many of them junior officers from the Army and the Navy, with the potential to run a business for us in the future. When I say, "run a business," that does not necessarily mean being company president. That could be running a division or department within one of the businesses, but it means having P&L responsibility. When we are interviewing these young people, we can see that every one of them is smart. You can almost take for granted that they are intelligent and hard-working because they all are — they have not achieved what they have without those attributes. As we are interviewing these people we ask ourselves, "can we see them five

years, seven years down the road, leading one of our businesses?" If the answer is no, then we do not put them into our Leadership Development Program. That does not mean they are not good people or potentially good employees, but they're not right for this particular program. They are all so

different, so we have to be careful not to pigeonhole them. We must be on guard against deciding that simply because someone is not like me, I can't see him or her leading a business.

FMI Quarterly: With all the change happening in our world and industry today, are you looking for new or different things in leaders?

Russ: We want to hire the best and the brightest, regardless. I've always felt that way — it has nothing to do with what is going on in the world right now. We control what we can



control, and then there are things you cannot control. You have to do the best you can and surround yourself with the best people possible.

FMI Quarterly: How much do you value leaders who are adaptable or good at dealing with change?

Russ: If an individual leader is rigid, that will come out through our assessment process; but I think adaptability is just one component of success for leaders.

FMI Quarterly: When you refer to assessing leaders, do you mean before hiring them?

Russ: We do assess leaders before hiring, but in addition to that, one of the things we have started to do is an annual leadership assessment process that we call our leadership scorecard. Every company president is graded (A, B, C, etc.), and we write a little caption on why we gave him or her that grade. We started doing that to provide accountability, ensuring we had the best leaders running our businesses. For example, if we give someone a "C" and then next year we have a "C" there again, you can bet we are going to be asking why that has not changed. We do this two or three times a year and grade all the company presidents. During the last couple of years, we've pushed the scorecard down the organization; so as part of our business planning process, our company presidents all submit a ranking of their key employees. When we do quarterly reviews, we go through those ratings and we talk about every one of our people to make sure we have the best people and the right people running our businesses. It is something that is so important and it is starting to permeate our entire group.

FMI Quarterly: We have seen some organizations reduce their spending on leadership development in this economic downturn. What has been your approach at APi?

Russ: Steady as she goes. We have not changed our philosophy one bit; one of the first things we do when we buy a company is identify its key leaders and get them up to FMI's Leadership Institute within the next 12 months. We have not pulled back one bit in terms of what are doing for leadership development at APi.

FMI Quarterly: How do you justify that kind of investment?

Russ: First, it sends leaders a message that we are committed to their development and to making them better, because we send them and we pay for it from the corporate budget. Second, it gets the leaders on the same page; all have the same vocabulary, are coming from the same place,

In addition to training, we are also feeding the pipeline by hiring top leadership talent from outside the organization with our leadership development program, so we have stuff going on all the time. and are in sync with each other. Therefore, it creates a level of alignment that we would not have if we were doing it differently across the country. The Leadership Institute lays that common foundation for all of our leadership development efforts at APi.

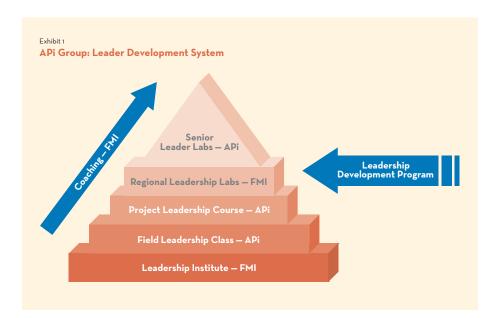
FMI Quarterly: What are the other pieces of your leadership development system at APi?

Russ: First, we do leadership training at key levels. We hold leader labs twice a year for our top-80 or so senior leaders. We bring them in to talk about leadership, talent and people development. We do not deal with numbers or strategy; it is all about leader development. Next, we hold regional leader labs. Last year

we held 12 of those, which FMI helped us develop and deliver in a number of key locations around the country, focused on nothing but leadership and talent development. Then, we created a project leader training course. This program teaches our project managers to be project leaders, and our company presidents are the instructors. Finally, we have our field supervisory leadership development class, which we take on the road for our craft supervision to provide leadership-training opportunities for our foremen and general foremen. In addition to training, we are also feeding the pipeline by hiring top leadership talent from outside the organization with our leadership development program, so we have stuff going on all the time. We also are having success with executive coaching. One of the things that is unique about our business is the decentralized way we operate. When you trust individuals to run \$200 million companies in various locations, and you only talk to them two or three times a month, it is critical to have talented people leading those businesses. The natural tendency when you have problems in your business and you are action-oriented is that you want to jump in and fix the problems yourself. We had a number of problems in 2002-2003 when I came down to APi Group. I jumped in, thinking I was going to fix all these problems, and I realized quickly that I could not do it all — I was overwhelmed. The light bulb clicked on for me. The magnitude of the problems forced me to step back and ask myself if we really had the right leaders in those businesses. Once you make that decision, yes or no, it makes the process a lot easier. We are doing a much better job of succession planning now because of that experience. If there is anything we have done well, we have really enhanced the leadership capability of the people running our businesses, and I attribute our success to that more than anything else (See Exhibit 1).

FMI Quarterly: You make a huge investment in your people. In 2009 you sent 65 leaders to FMI's Leadership Institute, and that is just one piece of what you are doing. Have you tried to measure the return on your investment?

Russ: When I first moved into my role at APi Group, we had done some scattered leadership development activities in the past. Lee and I discussed taking our leadership development at APi to the next level. My only request to Lee as we initiated the effort was that we make an unwavering commitment to the process, even when times are tough. Lee's passion is for leader development, so it was easy for him to agree and he has never



wavered — never — on the time or the dollars. We do not ask, "We are investing a million dollars a year just for our leadership development program, so what's the return?" The results speak for themselves — there's just no need to analyze it further. Moreover, while we have grown our revenues, our profitability as a percentage of our business has grown, so we are not growing for growth's sake. We have grown and our profitability has improved as we have grown.

FMI Quarterly: Those results are outstanding. Do you ever get resistance from people to attend all these programs?

Russ: It is part of our culture now. We never make anybody go, but here at APi, going to FMI's Leadership Institute has become a badge of honor. In general, we believe if you have smart people and you expose them to good

ideas they are going to embrace them and participate. They've got to have it in them and it's our job to bring it out of them. I can't tell you how many times I've gotten an e-mail, letter or card from folks talking about their time "on the mountain" at FMI's Leadership Institute. With the regional leader labs FMI has developed and delivered across the country over the last several years, we have not had any attendance issues whatsoever. Recently, Lee and I have seen some reluctance in a few areas because of the travel costs. On the one hand, we beat them up over expenses, and on the other hand, we ask them to fly folks around the country for the leader labs. If their business is struggling, it can be a legitimate concern. Corporate may do some things to

While we have grown our revenues, our profitability as a percentage of our business has grown, so we are not growing for growth's sake; we have grown and our profitability has improved as we have grown.

ease the burden because they want to send their people, so maybe we will buy the plane ticket for a person here and there. If senior management believes it is the right thing to do, then it is the right thing to do whether the business is struggling or not.

FMI Quarterly: Wow! That is a strong commitment from the entire organization.

Russ: Most of our people are good and they want to participate. If we have a problem with attendance, it is our fault for failing to communicate. We hired an expert two years ago to lead our training and development efforts. He had a similar role at the U.S. Military Academy at West Point, and he gets it, so

everything we do is first-class and well-organized. We know we need to put a first-rate product out there, and we have the right people to lead the effort.

FMI Quarterly: Are there any other thoughts you would want to share in regard to talent development?

Russ: The recession has not changed the fact that there is a talent shortage in our industry. It has just moved the bubble out to the right a bit. I believe the companies that are investing in their people today are going to be positioned well when the industry recovers, whether it is one year or three years from now. I would encourage my fellow leaders not to be short-sighted and continue to invest in people during the tough times.

FMI Quarterly: Good advice. Thanks for your time today, Russ.

Russ: You're welcome!

Russ' parting words about avoiding shortsightedness and continuing to invest in people even during hard times are wise counsel. The relative ease of entry by competitors, increasing leverage and sophistication of buyers, and widening global scope of the industry will only make the competition more intense in the future. To survive and thrive, it is essential to develop a unique and valuable position in the marketplace outside the traditional "quality, budget and schedule" approach. As the traditional drivers of differentiation, such as physical assets, access to capital and superior technology erode, the companies that will stand out in this rapidly changing economy will be those that continue to invest in their greatest asset — the leaders of the future. ■

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Estimating for Advantage: It's a Hard, Hard, Hard (Bid) World

Knowing the true cost of the work always provides an advantage, and estimating at its core is about coming as close as possible to the true cost of the work in an effort to secure profitable projects.

By Mike Clancy



hile Walker's definitive guide on estimating describes the best-case scenario for competitive bidding, most construction firms today face the

daunting prospect of bidding on poorly defined plans and specifications

against a large number of other firms of varying skill.

When contractors and consultants discuss job wins and losses, one of the games of "can you top this?" inevitably played revolves around the current work acquisition environment. One client, a \$250M general contractor performing public sector construction in the Southeast, used the term "retro procurement" to describe the change

"Competitive bidding ... is only truly effective when complete working drawings and specifications are available and when contractors are screened so all who bid are of the same caliber."

— Walker's Estimating Guide, 2002'

in preference for buyers of construction services from negotiation among a select group of bidders to the sort of wide-open, hard-bid market the industry thought it had left behind.

In 2008 at the peak of the nonresidential construction boom, the nonresidential market was at \$715 billion put in place, with roughly one-third of that volume in areas where lump sum is the usual or most frequent delivery method: public safety,

transportation, and various public works and utilities. In 2011 the nonresidential market is projected to be only \$600 billion, with historically hard-bid work making up about half of that smaller pie.² These numbers do not take into account sectors like health care and education, which had been moving to more negotiated work in recent years. Now many higher education and health care clients are shifting to hard bid, either with a completely open bidding process or through a select bidder's list. In fact, many private projects are moving away from a negotiated approach to a select-bid process, in order to capitalize on lower construction costs.

Given these changing market dynamics, industry firms that developed strong customer and subcontractor relationships over the past several years to participate in the negotiated market may now find themselves ill equipped to be competitive

It is FMI's belief that by refocusing on the "why" of hard bidding, firms can identify the strategic and tactical "how" actions that will allow for a greater level of confidence and success in procuring lump-sum work. in the bid environment. However, it is FMI's belief that by refocusing on the "why" of hard bidding, firms can identify the strategic and tactical "how" actions that will allow for a greater level of confidence and success in procuring lump-sum work.

WHY DO WE BID?

It may seem obvious that contractors bid work in order to get work. However, one of the first questions FMI asks an estimator often tells us whether the firm has a workacquisition culture or not. When we ask estimators, "What is your job?" the responses are most often focused on one of the inputs of their job. That is, we may hear that one person's job is to bid work or prepare quantity takeoffs or manage the subcontractor outreach and communication effort. We very rarely hear the "right" answer — that it is the job of every estimator

to help his or her firm acquire profitable work. One of our clients succinctly defined it in this way: "I have a lot of bid-get-outers that I need to turn into work-bring-inners."

This estimating mind-set drives behaviors that have a direct and obvious impact on the success of the bidding effort and, by extension, the overall success of the firm.

Estimators who believe their job in the organization is to bid work will do exactly that. They will bid nearly any job that comes across their desk if they have time to bid it. Since the bidding game is a numbers game, the more jobs these estimators bid, the more work the firm will get. Therefore, why not bid every job? Estimators who believe their job is to get work will only bid those opportunities on which the firm enjoys some type of advantage. The firm will develop project-win strategies for these key opportunities. These estimators will seem less efficient than their bid-work colleagues because they will spend more

"We were one of 22 general contractors bidding on the project, and the drawings were at best 90% complete."

> — \$100M Midwestern General Contractor, 2009

time developing fewer bids. However, the get-work estimators will be much more successful in bringing profitable jobs to their firms (See Exhibit 1).

Bid-work estimators will submit a bid and, after seeing the results of the bid opening, will move on to the next one. These estimators will probably celebrate an apparent low result or may commiserate over one

that got away, but will not spend much time looking back because there is always another job to bid. Get-work estimators will be surprised and angry when their bid is not the lowest at opening. After all, much time was spent in developing a bid strategy, and the firm expected to win that job. Get-work estimators will immediately start digging into all available information, looking into their assumptions, trying to identify the approach taken by the low bidder to ensure they do not lose the same way again.

Bid-work estimators believe that the subcontractor world is made up of bid-work estimators like themselves, so they send out blast faxes or e-mails, knowing that they will get enough subcontractor bids. Get-work estimators have identified the key subcontractors and vendors who have the ability to help their firm get low, and they might make a dozen or more calls to review scope, walk the job together or identify areas for potential margin improvement to ensure that their bid strategy succeeds.

If you have bid-work estimators in your organization, the good news is that as with most learned behaviors, this too can be changed through training and motivation. Providing a best-practices estimating framework within which your team can operate is an important first step.

Bid-work Mind-set	Get-work Mind-set
Measure success by number of bids submitted	Measure success by profitable work awarded
"That firm must be bidding below its cost."	"Let's figure out how that firm is bidding below our cost."
Expect to lose some (or many) bids – "can't win them all"	Expect to win nearly every bid
Move on to the next bid when we're not low at bid opening	Try to figure out why we were not low, since we expect to be
Bid everything that comes our way – shotgun approach	Bid with a strategy to win – laser focused approach
Subcontractor communications not leveraged – "fire and forget"	Key subcontractors targeted and involved throughout the process

Bid-work versus Get-work Mind-sets

Exhibit 1

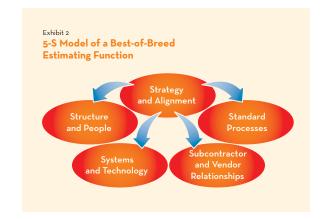
BEST-IN-CLASS ESTIMATING: THE 5-S ESTIMATING MODEL

FMI reviewed the estimating operations of some of the most successful construction firms in the country and identified several key attributes and behaviors of these top performers. Each of these attributes and behaviors provides actionable opportunities to those firms struggling to be successful in the current

lump-sum, hard-bid environment. We have collected these practices into what FMI calls the 5-S Model of a Best-of-Breed Estimating Function (See Exhibit 2).

Strategy and Alignment

A best-of-breed firm will align its estimating strategy with its overall corporate strategic direction. The firm has



a clearly defined marketing message that is understood internally and in the marketplace, and it will not pursue work outside its area of strategic focus. A contractor with a best-practices approach to estimating will have a structured project selection process that allows for effective deployment of estimating resources and will develop specific project-win strategies for key opportunities that define a competitive advantage. When looking at new types of work, the firm moves only into adjacent market niches rather than making drastic, reactive changes. Whenever possible, the firm incorporates field input into its estimates by bringing superintendent staff into the process early.

A project-win strategy can be as simple as identifying the critical trade contractor and ensuring that no other bidder is lower for that scope, or as complex as

> developing a schedule and staging plan that allows for one less mobilization and demobilization for certain trades, thereby driving down the cost. If a firm cannot identify its advantage on a project, it probably should not be bidding the work, especially in the current economic environment.

Structure and People

A best-of-breed firm will have skilled estimators working within a collaborative, team-based structure. The estimators will have a high level of business acumen, negotiating and selling skills, and technical knowledge about the divisions in which they specialize. They will be compensated and incentivized in a way that drives performance. Bear in mind that the goal should be the acquisition of profitable work; incentives that drive behaviors to acquire work without regard to profitability pave a sure path to disaster. The estimating manager has the ability to effectively motivate, lead and develop the team, and the logistics of the department facilitate teamwork and allow for smooth transitions of work product between team members.

An effective estimating staff needs some individuals who are detail-oriented and outstanding at take-offs and scope review, as well as others who can negotiate

and make deals with subcontractors. An estimating department that is not balanced between these two personality types will struggle to be successful.

Standard Processes

Best-in-class contractors will standardize estimating processes to build consistency and focus on value-adding activities. Estimators will conduct detailed takeoffs for all critical scope divisions, using an internally maintained and detailed cost-history database. The company will conduct a post-bid analysis on a mix of jobs to collect lessons learned. A contractor with a best-practices approach to estimating will have a clearly defined mark-up strategy based on risk, number of bidders, type of work, etc., and will conduct research on competing bidders to identify sources of advantage.

When examining an estimating department's processes, the focus should be on activities that directly A contractor with a best practices approach to estimating will have a clearly defined mark-up strategy based on risk, number of bidders, type of work, etc., and will conduct research on competing bidders to identify sources of advantage.

improve the accuracy of the estimate and the competitiveness of the bid. Therefore, administrative tasks such as ordering plans, faxing or e-mailing invitations to bid and the like should be "in-sourced" to administrative resources, while the estimators should focus on activities like scope reviews, quantity takeoffs and subcontractor calls to identify margin improvement opportunities.

Systems and Technology

Companies with a first-class estimating function leverage existing technology resources to enhance the effectiveness of the estimating function. Rather than being on the "bleeding edge" with frequent upgrades and software changes, the estimating department effectively and consistently uses the technology available to it. All estimators use a consistent set of forms and spreadsheets, rather than having an every-man-for-himself approach to documentation and information sharing. The contractor has a clear understanding of which functions need to integrate with estimating, and technology eases that integration.

No software program or technological tool will, by itself, give an estimator an edge on bid day; however, effective use of technology that a firm has already invested in may provide that edge. A company should ensure it is getting every advantage possible out of its existing technology before evaluating whether or not upgrading the technology makes good business sense.

The most common technology mistake contracting firms make is to overpurchase and under-implement. A strong tendency exists in this industry to expect a direct from-the-box solution rather than one that requires extensive modification and training in order to be most effective. As a rule, estimating software takes

No software program or technological tool will, by itself, give an estimator an edge on bid day; however, effective use of technology that a firm has already invested in may provide that edge. between 60 and 90 days to install, modify and build databases and assemblies. After installation, another 60 to 90 days is typically required for complete implementation, including debugging, training and developing consistent use in the department. Shortening either the installation or implementation time leads to an estimating software package that is less effective and more difficult for the estimators to use.

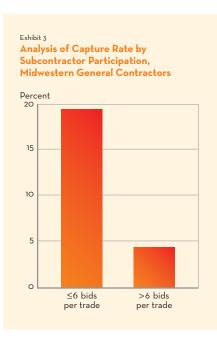
Subcontractor and Vendor Relationships

Best-in-class contractors will use subcontractor and vendor relationships as a source of competitive advantage on bid day. In fact, for general contractors and construction managers, these relationships are the competitive advantage. Estimators will use scope review as a way to drive out cost

and proactively identify margin-gain opportunities. The estimating department keeps a ranking of subcontractors by trade based on price, field coordination, responsiveness, etc., and consistently seeks to upgrade the subcontractor corps, using a defined subcontractor and vendor outreach program to identify and add new industry partners. The estimators are skilled at negotiating subcontractor and vendor pricing, especially on bid day, while maintaining high standards of ethics and avoiding even the appearance of bid shopping or other impropriety.

Subcontractor pricing is of high importance to all general contractors and construction managers. One \$100M general contractor saw the evidence of this truism when its bid day competitiveness was evaluated based on subcontractor participation. The old rule of thumb held that three bids per trade was sufficient subcontractor coverage. However, analysis found that when this firm had more

than six bidders per trade, its average bid was within 4.5% of the low bid, while when it had fewer than five bidders per trade, the firm averaged 19.2% variation from the low bid (See Exhibit 3). This expected correlation was consistent across project type and client, and led the firm to enhance its subcontractor outreach



efforts. Due in part to enhanced subcontractor outreach efforts by company management, this firm is projecting its most profitable year ever in 2010, as many other firms suffer.

KNOWING THE TRUE COST IS ALWAYS AN ADVANTAGE.

While developing a best-in-class estimating function seems especially relevant, given today's market realities, this is a practice top firms have consistently implemented, even during the construction boom of 2005–2008. Knowing the true cost of the work always provides an advantage, and estimating at its core is about coming as close as possible to the true cost of the work in an effort to secure profitable projects. If your firm lacks a

best-practices estimating approach, a thorough review of your estimating strategy, structure, people and processes will help identify areas for improvement. Investing the time and money to improve your estimating function will allow you to compete more effectively in today's hypercompetitive bid market. ■

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- ¹ Ratner, J. (ed.) (2002). Walker's Building Estimator's Reference Book, 27th Edition. Frank R. Walker Company,
- ² Chisholm, K (ed.) (2010). 2010 U.S. Markets Construction Overview. Raleigh, N.C.: FMI Corp. Available at www.fminet.com.

Value Creation in the Engineering and Construction Business

Creating value and goodwill above accumulated earnings value requires more than making money; it requires building an organization that makes money with or without the owner.

By Stuart Phoenix

alue creation is a rational goal of any business owner. However, we find that when the time comes for the business owner to sell, the potential buyer's assessment of the value created often disappoints the seller. Some of the differences between the seller's and buyer's opinion of value can be explained by human nature; however, in the engineering and construction industry, many of the differences can often be explained in how the business owner went about creating value.

For discussion purposes, we will divide how the business owner went about creating value into three methods:

- Accumulation of earnings
- Growth in earnings
- Creation of goodwill

Using the accumulation of earnings method, the business owner makes money but without creating an enterprise that is salable for more than its asset value. Most E&C firm strategies fall into this category, particularly smaller firms. The business is run to make money, and the owners realize the earnings of the firm by distributing earnings, selling the business for its book value (retained earning value) and perhaps an earnout based on future earnings or liquidating the firm.

Empirical statistics cited for companies of all sizes in the industry show that 30% of companies will eventually liquidate, approximately 60% will eventually sell/transfer to family or employees, and approximately 10% will sell to a third party. Goodwill (in the financial sense) is not created, and the business does not have a value separate from the assets and liabilities it accumulates.

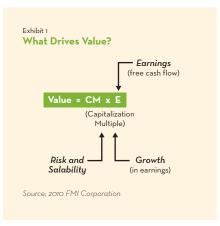
Alternatively, using the growth in earnings method, the business owner creates the business such that the value of the business is tied to its earnings capacity and that there will be a buyer who will pay some multiple of earnings for the business. Exhibit 1 shows a simple formula for the valuation of a business based on earnings. Creating value by this method is based on increasing the earnings capacity of the business. Public and many private firms fall into this category, and they create value by adding to earnings capacity through strategies such as responding to a growing market, growing people or diversifying geographically.

The creation of goodwill method includes the growth in earnings method, as goodwill is, by definition, the value

of a business above its asset value. For our discussion, we will differentiate the creation of goodwill method from the growth in earnings method by defining it as creating value by making the unsalable company salable; making the company that would sell for book or asset value sell for a premium to book; or for making the company that sells for a multiple of earnings sell for a higher multiple. A company that used the growth in earnings method might be worth three to five times its pretax earnings, and through various strategies, earnings are grown. Then

the increased earnings are multiplied by the same three to five multiple. Therefore, the value created is by the increase in earnings, not by an increase in multiple.

Empirical statistics cited for companies of all sizes in the industry show that 30% of companies will eventually liquidate, approximately 60% will eventually sell/transfer to family or employees, and approximately 10% will sell to a third party. Companies that liquidate



create value by accumulating earnings. Companies that sell or transfer to family or employees mostly create value for their owner by accumulating earnings, though some may realize a premium to book as with the other two methods. Sale to a third party could be at asset value or greater. Again, it could use any of the three methods.

The implication of these statistics is that not many E&C companies create goodwill; most accumulate earnings. The reasons for this start with the fundamentals of the construction industry, such as:

- The E&C industry is fragmented because:
 - Most building markets are local.
 - There are limited economies of scale.
 - Purchasing advantages vary as suppliers will often support the local business to avoid being too dependent on the national or regional business.
 - The effect of fragmentation is that the locally owned and managed business will often out-compete the division of a national or regional firm run by a division manager.
- Market opportunities come in waves. Five years is an eternity in the construction business, and what is built over time is cyclical. Successful firms are able to move with the waves of construction activity and are able to get smaller when needed.
- Businesses often struggle in downturns because of reduced margins, and banks and sureties that are often supportive in up markets turn away from E&C firms as clients in down markets.
 - About every 10 years, something happens, often external to the E&C industry that negatively affects the construction markets. Some examples are the oil embargo in the 1970s, interest rates peaking at more than 20% in the 1980s, the savings and loan crisis of the 1990s, the World Trade Center attack and bank collapses in the 2000s. Each of these events caused dramatic downturns in construction, often confounding the best efforts of industry entrepreneurs in value creation and consolidation, and usually resulting in some of the larger firms in the industry failing.

Combining these fundamentals makes value creation, beyond accumulation of earnings, difficult for the E&C firm. Growth by diversifying into somebody else's geographical market takes you against locally owned businesses. Growth by diversifying into a new type of construction runs the risk of getting into the wave at the wrong time and competing in an unfamiliar market. Investing in an acquisition strategy to consolidate a market runs the risk of the market turning down, struggling to integrate an acquired company or paying too much to an unmotivated seller or to a seller in the midst of industry consolidation wave. Owners of private companies often acknowledge the difficulty in creating goodwill in their buy/sell or stockholder agreements by using book value or asset value for their valuation. This may be a deliberate avoidance of including any goodwill in the business valuation, conservatism or just a desire to keep the valuation methodology simple by using the results of the balance sheet prepared by the accountant or an appraisal of assets.

With this thinking as a backdrop, how does an E&C firm create goodwill, that is, a business which a buyer will buy and at a value beyond its assets and accumulated earnings value? What are the drivers that create goodwill in the E&C industry? FMI's observation is that they include the following:

- A leadership culture. A construction firm is a group of people who get, perform and are paid for the projects and services they provide. Take out the people, and truly all you have are the assets and liabilities of the business. A leadership culture is one that develops people, and the business is therefore able to grow by expanding the organization.
- An ability to find and exploit opportunities. The slow-growth and cyclical E&C market is made up of numerous construction markets that cycle with intensity, and profit margins in sectors vary widely as well. The value-creating firm is able to find and move to and from opportunities.
- **Financial discipline.** In the article "Why Contractors Fail,"¹ an interesting finding was that while the nature of the E&C industry and the economy were contributing factors to failure, the primary reasons were poor strategic decisions or lack of financial discipline that led to capital erosion. Bad things are going to happen to businesses in this industry, and there is no substitute for a strong balance sheet and financial discipline to enable a business to get to the next set of opportunities.

Taken together, these three drivers (a leadership culture, the ability to find and exploit opportunities, and financial discipline) can create value in the buyer's mind. They can provide the potential buyer with the confidence that there will be the leaders and organization to facilitate growth. Contrast that with many businesses where the selling owner is the sole driving force in the business. These drivers can provide the potential buyer with the confidence that the business will be able to find and exit markets when the company's current market cycles. Contrast this

> with a business that has been successful only in a single service, market sector or geographic market. Finally, the buyer will assign greater value if the business has financial systems and controls to identify problems early and the decision-making skills to react appropriately.

These drivers justify the payment of a premium in the form of a higher multiple or goodwill. Numerous successful companies accumulate earnings with great business fundamentals. Many do not test the market to see if a buyer will recognize their value as they prefer to remain independent. Going to market is the ultimate test for the creation of goodwill.

OWNERSHIP STRUCTURE FOR VALUE CREATION

To realize goodwill in the valuation of a business requires adopting an ownership structure to exploit the opportunity. Exhibit 2 shows five ownership structures. First is the private structure. This is the least likely structure to result in payment for goodwill to owners. In fact, goodwill in a valuation for a business's

Exhibit 2 Ownership Strategy Alternatives

Ownerhip Structure	Private	Private Equity	Strategic Sale	Public IPO/SPAC	ESOP
Management Succession	Need 30-50-year- olds • To buy stock • To become successor leaders	Need 30-50-year- olds • To become successor leaders and owners	Need 30-50-year- olds • To become successor leaders	Need 30-50-year- olds • To become successor leaders Need a "Public CEO and CFO"	Need 30-50-year- olds • To become successor leaders
	5-15 years Develop a perpetual solution	1 year for initial transaction 3-7 years for second transaction	1-2 years	 1-5 years When market timing is right 	5-15 years • To retire ESOP debt
lf Bonding Required	Need to maintain a bondable balance sheet Need succession plan for surety	Need to maintain a bondable balance sheet	Buyer needs a bondable balance sheet	Need to maintain a bondable balance sheet	ESOP debt counts against bondable balance sheet
Valuation	Defined by what is practical • Need to complete buyout in a reasonable time • Support perpetual model	Driven by ROI (return on investment) Constrained if bonding required Participation in second sale adds to value	Negotiated	Comparables to public companies	Formal third party Needs to be sustainable for ESOP to meet repurchase obligations
	Payments are over time Payments are at risk of performance of the business	Payment at closing but likely to include subordinated note Additional payment at second sale Continued participation by management is required	Cash with likely hold back/escrow and/or note Earnout possible	Partial cash, significant stock Management must maintain a significant stake or analysts / investors lose confidence	Driven by owner objectives and balance sheet requirements
Strategic Implications	Emphasize leadership succession and development Emphasize high ROE strategies versus capital intensive strategies • Acquisitions difficult • Asset or working capital intensive businesses difficult	Requires second exit strategy (IPO, SPAC, P/E, management sale, strategic sale) Requires coherent story and growth strategy Leadership succession is a prerequisite	Limited candidates Make money Address leadership succession	Coherent story and growth strategy required Need to want to be public Management Team" that is committed to growing and presenting the Company	Board and management team have "public like" fiduciary responsibilities Need focus on management succession Capital may be limited for growth in short term Sub S ESOP defers tax on income Need to create "control owner-like" entrepreneurial incentives

private ownership structure may work against the survival of the business as a private firm. This is because if the stock price is too high, a sale to employees or back to the company may put financial strain on the business, leading to a loss of financial discipline and capacity.

The other four ownership structures — private equity, strategic sale, public IPO/SPAC and ESOP — all offer the opportunity for a valuation and sale of stock at a value that includes goodwill.

Private Equity

Private equity is a pool of funds provided by investors that is managed and invested by a management firm. The investors in private equity typically include high-net-worth individuals, endowments and pension funds. There are thousands of private equity funds investing pools of money in all types of businesses. A segment of these funds invests in engineering and construction firms.

Private equity provides two opportunities for a seller to realize value from its business. First, if a business meets its investment criteria, it will pay a multiple of your earnings or cash flow for a portion of your business. Typically, it will not buy 100% of your business.

Private equity managers will then encourage and possibly help the business increase its value by increasing earnings and making the business more salable. The second opportunity for the seller to realize value is from a second sale, typically three to seven years after the first purchase, wherein both the current private equity

fund and the participating managers realize capital gains.

Private equity is very selective about where it will invest. It likely will pay for goodwill in a purchase and its hope and intent are to increase dramatically the goodwill realized in the second sale.

Strategic Sale

In a strategic sale, a business sells to a third-party buyer, such as a larger private company, public company or a private-equity-backed company. Value is driven by the profitability of the business, its asset base and intangible and strategic factors. Buyers have their own motives and interests for an

acquisition, and this will drive their view of value. Strategic purchasers may seek to enter new markets, consolidate a market, build out a national footprint or a host of other strategic intentions. Ultimately, value is negotiated between buyer and seller based on both parties' interests and motives.

Public IPO/SPAC

An Initial Public Offering (IPO) is a process whereby a business can sell a portion of its stock to the public. The public, as used here, includes institutional

and individual investors. After the IPO, the stock of the business trades on an exchange. Valuation is driven by the underlying fundamentals of the business, industry and market trends, and comparable stocks within the same industry.

CONCLUSION

E&C business owners toward the end of their careers seek to realize the value of what they have created in the course of business life. They are often disappointed to discover that the value of their business is tied more to its asset value or a

nominal multiple of earnings that result in a value they could exceed by retaining the company for a few years. It is often difficult to explain to these owners that their notion of goodwill does not hold in a buyer's mind because the goodwill is overly dependent upon the selling owner as a person, or that the buyer sees risk where the owner sees opportunity, and therefore, the buyer's valuation is tempered.

Creating value and goodwill above accumulated earnings value requires more than making money; it requires building an organization that makes money with or without the owner. It requires a corporate culture that is continuously developing people to expand the capabilities of the organization. It requires a corporate culture that is forever in search of new opportunities in the The organizations that can build the culture of developing their people and create processes to constantly identify and exploit new opportunities are those that are most likely to create value and goodwill.

industry with the ability to take advantage of those opportunities. The organizations that can build the culture of developing their people and create processes to constantly identify and exploit new opportunities are those that are most likely to create value and goodwill.

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¹ Rice, Hugh. Why Contractors Fail. FMI Quarterly, 2006 (4), p. 6-8.

Prefabrication: To Invest or Not to Invest?

It is easy to understand why contractors are rushing to build prefabrication capabilities — there is a lot of opportunity for savings (optimism), and the competition is already doing it (paranoia).

By Ethan Cowles

onstruction contracting is a risky and competitive business. The industry is full of proud, eternal optimists who genuinely believe "anything can be accomplished as long as I/we do it" and that "no one can outperform us." These people are also the ones who lie awake at night obsessing over what

their competition is doing, how to keep their companies relevant to

their customers and how to remain competitive in the market.

In down economies such as this one, we need paranoid optimists! We need people capable of seeing nothing but opportunity while facing odds that would make even a roulette player think twice. Today, more than ever, you need paranoid optimists who possess the discipline of true business professionals. Companies must make smart, informed business decisions that are backed up by more than intuition and common sense.

Nothing is more exciting for contractors than to reach the next level of profitability or to reduce their costs so they become more competitive. For this reason, when something comes along that promises to increase construction productivity dramatically and change the way buildings are constructed, contractors should pay attention!

One of the trends in the industry having major impact on productivity is the use of prefabricated assemblies. Potential benefits of prefabrication include the positive impact it can have on margins as well as the palpable competitive edge it can give a company in a tight market. However, some contractors follow the crowd by chasing these benefits and blindly investing in their prefabrication capabilities without doing basic due diligence. Any significant prefabrication operation can fundamentally change the structure of a company and how it

Any significant prefabrication operation can fundamentally change the structure of a company and how it needs to be managed. needs to be managed. Not realizing this beforehand is like playing with gasoline and matches; bad things can happen.

BAD THINGS HAPPEN

Todd is the owner and president of DEC Mechanical, a Florida-based mechanical contractor averaging \$100 million in revenues. Over the past couple of years, DEC's prefabrication facility has grown from a small staging and assembly area into a multimilliondollar operation including dedicated delivery trucks, equipment, labor and material inventories.

In the beginning, prefab could do no wrong. The controlled environment

of the prefabricated facilities made prefab labor twice as efficient as field labor. Total project equipment costs on an average were 10% lower, and material costs were down 5–10%, due to decreased waste and bulk-purchase price breaks. Todd made sure the company pushed hard to find new ways to use prefabrication.

Lately, it seems like prefabrication operations are taking up a significant portion of management's time, having constantly to address new problems and issues. The prefabrication facility is busier than ever, working on a first-come, first-served basis, and periodically has to turn away internal prefab requests due to being too busy. More and more, the prefab department is delivering assemblies late and/or delivering assemblies that have to be field-modified in order to be installed. Due to capacity shortages and delays, many project managers have had another company build the prefab assemblies they need, and in many instances, are buying the assemblies for less than DEC's prefab shop is charging for them.

The prefab manager thinks that purchasing additional equipment would sufficiently increase his prefabrication capabilities to service the internal demand, but Todd is not sure that is the answer. DEC has begun to pick up significant projects that are more than 300 miles away from the prefab shop, making DEC's prefab assemblies too expensive when the delivery charge is taken into consideration. In addition to all of this, DEC is having some serious cash-flow problems — something that never used to happen.

Todd knows DEC has made a lot of money due to its prefabrication efforts and, at this point, knows that DEC has to use prefabrication in order to

remain competitive in the market. Todd is not sure what to do. Should he invest more into the prefabrication facility he has? Should he open a new prefabrication facility closer to where the new projects are? Should he find more places and companies from which to purchase prefabricated assemblies? Does he need to hire someone to help determine how to run things more efficiently? How would the company fund any expansion? Why is cash becoming hard to come by — too much inventory?

There is no doubt that Todd has some serious issues to deal with, but many of them could have been avoided if DEC had proactively managed its prefabrication strategy from the beginning.

WHY PREFAB?

The use of prefabricated assemblies in construction is here to stay and will continue to grow. Potential advantages of prefabrication include:

- Lower labor costs. Due to the repetitive nature of prefabrication, more can be done with cheaper, lower-skilled workers.
- Lower equipment costs. Using specialized tools and equipment can increase the speed and capabilities of labor. Using prefabrication facilities also decreases the overall need for field equipment.
- Low material waste/delays. Materials can be stockpiled and staged, making them available in specific locations as needed and keeping them from interfering with other activities. Materials easily can be inventoried to ensure no delays result from missing parts or pieces. Overall, material waste is also reduced because scrap parts and pieces from one project can be used on other projects.
- **Better control of safety.** Prefabrication facilities provide a consistent environment, maximizing the effectiveness and useful life of safety measures.
- Fewer weather delays. Construction materials and workers are sheltered from excessive cold, heat and moisture during the entire process.
- **Optimized layout area.** Unlike most construction sites, prefabrication facilities have sufficient room for people, equipment and materials, without being in the way of other trades.
- **Better supervision.** A consistent location allows fewer supervisors to oversee a higher volume of work.
- **Shorter on-site schedules.** Many different assemblies, for many different trades, can be built concurrently off-site, reducing the hours/days needed for similar on-site fabrication and installation.

FMI recently conducted a survey to collect the observations and opinions of mechanical/HVAC, electrical and plumbing (MEP) contractors regarding prefabrication. FMI received 103 responses from both union and nonunion contractors, ranging in revenue size from \$25 million to greater than \$500 million. MEP contractors were chosen for this survey due to the relatively high use of prefabricated assemblies in MEP companies and trades. The results of the survey are intriguing.¹

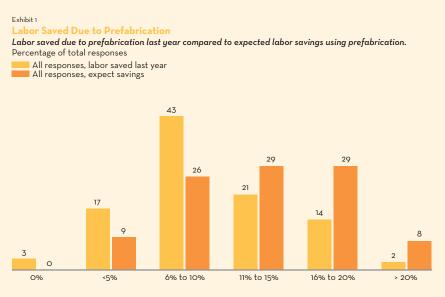
Starting with labor, Exhibit 1 from the survey shows how much labor was saved by the respondent companies due to prefabrication in the year prior to

taking the survey, and how much labor they expect to save by using prefabrication within the next five years.

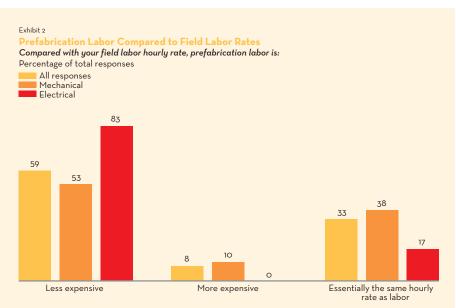
- 80% of respondents saved more than 5% in labor last year due to prefabrication.
- 93% expect they could save more than 16% in labor costs in the coming years.

Exhibit 2 shows that 59% of the respondents said prefabrication labor was less expensive (per hour) than their typical field labor.

Equipment savings was also significant, as illustrated in Exhibit 3, where



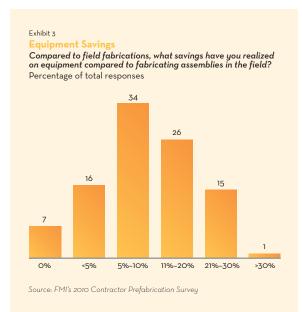
Source: FMI's 2010 Contractor Prefabrication Survey



Source: FMI's 2010 Contractor Prefabrication Survey

76% of respondents saved more than 5%, and 42% of respondents saved more than 11% on equipment.

It is important to keep in mind that these meaningful savings stem from a relatively small portion of the total work these companies are doing. Exhibit 4 shows that 48% of the respondents said 10% or less of their total work was accomplished using prefabrication. However, as an indication



of where the industry is going, 16% of the respondents have reached a level where more than 25% of the work is accomplished using prefabrication.

In addition to the savings that are already attainable with prefabrication, technology is allowing even more contractors to benefit from prefabrication.

- A/E firms are designing projects using software that is compatible with many 3-D CAD systems. This compatibility enables contractors to complete detailed shop drawings well in advance of mobilizing field crews. High-quality spatial information and better lead time allow contractors to increase the number and complexity of prefabricated assemblies.
- The use of automated manufacturing equipment, particularly in mechanical applications, is on the rise. Current machines are able to take information straight from a 3-D CAD file and fold, bend, curl and weld entire assemblies, greatly decreasing the time and labor previously required.

With a relatively small amount of research it is easy to understand why contractors are rushing to build prefabrication capabilities — there is a lot of opportunity for savings (optimism), and the competition is already doing it (paranoia).

BEFORE INVESTING, WHAT SHOULD A COMPANY DO?

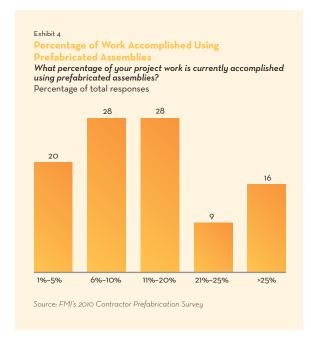
Whether starting prefabrication operations from scratch or contemplating expanding existing capabilities, a few things need to be done before making any investments. Answering the following questions should accomplish a minimal level of due diligence and uncover many of the potential dangers of investing in prefabrication operations.

What is the company trying to accomplish?

This is the first question that needs to be addressed, because it will determine the scope, speed and objectives of the prefabrication efforts. An answer to this question might be, "achieve a 20% increase in labor productivity by 2015." As the example illustrates, the objective should state a measurable outcome and a defined time frame.

Specific measurable outcomes eliminate any ambiguity as to what success means and whether or not the objective is being met. A measurable goal also gives a company the ability to gauge its progress over time.

Setting a particular



time line for a company to achieve a goal is extremely important and has many ramifications. The absence of a time frame can often derail an initiative entirely due to a lack of attention and priority. Setting a time frame enables the company to define short- and long-term financial and operational goals, while properly dedicating resources to accomplish them. Successes can be celebrated and shortcomings can be addressed before they become major problems.

Why is the company making this investment?

At first look, the answer to this question may seem obvious but a company needs to ensure it can be answered. The "why" needs to be more than just "to become more efficient." Is the main objective to increase profits, to be more efficient so the company can price projects more competitively, to decrease the needed on-site time for projects, to establish an additional source of revenue for the company, etc.? Answering this will help put the overall prefabrication initiative into a larger context and help management analyze alternatives. There may be cheaper, faster ways to accomplish the overall goal without making substantial investments of time, energy and money into prefab.

Where will the prefabrication facilities be located?

Many prefab operations get their start in the corner of existing company facilities. However, there are many instances where prefabrication operations quickly outgrew their initial facilities and drove a hasty need to expand. From the beginning, make plans for facilities that can grow with the operations. This will minimize the need to buy property, equipment and facilities more than once and maximize the return on every dollar.

The planned location of the prefabrication facility is fundamental to the overall decision whether to invest or not. Prefabricated assemblies will need to be delivered to the field, so the costs and time associated with making deliveries need to be evaluated. If projects are spread out over long distances from the prefabrication facility, it may be more economical to purchase prefabricated assemblies from other companies closer to the project locations or to field fabricate. Just because a company has prefabrication capabilities that are more efficient than field fabrication does not mean the savings are maintained by the time assemblies are delivered to the jobsite.

When will the investments be made, and when should you expect a return?

Developing a cash-flow projection allows a company to anticipate the cash demands of the prefabrication operations. It also helps executives to manage the positive and negative fluctuations, ensuring there is enough to operate the prefab operations in addition to the day-to-day business of the rest of the company. Making sure a company does not run out of cash unexpectedly is a big deal, and not realizing how much cash can get tied up into prefabrication activities is dangerous! Additionally, depending upon contract terms, it is possible to expend

significant prefabrication labor dollars that wind up as part of finished goods inventory that cannot be billed until installed in the job.

Profit, for a healthy company, is like food to a healthy person's body. A person can survive several days without any food. In the same way, a company can have a couple of bad projects with little to no profit and still survive. But cash is different. Cash to a company is like air to a person's body. If a person stops breathing, he or she is dead in just a few minutes. If a company runs out of cash, it too is dead. Because the ramifications of running out of cash are so high, make a serious effort to ensure that cash flow is generally positive. Cash to a company is like air to a person's body. If a person stops breathing, he or she is dead in just a few minutes. If a company runs out of cash, it too is dead.

Over the life span of any prefabrication operation, there will be

both positive and negative cash flows. In order to mitigate the risks or anticipate the cash needs of the operations, the cash demands must be looked at over the entire life span of the investment in prefabrication resources. In most instances, the life span should be looked at over several years.

Projecting cash flow is a straightforward process. First, determine/forecast how much revenue will be coming into the prefabrication department on a period-by-period basis (e.g., monthly, quarterly, yearly, etc.). Second, determine how much the investment in prefabrication will cost the company during the same periods. Finally, determine the net cash flow for each period (Cash income for period - Cash expenses for period = Net cash flow for period).²

Revenue from prefabrication efforts comes from either internal or external

sources. Logically, any time an internal project uses prefabricated assemblies, a portion of the project's revenue should be allocated to the prefabrication department. It is common for a prefabrication shop with excess capacity to sell assemblies to businesses outside of the company. Costs come in the traditional forms: facilities, utilities, labor, materials, equipment, delivery costs and overhead.

Analyze each period. Positive cash flows are good. Negative cash flows, from any period, will need to be covered by the company and, of course, it is possible to have negative cash flows for several periods in a row. Be aware — do not run out of air!

Who will perform the prefabrication labor and who will manage the field operations?

There are two schools of thought around the first part of this question. First, many companies find that the repetitive nature of prefabrication can be carried out by lower-skilled, manufacturing-type labor, resulting in lower hourly wages and a larger labor pool. Other companies have found that their prefabrication

It is important that management anticipates that any successful change initiative will take effort, planning and time. Prefabrication is no exception. efforts are maximized and rework is minimized by having experienced tradespeople performing prefabrication labor, while still benefiting from the productivity increases from the pre-fab facility.

Both options work, but it is important to know what the initial intentions are. Using lower-skilled workers will require intense, upfront training and dedicated management oversight. Using experienced tradesmen, on the other hand, may take a company's high performers out of the field, negatively affecting traditional operations. Decide early.

The skills needed to manage a prefabrication operation are fundamentally different than running

field projects. Effectively managing prefabrication (analogous to manufacturing) requires experience in facility efficiency calculations, inventory management, capacity and priority planning, etc. Most organizations either hire an outside manager with manufacturing experience or find it necessary to train an internal candidate. Both may take some time to accomplish.

How will the company rollout its prefabrication initiative?

It is important that management anticipates that any successful change initiative will take effort, planning and time. Prefabrication is no exception.

Developing a phased schedule to build facilities, install prefabrication equipment and train labor is the easy part. Developing the systems, process and attitudes needed to support the prefabrication efforts is trickier.

Prefabrication affects project budgets. Project and field managers will want to

know exactly how and why their budgets are going to be changed, and making them comfortable with this early is a best practice. Establishing an incentive program for managers to use prefabricated assemblies on projects often helps prefabrication efforts get started and run quickly.

Companies should proactively introduce prefabrication efforts to their existing field personnel. Often, craftspeople perceive prefabrication as competition; prefab = jobs lost in the field. Managers should explain what

the objectives of the prefabrication efforts are, why they are important for the company and what they see as future opportunities for field craftspeople within the company. Typically, companies do not lay off field personnel due to their prefabrication operations. In fact, in most cases prefabrication operations increase overall employment due to the additional capabilities and the more competitive cost structure.

Another best practice that helps speed up the use of prefabricated assemblies is to create and use a "Prefabricated Assemblies Catalog." The catalog should contain plans and specs for every prefabricated assembly that the company can make and include a breakdown of material, labor costs and estimated labor/equipment savings. This helps field managers understand and visualize what can be accomplished and when they can utilize prefabrication while helping the company prioritize their efforts toward building assemblies that save the most field labor. A catalog is also a great training tool for both field and prefab labor and introduces them quickly to the company's prefabrication capabilities.

Prefabrication is a trend in the construction industry that will change how we design projects, how we build projects, how fast we build them and where they (assemblies) will be built. As with any change in technology, the use of prefabrication has many opportunities as well as potential threats. To be successful in the future, companies must be prepared to make educated investments in emerging methodologies, such as prefabrication, strategically operate their businesses and relentlessly strive for continuous improvement ... because other firms are already doing so.

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¹ For a copy of FMI's 2010 Contractor Prefabrication Survey, please contact Ethan Cowles at 303.398.7276 or Phil Warner at 919.785.9357.

² A more in-depth analysis of the investment, not covered in this article, can be made using a Net Present Value calculation.

Leading New Normal Projects: Project Management in 2010

Best-of-class project management lies within consistent and standardized processes and tools rather than the behaviors of any single individual within a firm.

By Gregg M. Schoppman

he results of FMI's 2010 Project Management Survey are in, and it is clear that in light of the current market organizations are faced with two challenges. First is the need to do more with less. Put another way, management teams are stretched thin and already operating on razor-thin budgets. The second challenge is with those firms that are operating in new markets and niches. This creates a need to have the most refined and focused set of project management best practices that are germane to the new types of projects the firm is building.

This article highlights just some of the topics found in FMI's 2010 Project Management Survey, including:

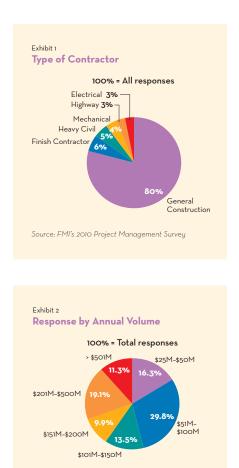
- The state of project management in 2010
- · Skill sets and development of project managers
- Estimating/pre-job planning
- Documentation

- · Cost control and cash management
- Change order management
- Post-job review
- What the future holds

If you would like a copy of the entire survey, please see ordering information at the end of this article.

DEMOGRAPHICS

The respondents to the survey included presidents, chief executive officers, operations managers, vice presidents, executive vice presidents and other project



Source: FMI's 2010 Project Management Survey

management leaders. The general contractor community represented the largest segment of respondents at 80%, with labor-intensive contractors making up the remaining 20% (See Exhibit I).

The size of the organizations that responded varied considerably, ranging in annual revenue from \$25 million to more than \$500 million, as seen in Exhibit 2. Respondent companies worked with a wide variety of delivery systems from traditional design-build to hard-bid selection (See Exhibit 3).

THE BENCHMARK

We analyzed the survey answers by comparing two categories of respondents according to how they replied to the questions about projects being more or less often on time and on budget. The two categories of respondents were:

- On time, on budget (O-Group)
- Not on time, not on budget (N-Group)

The O-Group pulled from all responses to this survey was the group that most often followed what we consider "best practices" for top-performing project management teams in areas such as safety, quality and customer satisfaction.

THE STATE OF PROJECT MANAGEMENT IN 2010

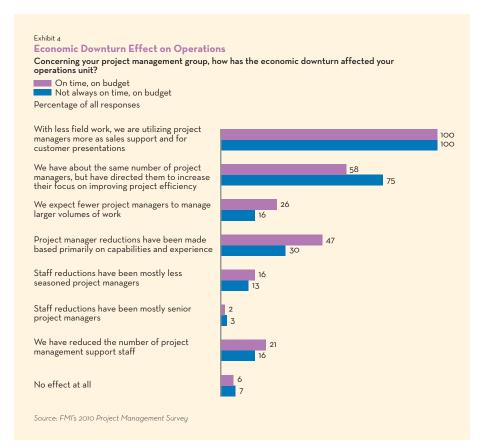
With declining backlogs and margins in the majority of construction sectors, project managers are spending more time on "getting work" and are serving as

sales support for their companies. Project managers are focusing on efficiency and productivity measures to drive down costs and enhance margins, and 75% of the respondents within the O-Group have made this a significant strategic initiative (See Exhibit 4).



Understanding how companies operate and what makes them

successful can provide significant advantage to those who apply these lessons. Profitable organizations have a corporate set of best practices that their managers adhere to religiously, ensuring the continuity of the business. Overwhelmingly, the O-Group stated that 81% of their organizations have a company way of doing things compared to 34% of the N-Group, as shown in Exhibit 5. Simply put, consistent application of corporate best practices has a direct impact on the overall sustainable profitability of an organization.





Organizations with a cowboy culture lack the ability to grow new managers and personnel effectively over time. Furthermore, the lack of a standardized approach to project management results in being restricted to the individual's limits rather than the talent of the entire company. Processes such as pre-job planning, job closeout, change order management, collections and document control all need organizational control to ensure maximum profitability and to provide a general framework for each niche, market and project.

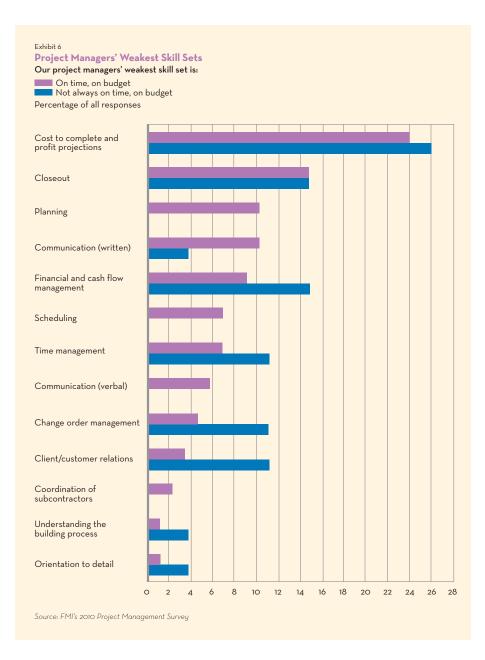
Project managers must possess certain skill sets and competencies in order to be successful and add to their companies' bottom line. How do companies develop their project managers to ensure they are equipped with the knowledge to manage their work profitably and on time?

SKILL SETS/TRAINING AND DEVELOPMENT

Skill sets among project managers vary considerably. Some are exceptionally good at the technical aspect of construction but lack the business acumen to understand the financial ramifications of their decisions. For both the O- and N-

Groups, the ability to accurately perform "cost to complete" and profit projections was the greatest area of weakness indicated by the respondents to our survey (See Exhibit 6). Project closeout was also an area of weakness for both groups (approximately 14.5% of the respondents).

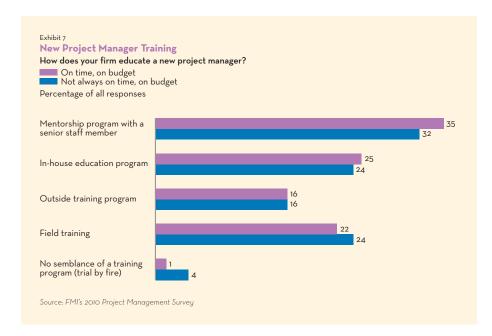
Planning, communication and coordination were weaknesses more likely found within the N-Group. From this data, we cannot say whether the weaknesses of poor planning are characteristics



absent in the individual manager or in the organization itself. Proper planning is a learned trait, and if there is no structure for proper planning, managers will most likely default to a reactionary mind-set, putting out fires as they come up, especially if the organization encourages such a mentality.

Training and developing project managers is an essential task of any organization, and the statistics across both the N- and O-Groups were very similar. Mentorship was the most common way companies develop their new project managers, followed by in-house education and field training (See Exhibit 7).

Best-of-class organizations invest in long-term training on a variety of subjects, including technical skills, financial management, communication, customer relations and new industry trends, such as integrated project delivery and LEED/green technologies. Organizations that have consistent standardized best practices as



the backbone of the training curriculum, which allows them to synchronize new concepts better and make course corrections where applicable. Consistent tools and processes lend themselves to incorporating new concepts and innovation easier than having an ad hoc system based on the individual practices of a group of individuals. For instance, it is the equivalent of building on a stable foundation rather than on unstable ground of various densities and composition. Training

Training budgets are often the first to be cut in a bad economy. Companies need to be creative in finding ways to develop their people continuously. is important, but without a consistent structure, fails to enable long-term change for the better. An excellent source of information to incorporate within any training regimen is data collected as part of the post-job review process, which is discussed later in this article.

Training budgets are often the first to be cut in a bad economy. Companies need to be creative in finding ways to develop their people continuously. Some of the greatest trainers are internal to an organization, and finding subject matter experts may simply require a change of perspective in the short term. For example, superintendents educating new project managers on fundamental building processes provide

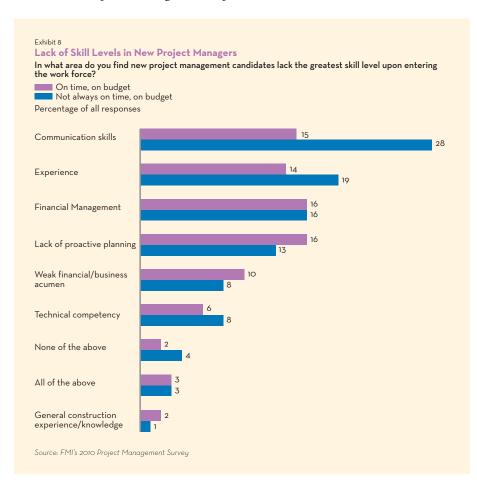
an excellent opportunity to harness knowledge that is precariously close to being lost, as droves of superintendents enter retirement, leaving the business forever. Train-the-trainer training is a cost-effective method to ensure that the subject matter experts learn how to design and deliver the needed training effectively. FMI wanted to know where new project managers lacked the greatest skill level upon entering the workforce, in the following areas:

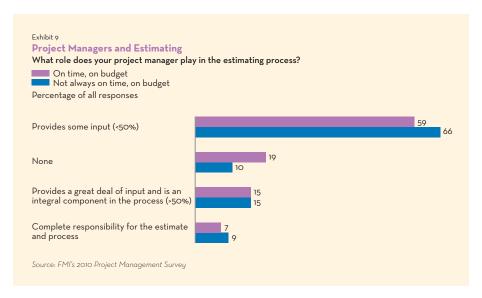
- Communication skills
- Work experience
- Financial management
- Proactive planning
- Business acumen
- Technology

For the O-Group, lack of proactive planning and financial management were the weakest skills, and for the N-Group, it was lack of communication (See Exhibit 8). Financial/business acumen, effective communication and overall proactive planning should be emphasized in a young manager's development. For example, project scheduling is only partially effective if it does not account for financial impacts or if it is poorly communicated.

ESTIMATING AND PRE-JOB PLANNING

Project managers are becoming more active in the estimating process. In both the O- and N-Groups, approximately 60–66% of the project managers provide some level of input in the "get-work" process (See Exhibit 9). Best-of-class firms





are using project managers not only in this capacity but also as participants in pre-job planning. Project managers are now providing insight on a wide range of areas that include:

- Site conditions
- Trade contractor selection
- · Unit costs and budgetary considerations
- Coordination and schedule

Ultimately, early involvement of project managers creates an excellent opportunity to begin a project on the right foot. Their involvement with the estimating process creates more buy-in and a vesting to the budget. They also benefit from the increased contact with the potential customer. The more the end-user or general contractor can become accustomed to seeing a project manager early in

the process, the better chance there is to develop strong and long-lasting relationships.

Pre-job planning is the single most important activity a manager can do for a project. However, companies often fall victim to the handoff or "dump" from estimating to operations. Releasing a flood of information is not proper pre-job planning. In addition, if a firm's pre-job planning process is more like dictation rather than collaboration, it is not adequate.

Overall, 56% of the O-Group felt strongly that their managers thoroughly prepare in this crucial step, while only 24% of the N-group



strongly agreed (See Exhibit 10). Great pre-job planning includes having the project manager and field manager assimilate vital information on the project and then reconnecting and truly strategizing on how to build the project. While preparation time will vary from company to company, high-performing organizations implement each stage thoroughly.

DOCUMENTATION

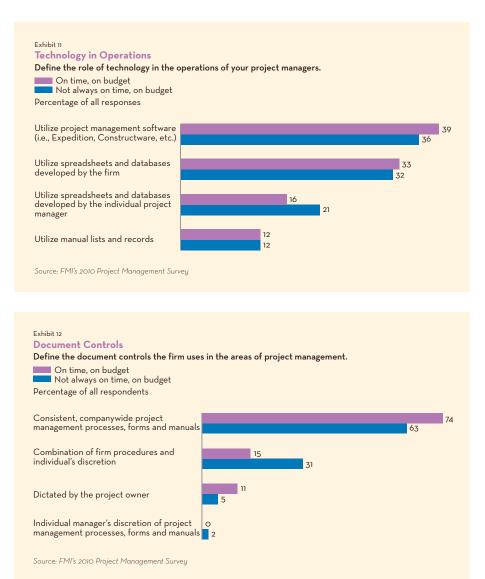
Avoiding lawsuits should be enough incentive for construction firms to document their projects properly. There are numerous ways to manage the data associated with even the most complicated construction project. The majority of both the O- and N-Groups use some type of software suite developed as project management software. Nonetheless, even with sophisticated, industry-centric products on the market, the percentage of firms using databases and spreadsheets is similar to those organizations using packaged project management software. Roughly 21% of the N-Group respondents indicated that they relied on technology that was created independently by individual managers (See Exhibit 11).

As shown in Exhibit 12, consistent document control and project management processes were somewhat higher for the O-Group than for the N-group. Furthermore, 31% of the N-Group has a less structured approach to document control, once again relying on a less standardized approach. The depth and consistency of documentation is higher in the O-Group (74%) as compared to the N-Group (63%). While on the surface there may be little correlation to the overall profitability, one can infer that the level of preparedness and consistency in the documentation is an indicator of how well these organizations run their projects.

COST CONTROL AND CASH MANAGEMENT

Companies are paying considerable attention to cost control and cash management as they wrestle with current market conditions. This increased emphasis on financial management should be a continuing discipline even when the markets eventually become more robust. Respondents felt that approximately half of their project managers (53% of the N-Group and 48% of the O-Group) were exceptional at forecasting profit margins from the beginning to the end of their projects (See Exhibit 13). However, 30% of the N-Group and 28% of the O-Group indicated that near the end of their projects, there was significant margin erosion. In addition, 20% of the O-Group and 14% of the N-Group felt that project managers were unsure of the project's profitability on a month-to-month basis. Obviously, there is an overall inconsistency in the respondents' opinions of their project managers' ability to predict cost and forecast final profit margins. Simply put, organizations need to improve project forecasting.

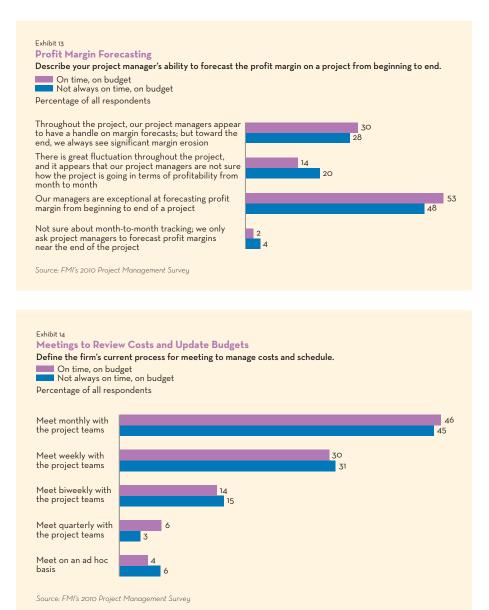
The most common frequency for reviewing costs and updating the budget appears to occur monthly. Approximately 45% of both the O- and N-Groups meet at least once a month (See Exhibit 14). A significant number of companies met to review budgets every week or every two weeks. Best-of-class contractors



examine cost information daily and have established a process to review this information on a project-team basis. With the significant advances in Web-enabled software and PDAs, organizations are able to provide up-to-date projections and performance information with greater frequency to their staff.

CHANGE ORDER MANAGEMENT

Dealing with change orders is one of the most challenging aspects of project management. Rarely does a subject evoke as much passion as claims, force accounts, work tickets and change orders. In addition, firms wrestle with ambiguity in poorly defined scopes, incomplete design documents and budgetary shortfalls on the part of the end-user community. Change order processes are effective, but no process can combat the behavior of unethical clients. Job and client selection is critical to avoid disputes down the line.



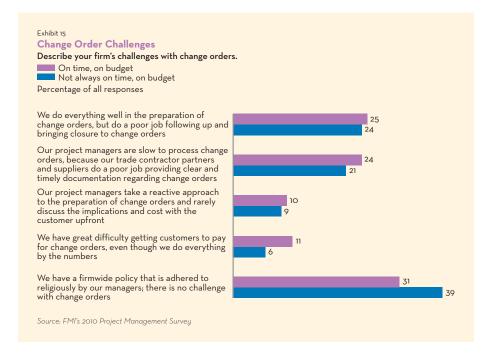
A post-job review is one of the easiest processes to incorporate in any organization. However, finding the time to conduct this essential meeting in the face of new projects and new challenges is never easy.

One of the largest hurdles to overcome with change orders is the discomfort associated with having awkward conversations. Within the O- and N-Groups, approximately 25% of the respondents acknowledged the challenge does not lie in the preparation of change orders, but in bringing them to resolution (See Exhibit 15). This substantiates the hypothesis that creating the document breeds little issue, but closing it is largely a "people problem." Both groups expressed significant issues with their trade partners' inability to provide sufficient detail and backup to corroborate any addition or deductions. The most compelling statistic is the fact that 39% of the O-Group has a firmwide practice that is adhered to, resulting in no

problem within the arena of change order management. By following a minimum protocol supported by senior management, the sting of change orders can be minimized and successful remediation of issues handled.

POST-JOB REVIEWS

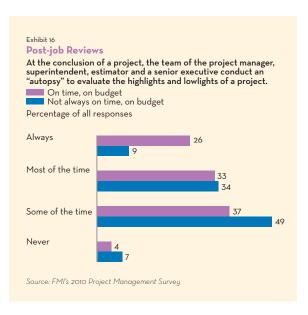
A post-job review is one of the easiest processes to incorporate in any organization. However, finding the time to conduct this essential meeting in



the face of new projects and new challenges is never easy. More often than not, companies perform autopsies only on failing projects. This sets a dangerous

precedent in that organizations only evaluate failure and do not capitalize on the learned lessons from their success. Best-ofclass contractors reach out to their customers and solicit feedback. In some cases, this may be hard-edged and critical, but it provides clarity on the firm's performance.

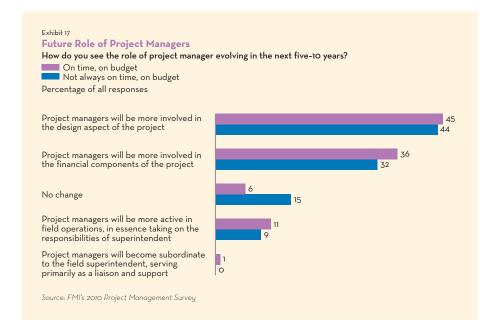
When the groups are compared, the O-Group is much more consistent in always conducting the



post-job review (26% compared to 9% of the N-Group), as seen in Exhibit 16. Overall, the majority of the respondents complete this element of project closeout erratically, particularly in the N-Group (49%).

THE FUTURE OF PROJECT MANAGEMENT

How will new niches, new markets, new delivery systems, etc., affect the role of the project manager? Both groups felt that managers will be more involved in the design process (See Exhibit 17). It is unclear if this will be the result of the delivery system (i.e., design-build), a vehicle to deliver greater value to the



customer or simply a stopgap measure to protect against incomplete or inadequate designs. The predominant attitude among the N-Group is that managers will become more active in all aspects of the projects. On the other hand, 15% of the O-Group felt there would be little change, compared to only 6% of the N-Group. In all categories, the N-Group felt slightly stronger than the O-Group peer did. Does the O-Group feel the evolution is largely complete? Does the N-Group have higher expectations for the role of the project manager in the future? Regardless, if the role shifts through expansion or contraction of duties, the organization must be nimble enough to recognize this and implement proactive processes and tools to manage what the future holds.

Several trends will continue to shape the evolution of both projects and organizations. Exhibit 18 examines the areas of expertise that respondents felt project managers must have knowledge of in order to be successful. Respondents felt the top-three areas were understanding project financials, LEED/green construction techniques and CM-at-risk project delivery.

Exhibit 18

Project Management Areas of Expertise

For your project managers, rate the of importance of becoming more knowledgeable in the following areas of expertise.

Rating by percentage of respondents (per area of expertise)

	Very Important	Important	Moderately Important	Not that Important	Not Important At All
Understanding project financials	54	29	13	4	١
LEED/green construction techniques and practices	46	31	13	4	5
CM-at-Risk project delivery	38	30	13	11	8
Design-Build delivery method	26	36	27	6	4
Integrated project delivery method	24	31	29	10	7
BIM (Building Information Modeling)	18	24	30	17	11
International construction practices	7	4	10	19	61
Foreign language fluency, i.e., Spanish	1	1	21	30	47

Source: FMI's 2010 Project Management Survey

Overall, it appears that the survey respondents think the role of project manager will become more professionalized. Project managers will take on more responsibilities, especially early in the project, including more customer contact and participation in the beginning stages of design and project planning. Future project managers will need to understand new delivery methods, technologies such as BIM, and processes and standards like LEED and green construction. As the profession of project manager grows, it will be incumbent on companies and project managers alike to improve their technical, management and communication skills just as other professionals do through continuing education, company mentoring programs and on-the-job experience.

The state of the economy has changed the face of many organizations and required many leaders to evaluate the practices within their firms. New markets, new customers and new delivery expectations are requiring serious changes to occur within the operations of businesses. Whether it is for the near term or the long term, best-of-class project management lies within consistent and standardized processes and tools rather than the behaviors of any single individual within a firm. The complexities of projects will only increase, and the dependence on managers who are not only master builders but also master businesspeople is the foundation for successful organizations in 2010 and beyond. ■

To order a copy of the complete 2010 Project Management Survey, *please contact Phil Warner at 919.785.9357 or via e-mail at pwarner@fminet.com*

Gregg Schoppman is a principal with FMI Corporation. He may be reached at 813.636.1259 or via e-mail at gschoppman@fminet.com.

Adding Valu<mark>e Through Risk Manage</mark>ment

Two of the basic tenets of risk management are: 1) Do not risk more than you can afford to lose and 2) Do not risk a lot to save a little.

By Andrew "Andy" Patron

isk management is a dilemma. If you were to price to cover every risk that you could think of on the prospective job, you might never win another job. On the other hand, if you do not adequately consider risk and plan for it, you may lose your shirt on every job. The value you bring to the table is finding the balance.

Jeremy Laurance, journalist and health editor for *The Independent*, captures this dilemma very succinctly. "Risk is unavoidable in life; no human activity is free from risk, and those who insist that "safe" must mean "zero risk" are deluding themselves. The correct approach when risks are uncertain — to paraphrase Lord Phillips — is to ensure the public is properly apprised of them. People are then free to dig their own graves, as it were."

There are many types of risk and your ability to be proactive in defining them, making a plan to avoid and/or mitigate them, and having a recovery action plan in place defines the basic components of risk management. Risk management is the value you can bring to a project. It can be the difference between success and failure.

Andy Patron from FMI recently spoke with Karen Schwartzkopf, senior vice president from Zurich in North America and Tom Miller, formerly with Zurich and now senior vice president with Lockton, Inc., about their thoughts on risk management.

Patron: What are we talking about when we talk about risk in the construction industry?

Miller: We go by the standard Webster's definition of risk, which is the possibility of loss or injury; a variable that leads to uncertainty in the final cost of the project, vis-à-vis construction. The issue is that people are compensated based on different types of risks they take, and if they are not taking any risks, there is not much opportunity for profit. In order to make more profit, you need to be willing to undertake risks and manage the risk properly.

Patron: So there is a risk reward equation to consider as well?Miller: Yes, the better contractors are at identifying, evaluating, accepting and controlling the risk, the more profit or higher reward they may gain on a project.

Patron: What are some of those risks that typically need to be managed? **Schwartzkopf:** There is financial risk, operational and business risk, and risk associated with safety, the environment, subcontractors and suppliers. There is

People are compensated based on different types of risks they take, and if they are not taking any risks, there is not much opportunity for profit.

- TOM MILLER

reputational risk to firms that do not manage all of these things as a common course of their business.

Patron: Let's just take the operational risks. What are some of the indicators that would show that companies have a good handle on their operational risk management?

Schwartzkopf: When I think about operational risks for contractors, the first thing that comes to mind is managing contractual risk. Tom spoke earlier about being able to retain more risk by managing it with the appropriate technique or strategy within the contract. Favorable contracts provide organizations with additional revenue opportunities or possibilities to

prevent revenue loss. When we think about contractual risk and risk transfer, we see that it has changed in the environment that we are in today for many of our companies. Risks that they once could have avoided by adjusting the contract terms are now accepted in order to get the job. They are in a position today of accepting more risk. Liquidated damages are more prevalent — where it was a negotiation point 18 months ago, today it's now more a part of our contractors' risk profile.

Patron: So contractors are aware of the liquidated damages clause in their contracts, but if they are not able to deliver operationally, the result is having to pay liquidated damages.

Miller: The possibility exists, and I think in today's economic environment with people bidding projects at slimmer profit margins with less than optimal

float available within the schedule, it becomes a very big issue. It is much more difficult to get a sufficient contingency to help you manage the risks that are apparent on a construction site. Much of profitably building the project involves setting aside appropriate contingencies, so that when an event happens during the course of construction you have a built-in safety mechanism to deal with at least part of that event. It could be having standby equipment ready or additional time built into your schedule, whether it's a cost component that you've built in because you're concerned

about an individual subcontractor's financial standing and ability to complete in accordance with your schedule or some other individual item that you had identified at the outset of the project. When we talk about assuming the risk, contractors assume a lot of risk in what they do by signing contracts. What we look at as an optimal "risk management strategy" is having the contractors, whether via their general counsel, senior management or risk manager, identify that the contracts they are signing are allocating risks to the party who is best able to handle these risks. This may be something that is in that party's scope, or perhaps it is a risk that from a monetary standpoint is better handled by the owner or by the contractors, such as the risk of subcontractor failure.

Patron: Say I'm a contractor and ask, "We just won this job and the margins are very tight — what can you help me with?" What are some of the typical things that you would walk that contractor through to make sure he or she is thinking ahead to mitigate some of the risks?

Miller: I would focus on the cost you have built into the project. How comfortable are you with your internal estimates, labor availability, labor productivity, workforce relations? How comfortable are you with the cost of materials you included in your bid? Do you have a materials escalation clause built within the contract? If it is tight on profit margin, do you at least have an appropriate schedule duration to give you some level of comfort? Where are you building? Are you building in the flat lands or in the mountains? What is it going to take for you to get labor and materials to the site?

Patron: Certainly that process drives a contractor to some sort of decision making and some action. What type of person should an organization look for to manage risk well?

Schwartzkopf: I think it is somebody who has the broadest understanding of the company's goals and its risk profile and risk appetite. This person serves as a consultant to the project team, so he or she is considered part of that whole process of acquiring work and not just as risk management as an afterthought. Thus, the

company is really looking at providing its risk management capabilities as if it is responding to an RFP. We have a few companies we work with that really have that risk management represented as part of the project team. Tom, there is a client you work closely with that really has a stringent process around it.

Miller: Absolutely. We know of one company where risk management is not a position but rather really a company philosophy, from the CEO on down. The

In our industry there's an average of three fatalities a day, seven days a week. Safety must be at the top.

- KAREN SCHWARTZKOPF

company personnel know which types of contracts will not be undertaken. And when a project is brought in by a business development manager or a business development person, that project undergoes a review by its executive review board or a proposal review board, etc. Essentially, this company attempts to identify as much risk as it can, based upon its individual experience, etc. It has learned to identify more risk and develop an approach that allows it to focus on delivering the projects in a profitable manner and on time. In a broad forum, companies like this are developing a formal method of identifying and

evaluating both contractual and commercial risks that they will face for any given upcoming project. We assume there will always be a focus on safety. Of course, that assumption may not always be correct, but I think successful construction managers and successful contractors have a never-ending focus on safety. The reality is, even with those that do, sometimes bad things happen and when they do, it's a difficult work environment.

Patron: Would it be fair to say that safety is at the top of the list of the things we want to manage in terms of risks on the jobs?

Miller: I think safety is paramount, absolutely.

Schwartzkopf: I agree. In our industry there's an average of three fatalities a day, seven days a week. Safety must be at the top.

Patron: You mentioned some of the qualities of a good risk manager. What are the good companies doing to mitigate risk? What seems to be working in the industry?

Miller: I think one thing that works within our industry is companies that embrace the Construction Industry Institute (CII) best practices for safety and focus on a zero-injury and zero-incident philosophy tend to vastly outperform the balance of the industry. I think in part that is due to their involvement in CII, together with an open mind to embrace different approaches to making each jobsite a safe environment.

Patron: Are you saying that companies that mitigate risk well are outperforming the ones that don't?

Schwartzkopf: The company that manages risk is putting processes in place to help mitigate that risk.

Miller: While I think it is difficult to answer that question in the affirmative on a blanket balance sheet basis, it is certainly our opinion that, yes, those companies that manage risk well might outperform others over the course of time. As Karen mentioned earlier, relative to safety — if you are a contractor and deliver the project in a timely manner — you avoid reputational risk. Also, if you are a contractor and perhaps working for one of the large industrial or petrochemical organizations, either in the U.S. or globally - they will not accept a lack of focus on safety on their jobsites. They cannot afford it. When bad things happen on a project like that, these companies will not tolerate it. Several years ago, we had a client who was open-minded about managing risk and it was in trouble with one of its large industrial clients over safety issues in an extremely difficult work environment. We were able to provide it with some risk engineering insights and sent four risk engineers to its worksite for a six-week period. At the end of that six-week period, we reported what our engineers had found and their recommendations for turning things around. Not only was our client not terminated, but in fact it was awarded additional work that had been with one of its competitors with this same owner. This was because it chose to focus on the owner's concern, which was, "What are you going to do about safety on my site?"

Schwartzkopf: When you think about it, for most of us, our most important asset is our human resources; and a company is at reputational risk if it is not dedicated to safety nor has a culture that promotes safety. Its ability to attract and retain talent is also impaired.

Patron: What are some of the things that risk engineers are looking for? Is it possible to effectively train or get people within organizations to become more risk-aware?

Miller: I for one would hesitate to answer on behalf of our risk engineers because I think their skill sets are far beyond my own in that regard. But the other part of your question dealing with, "Can you help make a better risk manager" — I think the answer is yes. Part of that is having the risk manager, or the account as a whole, partner up with a strong carrier or service provider who has solid in-house risk engineering expertise. Someone that they can call out to a site and say, "Hey, something's out of kilter here — I need somebody with experience to come out and help me to see what you see." It could be a simple situation. For example, a situation could be the risk engineer showing up to find an untidy site, which is often a precursor or symbol of a poorly managed site from both a schedule and a safety perspective.

Schwartzkopf: One of the services that our risk engineering team provides is a cultural assessment survey, Zurich X-Ray. It is an interview-based assessment program that assists contractors in distinguishing areas of corporate culture, management and communication that affect their operations. It looks at communication practices throughout the organization from top to bottom. The program measures the difference between management expectations and field perceptions and provides practical solutions with the ultimate goal of helping achieve operation excellence.

If there are gaps between what midmanagement and craft believe about the culture of the organization, or between craft and senior management, there are opportunities to develop consistency in the culture of the organization. That can make a significant change in the way a company is managed as well as in loss results.

Patron: Is the industry doing an adequate job of managing risk? **Schwartzkopf:** I think there is always room for improvement. **Miller:** I would agree with that.

Schwartzkopf: We still have people who do not go home at the end of each day; they are one of the fatalities. There is room for improvement there. There is room for improvement with quality. There is room for improvement when we look at things like Chinese drywall and how companies are managing their supply chain.

Patron: With that in mind, how does risk affect the industry as a whole? Schwartzkopf: Very simply, risk affects us all the same way. It creates uncertainty. If we could try something new without having to worry about risk or loss, decisions would be much easier for all of us. We think about our clients and whether they are managing risk differently post-recession versus pre-recession. With the construction economy as it is, some contractors are chasing work in a different way today that brings about different risks. We see a number of clients moving into federal work and do not see all of them managing the risk associated with that work.

If we could try something new without having to worry about risk or loss, decisions would be much easier for all of us.

— KAREN SCHWARTZKOPF

Do they understand the FAR and CAS requirements and preparing for additional exposure? If you are not aware of the risk and are not managing for the risk and potential loss associated with federal work, it can cost you in the end and could cut or squeeze your profits even more.

Miller: It's hard to answer your question. When there is no alignment between the party accepting the risk and its ability to control, influence or bear the cost of that risk, then I think the easy answer is that you might end up with higher overall project cost, whether you are the contractor or the owner. If you force the risk onto the

contractor and the contractor feels it is not in a position to influence that risk and the risk could be a significant exposure to its balance sheet, then the contractor can tackle that via a contingency. If this is an inappropriate contingency taken by the winning contractor, the result will be a higher project cost.

Patron: So both sides will lose.

Miller: Well, one side could gain and one side could lose (it would be a zero-sum equation in that regard), or both sides could lose. The contractor might be awarded the project with a more than adequate contingency and thereby earn

additional profit on the job with the owner paying more for the project. Or the contractor might plug in a contingency, which is inappropriate for the risk and does not get the job. The owner then turns to somebody who is willing to accept that risk with no contingency and finds itself with a contractor that is unable to complete the project, in which case it finds itself in litigation or arbitration, and that is rarely a "winning" situation for anyone.

Patron: If a company wants to differentiate itself, what would it need to do to get really good at risk management?

Miller: I think the first place to start is with the company's senior management. It has to define what it is going to be. Is it going to be "betting the house" on projects, or is it going to take the time to essentially underwrite its clients the way we would underwrite a contractor for insurance purposes? What is the reputation of its client? What is its client's ability to pay for the project? There is a risk of payment inherent to the contracting process. How does it select its subcontractors? Does it have appropriate prequalification procedures in place for its subs; does it have appropriate quality controls? It is really setting aside the time and resources to perform a project the right way the first time versus assuming some measure of rework or lost-time injuries as a given. Management needs to be committed to focusing on eliminating those rework and lost-time issues on the front end.

Schwartzkopf: Tom, I think you bring up a great point that it has to be senior management's commitment to making good risk management the culture of the organization. From a blocking and tackling perspective, I think it is just practice. We see some risk managers who are in broad enterprise risk management roles who surround themselves with good advisors and a good team. They are knowledge seekers. Earlier we talked about the qualities of a good risk manager; a healthy imagination doesn't hurt either. Making sure you're thinking through all of the risk and what ifs, identifying what those risks are so there are no surprises. In addition, there are some great peer groups. There is an E&C peer group that convenes to discuss risk and risk management strategies, as well as an AGC risk management council that addresses risk management issues in the industry.

There is data available from the Construction Industry Institute that focuses on best practices in managing risks, and then of course there is expertise from your carrier and broker.

Patron: Do all unmanaged risks show up on the bottom line of the financial statement?

Miller: Well, in insurance, I never discount the element of fortuity that the risk might not manifest itself on any particular project, but over the course of time ignoring risk does not make it go away. It simply means that you have not recognized it and set aside the appropriate resources to manage it. In short, the risk may not impact the bottom line on any particular project, but over the course of time on a portfolio of projects, it will.

Schwartzkopf: Two of the basic tenets of risk management are: I) Do not risk more than you can afford to lose and 2) Do not risk a lot to save a little. The worst kind of risk that you can retain is the one you did not know you had.

Patron: What are the types of coverages that I should consider buying to protect myself against some of the risks that are out there?

Miller: Well, you have your standard coverage — your workers' comp, your general liability, what you need to go onto any site. Consider whatever excess liability tower you are going to maintain, typically a builder's risk product, whether it is contractor or owner provided. You may need inland and ocean marine coverage, coverage for things in transit, equipment, professional liability policies, environmental liability policies, subcontractor and supplier bonds or our Subguard alternative. I think before you decide on what you need to purchase, you still need to focus on whether the risk is a risk for which you can bear some liability on your balance sheet — is it a risk that you would be willing to undertake? If the answer to that is no, then I do not think the ability to buy insurance for it should change your ultimate decision.

Patron: I think the perception out there for many is, "I'll just transfer the risk and this is how I'll do it" instead of considering whether or not it is a risk that they even want to absorb.

Miller: That's very true, and you do see it as a philosophy from some general contractors who tend to push risk down to the subcontractors. I think our overall perspective would be that every time you push a risk down, the scope of the coverage tends to be narrower and the insurance premium associated with that reduced scope of coverage tends to be greater than you would otherwise pay for it if you were to manage appropriately the risk at the general contractor level. There are a number of ways to do that, one being to approach it through a contractor-controlled insurance program, where you look at your selection and retention of quality subcontractors, etc., rather than continuing to push risk downward. Not that there isn't a place for subcontractors to bear risk; that's certainly not my point.

Patron: Do you find that companies that really understand what their costs are do a better job at managing risk?

Schwartzkopf: Yes, and those that understand that also do a better job consulting to their project teams.

Miller: I would agree with that statement and think it's a very good point. The risk manager who is in tune with the project team has a better handle on cost and knows where insurance fits into the picture.

Patron: When something unexpected happens, when a risk is realized, how do the best companies respond?

Schwartzkopf: For those companies that have anticipated the unexpected and have a crisis or loss management plan in place — it is not a moment of panic for them. They have a process and a communication plan, internal and external. They know if it is an event that is going to attract media attention that the president or CEO will speak to the media. They are really prepared to control the outcome of the event in an expeditious way.

Patron: How do people prepare themselves for that? Is there value in scenario planning for project teams to be prepared?

Schwartzkopf: I think that's part of it. There are crisis management plans for natural disasters and plans for worker injuries, for example. If a worker is seriously injured on site — and that is a crisis that happens frequently in our business — what is the plan, who gets involved? Who from senior management

contacts the victims' relatives? What is the process to get the employee the quickest medical attention?

Patron: Let's take an environmental concern. Someone spills a hazardous material or there is a breach in the environmental control plan or erosion control plan. Does the same practice apply?

Miller: Absolutely. The sooner you respond, the better off you are, even if you do not have all of the answers at a given time. Ignoring a crisis is not going to make it go away, and I think ignoring an issue such as one of the ones that you have just put forward leads to a tremendous reputational risk, particularly in

an environmental scenario. There are jobs that go so poorly the contractor may have a very hard time completing the project without considering filing for bankruptcy. In that case I think early discussion with the project owner can make that outcome better. Nothing can make the outcome perfect — you are simply looking for the best possible outcome under a given set of circumstances. Perhaps it is a project where you have extensive rework issues and you can afford to put forward X amount toward a rework repair. You are willing to do that. Discuss it with the owner and say, "Look, I'm not trying to hide the pea here. I understand that I'm responsible, but this is all I have without going bankrupt. If I go bankrupt, your work does not get done by me. Will you accept X or contribute Y, etc.?" Earlier is better.

Schwartzkopf: Going back to everything contractors can do to prepare themselves, think about losses associated with quality as well as safety. This includes the project documents and retention of any third-party inspections, work site photos, etc., and keeping the documents retained in an electronic format that is searchable so that they are able to provide evidence of the site without having to perform destructive testing of a building they have completed. A little front-end help will reduce of loss for them and allow them manage through that loss in a more efficient and economical way. The benefit is also that in the process of documenting the site and work, additional opportunities are present to take corrective action during the course of construction.

Patron: So it goes back to having good processes. If you have a good safety program, you're going to have safety logs. You're going to be able to show and

demonstrate that you have a culture of safety, and that is a form of risk management, in and of itself.

Schwartzkopf: Right, and the same thing for quality. If you have a good quality program and can evidence that, you might reduce your losses associated with construction defects on the back end.

Patron: So taking action, external and internal action, is better than not doing anything when a crisis happens, as a general rule?

Miller: Yes, provided it is a reasonable action and you have appropriately vetted it with senior management. You need senior management commitment.

Schwartzkopf: It should also be a pre-planned action.

Patron: So after a risk has been realized, when should I call Zurich? **Miller:** The sooner, the better.

Schwartzkopf: Many times our risk engineers or claims professionals are the second or third called to come to the scene and help provide assistance in managing the crisis at the jobsite. When there is a severe accident our risk engineers, who have come from the construction industry with an average of 15

Are you providing any value if you are not appropriately managing your risk? Are you providing any value to the construction process? I think the answer to that question is no.

— TOM MILLER

years experience, can get on the jobsite and help the insured manage the safety response and the site for investigation, whether that is for OSHA or from the claims perspective.

Patron: What is the value of risk management? Why should risk management be at the top of the industry's list?

Miller: I would turn the question around and ask companies, "Are you providing any value if you are not appropriately managing your risk? Are you providing any value to the construction process?" I think the answer to that question is no. I believe that if you are a company that focuses on risk management throughout the contracting process, the operational aspect of the construction, as well as having a focus on the fortuitous

elements — I think you wind up at the end of the day with a client who is going to be happier with your work, and thereby you'll get additional work from that client. If it's a one-off client, you at least enjoy the reputation that that client will pass along to peers on your behalf.

Additionally, the contractors who we see as being very successful in terms of managing the safety elements of the process add to their bottom line with lower EMRs and lower insurance premiums. These contractors are able to take higher

retentions or deductibles as compared to other contractors because they are confident they can manage it, and are able to reduce premiums that way. Focusing on the contracting piece of this as well, successful contractors know what's in their contract. What is interesting, if you ask contractors what they do, they always tell you that they build. However, they are not called contractors without reason. A large part of what they do is the contracting process itself — reviewing, negotiating and signing contracts. They need to know what is in those contracts in order to manage the inherent risks.

Schwartzkopf: Some CII data, and I'm not sure it's the most current, talks about having senior management's commitment to create a culture of safety or a culture of managing risks. CII found that when top management was involved in reviewing every recordable incident investigation, the recordable incident rate was 1.2, as opposed to those top managers that participated 50% or less of the time in the investigations, where the recordable incident rate was almost 7.0.¹ That is pretty compelling.

Patron: Is there anything else you would want to highlight around risk?
 Miller: Understand what you're signing when you sign that contract, because if you wind up in litigation, nobody is going to forgive you because you didn't see it or didn't understand it. You must review the contract thoroughly before you sign it.

Patron: Then risk management starts there?

Miller: It actually starts in selecting the types of projects you want your business development manager to focus on.

CONCLUSION

Mr. Laurance summarizes the point when he says, "The message here is that it is not enough to share information on risks — we have to communicate them meaningfully as well. The language of risk increasingly dominates our lives — but no one is translating it." We know that construction is an inherently risky business. The ability to understand what the risks are is only the first step. The real value of knowing lies in how effective you are in managing risk. ■

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¹ Retrieved from: http://www.elcosh.org/en/document/533/d000518/cii%253A-making-zero-accidents-a-reality.html

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Re-Engage: Igniting **Customer C**ontact

Employee engagement is a competitive advantage for firms seeking to win in the recovering market. Highly engaged employees do better work and put in discretionary efforts beyond the level required.

By Cynthia Paul

e are beginning to emerge from the recession and look to the future, but the business landscape seems like a different planet than the one we left in the high-flying market of 2007. Firms need everyone on board to do his or her best work, offer his or her best ideas and most of all help bring in new clients and new work. It is no longer business development's job to win work; it is the role of the entire company.

Today customers have the unprecedented choice of firms with which they want to work. They have the best companies vying for their business and at prices that are extremely competitive. Certainly, some firms have dropped below a pricing level that is sustainable. There will be contractor failures in the coming market. Regardless, all firms must have a strong backlog of work to survive and thrive in the market. Now is the time to ignite everyone in your firm to understand and embrace his or her new and expanded roles in customer development and retention.

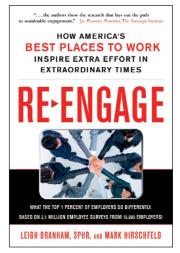
Research by Leigh Branham, an expert in the field of engagement, and his colleague, Mark Hirschfeld, clearly demonstrates that employees who feel a deep personal connection with the company do more, higher-value work of their own accord. They put more energy into finding new work from both new and existing clients because they take the success of the firm to heart. This deep connection

between a person and his or her firm is called engagement. Leigh and Mark's new book, *Re-Engage: How America's Best Places to Work Inspire Extra Effort in Extraordinary Times* (McGraw-Hill, 2010), explores how this connection is formed, how it can be created and nurtured by the firm and its leaders, and what that means to a company in increased sales, better

work and great ideas. We asked Leigh Branham to talk to us about what it takes for firms to capture the hearts of their people and drive their companies toward winning and retaining customers.

Paul: Leigh, we are hearing a lot about engagement and reengagement. How do you define reengagement?

Branham: Reengagement as a term comes from "employee engagement" that has become one of the most used, least understood buzzwords of business in the last few years. The business world really started using "engagement" as a term during the recession of



2001–02, when it began to realize that in a recessionary time, success and survival were not simply about employee retention anymore. As one CEO put it, "now we don't have to worry about people leaving so much, but whether everyone still on board is really committed. Is everyone giving their best?" Every CEO is aware that there are employees who are satisfied and content with their benefits and happy just

There is a gap between the effort employees might put in on a typical day and the effort they give if the conditions are optimal in the organization. to have a job. However, after 2001, the question shifted to whether or not those people were productive. Many leaders began to question whether just doing an employee satisfaction survey was still appropriate. The concept of conducting engagement surveys that measure not just satisfaction, but also productivity, rose in popularity. The definition of engagement that I like comes from the Conference Board: "A heightened emotional and intellectual connection that an employee has for his/her job, organization, manager or co-workers, that in turn, influences him/her to apply additional discretionary effort to his/her work."

The key concept is *discretionary* effort. There is a gap between the effort

employees might put in on a typical day and the effort they give if the conditions are optimal in the organization. That is, if they are working for a manager who really cares about them and manages them well, if they have a great team of co-workers and the leaders care about employees, and if they are creating great working conditions — the gap between what the employees are able to give and what they are willing to give decreases, and they give more to their work. Reengagement is the conscious effort on the part of firms, managers and supervisors to create this high level of engagement with employees, particularly those who have become, to some degree, disengaged. Over the years, Gallup has tracked employee engagement levels in the U.S. and found that about 25–30% of employees in the American workforce are engaged, about 55–60% are not engaged and 15–20% are actively disengaged — which means they are trying to undermine the organization or their manager or both.

Paul: Are you saying that some employees actively undermine their organizations?

Branham: Yes, actively disengaged employees are usually angry or resentful about something specific or about life in general. They often steal from the company, make the most errors, have the most accidents, spread the most rumors; they are poisoning the environment.

Active disengagement used to be only 15%, but has actually gone up to 20% according to Gallup, with the economy being in the shape it has been in the last couple of years.

Paul: I would think that the level of engagement would go up in the critical economic times that we are facing.

Branham: Well, it did for a while. Some of the surveys that I looked at reported that engagement went up in early 2009 as employees started thinking, "Wow, we're in real trouble. Actively disengaged employees are usually angry or resentful about something specific or about life in general.

We have to start doing something to save the company and our jobs." We saw a bump in engagement, but then over time the general fatigue of anxiety and worrying wears people down, so judging by the tracking surveys that I have seen lately, engagement levels have gone down again. It's just difficult to maintain high levels of engagement during a recession. The book that my co-author, Mark Hirschfeld, and I recently wrote — *Re-Engage!* — is based on 2.1 million engagement surveys that have been completed since the year 2004 during the Best-Places-to-Work competitions that are held annually in 44 U.S. cities. We looked at samples of company data before the recession began and again three to four months into the recession. We compared the percentage of companies whose scores went up to the percentage of companies whose scores went down. Only one-third of the employers saw their engagement scores go up during the first few months of the recession while the other two-thirds saw their scores go down. We looked at the things the one-third did to maintain high scores or actually increase engagement during the recession. Paul: How did you get interested in this topic?

Branham: For years, I coached people in job-search transition. Part of my role as a coach was to help them create a picture of their ideal job, based on identifying things that they did not like from their previous jobs and using them to help name the things that they wanted to have in their next jobs. The things people hated in their old jobs and the things they wanted in their new jobs became recurring themes. Money was always important, but for most people it's not the most important thing — it's everything else that makes or breaks someone's enthusiasm at work. I started writing articles and speaking about this topic, and collecting information on it. When the last war for talent was going hot and heavy in the mid-1990s there were fewer good books available on the topic, so I wrote a book about employee retention entitled Keeping the People Who Keep You in Business (AMACOM, 2000) and I became a collector of employee retention best practices. People call me an expert, but I prefer to call myself a student of what it is that causes employees to engage and reengage. There are many myths and misconceptions about engagement. Many, if not most, managers think engagement is about money. My mission is to help managers understand what it's really about, what it actually takes to energize workers and sustain that level of engagement mostly by not doing the things that de-motivate them.

Paul: Two facts that jumped out at me when reading your most recent newsletter were that one in five workers is "highly disengaged" and that disengaged employees are 24% less likely to quit than engaged employees.

Branham: That's right. We have found out, and it is particularly true right now, that these are the people who are just "hugging" their jobs. They are hanging on because they need a job, but they are not particularly engaged. It's the 25% of "high-potential" employees who are thinking about moving right now. As the economy gets better, they are going to have opportunities to move.

Paul: Do you have any statistics around the percentage that are looking to move when the economy changes? **Branham:** Yes, 60% intend to

leave their jobs in 2010, assuming the

economy continues to recover, according to Right Management. Another study found that 55% of employees plan to change jobs, careers or industries "when the economy recovers."¹ As I mentioned, 25% of "high potentials" plan to leave; 72% of companies have reduced their workforces in response to the recession; 53% of employees report feeling less loyalty to their employer since the recession; and 57% of workers believe employers are exploiting the recession to derive longer hours and lower pay from their workforces. That last statistic reveals the current level of cynicism. There was a *Dilbert* cartoon strip last December that was very cynical. The whole idea of the cartoon was "my company is asking me to be more engaged. It's really a way of squeezing more effort out of me with reduced staffing and without paying me any more money." That's how some employees are viewing this whole push toward employee

Many architects, engineers and construction people find that it's just not a natural part of their personality to go out and sell things. engagement during this recession. What they are sensing is that companies are doing these employee engagement surveys only because they see other companies doing them, but they're not actually committed to changing the culture. They're just copycatting what they think other companies are doing to "keep up with the Joneses" so to speak.

Paul: Does reengagement play a role in getting people to focus on customers?

Branham: Absolutely. I've worked for professional service firms most of my career. I've lived this. I've had to get on the telephone and make those face-to-face calls, but being a

salesperson is not my preference. Although I sold dictionaries door-to-door when I was in college, it's not what would be termed a "motivated ability" of mine. In other words, it's a skill I can develop and be competent at, but not a primary driver for me. Many architects, engineers and construction people find that it's just not a natural part of their personality to go out and sell things. But right now, this is what many firms are doing — challenging everyone to get out and help develop business. Not everybody has the talent to develop business in the same way.

Those engineers, architects and contractors who are more introverted tend to have what is termed "call reluctance" — it is actually harder for them to network. For example, people with high call reluctance may see networking to get a job as cheating. They believe if they send a résumé out, somebody should recognize their value and contact them — that is the way life ought to work, they believe. When you have professionals with this hard-wired mindset, it is difficult for them to overcome their reluctance when you ask them to go out and do business development.

I have used George Dudley's book *The Psychology of Sales Call Reluctance* (Behavioral Sciences Research Press, 1999) to teach job seekers how to network. Sometimes the best way for professionals with call reluctance to do business development is to do it the way they do best — perform great customer service. Some people should not be asked to do business development, but instead should be asked to redouble their efforts to make clients happy, because it's six times easier to keep a client than it is to out and get a new one.

Leaders must recognize who among their staff have some versatility and can

do networking and business development, who are more relationship-oriented and can become successful networkers with the right training and tools (often team leaders and project managers fall into this category), and who should be asked to focus on customer service as their contribution to the selling effort.

Paul: What are leaders in those companies with higher engagement scores telling their employees, as compared to firms with lower scores, in our current economy?

Branham: One of the key differences we have seen between companies during the recession is that some leadership teams hunker down and isolate themselves from the average employee or they project false positivity and say, "Everything's going to be fine," when it's obvious to all that it's not. Those firms do not score well on engagement surveys. On the other hand, the companies with higher scores had leaders who got up in front of the employees and said, "Hey, this is gonna be

In 67% of cases, employees who decide to leave an organization can trace that decision back to a single moment. tough. Here's the reality. We're losing work; it's a dire situation and we have to figure out how to meet the challenge. We need to have every one of you help us to do it. Each of you has a talent and must use that talent to help us increase our business." Speaking the truth and challenging employees to step up translates to stronger engagement, and that can translate to more effective business development.

Paul: In your new book, you state that, "the way re-engaged employees consistently work harder and take

extraordinary steps to serve customers ... displays the true difference between so-so and outstanding employees." So what you are saying is reengagement ignites these employees to use their talents and brainpower beyond the call of duty.

Branham: Exactly. We see such a difference between the contributions of engaged and disengaged employees. When you have a situation where people become disengaged, there is a window of time when you need to re-engage them before you lose them entirely.

There is a fairly predictable mechanism for how employees become disengaged: they have a disappointing work experience, a bad boss or other occurrences that start them on a slide into disengagement. In 67% of cases, employees who decide to leave an organization can trace that decision back to a single moment — a disillusioning trigger event — where they said, "I'm outta here." Once they hit that point, they are walking around the firm in a state of disengagement, looking for the opportunity to move out, and you need to re-engage them or lose them and your investment in them.

Managers need to be aware of the behavior that indicates disengagement has happened, so they can go to that employee and say, "I've noticed something's changed; you're not as enthusiastic. You don't contribute as much in meetings. There's just something different, but you're a valuable member of our team, so we need you and we need you to be engaged. Is it something I've done? Is there something I can do to help bring back your level of enthusiasm?"

That only takes five minutes to do, but it starts what we call a reengagement discussion. In most cases, that's all that's needed to start that person down the road to giving more effort. It really is that simple — if, and it's a big if — you are prepared to take action.

In some cases, managers should be saying to their employees, "I'm sorry I haven't given you as much time or attention as I should have. I realize now I have been doing all the challenging work and not delegating it to you." Sometimes managers have to take ownership and tell employees they want to be better managers. But once they've done that, they have to challenge the employee to do his or her part in becoming engaged.

Paul: Are there any statistics concerning the perception of employees regarding their manager's effectiveness?

Branham: Yes, the Corporate Leadership Council conducted a study in 2009² that had to do with exactly what we're talking about — reengagement. According to employees, 63% of employees now rate their managers as ineffective at employee engagement. The downturn has exposed a severe skills gap among managers in managing and reengaging the disengaged.

Paul: Do managers instinctively know how to re-engage their people?

Branham: Many do not, especially in the A/E/C industry where you have so many task-oriented managers. Their usual preference is to complete the task, not necessarily to focus on the people in order to complete the task. Many managers in the industry are not well-equipped with the people skills they need to have.

Leaders at the Boeing Aircraft Company realized that one of the things causing disengagement, particularly in their younger employees, was that their (older, mostly technical) managers did not know how to offer frank feedback about their performance. The managers were avoiding having difficult conversations with the younger employees, so Boeing decided to provide training in how to give feedback. Nine out of 10 Millennials (born since 1981) expect feedback once a day, quite different from what most Boomer managers are accustomed to, or prepared to offer. Most Boomer managers grew up with command-and-control bosses, and they did not receive much feedback. The pressure to coach and develop staff was not as intense.

Now we have a new generation of workers that were raised by Boomer parents, and it's interesting to note that most have "over-parented" their children. They have given them extensive recognition and feedback, sometimes when it is not even deserved. This generation of Millennials, who grew up with an intense, highly coached style of parenting, has entered the workforce, and they are expecting the same sort of guidance from their managers. While the managers may offer it to their own children, they do not know how to provide it under different circumstances with young workers. They were not managed that way themselves, so many organizations find they have a real misalignment of expectations between these generations. Paul: You list some ways that managers inadvertently disengage their people.Branham: Yes, some managers crank up the negative consequences instead of recognizing positive results. When things are tough and managers are under pressure from the top of the organization right down the line, they may have negative consequences hanging over them. These managers turn around and do the same thing with their teams, so it becomes a vicious cycle that starts from the top.

In this situation, managers forget to recognize people who are making sacrifices for the firm, such as working late or on weekends. Organizations often take it for granted and think, "That's why we're paying you," or "If you don't hear from me, it means you're doing a good job." These statements feed into a sense of disengagement or can even be the thing that causes disengagement to occur.

With the economy the way it is now and employees as anxious as they are, positive comments can go a long way to improving engagement. However, to be effective, comments need to be specific: "Hey, you're doing a great job!" doesn't gain anything. What produces reengagement is saying, "I appreciated you working late last night to complete that report. It's going to make a big difference in the proposal that we're putting together." You have to refer to something specific, and you have to do it as soon as possible after it happens.

Paul: What else are managers doing inadvertently to disengage their people?Branham: They are setting goals so unattainably high that workers burn themselves out. That's something that you fall into during difficult times because

I see many companies conducting employee engagement surveys, then failing to take action on the results. That's like pulling the pin on the hand grenade and then not throwing it. the more trouble you get into, the higher you seem to set your goals. Instead of setting them to be more realistic, you set them unattainably high. Firms that lay off staff and managers are often left managing too many people or have so much work themselves that they don't have time to manage anyone at all. If you are burned out, you are less effective working with your customer as well, so it definitely affects client relations.

I see many companies conducting employee engagement surveys, then failing to take action on the results. That's like pulling the pin on the hand grenade and then not throwing it. By not taking action, you disengage many of your employees and make them more cynical. That's exactly the

opposite of what you should do; so if you're not fully committed to taking action based on an engagement survey, you're better off not even doing one.

Many companies still only give performance feedback just once a year, or even less often. That is not going to cut it, particularly with the generation coming up that needs a lot of feedback. People need to be kept up-to-date on how the company's doing. When there is doubt about survival or how the firm is competing, employees need to be given every scrap of information possible about efforts in business development. Even the little successes and advances need to be shared.

For example, consider business development in a professional service firm and how it advances the sales process. An "advance" is any little step that you take with a client that moves you a step closer to eventually signing a contract. For example, having lunch with a client or sending out a new proposal would be an advance,

and every time an advance occurs, the team needs to be told about it. Every little bit of good news needs to be reported to employees so they know progress is happening.

Other negative actions that could easily be prevented are making promises and not keeping them, and ignoring or failing to solicit employees' ideas. Just give more time and attention to thinking about what you are doing to keep employees engaged in addition to what you are doing to bring in business. The two go hand in hand.

Paul: One challenge you mention is that engagement is typically higher the more you move up in an organization. However, don't some companies have disengaged managers? When there is doubt about survival or how the firm is competing, employees need to be given every scrap of information possible about efforts in business development.

Branham: Yes, they absolutely do. We see disengagement at all levels. The engagement levels of senior leaders in organizations have actually gone down during the recession. Even so, senior leaders and managers are still more engaged than people at lower levels of the organization are. Many managers are becoming obsessed with their own survival in the company and are overwhelmed with the increased workloads.

I have been holding some focus groups within a large organization, and what we are finding is that many employees feel like they are treated as "just a number — a cog in the wheel — instead of as people. Their managers are pushing them to achieve numbers, but do not ask about their personal lives or seem to care about them as people. I think that is a huge piece of what is missing, just a sense of basic humanity toward the people we manage.

I think it happens when you start to feel squeezed and you are in the middle. If you're a middle manager and your employees feel overly entitled, you don't want to engage them. I hear this from many managers — they say "Employees should already be engaged; I shouldn't have to work so hard to engage them." There is some truth in that — many employees feel entitled to more than they deserve. Managers feel caught between the pressure from their leaders to do more with less and their employees who feel overly entitled. Managers need to challenge these employees to do their share, to keep themselves engaged.

Paul: Your book lays out a platform for dealing with all of this in the six universal drivers. Can you give us a quick overview? (See Exhibit 1.)

Branham: The most important driver is that the senior leaders care about making the firm a great place to work. We found that invariably, among the winning companies

we analyzed and interviewed, there was a CEO who really wanted to make the company a great place to work. For those firms, it was a vital part of the goal to be successful financially, and they were committed to it.

The second factor we found was that firms with high engagement provided managers with training in strong people skills. These managers have been trained to give feedback; to recognize, reward and work at engaging employees every day; and to care about people. These managers help keep staff aligned as well as engaged, which means they are good at communicating the goals of the organization and

keeping the employees' skills and talents aligned with those goals. These first two drivers are connected: having committed leaders and committed managers.

The third driver is teamwork. The thing that distinguished the highest-scoring organizations is they lacked an "us-versus-them" mentality. Level did not matter — even the lower-level employees did not use the word "they" when referring to the company; they used the term "we." Likewise, senior leaders in one department did not use the term "they" when referring to the senior leaders of another department; they



used the term "we." The breakdown in teamwork usually happens between the top and bottom levels of the organization, and/or the silo-ing of different departments.

The fourth factor is job enrichment and professional growth. People in high-engagement cultures were put in the right jobs, ones that were satisfying to them where they could best use their natural talents. The high-scoring workplaces put a premium on that and ensured it happened. This is the same idea Jim Collins presented in his best seller, *Good to Great*: getting the right people on the bus in the right seats. The second piece of this driver is making sure people perceived opportunities to learn and ways to grow within their organization.

The fifth area is making employees feel valued, which is manifested partly in pay — being well paid, being fairly paid. Maybe even more important to feeling valued is receiving daily recognition and thanks for one's efforts, and having the resources needed to do the job. People want to be asked for input about decisions that affect them and receive information from the top brass, instead of feeling as if they are in the dark all the time. Having open and transparent leaders who constantly share information makes employees feel valued, versus having to figure it out themselves or from rumors.

The final piece is a sense of well-being. Companies with high engagement care about the well-being of the employees and demonstrate that in their benefits, perhaps by allowing flextime or by not working them to the point that they reach

burnout levels. Workload, stress, benefits — all of these things go into employee well-being. If you look at these six universal drivers, you have all the positive aspects of a healthy culture. I think our book is really about culture: we almost called it *The Cultures of Engagement.*

Paul: I've been carrying your book around, and when my clients look at it, they always ask me how they can find out how engaged their people are. Do you have some tools to do that?

Branham: Absolutely. Firms can also go to our website (www.re-engagebook.com) and click on <Surveys> and take an online survey immediately. You can score your own company on its performance in the six universal drivers, and you can also take a self-engagement survey. In our book, we have a chapter on how employees can keep themselves Companies with high engagement care about the well-being of the employees and demonstrate that in their benefits, perhaps by allowing flextime or by not working them to the point that they reach burnout levels.

engaged, since half the responsibility should really be on their shoulders. The book directs readers to the online self-engagement survey that any employee at any level can take. The questions ask about your own levels of effort, engagement and enthusiasm. You can see how your scores on both surveys compare to the average scores for everybody else who has completed them. And, of course, my firm conducts comprehensive employee engagement surveys for a number of clients.

CONCLUSION

Employee engagement is a competitive advantage for firms seeking to win in the recovering market. Highly engaged employees do better work and put in discretionary efforts beyond the level required. The customer experience is enhanced when your team is engaged and committed.

2009 was a difficult year for the industry, and 2010 looks to be equally

challenging. Our national economy continues to improve in slow, steady steps. That is good news for the construction industry. Since construction traditionally lags the national economy by 12–18 months, 2011 holds promise of better markets and more projects.

Reengaging your people is important during this time when firms need everyone to be doing business development and helping to win work. Branham and Hirschfield's work shows that giving your managers advanced interpersonal skills generates high value for your firm, and creating a culture of engagement from the top down has direct impacts on the firm's bottom-line success. Reengaging your people is a real-life, bottom-line strategy that will help you thrive in all markets.

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THE THREE CROSSWINDS

If you imagine that your organization is a ship and you're sailing through turbulent times, there are three crosswind factors affecting you that we uncovered in our research.

The first factor is **diseconomies of scale.** The bigger the headcount in an organization, the harder it is to keep people engaged. Branham and Hirschfeld discovered that the more employees in a company, the less likely they will have high engagement scores (See Exhibit 2). Malcolm Gladwell, author of *The Tipping Point* (Little, Brown and Co., 2000) explains his Rule of 150. When an organization grows to more than 150 employees that is generally more people than the average employee can know personally, and the sense of community and family goes down. With it, employee engagement can go down as well. So diseconomies of scale means the bigger the company gets, the less engaged employees tend to be, unless special efforts are made to keep this from happening. W.L. Gore Company, for example, deliberately caps headcount at its facilities at 150 and then opens a new plant. Other companies gear up efforts to use social networking and virtual teams.



Exhibit 2 Diseconomies of Scale

The second crosswind factor is **generational diversity**. Branham and Hirschfeld found that the more diverse your mix of generations, the harder it is to achieve high levels of workforce engagement. This is due to simple differences in worldview, life experience, values, communication styles and the fact that most people want to be around people their own age. Isolation between the generations happens as people gravitate toward those they have more in common with and therefore can communicate with more easily. This can be an obstacle to teamwork unless measures are taken to overcome it. Hallmark Cards, for example, pairs up employees from different generations, has them meet for coffee once a month and asks them to discuss a stereotype about their generation that they believe is not true of them.

The third crosswind is **turbulent times**. During tough times, recession and disruptive change, engagement levels go down, but, as mentioned earlier, our research uncovered five things that highly engaged workforces do that the less engaged workforces tend not to do to maintain and actually increase employee engagement in tough times.³

- Set a clear, compelling direction that inspires employee trust and confidence. Develop a clear and credible plan for, and path to, success. Clearly communicate the plan to all, seek and welcome every employee's idea for making the plan a reality, and deliver more value, e.g., big/small improvements, new ideas/innovation.
- Give open, honest, two-way communication. Leaders don't sugarcoat the reality/challenge. They make themselves more visible, vulnerable and open with information; hold "50-50" meetings where employees speak for half the time; provide a steady stream of bite-size status reports and conduct regular pulse surveys.
- Continue to focus on career growth, learning and development. Managers focus employees
 on company growth as the key to personal growth, hold "career checkups" and paint a
 picture of possible options and scenarios. They challenge employees to create their own
 opportunities by meeting "unmet needs," encourage new assignments and action-learning
 opportunities, and don't stop investing in training. They create everyday learning opportunities.
- Recognize and reward all contributions. Resist the temptation to "crank up the negative consequences" while challenging all managers to notice and appreciate employee contributions, celebrate team accomplishments, spread the word about customer success stories and confront poor performers.
- Provide a strong commitment to employee well-being. Conduct surveys, listening sessions, and/or focus groups and communicate the availability and value of all benefits. Hold meetings to address employees' life/work issues: encourage vacations for employees on the verge of burnout; educate all about stress/time management, healthy diet, exercise and lifestyle; and encourage socializing, fun and stress relief.

¹ The 2009 Employment Dynamics and Growth Expectations Report. Retrieved from:

http://img.icbdr.com/images/aboutus/pressroom/edge%20report_aug%202009.pdf).

² Corporate Leadership Council (2009). Improving Employee Engagement in the Economic Downturn.

³ For more detailed information on these differentiators, go to:

http://www.keepingthepeople.com/newsletter/vol-15-holiday-2008.html.

Making Difficult People Decisions in Tough Times

Great organizations have clarity about two critical factors: a shared sense of identity defined by purpose and values, and a shared set of aspirations for the future.

By Jake Appelman and Tim Tokarczyk

he role of a leader has never been easy. Even during the best times, it requires making tough calls with incomplete data that can have wide-ranging repercussions on an entire organization. These decisions became even more difficult with the economic meltdown that began in the spring of 2008.

In addition to decisions on how to find work and fend off fierce competition, many leaders face the emotionally draining task of making personnel choices affecting co-workers, communities and families. These situations require leaders who have a strong, unchanging internal foundation as well as the courage to do what is best for the long-term interest of the organization.

One of the most daunting roles of the leader is to process massive amounts of data. This includes information about markets, competitors, internal processes, people and more. Leaders must sort through it, think through the implications and respond in a way that provides focus and meaning to an organization.

Leaders face the challenge of making sense of news reports claiming an end to the economic crisis and a stock market that has roared back from a March 2008 low with greater than 60% gains. In the face of conflicting information that offers a bleak vision of the future, peppered with intermittent glimpses of hope, leaders are left with far more questions than answers. Some of the most wrenching questions for leaders are about people, such as:

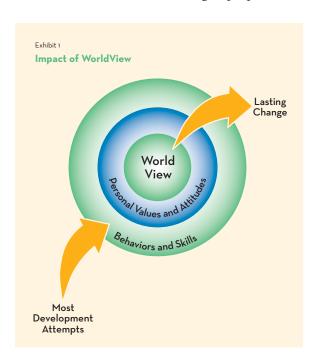
- How do we continue to invest in leader development with a slashed budget?
- If we have to reduce our workforce, how do we decide who goes and who stays?
- Are we willing to take the low- or no-margin work to keep people employed?
- How do we continue to keep high performers motivated and well compensated in a difficult market?
- How do we keep the right people in place to take advantage of recovery?
- How do we keep remaining employees motivated and inspired when their friends and co-workers are no longer with the company?

These are just some of the tough questions construction leaders face in our current economic environment. There are no easy answers, and in these situations, great leaders look both internally and externally for possible solutions. On the internal side, clarity about how you fundamentally see the world, in addition to the presence of a guiding set of core principles, is more important now than ever.

THE IMPORTANCE OF A STRONG, UNCHANGING FOUNDATION

As leaders, we all have to make tough decisions. To help us understand our tendency to make one decision as opposed to another, we have to look at our WorldView. Our worldview is the set of beliefs and assumptions we hold consciously and unconsciously about how the world operates and how we operate in the world. It is the fundamental way we view the world. Exhibit I illustrates that our worldview is at the core of who we are. It affects our personal values and attitudes, which in turn shape our behavior and skills.

Most developmental attempts focus on the outer ring — the behaviors and skills. For example, think of an employee who is asked to work on communication skills. He or she may be sent to a webinar or a pricey communication skills class to learn to smile when talking to people, remove distractions, take notes or



ask for clarification in conversations. These are behaviors and skills. Not surprisingly, these probably will not have much of an impact on the leader's effectiveness because they are too surface-level. The truth of the matter might be that this individual just dislikes people in general. This is his or her worldview, and that has not been addressed in these developmental attempts. No amount of skills training will make a lasting impact because

the issues at this individual's core have not been taken into consideration — the developmental attempts have not gone deep enough.

Our worldview shapes how we approach difficult decisions. To make better decisions in the future, we need to understand how our worldview influences our thoughts and behaviors.

Two questions will help to increase your own awareness as to your worldview. Take a few seconds now to answer both questions — do not think too much about it; just put down the first thing that comes to mind:

- People are _
- What % control do you have over your life? _

FMI has asked these questions to thousands of participants at our various leadership programs, and has heard a wide variety of answers. The answers you wrote down gives some insight into your worldview.

For the first question, some of the answers we commonly hear include:

- Expendable Selfish
- Our greatest asset
 Fundamentally good

Each of these answers sheds some light on how you might make people decisions. If you think people are expendable, you will fundamentally approach difficult people-decisions in a different way than if you believe people are your greatest asset. You will most likely take

a hard-line approach, focusing on tasks rather than on relationships. Our worldview shapes our behavior in all that we do as a leader. For example, if you have the worldview that people are expendable, you may be very decisive but show no emotion about making the difficult decisions, since you see people as interchangeable and disposable. That might be a good strategic move, or it may not. The

long-term consequences of such a worldview could have negative results. The important thing to consider is that every worldview has positive and potentially negative consequences, and the key is to be aware of your particular worldview and how it affects your leadership. That is why clarity around our worldview is so important — to understand why we do what we do and adjust those thoughts and actions that do not serve us well as leaders.

We also have heard a variety of answers for the second question — What percent control do you have over your life? The responses here will shape how you make these difficult decisions. If you believe you have absolutely no control over your life, you will approach difficult decisions differently than if you believe you have complete control over every aspect of your life. With no control over your life, it would be easy to believe the people decisions have been forced upon you — the economy is bad, your company is hurting financially, so the action must be made to cut staff. This is not necessarily positive or negative, but it will affect your leadership. If you believe you have complete control over your life, you will probably approach the situation differently. You will certainly feel more responsibility for what you have to do, but you may also feel more of the burden for these difficult decisions.

Our worldview shapes our purpose in life, our values, our attitudes and our behaviors. There may not be a "right" or "wrong" worldview, but there are certainly aspects that allow us to be more or less effective as leaders. Without clarity around your worldview, you will struggle with the more difficult people-decisions. There may be a sense of inconsistency between your thoughts and actions. For example, you may believe you are making the "right" decision, but still feel as if you acted

Our internal beliefs impact our external actions in profound ways. We need to understand our thoughts about people, the control we have in our lives and how we view the world. in an inauthentic manner, because your worldview did not support your "right" decision. This might include working with a client you do not respect, because you need the revenue, even though the client has very different values than you or your organization. This might seem like the "right" decision for the business, but may feel inauthentic to a leader. Many leaders face internal struggles because the decisions they believe they must make are not aligned with how they see the world. Leaders need strong internal guidelines in place to make the right decisions.

Our internal beliefs impact our external actions in profound ways. We need to understand our thoughts about people, the control we have in our lives and how we view the world. Currently, there is great change and

uncertainty around us. Many leaders, when faced with such difficult and uncertain times, feel lost amid the changing landscape around them. With the rapid changes in technology and information, many leaders suffer from information overload, unsure of how to act with so much competing information coming at them all the time. With thousands of e-mails, hundreds of articles and a litany of important documents to read, leaders can get lost amid the chaos of everyday life. Leaders need to have an internal anchor to tie them down amid the winds of change and turmoil. Internal anchors include one's purpose and values. Leaders must have clarity around their purpose in life.

An individual core purpose acts as a compass, pointing people toward where they aim to go. Leaders without clarity in their purpose are more likely to feel overwhelmed by the frequent changes occurring all around them. Likewise, core values help ground leaders and keep them on the right path. During such difficult and turbulent times, we all are faced with tough decisions. With a set of unyielding, unchanging core values, we have guidance as to how to make these difficult decisions and choose the path that is most in alignment with the core values we hold. This prevents us from relying on "gut" instinct or simply making the easy choices. Instead, we make the choice that aligns with what we value. This will make deciding between two difficult actions much easier.

A timely example of a wellknown figure who suffered from an inconsistency between his words and actions is Tiger Woods. With the around-the-clock media coverage,

his story is well known. While in public and during interviews, he consistently mentioned the importance of family and how crucial his family life was to him as a person and as a professional athlete. Privately, he acted very differently while engaging in a number of extramarital affairs with different women. He had inconsistency between his thoughts, words and actions. Not surprisingly, that inconsistency led to unhealthy and shameful behavior, which affected all aspects of his life. While Woods is an example of a famous figure who showed inconsistencies in his values, Gandhi is a classic example of the opposite.

"What Gandhi thinks, what he feels, what he says, and what he does are all the same. He does not need notes ... You and I, we think one thing, feel another, say a third, and do a fourth, so we need notes and files to keep track."

- Mahadev Desai, Secretary to Gandhi

When we feel at war with ourselves over a tough decision, it may be a sign that there is some inconsistency among our feelings, thoughts and actions. Gaining clarity around our worldview will help create more consistencies in our lives and help us to make those very difficult decisions we all face.

Leaders who take the time to identify and clarify their worldview, core purpose and values will have the internal foundation to remain steadfast in the current uncertain times. However, internal strength is only the beginning. Leaders must venture out into the external world and handle the myriad of challenges, opportunities, obstacles and choices that confront them every day. Leaders will have to make hard decisions that affect not only themselves, but also those around them. We will now look at a framework to help leaders make some of those tough choices.

A FRAMEWORK FOR REDUCTION-IN-FORCE DECISIONS

One of the most difficult decisions leaders face in the current environment is deciding who to keep and who to let go. Every single reduction-in-force decision sends a message to the rest of the organization. The choice will be analyzed, discussed and given meaning. Often the meaning associated with these choices is vastly different among the leaders who make the decisions and the people who discuss them. Therefore, it is essential to be deeply intentional, thoughtful and purposeful in these situations. Great organizations have clarity about two critical factors: a shared sense of identity defined by purpose and values, and a shared set of aspirations for the future. High-performing companies know who they are and where they want to go, and must consider these factors when making reduction-in-force choices.

Another key factor in evaluating employees for reduction-in-force decisions is the level of each individual's performance. Matrixing performance by level of fit with the company's purpose and values is a useful way of evaluating people on a case-by-case basis (See Exhibit 2). This approach assumes that your organization has codified its purpose and core values and has some method of objective performance



evaluation in place. If not, these decisions will be even more difficult. This example is necessarily a simplified framework of course, and these decisions are never clear or easy.

Examining each of the quadrants and assessing where people fit is a useful way of filtering initial layoff evaluations. Each of the quadrants has implications, starting with the bottom right:

Weak Results + Does Not Live the Purpose and Values

The bottom-right quadrant of the matrix is where the easiest decisions lie and is where your first cuts should be. Ideally, people who do not live the

purpose and values and are not getting results are not in your organization in the first place. However, the boom years of the past led to many sloppy hiring processes. It was common to hear construction leaders express a desire to get more "warm bodies" in the door to keep up with the volume of work. Those days are long past for most, and if you have not made cuts in this group already, you may be in trouble.

Strong Results + Does Not Live the Purpose and Values

Reduction-in-force decisions become much trickier when evaluating people who get strong results but do not live out the company's purpose and values. Many of us know what it is like to work with people who get great results but have a significant disconnect between their behaviors and the purpose and values of the organization.

This is a hard personnel decision when times are good and becomes even more difficult when times are bad. Few organizations have the discipline to let go of a key business developer, project manager or leader even when all efforts to align these employees with the organizational culture have failed.

Most of these alignment attempts fail because it is much more difficult to change a person's worldview than it is to adjust his or her behaviors and skills. One of the methods that is successful at driving deep personal change is executive coaching. Leaders who make the decision to hold on to these people above all others send a clear message — that they value performance over alignment with the organization's purpose and values. Even more dangerous is a situation where an organization advertises its purpose and values and then rewards those who clearly contradict them.

One prominent example is the now infamous story of Enron. Enron's stated core values were respect, integrity, communication and excellence. Yet, its most highly rewarded people clearly disregarded those values. Leaders evaluating people in this quadrant should think deeply about their long-term vision for the company and implied message of retaining these people.

Weak Results + Lives the Purpose and Values

Determining what to do with people who are weak performers but live out the purpose and values of the company was a much easier decision a few years ago, when you could afford to orient, train and develop regularly. However, many leaders now are feeling tremendous pressure to get results at all levels of the organization and have little patience for coaching, teaching and training.

To be clear, we are not advocating holding onto all of your marginal performers. Great organizations focus relentlessly on performance. However, when making tough personnel decisions, it is important to examine the root cause of performance issues and take into account factors such as experience in the position, fit in the role and ramp-up time. Taking the long view on these types of decisions is very important.

Consider the implications five to 10 years from now of filling your organization full of people in the bottom-left quadrant and chasing out all of the people in the upper-righthand quadrant. Investing in these people does not have to be expensive. Informal mentoring, informal coaching and on-the-job training are high-impact, low-cost methods of training these people to get better outcomes. It is easier to teach people to deliver than it is to change their value system.

Strong Results + Lives of the Purpose and Values

Deciding what to do with people who get great results and live out the company purpose and values is one of the easiest choices, but often one of the Many leaders now are feeling tremendous pressure to get results at all levels of the organization and have little patience for coaching, teaching and training.

most difficult to execute. We all know these are the employees we should retain at nearly any cost, and yet they are often the most difficult to please. These people are often passionate, idealistic and tend to have a clear idea of their value, even in a bad job market. It is important to continue to invest in their development and keep their compensation competitive whenever possible.

A company must project a realistic but inspiring vision of the future of the

organization and these employees' place in it. These employees are often motivated by more than promotion and pay — they want to be part of something special. Be aware that in the current environment, some of the people in this group are just biding their time until the economy improves. Then, they may move somewhere else that offers a better blend of intrinsic and extrinsic rewards.

In summary, this framework is a helpful tool for leaders to better assess their people and use as a guide to making some of these difficult decisions. This is not an easy process, and without careful attention and purposeful action, it is easy to make mistakes when faced with difficult people-decisions.

COMMON LEADERSHIP MISTAKES

One of the chief missteps of leaders involves not thinking through the goals and plan for the staff cuts. Organizations too often rush through the decisions to cut staff, without spending the necessary time thinking through the goals, the plan

During downsizing, it is imperative to hang on to top performers, highpotential employees and future leaders. and how to measure achievement of those goals. It is true that you need to act quickly in such situations, but not by taking shortcuts that may only further harm your organization.

Leaders often end up losing the wrong people in these situations. It is often unclear as to who are the right people to keep and who should be let go. The previously mentioned framework is an excellent tool to manage this issue, but leaders need to spend the required time and energy to think through the short-term and long-term consequences as well. During downsizing, it is imperative to

hang on to top performers, high-potential employees and future leaders. Managers need to identity who they are and keep them on board. These are people companies cannot do without, no matter what the economic climate.

Another major mistake leaders often make is shutting off communication during this time. Many companies hold off on giving employees any news until they have an exact picture of what the future will bring or until their plans are set in stone. However, remaining silent during tough times only makes it harder to manage layoff survivors. People will talk, guess and gossip in an information vacuum. It is better to over-communicate in this situation, rather than under-communicate. One strategy some leaders use is to hold regular meetings and let staff ask questions. Even if there are no answers yet, employees will at least feel like the company is listening. That can build up some goodwill and prevent rumors from running rampant in the organization.

A final mistake leaders often make during this time is to believe top performers will stay just because of the economy. Even as companies are cutting staff, they cannot forget about their retention efforts. Despite the rough market, many employees plan to look for a new job this year. Employees who have survived cutbacks are even more likely to be looking for new work. Your best employees will always have options, and many of them will be unafraid to leave your organization if they do not feel they are continually challenged and provided with training and growth opportunities. It is a mistake to think that all employees are just happy to have a job. The strongest employees are looking for much more and will move to a different organization if you stop developing them.

These common mistakes must be avoided because they adversely affect the ability of employees to stay engaged and productive. When employees are constantly worrying about their job security or losing faith with their leaders because of missteps, the effectiveness and efficiency of those employees takes a major hit.

While the economy certainly can wreak havoc on the productivity of employees, down economic times do not necessarily have to mean a decrease in the overall engagement of employees. In an analysis of surveys gained from the Best-Place-to-Work competitions, leadership practices that either increase or erode employee engagement in tough economic times were identified. Here are two practices that underscore the theme of this article.

- Leaders need to set a clear, compelling direction that empowers each employee. Employees want to know the plan for the future and where the organization is going.
- Leaders need to maintain a continued focus on career growth and development for their employees. Leaders should not stop training and developing people simply because the economy is bad. Many strong performers will stick with an organization until the economy turns around and then find a different job with someone who will spend time and money on training, if they do not believe those opportunities exist any longer in your organization.

We are currently working in very uncertain economic times. As leaders, we are faced with difficult decisions on a daily basis. It is easy to be caught up in the uncertainty, negativity and fear that currently pervades our economic landscape. When the external environment is so challenging, the best leaders reexamine their worldview and reconnect with their personal purpose and values. That internal foundation will provide leaders with the strength to handle the external pressures they face.

Leaders faced with difficult people-decisions cannot make these choices lightly and need to spend a considerable amount of time and energy thinking and taking care that the decisions they make are in alignment with their own and the organizations' purpose and values. Leaders who are intentional about this process will be able to navigate the challenges, avoid the missteps and make the right people-decisions not only to survive the current difficult economy, but also to position the organization to endure long after the construction industry recession ends and we once again return to more prosperous times.

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Are You a Helicopter Boss?

Good managers do not hover over their employees. They involve their people in the decision-making process by teaching them how to make good decisions for the organization.

By Kelley Chisholm

ave you ever worked for someone who controlled everything you did, day in and day out, telling you what to do, how to do it and when to do it? This boss was constantly checking in, making suggestions and hovering above, even though you did not ask for nor need any help or support. These micromanagers can be referred to as "helicopter bosses," a term coined from its counterpart phrase "helicopter parents."

According to Wikipedia, "Helicopter parent is a colloquial, early 21st-century term for a parent who pays extremely close attention to his or her child's or children's experiences and problems." Helicopter parents often have very good intentions, but they have to control every aspect of their children's lives to prevent them from failing. These parents hover over their kids, planning and monitoring their every move, without letting them figure out solutions to their problems on their own. Helicopter bosses treat their employees like these parents treat their children. These managers hover over their employees and make all of the decisions. Employees are not allowed to take risks or solve problems on their own. What this accomplishes is that employees are prevented from learning, developing and growing. You are probably a helicopter boss if:

- You do not trust others to perform work on their own.
- You refuse to delegate anything because no one can do it as well or as fast as you can.
- You are constantly checking in and hovering over your direct reports, even when they have not asked for your help.
- You are burned out and lack work/life balance.
- Your team suffers from low morale because you second-guess everything it does.
- Your team has a high turnover rate.
- Your team produces low-quality work and/or is not productive.
- Your team is not profitable.
- Your team lacks bench strength in terms of successorship.

If you are a helicopter boss and do not allow your employees to make at least some of their own decisions, you set yourself up to have a dissatisfied and unproductive workforce. Many of your talented employees will simply leave rather

Research indicates that one of the top reasons people leave companies is because of poor relationships with their managers. Replacing these employees can cost up to 2.5 times of their salaries, which takes its toll on the company's bottom line. than put up with someone who constantly hovers and micromanages. Research indicates that one of the top reasons people leave companies is because of poor relationships with their managers. Replacing these employees can cost up to 2.5 times of their salaries, which takes its toll on the company's bottom line. For a construction company to stay competitive and successful, employees must be trusted to do the best they can to live up to their fullest capabilities. Employees must not be held back by managers who feel compelled to control each decision and move their workers make.

Years ago, managers got results by running a tight ship and keeping employees under their thumbs. However, employees today are no longer satisfied working in an environment where they have little input into their jobs. If they are not allowed to problem solve, learn from their mistakes and make decisions

about how they do their work, they will go elsewhere. This will certainly be true in the upcoming months as the economy begins to rebound and the talent wars resume. To succeed in constantly changing markets, construction companies must be flexible and adaptable. In the typical construction project, fast-paced decisions made with confidence are frequently required. Helicopter bosses hamper the speed

of decisions, skills improvement in problem solving and the development of self-confidence of their people.

Organizations achieve success by empowering employees to perform at high levels and achieve goals and objectives without having a manager constantly checking everything they do. One of the best ways for a helicopter boss to stop micromanaging and start empowering is through delegation. However, before empowerment and delegation can start, there must be a culture of trust.

TRUST ME

What exactly is trust? Webster's Dictionary defines trust as "assured reliance on the character, ability, strength or truth of someone or Organizations achieve success by empowering employees to perform at high levels and achieve goals and objectives without having a manager constantly checking everything they do.

something." Put another way, trust means being able to place confidence in others without fear or misgivings. In any organization, it must exist in both directions, where managers trust their employees and employees trust their managers in turn.

In order to create a culture of trust, managers and employees alike should:

- Establish integrity and honesty
- Show respect
- Listen to others and consider their ideas
- Not withhold important information
- Act and speak consistently
- Eliminate fear
- Treat everyone fairly
- · Focus on solutions, not on personalities

Bonds of trust are formed when communication is honest and open, and people genuinely feel that they are being heard and valued. Trust is reciprocal and one of the best ways to gain it is to show people that you trust them. While you may not necessarily agree with what others are thinking or saying, listening and empathy go a long way toward establishing a trusting environment.

When managers treat their people as business partners and involve them in the decision-making process, those employees begin to trust and respect their managers in return, and they become more invested in doing their best for the organization. Another advantage to creating a culture of trust is that it boosts the morale and motivation of the workforce, which should lead to increased productivity and enhanced contributions to company goals.

EMPOWER ME

Typical micromanagers often are stressed out because they are too busy spending their time controlling others, instead of focusing on more important priorities such as growing the business. In turn, instead of being able to think on their feet, micromanaged employees become entirely dependent upon their bosses and have no desire to improve. This places additional burdens on these managers. Once a manager starts truly trusting his or her people, it is much easier to empower these employees to make their own decisions on how to approach their work. These managers take on a role of coach, motivating and encouraging the team from the

sidelines. They train and encourage their staff to follow the company's strategy, rules and game plan, to be part of a winning organization.

Before managers decide to empower their employees with decision-making authority, they must establish a number of guidelines.

> Managers must be committed to letting go of major decisions. Without this commitment, a culture of empowerment simply will not happen. The aim is not to license ill-equipped individuals to make decisions well out of their areas of competency, but rather to continuously stretch developing

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employees by increasing the magnitude of the decisions they are asked to make.

- The company should examine all of its processes and determine where there is room for managers to let employees take part in the decision-making process. This includes creating procedures for establishing deadlines and reviewing any decisions made.
- The organization needs to establish a clear chain of command for each area of the business, including who is ultimately accountable for decisions made.
- The company must provide adequate training and should hold regular meetings to discuss what is working and what needs improvement.
- Managers must be willing to let employees make some mistakes, especially in the beginning.

Once managers start empowering their employees, they cannot go back to their old ways of making all of the decisions for them. They must back off and trust their employees, who in turn will take ownership and pride in their work. Clearly, this process works best when established early in the relationship of the manager and the employee. If a manager has a long history of operating as a helicopter boss, a decision to change methodology will not be immediately trusted by the manager's people.

DELEGATE TO ME

Effective delegation is one of the main ways to empower employees. As previously mentioned, delegation is all about trust. It allows employees to develop and use their skill sets to their full potential. However, delegation is one of the hardest things for a manager to do, particularly for those new to the management arena.

Reasons people do not delegate include:

- Lack of time to train others
- Fear of mistakes
- · Inexperience on part of delegator
- · Fear of losing control/surrendering authority
- "I can do it better" mentality
- "I may be replaced if others do it better" mentality

Reasons people should delegate include:

- · Additional qualified resources yield more time for supervisors on other work
- · Better quality of work results when management is not spread so thin
- · Improved skill sets among employees as they develop and grow
- Increased bench strength as successors are identified and trained
- More ideas/new ideas are created when others are involved
- Increased trust levels throughout the team
- · Enhanced decision-making skills of all employees
- · Heightened ownership and morale of team members

Delegation is certainly about entrusting your authority to others, but it does not mean abdicating it. You remain ultimately responsible since you are the manager, so stay involved by letting your employees know you are willing to answer questions when needed. Test for their understanding of the task

by asking questions of them, but not to the point that the questions become an interrogation.

Steps for delegating effectively include:

- Identify the desired result and ensure that the employees know what you want.
- Determine the guidelines and deadlines for the work and ensure employees have the authority to achieve them.
- Provide the necessary resources to accomplish the work.
- Hold employees accountable for the work assigned and define the consequences for not completing it.

- · Monitor progress and follow-up on a predetermined basis.
- Reward all successes.
- Debrief the process once the employee completes the tasks.

These steps depend upon clearly communicating the nature of the work, the desired results, the follow-up procedures and accountability measures. Providing regular feedback at predetermined times is a great way to ensure that the employee will successfully complete the delegated work. When the manager is no longer hovering, but adhering to a reporting schedule, the employee not only expects these meetings but also feels encouraged by the continued support of management (See Exhibit 1).

How do you decide what tasks to delegate in your organization? One way is to look at the job responsibilities at each career level in your organization. For example, what tasks will an assistant project manager need to do once he or she becomes a project manager? What duties will a senior project manager take on when he or she rises to the executive level? An example of tasks an executive manager can delegate to a project manager may be handing over the scheduling and cost analysis for a major project. The executive manager certainly will want to monitor the progress of the delegated work at regular intervals, especially at the beginning of the project. The payoff is that not only does the project manager learn new skills, but also the executive has more time to concentrate on other priorities.

Another way to decide on what to delegate is to consider your own move up the corporate ladder. What activities did you do before you were promoted that you can assign to others? A good place to start is assigning meaningful work in which you have experience to facilitate the training and ensure that the work is done well. Say you are your company's vice president of operations. As such, you probably travel considerably among international, national and regional offices and/or attend meetings and conferences of various associations. Are there employees who can attend some of these meetings for you? This would be particularly beneficial to those people who have potential to move up the career ladder in your company.

Micromanagement	Delegation
Managers only assign simple, superficial or boring tasks, where employees are not expanding their skill sets.	Managers assign work that is challenging and provides an opportunity for employees to grow and develop new skills.
Employees must obtain approval for every decision.	Employees have the authority to make decisions on their own.
Managers give detailed directions and do not allow input from the employees.	Employees are encouraged to come up with their own ways to deliver required results.
Managers take back the work at the first hint of problems, and the employees are not allowed to problem solve or learn from the experience.	Managers encourage the employees to find solutions to problems, thereby creating a learning experience.
Managers focus solely on trivial details and processes.	Managers focus on employee performance and end results.
Managers do not trust their employees.	Employees are treated as business partners and are trusted.

Exhibit 1 Micromanagement vs. Delegation

Not only do they start meeting important contacts, but they also learn more about the industry overall, increasing the strength of the entire group.

When you start delegating work to others, it is a good idea to start small. Delegating in stages increases both the manager's and employee's comfort levels. Group together concepts and skills that build on each other so that employees

gain experience in the basics before moving on to more complicated tasks. For example, as a manager, you are probably in charge of a variety of meetings each week. Instead of preparing the agendas or presenting reports, assign this to an employee who needs to improve his or her presentation skills. The employee gains valuable experience and your time is freed up to concentrate on more pressing issues.

Keep in mind that not all work can be delegated to others. For example, company owners cannot delegate the development of their overall vision, even though there must be a vision and that vision must be communicated clearly. Sensitive or confidential projects should not be handed over to inexperienced staff, Successful delegation of authority takes time, but is worth it in the end to help employees develop a sense of accountability, succeed and rise within the organization.

nor should employee performance reviews, complex customer negotiations or the hiring and career development of new people. However, most other work, at least varying degrees of it, can be delegated to others. Successful delegation of authority takes time, but is worth it in the end to help employees develop a sense of accountability, succeed and rise within the organization.

CONCLUSION

Good managers do not hover over their employees. They involve their people in the decision-making process by teaching them how to make good decisions for the organization. Good managers do not problem solve for their employees, but instead coach them to solve problems on their own. Good managers trust their employees, and in turn that trust is reciprocated. By not micromanaging every aspect of their people's jobs, good managers help employees develop and grow, which benefits the entire organization.

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