# FMI Quarterly

2004 ISSUE 1

## THE NEXT GENERATION OF LEADERS

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## FEATURES

# This Quarter: A Blank Slate

**Dear Reader:**

There is always something invigorating about another New Year. Just the idea of a blank slate on which to finally do it all right, to make new resolutions and keep them, and to become somewhat different than our past.

We at *FMI Quarterly* look to this New Year as an opportunity to build upon our short past, to bring even better thinking and information to you, to challenge your ideas, and to plant seeds for new ones.

In this issue, our op-ed debate takes on a different twist as *FMI Quarterly* moderates a discussion between two of our senior staff on the merits of broadly held or narrowly held share ownership in a construction and design enterprise.

We step outside FMI's thinking to bring you leading edge thinking from one of the industry's most respected contractors, Doug Pruitt of Sundt Corporation.

Our interview this quarter is with another industry icon, John Lamberson. John will be familiar to many in the insurance and surety industry and to the many contractors with whom he has dealt over the past five decades. John talks with us about the importance of relationships, the current shape of the surety and the P&C insurance business, as well as his views on the years ahead. John is a member of FMI's board of directors.

Additionally, we have included eight features on a variety of topics. In this issue, we have several articles on the topic of ownership transition. Our mergers and acquisitions group offers 10 rules for ownership of construction-industry companies based on its experiences with firms. We also present the second article in our series on ownership transition from our annual ownership survey. The article details the risky business of family ownership. Finally, we evaluate the profitability of an internal sale vs. a sale to a third party for telecom and utility infrastructure contractors in the current hard market.

Our ownership group presents a case study of a roofing company's experience with the dual rate overhead recovery method. The company improved its annual net profit six-fold after transitioning to the new system.

Project dispute resolution processes offer the opportunity to build an improved partnering model in an era of larger projects, multiple delivery systems, and fast-track projects. As such, our partnering group outlines the steps in this process.

A craft labor study from our research group assesses the magnitude and timing of potential labor shortages.

Finally, our training group explains how training programs help companies win the war for talent, exceed customer expectations, plan for succession, align employee goals with business needs, and improve the bottom line.

We thank you for your support of our first year's publications and we hope that you will help spread your view of the value of the *FMI Quarterly* to your colleagues in the industry. Please continue to share with us your suggestions for topics and improvements as we continue our efforts to build a great future for the construction industry and its leading organizations.

Sincerely,

Jerry Jackson
FMI Chairman
*FMI Quarterly* Publisher and Senior Editor

# Opposing Viewpoints: Perspectives of Ownership

*Recently, Randy Stutzman and George Reddin, FMI consultants, discussed stock ownership in a closely held construction firm with Jerry Jackson for the* FMI Quarterly. *They were encouraged to take polar positions, so some of the views expressed are a bit more extreme than these commentators actually hold. The purpose of this dialectic is to provide our readers with points to consider in their own involvement with stock ownership. Stutzman, Reddin, and Jackson are all minority owners of FMI Corporation. George Reddin is a member of FMI's board of directors. Randy Stutzman is a director.*

# Two Perspectives of Ownership in a Closely Held Construction Company

*Randy Stutzman and George Reddin*

**FMI Quarterly:** Let's stake out some boundaries. What is your notion of the dividing line between broad ownership vs. concentrated ownership in a closely held business? Randy, let me start with you. You're taking the position that concentrated ownership is better; what does concentrated ownership mean?

**Randy:** In my mind, concentrated ownership is when you've got one or two or three owners — just a few people.

**FMI Quarterly**: Would you agree with that, George?

**George:** Can we agree that it's one person probably owning controlling interest?

**Randy:** Yes. In the majority of situations, that's true.

**FMI Quarterly:** George, how broad can broad ownership get before it becomes essentially a public company?

**George:** ESOPs would probably be the extreme of broad ownership where everyone eligible becomes an owner.

**FMI Quarterly:** OK, these are our ground rules: one to three shareholders with at least one controlling shareholder make up "concentrated ownership" vs. "broad ownership" where no one has controlling ownership; there are just lots of shareholders.

Are people more motivated when they own minority shares in a closely held construction company than when they are simply employees, George?

**George:** I think the answer depends on the buy-sell agreement. If I have a buy-sell agreement that tells me what happens to my shares in the event of certain trigger events and I'm protected by that buy-sell agreement, then I think share ownership can be a very motivating tool. On the other hand, if I am a minority shareholder without a buy-sell agreement, that would create great angst for me because there is no certainty as to what's going to happen to my stock.

**FMI Quarterly:** In other words, there has to be an exit strategy — a market for your ownership exit?

**George:** A buy-sell or shareholders agreement should tell me: how my stock will be valued when I get paid and at what point in time and under what events I could convert that stock to cash.

**FMI Quarterly:** But if such an agreement is in place, then stock ownership is a motivational tool?

**George:** I think it can be a motivator. It's "owning a piece of the rock" and being part of it that motivates people.

**Randy:** I disagree. Stock ownership can confuse an employee as to his or her role within the company. Am I an owner or an employee? Role confusion can be a real problem in a lot of organizations.

**FMI Quarterly:** At some point, perhaps, the percentage ownership might convey some degree of motivation, but as that percentage ownership declines, would it be less motivating?

**Randy:** Definitely. And, obviously, the corporate structure is going to have a lot to do with that also. If I'm a shareholder in a C corp, for example, I might view a minority position as being more of a liability than an asset. Why in the world would I want to undertake the risk with this organization when my stock is really illiquid, doesn't improve my compensation, and I can't do anything with it until I die or leave the company? And the majority owners are managing profits in such a way that there's never going to be any real appreciation in net worth.

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**FMI Quarterly:** Let's assume that they're not manipulating the profitability and let's assume that there is a market in place for the stock. George, at what point percentage-wise does the ownership become so small that it really isn't a motivational factor?

**George:** The percentage ownership isn't as important as the economic impact for each individual. With a pass-through entity, rather than a C corp, there can be distributions of earnings and those distributions can become significant even if I'm only a very small percentage shareholder. I think if you were to look at some of the larger companies that are ESOPs or that are employee-owned, you've got some pretty interesting success stories.

**FMI Quarterly:** George, you mentioned pass-through structures. What is the implication of a pass-through vs. a C corp?

**George:** In a C corp, if you distribute earnings to the employee, it'll typically be in the form of a dividend, carrying double taxation. In a pass-through structure such as a sub-chapter S or LLC, the owners of the business are the tax-paying entities.

The pass-through structure provides for one level of tax. The distributions are pro rata to share ownership, which protects the small shareholders who know that they are being treated the same way as the larger shareholders.

**FMI Quarterly:** George, can you provide us with an example of companies that have been enormously successful through broad ownership? Perhaps broad ownership alone wasn't the key to their success, but at least strongly coincidental to their success.

**George:** Probably the one that comes to mind for most people would be Kiewit, which is an employee-owned business that has rewarded its employees very handsomely, creating many well-to-do people through employee ownership of a profitable business over a long period.

**FMI Quarterly:** Excellent. Randy, on the concentrated ownership side of things, can you think of very large and successful companies that have gotten there even though they were highly concentrated in ownership?

**Randy:** Companies with broad ownership make up a very small percentage of any type of construction company, large or small. You know, the industry was founded on the model where one or two people who had a great vision and a great passion for what they thought they could accomplish and went out and did that. Typically, that's not done in a large group.

**FMI Quarterly:** Let's say that the owners decide to keep ownership concentrated. What are some of the issues they can expect from today's key employees who are not owners of a piece of the rock?

**Randy:** I think everyone wants to know what's in it for me. Whether it's ownership or some kind of performance-based compensation, I'm not sure that makes a huge difference to most people. I'm not sure that very many people are terribly concerned about how the dollars get distributed, so long as they are distributed on merit.

**FMI Quarterly:** George, from your point of view . . .

**George:** Well, I think back to Randy's comment about how companies were built with one or two people with vision and passion. I agree that there are situations like that. I think, at the same time, the construction industry has moved from the days when one or two people went out and made it happen. It's a more mature business, and we have established mature companies, operating in mature markets. As such, the industry lends itself more towards broader ownership to sustain the business and, if nothing else, to provide a market for the founders when they seek to exit the business.

**FMI Quarterly:** If owners decide to broaden their ownership, what are some of the issues they're going to face?

**George:** If you have a culture that has not shared ownership, you have to educate individuals on what it means to be a shareholder and how decisions are made, but that's just managing people and communicating. While they might say that's hard to do, it's not a challenge that can't be overcome.

**FMI Quarterly:** Randy, if you reflect on some of your clients and your experiences with concentrated ownership, as you contemplate them going through the transition to a broader form of ownership, what are some of the issues that you think they'll face?

**Randy:** Well, the key issue comes down to the competence of the people to whom they're transferring ownership. What is the level of sophistication of that potential ownership group? Are they, in fact, the right people? And, unfortunately, many times you don't know that until you're a little further down the road. Obviously, the biggest risk that they face is putting together a continuity plan where ownership is transferred and the new team is not capable of leading the business. At that point, you've got all kinds of issues to deal with — management issues as well as some legal issues.

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**FMI Quarterly:** In the process of transitioning from few to many, obviously you have to first go through a few new shareholders and then a few more and a few more, unless you're doing it through a vehicle such as an ESOP. Let's say you're doing it on a selective basis because you really do want to put the shares in the hands of those who are competent, as Randy suggests. Let's say that I view myself as a key employee and I view myself as competent, but I'm not one of the chosen. Is that a problem, George?

**George:** I think it certainly is an issue because you're differentiating between people in your organization. My guess is that there are also other things that are differentiating those people — compensation, promotions, jobs they are being asked to do, etc. So, I don't think differentiating ownership is unique. Talent is a premium in this era. To attract people, you've got to give them more than many owners are used to. Look at most public companies. They've had to rely heavily on stock options to attract people and to retain people. There's no reason this industry should be different. Our own industry survey on ownership transfer and management succession trends shows the challenge companies have in surviving from one generation to the next and that the biggest part of this challenge is having the right people. So, is it hard to transition to broader ownership? Absolutely. Is it the right thing to do? Absolutely.

**FMI Quarterly:** I think both of you are strong advocates of having a management succession plan in place and having people within the company know what that plan is and know how it will be put into effect. If that's the case, is there any real difference in moving from few to many who share ownership as opposed to moving from none to a few who are in succession roles? Both of them are discriminating against the rest of the employees.

**If you dodge the dilemma of how you differentiate between your stars and all others, then you'll promote an environment where you'll retain mediocrity and push away the stars.**

**Randy:** I think you've got an additional problem when you introduce ownership into the equation. I think most people realize that there can only be one person who is truly leading the organization … there's only one president. But a lot of people who have risen through the ranks together become dissatisfied when one person is given ownership and another person isn't. I think you just layered another level of complication onto something that's already extremely complicated and fraught with emotion.

**George:** If you dodge the dilemma of how you differentiate between your stars and all others, then you'll promote an environment where you'll retain mediocrity and push away the stars. And that'll be fine until it comes time to transition the ownership of that business. If you're in a market where there are limited third-party sale opportunities and you're relying on an internal deal, you won't have the human resources to continue the business. It will live its one generation and then die.

**Randy:** Well, you know, the other side of that is there are so many examples of people who have gotten pretty far down the road in an ownership-transfer program with the employees and then an excellent third-party opportunity presented itself. It would have been a much better solution for the existing owners and they really couldn't take advantage of it because they had announced they were proceeding down a road with this internal ownership transfer.

**George:** I would think that would be a very unique situation. I think we can demonstrate on a present-value basis, that a successful internal transaction can be more lucrative than any typical third-party transaction, assuming the right appetite for risk and the prolonged timeline.

**Randy:** Well, I don't know that I would agree with that, and I know that the amount of risk for the existing ownership group goes up significantly in an internal transfer.

**George:** I agree. What I was suggesting was that if I have the risk tolerance to be paid out of the earnings of the business, and if I have the time horizon to do it, meaning more than five and less than 15 years, then on a present-value basis I think you can demonstrate a more lucrative deal financially than what some third party would be willing to pay you in cash at closing.

**FMI Quarterly:** Speaking of risk tolerance, what are the implications to the creditors of broad vs. concentrated ownership, Randy?

**Randy:** Well, that's a good question. There are obviously a lot of issues to consider. One of the issues with both credit and surety is a minority stockholder tolerance for taking on additional risk. Then suddenly, my wife and I are having this discussion that I've got some large personal liability and responsibility for the organization where I'm not in control. You know, that's a problem for a lot of employees as well as a lot of credit institutions in not having one or two strong, financially capable people to turn to if things don't go well.

**FMI Quarterly:** How do you see it, George?

**George:** It's a balancing act. Obviously, one of the top concerns for anyone providing credit of a surety nature or bank nature is what happens if this individual who owns the majority of the company gets hit by the proverbial red truck and isn't here tomorrow. Broad ownership in conjunction with a good succession plan gives creditors more comfort than less. In terms of new owners taking on the risk, it probably does mean more risk. Therefore, the risk has to have some reward from the ownership of the stock. It also probably means that the company will have to maintain a more conservative financial statement to keep these creditors continuing to provide the credit to the broader ownership and risk.

**FMI Quarterly:** Doesn't that create a particular problem in a broad ownership situation where the indemnification makes each owner jointly and severally liable. Let's face it, some owners are more reliable in their ability than others, simply because of asset accumulation.

**George:** I think that's the worst case scenario that everybody would be jointly and severally liable. Again, I would have to point to the success story of Peter Kiewit considering the projects that they bid, the risks inherent in those jobs, the reliance on surety credit, etc. It's obviously been a great success story.

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**Randy:** You know, if I'm a minority stockholder and I am unwilling to take on that liability, do I really have the intestinal fortitude to increase my ownership and at some point become a majority owner and lead the organization? You know, that's a great weeding-out process, being willing to take on that liability. But on the other side, it is also a problem for a lot of people who have a minority position. Why am I taking on that much liability for relatively small rewards? So, again, I think that indemnification speaks to more concentrated ownership.

**George:** Would you agree that it may be different if you're an architectural/engineering firm or if you're a contracting firm that doesn't do bonded work vs. if you're solely dependent on public and bonded work?

**Randy:** Yes, I would definitely agree with that and I think the A/E world is significantly different than the contracting world just in terms of inherent risks and probably how all of that would work in terms of a more diluted ownership.

**FMI Quarterly:** Do you think that sureties and other creditors are any more assured by one form of shareholding vs. another? Do you think they ultimately care?

**George:** I think it's important to them. I think it is directly tied into the company's management succession and business continuation planning efforts. And to have more people in the ownership has to give creditors comfort.

**Randy:** I would agree that the management succession issue is very important to creditors and surety. In terms of the actual ownership, I think you really have to separate the management succession from ownership. I don't believe that the actual ownership is going to be nearly as important as the management-succession plan and the creditor's confidence in those people who are in the second-tier positions.

**George:** Ownership can provide retention ... a golden handcuff, if you will. Losing key individuals can be devastating for companies. If ownership helps retain key people, it helps the management-succession process, which any creditor would be happy to see.

**FMI Quarterly:** What about ESOPs? Do they solve ownership issues, Randy?

**Randy:** I believe that the vast majority of ESOPs are created not to solve ownership issues; they are created to solve tax issues of the existing owners. Anything beyond that is a secondary consideration.

**FMI Quarterly:** So are you saying that broad ownership in the form of an ESOP, among other things, may not have motivational value to the employee who's a participant in that ESOP?

**Randy:** I believe that for every motivational value you can name, there are at least one and probably more issues that are demotivators in ESOPs.

**FMI Quarterly:** George?

**George:** The success of an ESOP is a function of how well it's communicated, how well information is shared. Randy said the economics lie in the taxes. If I'm an S-Corp with an ESOP and not paying taxes, I have a 30% plus leg up on the taxable entity.

**George:** Today there's a premium on talent, and there's a premium on attracting professional managers. There's a premium on being able to retain people so you're looking for a vehicle that can do that. Ownership is one of the vehicles that other industries, other employment opportunities are presenting. So I think it's market driven. I also think that in the ESOP you have a wonderful opportunity to buy out the existing ownership over time in an extremely tax-efficient way, which helps with the continuation of the business to the next generation of owners.

**FMI Quarterly:** So, from your perspective, George, are ESOPs a good thing?

**George:** For ownership and business transition, I think ESOPs have a lot of pluses.

**FMI Quarterly:** And Randy, what are some issues that you think make ESOPs problematic?

**Randy:** The thing that I try to communicate to clients is that ESOPs are like Cinderella's slipper. When they fit, they really fit. And when they don't fit, they don't fit at all. There are classic issues. You've got to get around the surety issues, obviously, which are considerable. There can be confusion within the organization as to just who is in charge — especially in a 100% ESOP. A lot of the bad things that you see with ESOPs are when the company leverages the ESOP, it creates a tremendous amount of debt that wasn't there before and then earnings go down and the new owners have a very difficult time servicing that debt. When you talk about the disadvantages of ESOPs, the leveraged ESOP is much more risky than even a traditional ESOP. Some of the other disadvantages of ESOPs are that, from an employee standpoint, I've got most, if not all, of my retirement earnings invested in

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one company. The administrative costs are much higher. Then, there's the legal ramifications and the fiduciary responsibility of the ESOP trustee. All of those issues have to be weighed against the advantages of an ESOP.

**FMI Quarterly:** Perhaps it's because of the leverage nature of some of the ESOPs, but more than one company has had a high stock valuation on the initiation of their ESOP, and then over the ensuing years, the subsequent valuations were significantly lower. This led to significant rifts, if you will, between the participants in the plan and the senior management of the company who were benefiting from the early bailout.

**Randy:** Sure, and that speaks to the whole erratic nature of profitability within our industry. Generally, ESOPs work a lot better when there are predictable levels of probability and unfortunately, that's not very common in the construction industry.

**George:** I think I would agree that where they fit, they really fit. And, there are situations where it may not be a great fit. In terms of who is in charge and what ESOP ownership means to the individual employees, that's communication. That's not whether the ESOP is a good concept or not. The leveraged ESOP is no different than if we didn't have the ESOP and chose to leverage the balance sheet to accomplish whatever that capital was being raised for. The difference is you're using pretax dollars to repay those monies. So, if the decision was a poor decision to leverage, it's not going to help being an ESOP or not being an ESOP. But, if it was a good decision, you have a substantial economic benefit by being an ESOP.

**FMI Quarterly:** What's the most disastrous experience that you can recall when it comes to ownership transition, Randy?

**Randy:** Boy, there are a lot of them. One that comes to mind was a leveraged ESOP, involving a $100 million industrial contractor in the Midwest. When they instituted an ESOP, they did just about everything wrong. They took on a great deal of debt to finance the transaction and after a dip in earnings, they couldn't service it. They chose a weak leader. They moved into new lines of work and new geographies and did not perform well. The whole thing just came crashing down, and it was sad. A lot of long-time employees really had their lives disrupted because of all of this.

**FMI Quarterly:** George, do you have a horror story for us?

**George:** I think we have a horror story that occurs on a regular basis. It's where one shareholder controls a significant amount of the stock. They get hit by the proverbial red truck. Proper estate planning didn't happen. The spouse now owns the shares. The spouse's advisors are telling him or her that passive ownership of a construction company is not the right thing to do, or that he or she needs liquidity for the estate and should sell or liquidate the business. Places that look as if that could happen are tough places to attract "A" players.

**FMI Quarterly:** That leads me into my next question. If you have a company that is now concentrated in ownership and has to transition the ownership, perhaps because of death, to someone or some other group, is it really feasible to continue a very closely held ownership in a high growth company? Can funding be sustained for high growth?

**George:** In our business continuation practice, we preach that in most cases the funding source for any internal transaction is the future earnings of the business. So one could argue that whether it's one person who's going to end up buying the shares or many, it's the same funding source. It lends itself more towards many being involved in that process. Broad ownership has greater ability to use the earnings for buy-back purposes. Larger owner groups are generally more willing to dedicate part of their variable compensation toward creating a pool for the buyout. As firms grow and get bigger, it becomes much easier if you have broad ownership.

**FMI Quarterly:** Randy, would you take a different position?

**Randy:** Well, I would agree that unless you've got some wealthy employees, the funding source in most cases is the future earnings of the business. But, assuming that you have picked the right future owners, I believe that you've eliminated some risk and a lot of complication in making that transfer to just a couple of people rather than to a broad group. There's enough emotion and business interaction going on during a transition following a death without trying to bring a whole new ownership group into the culture of the company.

**As firms grow and get bigger, it becomes much easier if you have broad ownership.**

**George:** Broad ownership doesn't eliminate the ability to have different levels of ownership. The key one, two, three — however many — people can still own a significant piece of the business while extending some ownership to a broader group. As new owners, they should be encouraged by the fact of broad ownership because that's the team behind them that they need to make their ownership work.

**FMI Quarterly:** Let's take the perspective of the new shareholders for a moment. As a new shareholder, what should I expect in a company that's letting down the gates insofar as share ownership is concerned? What should I be anticipating? If we're going to have broad ownership, what's going to happen, Randy?

**Randy:** From a day-to-day perspective, not much. That's one of the challenges. People have to understand that the day after I become an owner, I've still got to do my job. Nothing has really changed. Throughout the organization, there are going to be some people who are really happy and there are going to be some people who are very unhappy in that process. If I am a 35-year-old rising star in the organization who is really seen as an heir apparent, I'm probably going to be pretty happy. If I'm a 55-year-old individual who's been with the company for a long time but doesn't have as long of a horizon, I'm probably going to be unhappy with the results of this transition.

**FMI Quarterly:** George, do you see it the same way?

**George:** I think the typical situation is if you have a good company and, therefore, you have something worth transitioning, there are typically more takers for stock. It's very positive. The anxiety part is "how do I pay for it?" The ownership plan, the buy-in plan, has to accommodate the individual employee so that their focus remains on their job. Again, that's the communication and the management of the process. But broad ownership will almost always be oversubscribed.

**FMI Quarterly:** Do you think that the act of ownership conveys to the new owner a significance in terms of stock appreciation, or do you think it conveys a greater significance in terms of the opportunity to get more of a short-term play? Simply by owning, I'm more entitled to whatever largess is available at the end of the year, and, alternatively, I should be watching it grow, not withdrawing the money.

**George:** I'll start on that. You do have to manage the difference between what my job is and what the pay for that job is vs. my position as an owner. Appreciation will again be defined two ways. It will be what the stock is worth tomorrow vs. when I bought it. And the other appreciation is what type of dividend or distributions will I be receiving along the way? I have to manage the difference between my role as an employee and the compensation I'm afforded vs. my position as an owner.

**FMI Quarterly:** Do you see it any differently, Randy?

**Randy:** No, I agree, and that's the nice thing about the pass-through entities. There isn't any subjectivity in distribution. If I own 10% of the stock, I'm entitled to 10% of the profits that are distributed.

**George:** When we interview people as part of our business-continuation process, we often ask them, "If I put in front of you, Mr. Employee, a pile of money or a pile of stock certificates, which one would you prefer?" We make the attributes of the stock certificates similar to the attributes of the cash, i.e., I could give somebody a 5% interest in the business, or I could give them 5% of the profits every year. Many answer that they want the stock. Owning a piece of the pie is important to people.

**Randy:** I think George would agree we feel strongly that if the decision is made to distribute stock, employees need to pay for that stock. It shouldn't be in the form of gifting or something where someone doesn't have to write a check. They need to have skin in the game, and they need to see ownership as something that they have worked for and earned.

**George:** Normally ownership becoming available to an employee is a part of an overall ownership-transfer plan. And it's normally a two-way street. The reason that I'm willing to sell is because I need to sell. It's part of the overall ownership-transfer plan. And, in many, many cases at the end of the day, the future earnings of the business are the funding vehicle for the stock. The current owners in theory are buying themselves out with their own money. Why would they do that? They do that because in exchange they get the commitment, dedication, and loyalty of this group of people to stay there and continue generating the earnings of the business that allow the owner to gracefully and profitably exit. New owners will pay for it, but, again, it's going to be paid through enlightened self-interest of the exiting owners.

Business is changing. The make-up of the ownership of our business is changing.

**FMI Quarterly:** Does the act of new ownership also convey a shift in perspective — where once I argued for the longer look, now that I'm a shareholder, I want to know where this year's earnings are? Does it change me from someone who would take the longer view to someone who is thinking more like a securities analyst? Randy, what do you think?

**Randy:** I think it's going to affect different people in different ways. I think for most people, when they become owners, they are definitely more concerned about the long-term viability of the company and so they would argue for someone who would be taking more of a long-term view.

**FMI Quarterly:** So concentrated ownership in your view is conveying a longer-term perspective. George, what about the broader?

**George:** I agree with Randy and with broad ownership that you have that type of philosophy spread throughout the organization, rather than just in the hands of one, two, or three.

**Randy:** You know, that brings up a good point. There are still a lot of construction organizations that don't do a very good job of sharing information throughout the organization — whether it's financial information, job cost information, or whatever. And, that becomes a real problem as you start to distribute ownership. If the culture of the organization has been very guarded with information, that has to change.

**FMI Quarterly:** You're absolutely right. With broadened ownership, you certainly do have the cultural information issue. What are some of the other cultural issues that get into the game when ownership gets broadened?

**Randy:** Well, obviously, some expenses may not be business-related. As a minority owner, I've got to question why we are paying for some of these things. And maybe as the majority owner, I'm not ready to answer those questions.

**FMI Quarterly:** What about governance, George? Do you think broader ownership raises questions about how the firm is run?

**George:** I do. I think given all the issues we're talking about right now, there are some existing companies that would have a great challenge with broader ownership. But that doesn't mean it's not the right thing for them to do. It just means it'll be much more of a challenge for them to implement. If I have a culture that's not accustomed to sharing information, and yet, I am accustomed to significant levels of corporate diddle and owner discretionary spending running through the books, and if I'd been governing this thing as an 800-pound gorilla, I would have big challenges effectively implementing a broad ownership. But I would also say, that's a business that we're not going to see in the next generation. So, if surviving to the next generation is important, some of those behaviors need to change anyway. If the business is going to survive into the next generation, it's going to need "A" players who are not going to be attracted to that type of culture long-term. So, I think if it's not going to change, it doesn't fit. It should change, because it won't survive if it doesn't.

**FMI Quarterly:** George and Randy, you've both given us a lot to think about. Do you have any parting shots you'd like to offer our readers?

**Randy:** Well, any contemplation of ownership transfer or management succession is certainly something that's got to involve well-thought-out strategy. Many times we're called into situations that should have been addressed much earlier. So I guess if there's one thought to leave readers with, it's that confronting these issues sooner rather than later is always the right thing to do regardless of whether your plan produces concentrated or broad ownership.

**George:** Business is changing. The make-up of the ownership of our business is changing. The days of passing ownership in an industry that has been characterized predominately by family-owned businesses, where the ownership passes from one generation to the other with no economic benefit for the ownership of the stock, is changing. We're living longer, and it's more expensive to live longer. We need the money. We're seeing more people seeking liquidity in the market for their stock. There's a limited supply of third-party buyers, so the vast majority of people in the construction industry will be looking internally for that transition and that liquidity. We're having a hard time attracting people to the industry. We're going to need good people to accomplish an ownership-transfer plan, and the people who are attracted to the industry are going to want a piece of the action. They're going to want ownership and it's a trend that will continue. From that standpoint, we need to be thinking about ways to manage having broader ownership in our industry, which is a change.

**FMI Quarterly:** The next generation — narrow or broad, when it comes to ownership? You gentlemen have given us the benefit of your almost 50 years of combined experience in dealing with these issues, and we thank you very much for that. ■

# Departments

**STRATEGY**

## A Tool for Turning Strategy into Reality

How do you turn strategy into reality? With most strategic planning models, the next step after strategy selection is action-plan development. A few people can clearly see the necessary tasks required to implement new strategy or reinforce existing strategy. Many more managers and leaders struggle with crafting true strategy in the first place. They then have great difficulty articulating what needs to be done, by whom, and by when.

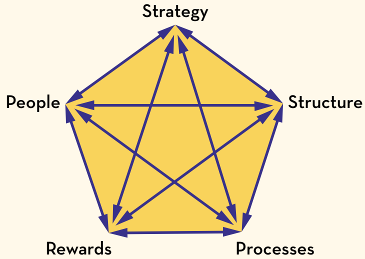
The following is a simple tool to help strategists become tacticians. We'll assume that you have already crafted your strategy intended to achieve your goals. We'll also assume that while you have some ideas about implementing your strategy, you are looking for assistance in making sure that you're covering all your bases.

### GALBRAITH'S STAR FRAMEWORK

Jay R. Galbraith is an internationally recognized expert on organization design. He is a senior research scientist at the Center for Effective Organizations at the University of Southern California and Professor Emeritus at the International Institute for Management Development in Lausanne, Switzerland. One of Galbraith's contributions to the practice of management is his copyrighted star model. (See Exhibit 1.) We present a much-abbreviated model here. For more discussion, read his *Designing Organizations: An Executive Guide to Strategy, Structure, and Process* Revised, Josey-Bass, 2001.

Exhibit 1

**Galbraith's Star Model**




In his model, Galbraith makes the observation that every element is cross-linked to every other element. Further, he maintains that you cannot modify one element without at least raising the question as to the impacts and modifications on the other elements.

We've adapted his star model to explain how strategy achieves results. (See Exhibit 2.) For our purposes, we've substituted roles and responsibilities for strategy and we've substituted information and controls for processes.

As you can see, we're implying that all five factors must be in synch for strategy to achieve maximum results. Further, we join Galbraith in maintaining that you cannot modify one of these factors without at least begging the question of the changes in the other cross-linked factors.

## USING GALBRAITH'S STAR MODEL AS AN INTERROGATORY DEVICE

Now, let's use the factors as a means of interrogating our strategy. First, set up a grid with your goals down the left-hand side of the page.

Exhibit 2

**Adapted Star Model**

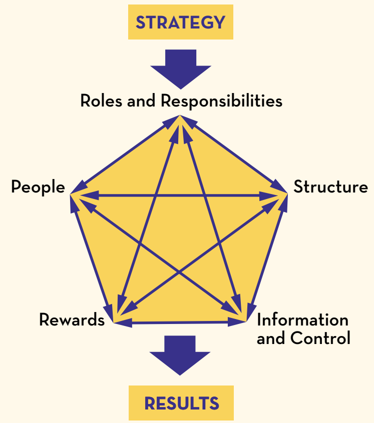



Exhibit 3

**Tactical Issues — Key Decisions**

| Goals | Strategies | Key Decisions | | | | | |
|---|---|---|---|---|---|---|---|
| | | Tasks/Roles | Structure | Information/ Control | Rewards | People | Other? |
| Effective Transition | • Create an effective and accountable ownership team.<br><br>• Create an effective and accountable organizational structure. | Define owners roles as employees.<br><br>Define roles and responsibilities.<br><br>Involve in SP process. | Revise organization chart.<br><br>Write job descriptions.<br><br>Chart job descriptions. | Measure performance.<br><br>Develop (new) data.<br><br>Provide corporate performance and SP progress. | Develop perks for performance.<br><br>Formal performance process: 360 or other<br><br>Provide differing rewards for ownership vs. performance. | Leadership, financial, marketing, training (ex., MBA).<br><br>BOD experience<br><br>Formal performance process: 360 or other | |
| Diversify Market Base | • Increase the brand identity.<br><br>• Develop alternative business models. | Develop a marketing plan.<br><br>Project leader from owner ranks. | Embed in job descriptions.<br><br>Invest in market department.<br><br>Design a structure that encourages entrepreneurial behavior. | Conduct regular sales and marketing meetings.<br><br>Develop business plan for new ventures; measure performance. | Reward effort and results on existing and new ventures. | Presentation, proposal training<br><br>Dedicated staff (2) | Budget for outside services. |
| Improve Profitability | • Increase velocity of capital.<br><br>• Increase profitability on projects. | Benchmark what we know.<br><br>Create a process for producing the "better" budget. | Study feasibility of centralizing project financial reporting. | Establish process to measure capital tie-up in each project. | Reward positive job cash flow.<br><br>Develop early close-out process. | Create better processes and training for handling changes, pay requirements. | |

In the second column, describe your strategy. Entitle the third column "Roles and Responsibilities," the fourth column "Structure," the fifth column, "Information and Control," the sixth column "Rewards," and the final column "People." Your grid should be similar to the example. (See Exhibits 3 and 4.)

Next, assemble your planning team or a cross-sectional task force from within your organization. The group size should be approximately five to 10 people. Provide each participant with a copy of your grid.

Explain to the group that their mission is not to solve the issues, but merely to identify those decisions that must be answered in action-plan development.

Exhibit 4

**Tactics Table — Key Decisions**

| | | Key Decisions | | | | | |
|---|---|---|---|---|---|---|---|
| Goals | Strategies | Tasks/Roles | Structure | Information/ Control | Rewards | People | Other? |
| Be the solutions source for our customers. | • Know our customers so well that we can anticipate their needs, bundle the right service solutions, and continuously outpace the competition (value-add). | • Sales team for likely bundled targets? • Decentralized business development for typical projects • Develop key accounts management concept in all our work. • Influencer of regulations | • Decentralized get-work responsibility? • Specialized get-work team for customers who should want bundled services • Centralized oversight of both bundled and divisional business development? | • Customer information database • Sales activity reporting • Limits of authority matrix | • Provide incentive for both divisional work and cross-sold work? • Include cross-selling as a performance review factor? • Provide incentive for both divisional and group profitability. | • Provide consultative sales training to our people (classroom and OJT). • Divisional HR as training resource | |
| Be the employer of choice. | • Differentiate Aecon from other employers. • Ensure that our internal brand matches our external brand. • Strengthen our sales and marketing culture. | • Periodically, monitor both internal and external environment (C&U level). • Provide medium of communicating with customers as to how employees are treated. | • Centralized divisional HR • Centralized divisional IR resource? • Move toward cross-discipline supervision • Leverage supervisory personnel to allow growth of volume. | • More feedback and communications from managers • Performance management and review information | • High performing divisions can earn some bonuses even though group is not performing well overall. • Highest bonuses occur when both group and divisions perform well. | • Workforce planning • On-campus recruiting • Develop co-op program for enhanced recruiting. | |
| Double our size and triple our profit. | • Provide higher value and lower total cost solutions. • Expand service offerings, locations, and customer base. • Develop strategic resources. | • Director of business development? • Sales force? • Need coordinated effort between divisions — utilities has model. • Focus: joint Terry/Bill responsibility | • Market research function handled by? • Future possibility of geographically managed matrix organization | • Customer trend analyses • Competitive intelligence | • Possibility of ESOP as an incentive for employees | • Succession planning for all management and technical roles (including cross-training) | |

Begin by taking the first strategy and asking the group, "What decisions must we make regarding 'Roles and Responsibilities,' given that this is our strategy?" List suggestions as bullet points. If many suggestions arise, you may want to reduce the number, through consensus, to a manageable list of three to six decisions for each "cell" in the grid.

Next, move to the column entitled "Structure." Again, ask the group, "What decisions must be made regarding our structure, given our first strategy? Keep the number of bullet points in each box to a manageable number.

When one strategy is complete across the page, stop and ask the group, "Do any of the decisions that are made regarding one of the factors impact the decisions in other factors? Do we need to change any of our decisions?"

When you and the group are satisfied with one strategy, move to the second strategy and repeat the process.

The grid on the previous page provides one planning team's response to a three-goal, six-strategy direction. (See Exhibit 4.)

Exhibit 5

**Strategy Table — Key Decisions**

| Goals | Objectives | Key Decisions | | | | | |
|---|---|---|---|---|---|---|---|
| | | Customer | Value Proposition | Geography | Product/ Services | Revenue Streams | Infrastructure |
| Solutions source for our customers | Never be below 85% on our own or others evaluations.<br><br>Increase percentage value of negotiated jobs each year.<br><br>Increase bundled service packages each year. | | | | | | |
| Employer of choice | Achieve Top 100 ranking in 2003, Top 50 in 2004 (Corporate).<br><br>Achieve 90% positive results on Employee Attitude Survey. | | | | | | |
| Double our size and triple our profit | Grow revenue to $750 million.<br><br>Achieve ROCE of 18%.<br><br>Increase EBIT margins by 50% over 2001. | | | | | | |

At this point, the planning team turned its work over to six task forces. The task forces were charged with developing detailed action plans for each strategy, such that the major tasks would resolve the decisions identified through the Galbraith Star Model-driven grid process.

### ALTERNATIVE TO THE STAR MODEL

Of course, planning teams are not limited to Galbraith's Star Model in constructing a grid to identify key decisions for strategy implementation. Another planning team used the following framework to identify tactical decisions that needed to be made:

- What changes should we make in our dealings with our customers because of this strategy?
- How should we change or strengthen our value proposition because of this strategy?
- What geographical issues need decisions because of this strategy?
- What decisions regarding our products/services need to be made because of this strategy?
- Are there alternative revenue streams that could be generated from this strategy?
- What changes in our infrastructure must be made in order to implement this strategy?

### POWER OF THE GRID

A well-constructed grid can be a powerful device in identifying tactical decisions that need to be made. Clear goals and strategies are of enormous value in realizing the power of the grid. Making the leap from strategy to solutions is easy for some. But for most, the use of a grid as an intermediate step in strategy development helps identify essential steps in strategic implementation.

With decisions clearly identified, action planning teams should have no difficulty taking this information and proceeding to develop detailed action plans with schedule and accountability. ■

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## MARKETING AND SALES

## Marketing vs. Sales: Are You Too Busy for Your Own Good?

There are numerous definitions of "marketing" floating around. The classical definition is that marketing is the process of determining what people need and developing goods and services that meet those needs. Noted consultant Peter Drucker once defined marketing as everything you do as seen through the eyes of your customers. One of my favorite definitions of marketing came from an engineering-firm principal who simply said, "Oh, that's all the stuff you do so that you don't have to sell so hard." Actually, these are all pretty good definitions of marketing, and they speak separately to why marketing must exist as a functional area of your business and should not be compromised, even if you are in one of the busier markets now. Some of the top reasons why cutting the marketing budget and process is a mistake are:

**Commodification**

Owners will buy based on price if you let them. You cannot differentiate yourself successfully without an aggressive marketing strategy and program in place.

**Positioning battle**

There is a massive battle taking place among other contractors to get the attention of your customers and potential customers and take over their decision-making processes. If you cut marketing, you will win a short-term margin battle but lose the war.

**Your marketing program should constantly increase the volume of opportunities from which you have to choose. Increased margin comes from being able to pick and choose.**

**Marketing misunderstanding**

The belief that marketing exists only to increase sales is erroneous and reflects a fundamental misunderstanding of marketing. Your marketing program should constantly increase the volume of opportunities from which you have to choose. Increased margin comes from being able to pick and choose.

**RFP-chasing inefficiencies**

Most construction firms have become quite expert at structuring departments to constantly respond to the continuous flow of requests for proposals (RFPs). RFP departments are a perfect application of Parkinson's Law, which says that work always expands to meet the time allotted. After all, there is no such thing as a "perfect" proposal, so the RFP departments simply work on proposals until they're due. Sound marketing is the only way out of this spiral of inefficiency. The marketing program is what makes the telephone ring. It is the difference between chasing RFPs as another commodity and serving customers who are interested in doing business with your firm. You do not want to give up that kind of edge in any market.

**Economic cycles**

If you live long enough, you do become a believer in these. A sound marketing program is critical to riding through the down times. A rising tide lifts all ships, but the current economy looks more like a series of dips and swells. Only well-positioned, well-marketed firms will thrive in these uncertain economic seas. A major value driver in any firm is the firm's ability to generate consistent earnings, even in the face of declining markets.

So you need to keep the marketing engine going at all times. That means continuous process marketing that keeps your firm positioned in the minds of your target-market participants. It doesn't mean "let's-add-more-horsepower-to-the-proposal-department" marketing. The more business you bring in without jumping through the hoops of the RFP process, the better.

Selling is a subset of marketing. It's one of the things you do to pull business in the door. Selling involves the face-to-face work of meeting with prospects and clients to convince them to do business with your firm. For many firms, marketing can be "state of the art," but if business developers don't spend significant time working on relationships that directly create business, jobs won't be there in the down times. It can be tempting in today's economic environment to cut back on sales calls, because we expect to save money with Internet communications, or some firms have more business than they can handle right now.

**A rising tide lifts all ships, but the current economy looks more like a series of dips and swells. Only well-positioned, well-marketed firms will thrive in these uncertain economic seas.**

Maybe you are riding a swell in work right now and have too much to keep up with to allocate the time to the sales process that you would in a tight market. To decrease direct sales time might make sense, because your firm doesn't need as many leads when you are busy. However, you should be cautious about cutting out so much of the face-to-face time that your firm will be at a disadvantage when your market experiences the inevitable dip. The main reasons that some degree of sales effort needs to be maintained are:

**Emotional bank balance**

Stephen Covey first articulated the idea of relationships having "positive and negative balances." Failure to invest in relationships just because you don't need somebody in the short-run can prove disastrous in the long-term. Customers don't like to be abandoned, and they will remember if you abandon them.

**Defensive strategy**

Your customers were all someone else's before you got them. Some degree of continual presence is required to keep any relationship fresh.

**Over-reliance on a customer**

Repeat business is a wonderful thing, but it is more valuable to be in a position that frees you from the fear of losing any one customer. Also, any business needs a continual inflow of new leads and business to stay viable. The best quality of new business will not be found without concentrated marketing and sales efforts that focus on new accounts.

**Anchor for marketing**

The best marketing program in the world will be ineffectual without a vibrant sales effort. Far too many firms have built great marketing plans but fall flat in their sales efforts because not enough people are willing to get out of the office and build client relationships. Selling is ultimately the harvesting of the marketing investment.

**Competition for owner control**

The delivery system and service provider that an owner selects on a given project will often be determined by which firm has invested the most time in the owner.

The construction market today is mixed, with many markets seeing slow but record growth, while others struggle to stay afloat. The temptation for many firms is to maximize every ounce of their resources to produce a return on today's business. This is an understandable notion, but caution is advised. Some firms are so busy right now that they're not taking the care they should with their fundamental health and infrastructure needs. The rising tide that lifted all ships in the 1990s went out with the turn of the century. Only the well-tended will survive the inevitable ups and downs of the current economic wave. It takes tremendous discipline to sacrifice today's return for the long-term health of the business. However, unless you are only in business for the short-term, a solid marketing and sales program is an essential part of making sure that your company continues to thrive in the future. ■

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## BUSINESS DEVELOPMENT

### Business Development Triangulation: Finding Your Market Spot

Backlogs are growing again, projects put on hold are moving forward, and contractors are feeling more comfortable about their future. In fact, in some markets, prices are actually beginning to increase a little. But the optimistic among us recall that even low bidders have found it tough to get the job in the last couple of years.

As business shows signs of improvement, many contractors are realizing that they need to be able to compete for projects on something other than price alone. In this recent economic downturn, customers have been lulled into picking contractors on the basis of price and ignoring the full range of value that is being delivered. In fact, contractors helped to train customers to buy on price. Customers think they are getting better deals, but in most instances, both sides are losing out.

After all, it's easier for the customer to make price the only reason to select one contractor over another. Why go to all the trouble to examine what you are actually getting for that price?

What the overly price-conscious customer doesn't see is that the low price may not be the best price or the best value. The lowest contractor is not necessarily the lowest contractor at the end of the job.

## DON'T BE A COMMODITY

"Commodity" is the term used for price-driven products and services, and if you're a contractor, you should seethe a little when you hear that term used along with your company name. As consumers, we select many products or services based on price. We see no important differences from one offering to the next besides price; price is the differentiator. Some items that have become commodities, include a tank of gas, copy paper, a toothbrush, a gallon of milk, or even a pair of socks worn only for yard work. We often think of commodity products as generic. Regardless of manufacturer, the products are interchangeable with any other like product. There is little or no consideration for brand, just price.

**In this recent economic downturn, customers have been lulled into picking contractors on the basis of price and ignoring the full range of value that is being delivered.**

The fact is that customers are not informed on the true value difference between products and services. Without any other knowledge, customers' natural response is to look at price because it is the only discernable difference between providers.

In most cases, what we think of as commodity products represents little risk of purchase. If you buy cheap socks, you'll just replace them more often. Your investment was only a few dollars. However, with that tank of gas, you may find that you need to add STP to your tank to get the annoying knock out of your engine.

That is not how it should work in the construction industry. Would you buy a home on price alone? A bridge? Is price really the primary criteria used for selecting a contractor to build a new school or a high-rise office building? Not if you go by the basic criteria to define a commodity — low potential risk to the consumer. There is no logical case for purchasing construction on a commodity basis. The risks are simply too high and repurchase costs too daunting.

So why is it that so many customers select contractors on price? For one reason, contractors have actually trained them to do so. Another reason is customer selection. Simply put, some customers value what you do, others don't. You help your company by spending more time with customers who actually recognize the value you offer.

## PICKING CUSTOMERS — PICKING PROJECTS

The concept of picking customers and projects seems foreign to most contractors. However, when you think about it, you really don't want to land every project out there. Nor do you want to work for just any customer. You need to differentiate so that you can pick projects and customers on a proactive basis. You want to seek opportunities that are good investments of your time and resources.

Consider the most costly item in your business-development budget — the time you spend face to face with potential customers. There is a limited amount of this expensive resource, and it needs to be used wisely.

There are more customers and more projects out there than you have time to chase after. Even if there are eight people in your company tasked with looking for new work, there are still too many opportunities out there to chase them all. If you are only one of four companies going after a project, the key is to focus your time and effort where it will pay off the most. If you're one in 15 competitors look very carefully, then turn around and run away!

The question to ask yourself is what sort of customers and project opportunities do you really want?

**The question to ask yourself is what sort of customers and project opportunities do you really want?**

Look for projects that you have a reasonable chance of winning, encompass your core competencies as a firm, have the potential to be profitable, and are geographically located in areas your crews can effectively work in.

You want to work with customers who value what you do, are easy to work with, support the idea of you making a profit, and pay their bills with some frequency. Some do not. And sometimes you will have to work with a customer before finding out if they completely fit your desired customer profile. Formalize that profile by making a specific list of criteria or characteristics describing the customers you prefer to work with. The customer profile will also help you "grow" customers to become good customers by communicating with them the expectations you have of your very best customers.

To do this, you have to offer your best customers something different if you really want them to strive to become the top of your list. This might include providing them with a higher level of service, specific project people, a different guarantee/warranty, etc. Whatever it is it must be meaningful to the customer and something you can provide profitably. Your best customers will want you to be "competitive" but not necessarily the lowest.

So which customers do you really want? In an ideal world you'd only work with customers that meet all of your selection criteria and have projects that are "your kind of work." Creating a list of selection criteria for the desired customer and communicating the criteria throughout the company will give you a good start toward building a core group of preferred customers. It will also help you to figure out how to find more good customers.

**Creating a list of selection criteria for the desired customer and communicating the criteria throughout the company will give you a good start toward building a core group of preferred customers.**

## BUILDING YOUR DESIRED CUSTOMER PROFILE

Surprisingly, every contractor will have a different list of criteria to describe the preferred customer. Think about your favorite customers. What makes them different from the rest of your customers? What makes them easy to work with? The criteria need to be based on facts and rigorously applied. The analysis might generate criteria like:

- Project personnel that have construction backgrounds
- Strategic access to their senior management
- Preferential treatment on new projects
- Favorable change-order negotiation process
- Actively use partnering to gain win-win outcomes
- Significant building program
- Value our pre-construction services
- Provide timely response when decisions need to be made
- Provide complete detailed drawings.

Unfortunately, many contractors do have selection criteria, but the criteria isn't robust enough to strategically drive the company towards the right kind of customers. Or, when these contractors do have sufficient criteria, it isn't well communicated or consistently used throughout the company. They find that their business development people often work for several months only to uncover an opportunity that the rest of the team is not excited about.

It's inevitable that sometimes you will dig around in the market with your desired customer profile in hand and uncover opportunities that don't pan out. But chances are you'll find more opportunities you like than those you pass on. Discovering a project that is not already on the street jump-starts the value adding process. You're able to give the customer what they really want and also have a good profit potential.

To discover the project criteria that will lead you to work that is more successful, start with a historical investigation of your completed projects. Look for the key factors that will determine above-average projects and customers. Investigate the criteria on the following list and make comparisons with projects completed in each of your market segments (e.g., commercial, industrial, institutional, etc.):

- *Project Size:* Look for the specific size range of projects that tend to be the most profitable. Note: You might find bi-modal results such as those projects between $500,000 and $1.6M and those between $3.25M and $4.5M are more profitable than mid-size projects.
- *Type of work:* Determine which technical aspects, or combinations of aspects, tend to result in the most profitable work.
- *Schedule and duration:* Determine if specific ranges of project duration tend to be the most successful. If so, which types of schedules were used?
- *Customers and management methods:* Are you more successful when you work directly with owners as compared with working through a construction manager? Do you work best for customers who are smaller and run their own work, or those who hire outside representatives?
- *Timing:* Looking at your history over time, was there a period when projects were more profitable? If so, what was going on at the time? Maybe you had different people in leadership positions that could explain the different results. Changing an estimator or business development person can also affect project results.
- *Team:* Who was on the team, and what did they contribute to produce successful results or overcome specific challenges on the job?

Perform this exercise for at least three years of completed projects. Use a spreadsheet to capture the information for every completed project within that timeframe. Analyze the results to create a profile of successful projects. The answers might surprise you. The result of this work will serve as a factual basis of comparison for your desired customer profile. Use it to streamline both your business development and estimating efforts. Knowing what types of projects you should be chasing will help set your strategies and priorities to match this effort.

You'll notice that the analysis includes the people that were involved in the project. (See Exhibit 1.) Analyzing the information for project managers, field managers, and estimators will give you interesting insights into which people produce the greatest profit levels on specific types of work. Though not a definitive answer on determining who your best people are, it provides insights

Exhibit 1

**Past Projects Analysis for XYZ Construction**

| Project Name | Completion Date | Estimated Revenue | Actual Revenue | Estimated Gross Profit | Actual Gross Profit | Project Manager | Field Manager | Level of Difficulty* | Other Circumstances |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |

** Level of Difficulty Scale of 1-5: 1= Easiest, 5=Most difficult* that are useful in both chasing new work and providing employee feedback on past performance.

One caveat when using the analysis for personnel reviews: There is an interesting phenomenon in the construction industry reward system with your best field and project managers. If they are really good, they get the absolute worst projects to build; if they somehow survive against all odds, the next project they get will be even more difficult!

The column on the worksheet listing level of difficulty needs to be tailored to your type of work. (See Exhibit 1.) Capturing the level of difficulty for each project is one way to bring equity to those tough projects completed by your best teams. It also can identify the types of projects at which you're the best. Some contractors are more profitable when projects are complex and difficult.

Every project has a unique history, and everyone has reasons why the project ended as is it did. On one project, perhaps your customer could not make an important decision, or maybe the customer team changed a couple of times during the project. On another project, there was a project manager on the job who is no longer working for you. Maybe the materials manufacturer made a mistake on the order the first time, resulting in a late delivery date. The point is that every project has reasons why things went wrong. For this exercise, don't eliminate these projects for the analysis regardless of circumstances. Instead, note the special circumstances in a separate column. You may find patterns in that information, too.

**Although everyone feels that they know intuitively which projects are the most successful, knowing the facts, and having that information at your fingertips is invaluable.**

## PUTTING THE ANALYSIS TO WORK

The patterns discovered through historical analyses are often surprising. Although everyone feels that they know intuitively which projects are the most successful, knowing the facts, and having that information at your fingertips is invaluable.

For example, a Midwestern electrical contractor was amazed to find out that the project ranges they were most competitive in did not include projects between \$1M and \$5M. Rather, their most profitable projects fell in the ranges from \$500,000 to \$750,000 and \$3.75M and \$7M. They had a significantly higher hit rate on these projects and produced substantially better profits. Digging deeper into the results, it was discovered that the experience level of field managers was bi-modal. They had two distinct groups of personnel running their projects, some very experienced "salty dogs" and a group of younger, up-and-comers. In their organization, field managers either had 17 plus years of experience or less than seven. The experience gap resulted in dramatically different project outcomes. Knowing that information not only improved the company's overall hit rate on work, but they were also able to take costs out of the work acquisition process and positively impact profits.

The past projects analysis brought business development into better focus, and it uncovered a potential challenge inside the organization that could continue to impact project success. The analysis provided the insights needed to quantify the training opportunity in the field and motivate the senior management team to action.

When your estimating team is overloaded with work and stretching to meet all the demands for estimates, knowing your desired customer profile is the key to selecting the projects in which to give a bit more estimating time and talent. In the example above, shifting the company focus to the most profitable categories of work resulted in a more consistent backlog flow, and elevated their overall hit rate on projects. In this case, the contractor's average cost of estimating for one million dollars of work ranged from $2,000 to $3,500. Increasing their hit rate by selecting the right type of work saved the company $68,000 in the first eight months.

**Creating a desired customer profile based on factual analysis of your project history and capabilities hones your business development strategy.**

Creating a desired customer profile based on factual analysis of your project history and capabilities hones your business development strategy. When you become more adept at picking your customers, your whole company will be more focused on increased profitability and growth.

### LOOKING FOR WINNERS — KNOW YOUR COMPETITION, KNOW YOUR CUSTOMERS

Getting on track with a strategy to go after desired customers is an important first step in your efforts to capture those customers and develop business based on value, not on price. You now know what you want to do, but customers and competitors also have their own perspectives about which projects you should win. Simply put, you can expect your competitors to aggressively protect their best customers. Expect competitors to be seeking work that meets their strategic initiatives and allows them to gain a competitive advantage in the marketplace.

You need to know the competitive landscape if you are going to be able to win a single project or strategically grow your market share. At a minimum, know:

- who makes up their key management group;
- backlog currently under contract;
- bonding capacity; and
- growth market segments.

Knowing this information about your key competitors will help position your company for the best chance of winning those desired projects.

The customers in your target market typically know more about your competition than you do. They have first-hand experience working with your competition on projects. Customers can be an excellent source of competitive information, so can vendors, subcontractors, trade associations, bankers, surety agents, etc. Don't overlook the knowledge that your own people have about competitors. Visit your competition's web site. Survey past customers to learn about competitor performance.

**Perception is reality. If customers find your major competitor to be a high-quality, responsive organization, they are.**

You're looking for the strengths and weaknesses of your competition from a customer's perspective. Perception is reality. If customers find your major competitor to be a high-quality, responsive organization, they are. Regardless of your own perception of the competitor, customers' perspectives rule when it comes to winning or losing projects. Do your homework. (See Exhibit 2.) At the same time you ask about your competitors, find out what customers think about your organization. Ask how you stack up against the competition. What do you excel at in the mind of the customer? Where do you barely meet their minimum standards? Look for opportunities to increase the value of services you offer.

You don't always know as much as you think you do when it comes to your customer's perception of your company. For example, a national subcontractor gave an overview of their organizational strengths. They covered all the highlights of their organization, including the talents of their people, their business development department, financials, use of technology, project controls, etc. When asked what their customers thought of them, the client emphatically responded that customers rated their company as best of class in their ability to schedule and manage projects.

At first blush, things seemed to be going well for this company. Third-party market research did indicate that the company was the best-known contractor in the market; however, they ranked as "consistently challenged" when customers were asked about project management. Can you imagine receiving that feedback? It turned out that what they thought was their leading strength was really their Achilles heel.

Exhibit 2

**Competitor Tracking Information — Minimum Requirements**

| Competitor Information |
| --- |
| Name: |
| Web site: |
| Geographic area served: |
| Key customers: |
| Key personnel: |
| Roles: |
| Estimated years of service: |
| Market segments: |
| Goals/key initiatives: |
| Estimated backlog: |

Knowing the image that perspective customers have of your firm is the fastest and surest way to know what you need to do to delight customers and build lifetime relationships. A retail owner provided the following insight regarding what contractors can do to add value:

*"Our opening date is essential. If contractors want to make a difference, they need to proactively work with our merchandizing people, not wait for us to lead the effort. Our internal merchandizing team is key*

*to a strong opening, yet most contractors are reluctant to meet with them to coordinate schedules."*

If you were chasing a potential project with this customer, stressing your plan to work with their merchandizing people might give you the competitive edge that you need to be selected.

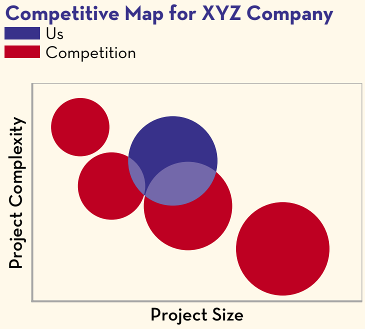
## BUILDING A COMPETITIVE MAP

A competitive map of your market gives you insights into the focus and performance of your organization compared to your competition. The graphic depiction helps you to "see" the market and begin the exploration process to expand your relative competitive range to areas where opportunities exist, and shift away from your primary competitors where there is too much overlap.

Each circle on the map represents the core strengths of the major competitors in the market, including your own company. (See Exhibit 3.) When competitors work in multiple market segments, you'll find creating one map per segment is helpful. The size of the circles relates to the competitive space occupied or the range of their capabilities.

Exhibit 3

**Competitive Map for XYZ Company**




The competitive map is another analytical tool in your business development tool kit to help streamline business development efforts by visually reflecting the landscape in which you operate. Look for an opportunity where key competitors have left a market void that is being served by smaller competitors. Sell these customers on the unique advantages you bring to their projects, and you'll gain a new foothold in the market.

When you blend your market mapping exercise with your desired customer profile, you'll create a competitive winning position that is tough to beat even in the toughest of markets.

It's difficult to find your way in a changing, often chaotic market if you don't know where you are or where you set out from on your journey. However, a few simple marketing tools can help to plot your business development course to arrive at your goals. This process isn't a quick fix on your location, and the information that you gather in this process will need to be updated from time to time. Nonetheless, these are proven techniques that have been used successfully by many contractors to select a value niche where the price competition is reduced and customers understand the value that a best-of-class contractor can provide. ■

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*The Quarterly Interview*

# Industry Icon: John Lamberson

"This business is a very invigorating business, and I carry this thrill that most all of us connected with the business achieve because contractors are achievers."

***John Lamberson,** the subject of FMI Quarterly's interview for this issue, is an industry icon. He's **a legendary figure in the surety and insurance industry** and will be a familiar name to most large contractors in the United States. John is a strong proponent of the need to maintain deep relationships with key customers. Additionally, John is one of the most energetic septuagenarians that you'll ever meet! Chip Andrews and Jerry Jackson recently reminisced with John over his vibrant career to date. John is a member of FMI's board of directors.*

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**FMI Quarterly:** John, you have been around this industry for a long, long time. As you look back on your experiences within the industry, tell us some of your most rewarding moments.

**Lamberson:** The most rewarding moments that I ever had in the industry are those spent working with the contractors. In many instances, seeing contractors with whom we arranged to have their very first bond grow to $130 to $300 million construction companies.

**FMI Quarterly:** That's great. Yet, some of those companies didn't thrive, even though they grew. What are some of the causal factors as you see it when companies fail to thrive?

**Lamberson:** Taking their eye off the ball, thinking the construction industry is too easy. There is a classic example of a very, very successful contractor who told me that the only problem he had was paying too much tax. As a consequence, he started taking six-week and two-month trips to China, Russia, and various parts of the world. In two years he lost his entire equity, which was in the $10 million range.

**FMI Quarterly:** Solved his tax problem, right?

**Lamberson:** Yes, he did. That is the classic example of a contractor that has a lack of success simply because they do not exercise the old saying that "vigilance is eternal."

**FMI Quarterly:** Back to the good guys...the ones who did do well. John, who are two or three of the excellent contractors with whom you have had long-standing relationships?

**PROFESSIONAL PROFILE**

John Lamberson is a member of Lamberson Consulting, a management consulting company that focuses on the construction industry.

Previously, John was founder and chairman of Lamberson Koster & Company, a San Francisco-based insurance and surety bonding brokerage service company dedicated to serving the construction industry. He was also president and director of Corroon & Black Corporation, and then after Corroon & Black merged with Willis Faber (Willis Corroon Group) he was director and CEO of Willis Corroon.

John has served as chairman of the AGC of America's National Associate Members Council. He has chaired both the affiliate and public awareness committees of the AGC of California, among many other association committee positions. Additionally, he is on the board of the Construction Institute, the American Society of Civil Engineers, and several significant construction companies. He is a member of the Independent Review Committee, State of Maryland, Woodrow Wilson Bridge Project.

In 1994, John was named winner of AGC of California's Associate Achievement Award for many years of outstanding service to the construction industry. He is the first insurance broker to ever receive this prestigious award.

John is a graduate of the University of California.

**Lamberson:** Probably the longest runs are Swinerton and Sundt. When I was a young man in the business, they were customers of the Miller & Ames Agency, and at that time they were substantial companies. A substantial company in those days was somebody that did $30 to $40 million. My relationship with those companies grew to the point that when I retired from the agency business, they were billion-dollar-a-year companies.

**FMI Quarterly:** That was through how many different administrations?

**Lamberson:** It started with Bill Swinerton being the CEO, then Ned Gates taking over from Bill Swinerton, and finally Dave Grubb taking over for Ned Gates. I have lived through the administration of each of those CEOs, and we have maintained that relationship all through the years. Each of those CEOs brought something special to the company with Dave Grubb being the latest. He really took the company from a $150-million-a-year company in 1991 and 1992 to today when they are a billion-dollar-a-year company.

**FMI Quarterly:** Relationships like those with Swinerton probably have a great deal to do with your success first as a surety broker and now as a consultant.

**Lamberson:** With Sundt it was John Sundt, then Duane Anderson and his successor Wilson Sundt. Actually, Wilson Sundt retired at Sundt almost exactly in the same timeframe that I retired from the agency business. This combination of leaders grew Sundt from a $20-million-a-year company to more than a $500-million-a-year company.

**FMI Quarterly:** Tell us a little more about why relationships matter and how you go about making relationships happen.

**Lamberson:** As you guys know better than I do, the relationships happen with a caring attitude by both parties. Your customer cares about the relationship and you care about the customer and you learn to treat them . . . let's put it this way . . .

you try to treat each one of them as your most important customer. You look out for and attend to their interests and what is good for them first before your own interests. They really appreciate that and that engenders a trust with them that really transcends a transactional basis. They have confidence in you that you are aware of their needs and are trying to be responsive to them over and above your own needs.

**FMI Quarterly:** Do you think maintaining trust is harder in a competitive vertical market like you've worked in for years and like, of course, we work in? You are working with people who compete with each other. How do you keep the trust?

**Lamberson:** By demonstrating every day that they can have confidence in you. A classic example is when you do the surety on Swinerton and also on another long-term relationship such as with Sundt — those companies are competitive. But they develop a trust in you so that they reveal their innermost financial and business strategies to you. They know that those business strategies and those financial facts will not be revealed to any other competitor in the business. Once you have created that trust in them, they want you to be successful and they have no problem sharing their innermost company strategies because they know that you will not violate that trust.

**I truly believe that the construction industry, as competitive as it is, has a great deal of personal ethics in the business.**

**FMI Quarterly:** John, business ethics are a big issue today in the financial news media around the world. How do you characterize business ethics in the construction industry both now and throughout your career?

**Lamberson:** Every industry has all shades of ethical behavior. I don't care whether it's the construction industry, the financial industry, the insurance brokerage industry, or the guys that sell the widgets, there are many shades of ethical behavior in companies. I truly believe that the construction industry, as competitive as it is, has a great deal of personal ethics in the business. Obviously, there are exceptions to that, but I truly believe that the contractors are much maligned in some of the press that they've had. The public doesn't appreciate that contractors are living by very high ethics.

**FMI Quarterly:** Do you think there are any differences as you go from trade to trade insofar as ethical behavior is concerned? I'll tell you the basis for my question. Tunneling or bridge contractors obviously pursue major jobs under joint venture, or even tri-venture arrangements. There seems to be considerably more respect for each other in those trades. They talk about each other in more positive terms than you seem to hear in some other trades.

**Lamberson:** I think that is a situation of developing an industry discipline rather than simply an ethical issue. I think there is a high degree of ethics involved in people like that simply because on one job they are partners and the next job they are competing with one another, and they indeed compete on a very aggressive basis with one another when they are competitors. They turn around on the next job and they will be collaborating as joint venture partners. You cannot have that kind of atmosphere within an industry unless there is real camaraderie among those groups of contractors and trust with one another.

**FMI Quarterly:** The term "there are no trade secrets" seems to be heartily endorsed by those guys. They operate as if there are no trade secrets, and yet, I agree that they certainly are aggressively competitive with each other.

**Lamberson:** That is an accurate statement. Also, I find an interesting set of ethics in the highway business. I will never forget a situation years ago with Jeff Kasler of Kasler Corporation, a major customer of ours, which became part of Washington Group International. Jeff Kasler actually gave estimating schools where he invited other competitors to send estimators. His theory behind that was "I want a smart competitor, one who knows what they are doing, rather than somebody who is going to make a mistake."

**FMI Quarterly:** I think most of us, when we stop and think about it, would really rather compete with enlightened competitors rather than ignorant ones.

**Lamberson:** Absolutely. No matter what industry you're in — especially in the construction industry, where the low bidder at two o'clock gets the work, and when that low bidder at two o'clock is making huge mistakes in the estimates, and getting work too cheap. It hurts not only that low bidder, but it hurts the entire industry.

**FMI Quarterly:** Why don't we stay on that topic of bidding too cheap for a moment. A lot of the people that you have worked with over the years in the GC/CM business have gotten very big with very, very low margins. What do you see as the cause, and what are the solutions to avoiding work at ridiculously low and ultimately unprofitable fees?

**Lamberson:** I don't think there is any way to prevent that from happening. I think that is a business technique that will continue as those companies learn how to transfer risk to owners or other people. They are driven by volume, and in many instances, by personal ego to be a billion-dollar-a-year contractor. There are a number of those people around that have survived. The problem is that they don't understand — and you have heard me say this in your own meetings, my personal viewpoint of growth — the only growth that counts is the growth of enterprise value. There are a number of people that do not believe that. They think that growth is all about sales. There are people in the industry

**The FMI saying that "volume kills, profit thrills" means that the only way such growth is really effective is when you can grow volume and don't have your burden grow at the same pace.**

who love to see the fact that they're now the 60th (or whatever number) largest contractor on the *Engineering News-Record* list.

**FMI Quarterly:** John, as you scan the variety of contractors in this country, are there one or two trades that stick out in your mind as the most difficult trades in which to build enterprise value?

**Lamberson:** The general contractor/construction manager because they have a high degree of overhead burden and because they are taking less risk, there is less margin. Without proper gross margin, they really cannot grow the value of the business. Also, there is a great tendency in that business to grow overhead burden at the same velocity that they grow volume. The FMI saying that "volume kills, profit thrills" means that the only way such growth is really effective is when you can grow volume and don't have your burden grow at the same pace.

**FMI Quarterly:** What about the argument that margin on sales doesn't really matter — that what matters is simply positive cash flow on their projects because of aggressive billing and relatively slow paying?

**Lamberson:** I think the positive cash flow is wonderful, but they are operating on the old philosophy of other people's money. Positive cash flow to a big builder means they are operating on other people's money. Positive cash flow created simply because you are operating on other people's money does not build enterprise value.

**FMI Quarterly:** John, in today's climate, given the substantial losses that several underwriters have experienced and several reinsurers have experienced, where do you see the surety industry, and for that matter, the P&C industry going?

**Lamberson:** Addressing the surety industry first, it is my belief that the surety industry is going through a consolidation phase, and we have seen that by the number of the top 10 sureties in terms of surety writings changing substantially over the last few years. A number of major insurance markets are getting out of the surety business. There is consolidation in the industry because of the losses and because insurance company management is holding their surety departments to a greater performance standard than in the past and are not willing to accept marginal performance. Before, the insurance companies were playing in both their property and casualty entity and their surety entity, something of a cash-flow game. They were relying on invested cash flow for income to a greater extent than they can in today's world. The surety industry has been a very profitable industry, and we have a generation of surety underwriters that never saw a tough marketplace. As a consequence, underwriting philosophies and standards are changing dramatically, and historically, they were somewhat more aggressive in what they were willing to do for a construction company than they are in today's marketplace.

In this marketplace, there is a return to basics in underwriting philosophies. The primary sureties are not willing to put as much of their capital base at risk behind one contractor as they were a few years ago.

**FMI Quarterly:** Does that change drive even the modest-sized contractor to co-surety and some of the larger contractors to tri-surety?

**Lamberson:** Yes it does, and you are seeing that everyday. Any contractor that has a backlog, bonded or not, in excess of $250 million in today's world, often has co-sureties. If you see a contractor whose backlog gets in the $750 million range, you will see multiple sureties, more than two.

**FMI Quarterly:** Is this a temporary aberration in the surety market? We've all been around for a long while, and we've seen a number of recessionary construction phases with some consequent losses experienced, and then in just a few years, it is back to business as usual — fire off the starting guns — let's run the cash-flow game again. Will this happen after this downturn?

**Lamberson:** Actually, the cause of the surety marketplace is not a result in the downturn of the construction market. It's the result of a boom in the construction marketplace where construction companies had opportunities, and they were taking advantage of those opportunities and they outpaced their capability to manage the work.

**The surety industry has been a very profitable industry, and we have a generation of surety underwriters that never saw a tough marketplace.**

**FMI Quarterly:** Agreed. The timing of the trigger of the surety losses was really more a momentary exhilaration of success, not a disastrous "can't find work" situation.

**Lamberson:** Absolutely. Also, the marketplace for sureties will change at such time as the professional reinsurance marketplace feels comfortable in taking more risks than they are today. There are probably less than 10 surety reinsurers in the world today. Whereas a few years ago in the surety boom times, there were more than 20 to 25 professional reinsurers who participated in the surety marketplace. You reduce the supply of credit by the reinsurers, either by reducing their ranks or having some conclude that the surety element of the insurance industry does not provide them with satisfactory returns, and they are not going to participate in that industry. So, you have a supply problem in credit and when you have a supply problem in credit, like in any other asset or any other resource, you are going to have a 1) constriction and 2) you are going to have increased costs of credit. That increased cost of credit is being reflected throughout the surety industry at the present time. It is affecting the users of large amounts of surety credit much more severely than the modest users of surety credit.

**FMI Quarterly:** When the construction industry heats back up again, is the lack of capacity in the surety community going to create a crisis within the construction community? An inability to meet owner's needs?

**Lamberson:** I don't think it is at a crisis point insofar as the surety community's ability to meet owners' needs, but it certainly causes owners to make adjustments in their thinking on what size bonds they are requiring in order to achieve competitive bidding. A classic example is the bid on the San Francisco Bay Bridge. Caltrans has advertised that project as a $780 million project. At one time California statute dictated that the payment bond must be 100% of contract price. A $780 million bond, even for the best contractor credit in the world, would be difficult to provide in today's credit-restricted environment. Caltrans had legislation passed to allow them to require a smaller bond and yet, a bond that they thought would adequately protect the taxpayers of the State of California. This was aimed at making it more palatable for the surety industry to participate during this credit supply restriction.

**FMI Quarterly:** In more typical times, what would be the typical size bond required on a $780 million project?

**Lamberson:** At one time for the proper construction contractor or the construction contractor consortium, the industry could probably provide a $700 million bond. It would not be unusual at that time for the industry to write a $500 million bond. In today's environment, with the restriction on credit, even a $500 million bond is somewhat difficult.

**FMI Quarterly:** John, would you say in that context, then, that over the next 12, 18, 24 months, it will be fairly common for jobs to be broken up into smaller pieces? Or for the jobs to require more joint ventures or consortiums of smaller firms in the $100 million range to be able to have access to more work that maybe in the past would have been done by $1-billion-plus firms? Is this driving the size of exposure down?

**Lamberson:** Yes, but there are two issues. 1) There are some projects that cannot be broken up. As an example, the Bay Bridge project, if bid as an entire project, would be a $4 billion project. Caltrans has broken it up into several contracts such that one of the largest has already been let, and it was a $1 billion contract that a Kiewit joint venture including FCI and Manson is now executing. The main span of the suspension bridge of the project is still to be bid and that is the job that I mentioned of $780 million, which will probably go in excess of $1 billion. There are also the foundations and other parts of the job that, if they were all put together and are the size of retrofit of the western part of the Bay Bridge, would really be a $4 billion job. It would be impossible for a single contractor to bid it no matter who they were and what kind of financial strength they possessed. Certainly the surety industry would not respond to a performance guarantee on a job that size. There is a tendency to break up the jobs into smaller sizes for this example, but also the awarding agencies of the owners are recognizing the fact that there is a constriction of bond ability even for the best of contractors. The way they are solving that problem is not requiring 100% performance and 100% payment bonds, but requiring bonds at a fraction of that. Some substantial jobs where the contract is $800 million, the performance bond requirement is a flat $250 million. So owners are meeting the need for surety credit and the lack of availability of surety credit by breaking up the jobs and allowing more contractors to participate and also by the fact that they are requiring less performance security. There are a number of toll road jobs where it is not practical to break it up into much smaller increments, but they are letting them with requirements for smaller performance and payment guarantees.

**FMI Quarterly:** Turning your attention from the surety business to the P&C business, how have current conditions impacted the P&C community?

**Lamberson:** The P&C industry has had a difficult time making profit in the construction discipline for many years. The problem with making profit in that industry is exacerbated by the construction defect litigation that is prevalent in a number of different states and that is causing considerable consternation to the companies that write construction insurance. This is because there is an accelerated loss problem with the construction defect issue. It is impacting the industry and also to a large extent on the large residential market — and by large residential I mean the high-end condominiums, concrete and steel buildings, not the typical frame construction — and subcontractors are not able to bid on work because they cannot get liability insurance for these residential projects. If they obtain the insurance, they have to take a significant amount of risk themselves by taking $150,000 to $250,000 deductibles on each occurrence. This causes a disruptive pricing situation within the industry. How does a subcontractor price taking on that risk? So the cost of this construction is bearing an increased factor of insurance cost that I think is very significant.

**FMI Quarterly:** John, where is this strongest? Is this in California and Florida?

**Lamberson:** Yes, California, Florida, Texas, and now Nevada. Some insurance companies will not write any type of residential liability insurance in Nevada.

**FMI Quarterly:** This is driven in large measure by homeowner association actions?

**Lamberson:** Yes. In California, the statutory limit is 10 years for construction defects. Nine-year construction defect claims are very substantial.

**The enlightened contractor in today's world pays an enormous amount of actual attention, not simply lip service, to operating in the safest possible way.**

**FMI Quarterly:** I have heard a number of companies discuss the possibility of liquidation as a way of terminating exposure on some of these homeowner claims and reforming the corporation. Any comment on that?

**Lamberson:** Obviously, it is a legal way to protect your asset base. That may protect the asset base of the construction company, but as you well know, on the other side of the coin in liquidation, there is a considerable tax impact on the construction company. Liquidation of the company does not do anything to protect the insurance company that wrote the insurance at the time the project was being built because what happens is the plaintiff goes back and sues the contractor and binds the insurance company who was the carrier at the time the project was built, claiming that was when the occurrence happened, therefore we have coverage.

**FMI Quarterly:** John, what about safety?

**Lamberson:** I think that the industry is making tremendous strides in safety. Almost every contractor that I am associated with and have been associated with in the last several years has had more and more of a focus on safety because they understand the need to protect the worker, which is primary. They also understand the cost to them not in insurance costs, but in delay cost, productivity cost, and people cost. The enlightened contractor in today's world pays an enormous amount of actual attention, not simply lip service, to operating in the safest possible way.

**FMI Quarterly:** What about some of the other litigation issues such as asbestos? There have been a few contractors who were involved with asbestos insulation that have found themselves in a similar legal quagmire with mold.

**Lamberson:** The difference in the mold is that mold issues manifest themselves much sooner on the building than did asbestos. Asbestos was installed, and everybody thought it was good. Thirty years later they found that it was bad. A manifestation of mold occurs relatively quickly in buildings — within a few years — due to leaks or the lack of water or moisture protection. To my knowledge, most of the problems in mold are structural rather than causing illnesses. To this date, most all of the claims have been of a structural nature rather than due to any illnesses connected to the mold.

**FMI Quarterly:** Costs of remediation for mold tends to be substantially lower than the early remediation costs for asbestos.

**Lamberson:** Costs are reduced by the contractor having the right to go in and correct that problem. One of the issues that is facing the contractor regarding insurance is the mold exclusion in so many coverages.

**FMI Quarterly:** The insurance industry seems to have been ahead of the curve on this one and limited its exposure.

**Lamberson:** On the other side of the coin is that in many instances the liability insurance carriers are willing to cover mold. This is because most of the pollution liability policies cover mold. The differences are that pollution liability policies most often are written on a claims-made basis and also that the insurance company gets paid more money for a typical pollution liability policy.

**FMI Quarterly:** John, you are still highly involved in this industry at age 70. What keeps you ticking? Where does your energy come from?

**Lamberson:** Love of the business and love of the people in the business. This business is a very invigorating business, and I carry this thrill that most all of us connected with the business achieve because contractors are achievers. They are builders. A contractor has the thrill of being paid for and hoping to make a profit on building a building or a bridge, and he can quote with great pride that, "I created this." I really enjoy those people, and I get great personal satisfaction. I really take great pride in having been associated with these people that can accomplish these great things. I think that the construction industry is fascinating, and the people are entrepreneurial. Once again in every industry, no matter what it is, there are different people acting in different ways, but the most successful companies in the construction industry are still entrepreneurial. Kiewit, for example, is one of the most successful big corporate contractors in America. Kiewit has an entrepreneurial climate, and I think that is key for any contractor to maintain. I get great pleasure in being associated with entrepreneurial people.

**I think that the construction industry is fascinating, and the people are entrepreneurial.**

**FMI Quarterly:** Is part of Kiewit's success in sustaining an entrepreneurial culture because of the employee ownership of the firm?

**Lamberson:** It is because they teach people. They have a culture of teaching people to run their own companies. A division manager in Kiewit is running his own company. He has an asset base, and he must make a return on that asset base for him to be considered successful. If he is successful, then his rewards are substantial. My view of Kiewit as an example is that they give responsibility and authority, but they monitor and judge performance.

**Contractors, because they are entrepreneurial, creative, and inventive, will find a better way to do their job.**

**FMI Quarterly:** John, you have been a senior executive in the brokerage business for a long time. Is that entrepreneurial element key to success in the brokerage industry as well?

**Lamberson:** Yes, absolutely. As a matter of fact, at Corroon & Black, we felt that there was such a thing as a single office being too big and losing its entrepreneurial spirit. I am a great believer in the entrepreneurial process, and as a consequence, we called our branch managers "chief executive officers" deliberately so that they would think and feel like they were responsible for running their own business.

**FMI Quarterly:** John, as you look at the industry, read the tea leaves for us a little bit. What does the next decade hold for construction and then insurance?

**Lamberson:** Okay, on construction you will see a continual innovation of the construction process. Contractors, because they are entrepreneurial, creative, and inventive, will find a better way to do their job. There will be different building materials used than there are today. One only has to look at the construction methods used as short as 10 years ago, especially 20 years ago, and you see contractors that have better ways of doing the job. I think that will continue, and it will continue to evolve. That is one of the great things about this entrepreneurial enterprise that we are involved in. People are constantly finding a better way to do the project.

As far as the insurance industry, it will continue to change and evolve. I am concerned that the insurance companies will fail to respond to the customers' needs because of problems such as mold and asbestos. On the other hand, you see that the insurance companies did respond in providing insurance for asbestos issues and mold issues, but they have created a different product, and they are charging for it. After all, the insurance industry does involve large numbers. One customer cannot afford to defend himself, but if you bundle 5,000 customers at the same premium, only three of them are going to have the major loss, and the insurance company can bundle those funds and pay those losses. I get concerned that some insurance companies do not really underwrite large numbers but insist that each individual risk make a profit for them, and that is when the industry, I think, could face a real problem. If the insurance industry forces contractors or any business to take more and more risks, you are going to have more self-insurance.

**FMI Quarterly:** John, given that construction is over 7% to 8% of the gross domestic product of the United States, if you make the assumption that insurance companies book of business is only about 7% to 8% of construction focus, what is the potential that the people studying the return on investment and the return vs. risk decide that construction just frankly isn't a good place for that small of a piece of the business, so to heck with it?

**Lamberson:** That is why we need enlightened insurance companies. I can see the AIG being enlightened in that way, because they will provide the coverage at a price. With their price for coverage, there is nobody more astute about getting a return on equity or a return on investment than AIG. I think that they have figured out that they can insure these difficult risks, but they insist on getting paid to insure the difficult risks and employ the law of large numbers.

**FMI Quarterly:** Maybe we can get them to teach some contractors about "I will do that job, but the price has got to be right."

**Lamberson:** I wish we could.

**FMI Quarterly:** John as you know, there are about five broad categories of ownership in the industry. Would you comment a bit about the effectiveness of these ownership models . . . there's the corporate ownership model, the closely-held management model, the closely-held family model, the broadly-held employee model, and then maybe the absentee or passive investor model. Can you see substantial differences between the effectiveness of firms in those different ownership models?

**Lamberson:** Yes I do, and it goes back to entrepreneurialship and entrepreneurial attitude. Ownership by outside investors on a passive basis is the one that would cause me the most concern because unless they can create an entrepreneurial spirit and maintain it within that company through some system of rewards, there is no incentive for the people who operate the business to really perform to the maximum level. I talk a lot about the entrepreneurial spirit no matter what business model it is or how that model develops the leadership necessary to lead a company, that spirit really makes a difference on that ownership group. The other most difficult part of the industry in which to provide that entrepreneurial spirit is in the publicly owned company simply because they are responsible to their shareholders. In order for a company like that to succeed, there has to be a great deal of inner drive in the people who lead that company. They must have a personal desire to succeed. It is difficult for most publicly held construction companies to achieve that attitude. We go back to Kiewit which, for lack of better terminology, is semi-publicly held because of the number of shareholders. They maintain that entrepreneurial spirit by rewarding people as if they were owners. I think that is a great system. I think that Granite is a very well-run company, publicly held, that transcends the problems of most publicly held construction companies by having entrepreneurial leadership and entrepreneurial units within the company. They, too, teach their unit leaders to be entrepreneurial and work as if they were running their own businesses.

The family business is only as effective as the family members themselves are. They certainly want to succeed. They have their personal fortunes tied up in this business. Normally, I have seen a lot of family businesses succeed for a couple of generations, and then, you come down in the third generation. For whatever reason, you see a lack of drive to continue this tough construction business. FMI has more experience than almost any consulting firm in seeing family ownership transitions and they have seen that happen on a day-to-day basis. That provides FMI with great opportunity to serve.

**FMI Quarterly:** John, this has been a great visit. I asked you to read the tea leaves for the construction and insurance industries. Read the tea leaves for John Lamberson. What does the next decade hold for you?

**Lamberson:** I am very happy in the role that I am in as a consultant to the industry, operating as an individual. I am happy about it because I have the great opportunity to continue to associate with the great people within the industry. I want to maintain those relationships within the industry simply because they are so intertwined with my personal life. I want to continue to do exactly what I am doing. I was recently asked if I was interested in coming back into the brokerage business, and I said "No," in no uncertain terms. I have the best of all possible worlds. I associate with great people. As you guys know, one of my real mantras is that if I add value, I want to be around. But, the minute I do not add value to somebody as part of a transaction, I should no longer be part of the team. So I am going to stay active in this business as long as I add value to the people around me.

**I want to maintain those relationships within the industry simply because it is so intertwined with my personal life. I want to continue to do exactly what I am doing.**

**FMI Quarterly:** That's a great notion, John, and we really thank you for spending this time with us.

**Lamberson:** I always enjoy talking. You know that! ■

# 10 Rules of Ownership

Most construction company owners have an operational background and thus, many ownership issues are not dealt with effectively. The following are the 10 most important rules of ownership for construction companies.

*By Richard Sharpnack*

Over the years, FMI has worked with many business owners in the construction industry. During our work, we have come across many different ownership situations and circumstances. Some have been positive, and some have been less than positive. We have taken our cumulative experience and developed some ownership guidelines — the following are the 10 most important dos and don'ts of ownership.

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### RULE 1: BE VERY SELECTIVE REGARDING WHO OBTAINS COMPANY OWNERSHIP

Often, an employee has been allowed to acquire or has been granted company stock and that employee really has no reason to own stock. The employee is not a candidate for a transfer of ownership from the current majority shareholder because of age or other factors. The employee's position does not warrant stock ownership. In some situations, the only reason an employee gained stock ownership is because he/she is a friend of the majority shareholder. In some cases, stock is gifted to an employee as a reward for many years of service with the company. These are all the wrong reasons to have an employee participate in company ownership.

The right reasons for getting an employee involved with ownership is that this employee is one of the future leaders of the company and a strong candidate for an ownership transfer from the current owner(s).

### RULE 2: IF YOU HAVE MINORITY OWNERS AS PARTNERS, BEWARE OF YOUR COMPENSATION

As the majority owner of a privately held company, you have a number of fiduciary responsibilities to the minority owners. One of these responsibilities is to ensure that your compensation is appropriate compared to a person in the same position at a like company. A like company means a company that is roughly the same size in terms of total revenue, works in similar markets, performs similar work, and makes about the same profit.

As a C-Corporation stockholder, the IRS is also very interested in your compensation in addition to the minority shareholders. The IRS has a specific code section dealing with reasonable compensation and what the potential penalties are if your compensation is deemed excessive.

In some situations, minority owners (or their relatives) have sued a majority owner for breach of this fiduciary responsibility. In some of these legal actions, the minority owners or their relatives have won!

In terms of compensation, many states have laws requiring that the compensation for the owners of a privately held company must be established by the company board of directors. These state laws raise some important questions for companies to consider, including:

- Does your company have a functioning board of directors that meets on a regular basis? Does your company keep complete notes of all board meetings?
- Does your board of directors establish compensation for the company owners?
- Do you have outside directors on your board that can provide useful insight and proper corporate governance?

In this post-Enron environment, the roles and responsibilities of boards are being closely scrutinized. The Sarbanes-Oxley Act of 2002 listed many new requirements for public companies and their boards.

**In this post-Enron environment, the roles and responsibilities of boards are being closely scrutinized.**

Even if your particular state does not require board approval of owners' compensation, it is good corporate governance to do so anyway. This practice will go a long way in preventing an IRS or minority shareholders' claims concerning reasonable compensation levels.

### RULE 3: COMPENSATION SHOULD NOT BE TIED TO OWNERSHIP

One of the tenets of proper compensation management and ownership is that an employee's salary or wage should have nothing to do with the fact that he/she may own company stock. An employee's salary or wage is based on the employee's position and responsibilities in the organization. An employee's performance bonus should be based on company, division, and individual performance. An employee's compensation for ownership is based solely on the dividends or profit distributions that are allocated after the end of the fiscal year.

There are cases where an employee's salary/wage or bonus became inappropriately large simply because that employee owned stock in the company. One example is that of a safety manager for a small road builder in the Midwest that was receiving a salary 50% larger than safety managers at like firms because he owned 0.5% of the company stock. Another example involves three brothers who equally owned a company and received equal compensation (salaries and bonuses). The problem is that one of the brothers was the clear leader of the company (the president) and had many more responsibilities compared to the other two. Eventually, the president resented that his compensation (salary, bonus, and dividends) was exactly equal to his brothers and a family fight ensued.

**Proper estate planning enables a spouse, son, or daughter to obtain the economic benefits of your ownership while allowing the next generation of leadership to own the company in the future.**

### RULE 4: FAMILIES AND OWNERSHIP OFTEN DO NOT MIX WELL

If your spouse, son, or daughter does not work for the company, they should not be granted, willed, or otherwise allowed to purchase ownership of the company. There are far too many examples where ownership of a company has passed through an estate to a spouse, son, or daughter who has no interest in being involved or are not competent to be involved with a company. This situation usually leads to an unhappy ending. The company and its managers will want to purchase ownership, but the company or the managers may not have the cash or access to credit to accomplish this. Absentee ownership does not usually work in the construction industry. The employees may resent that the company is owned by a non-employee. Furthermore, the profit margins in the industry are too thin to have a non-employee owner receiving compensation or profit distributions. Competent managers will move on rather that deal with this situation.

Even if your spouse, son, or daughter works for the company, this does not automatically make them good candidates for ownership. FMI believes that owners should also be the leaders of a privately held company. If a spouse, son, or daughter is not the leader or will not be the leader of the organization, then they should not be the owners. Proper estate planning enables a spouse, son, or daughter to obtain the economic benefits of your ownership while allowing the next generation of leadership to own the company in the future.

These types of decisions are difficult to make, but it is our experience that the company will benefit in the long run and your family will ultimately be happier for it.

### RULE 5: ALWAYS HAVE A SHAREHOLDER OR LLC OWNERSHIP AGREEMENT SIGNED BEFORE AN EMPLOYEE RECEIVES EVEN THE SMALLEST AMOUNT OF OWNERSHIP

It is often said, "We meant to get to that" in regards to having a shareholder or LLC ownership agreement signed for by new owners. The potential results of not having such an agreement in place prior to employees obtaining ownership can be catastrophic.

What happens if one of the shareholders suddenly and unexpectedly dies? What is the value of that ownership piece? Who gets first crack at purchasing the ownership? How should payments for the ownership be structured? Will you have to deal with that former owner's family members who do not understand the value of that ownership or the importance of keeping ownership within the company?

This should all be spelled out in the ownership agreement so that there will be no disputes if something unexpected happens.

### RULE 6: OWNERSHIP TRANSFER AND ESTATE PLANNING IS NOT FOR DO-IT-YOURSELFERS

Creating an ownership transfer plan, estate plan, or a shareholder (LLC) agreement involves many complex issues. There are considerable tax, legal, accounting, corporate governance, management, and other issues that must be identified, resolved, and ultimately crafted into a document. Most business owners do not have the background or expertise to be able to understand and resolve these varied issues without assistance.

It is a good idea to use the best advisors possible to help you create these plans. These advisors include consultants, attorneys, accountants, and insurance professionals who are experienced in these specific areas. Using these experts will cost some dollars initially, but this cost is a bargain compared to the potential litigation costs associated with a lack of sound advice or poorly crafted plans.

### RULE 7: COMMUNICATE THE RIGHTS AND OBLIGATIONS OF OWNERSHIP BEFORE GETTING AN EMPLOYEE INVOLVED

Many employees do not understand the risks, rights, and obligations associated with company ownership. The uninitiated think that ownership equates to considerable wealth sometime in the future. The reality is that ownership is associated with considerable risk. This risk comes from potential stock or ownership value fluctuations due to financial losses.

There is also potential liability associated with having company ownership. An owner may be held personally liable if there is fraud or negligence involved. Stock ownership may lead to considerable financial gain in the future, but new owners should be advised of the risk-return nature of ownership.

Each new potential owner should have a frank discussion concerning the rights and obligations associated with company ownership. Potential owners should discuss the concept of separating ownership and compensation and the fact that owning a portion of the company may not lead to any greater compensation. While you are discussing these issues, it would be a good idea to talk about retaining earnings in the company to maintain adequate working capital levels to fund growth, to satisfy the bonding company requirements, or to maintain compliance with any loan covenants.

**Potential owners should discuss the concept of separating ownership and compensation and the fact that owning a portion of the company may not lead to any greater compensation.**

### RULE 8: START THE OWNERSHIP TRANSFER AND MANAGEMENT SUCCESSION PLANNING PROCESS EARLY

Most ownership-transfer plans involving employees use future company earnings to buy the current owner out of the company. The typical employee does not have large amounts of cash lying around waiting to buy the company. These same employees may have limited access to the credit markets due to their limited incomes or their personal financial situations.

With the typical equity and profit levels in construction companies, this process of transferring ownership using company earnings can take seven to 10 years to complete. It is important then that the planning process for this transfer begin early enough to allow the process to take place and for you to get out at the desired age.

It is also true that current owners do not do a good job of attracting and developing future leaders for their company. The company should be mentoring and developing new company leaders at the same time as they are transitioning ownership. New leaders will need to be familiar with banking, bonding, operational, and business development responsibilities.

### RULE 9: THE MOST IMPORTANT JOB OF AN OWNER IS TO FIND YOUR REPLACEMENT

As an owner, you must deal with the issue of management succession. One of the most important functions as an owner (particularly the majority owner) is to find, train, and ultimately empower your replacement.

This is a difficult task for many owners. Not only is it difficult to find high-quality employees in the first place, but to train and empower your replacement is an admission of your mortality. We would all like to think that we will live forever, but actuaries tell us differently. Without a suitable replacement, your business continuity plan has zero chance of success. In fact, finding suitable replacements should be a high priority for your entire senior-management team.

There are side benefits to implementing a management-succession plan. What is good for management succession is good for the company. In other words, finding quality employees, training them, and eventually putting them into leadership positions helps to ensure that your company will achieve long-term financial success.

## RULE 10: DO NOT LOSE SIGHT OF BUSINESS BASICS DURING AN OWNERSHIP TRANSFER PROCESS

Although crafting and implementing an ownership transfer and management succession plan is a very important function of management, the No. 1 goal of the business still needs to be making money.

The ownership-transfer period is often a very distracting time for management, and we have seen companies "drop the ball." The company still needs to be profitable. In fact, if the process is using future earnings to transfer ownership, it is critical that the company generates solid earnings over this period. Generally, the more earnings a company creates, the shorter the ownership-transfer period.

**Although crafting and implementing an ownership transfer and management succession plan is a very important function of management, the No. 1 goal of the business still needs to be making money.**

It is also critical that the company aggressively fund incentive-compensation plans during the transfer period to retain and to motivate those key employees that will not be involved with ownership. Finally in these days of changing surety industry conditions, solid earnings during the ownership transfer period will go a long way toward allaying any concerns that your bonding company may have.

These rules of ownership have varying applicability for different construction organizations. We have observed over the years that most construction company owners have an operational background and thus, many ownership issues are not dealt with effectively. Owners would be doing themselves and their company a favor by hiring and training top-notch operational employees and allowing these employees to do their jobs. This, then, frees time for the owner to deal with these complex ownership issues. ■

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# All in the Family

Many contractors envision that family ownership will form the basis of their ownership transfer and management succession strategy. Yet, too few contractors plan for this extremely risky proposition.

***By Landon R. Funsten***

A previous article in the *FMI Quarterly* entitled, *Exiting the Business* (2003 No. 3) analyzed the overall results of a recent survey conducted by FMI Corporation. The survey, conducted in the spring of 2003, was sent to 4,239 randomly selected contractors with revenues of more than $15 million. The prior article addressed the broader findings of the survey.

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This article will analyze the responses of a select group of respondents: those who identified themselves as being affiliated with family-owned businesses. The focus on these respondents was intended to answer the following questions:

- What are the management succession and ownership transfer plans of family businesses in the construction industry?
- Do current owners who became owners as the result of a transaction with a family member intend to perpetuate the business in the family?
- What concerns does this unique set of owners hold about ownership transfer and management succession?

These issues are of particular importance and relevance to the family-held firm. For any contractor, the process of ownership transition is a “bet the firm” proposition. Cash flow, customer and subcontractor relationships, culture, and strategy are but a few factors that are heavily impacted by a transition. Adding family issues to the mix — with their attendant complexities and nuances — serves to make this already daunting process even more difficult. Despite its glamorous aura, the transition of a family-held construction firm poses significant challenges. Indeed, it is no easy feat to regenerate a family-owned business. Some studies have shown that the average life expectancy of this type of business is roughly 25 years.

**Cash flow, customer and subcontractor relationships, culture, and strategy are but a few factors that are heavily impacted by a transition.**

## METHODOLOGY

Of the 397 respondents to the survey, 272, or 68.5%, identified themselves as being from a family-owned business. These respondents are from firms that are either in their second or more generation of ownership, or are in their first generation and have plans to transition the business to a family member.

## DEMOGRAPHICS

As depicted, the revenues of the respondents spanned the spectrum from large to small. Interestingly, when comparing the family and non-family businesses as shown in Exhibit 1, the family businesses seem to mirror the size of non-family businesses. This result is striking, and seems to contradict the paradigm that larger contractors tend to be professionally managed and tend not to be family businesses.

## FAMILY BUSINESS OWNERSHIP

Continued family business ownership and management participation remains a

Exhibit 1
**Size of the Organization**
Percent

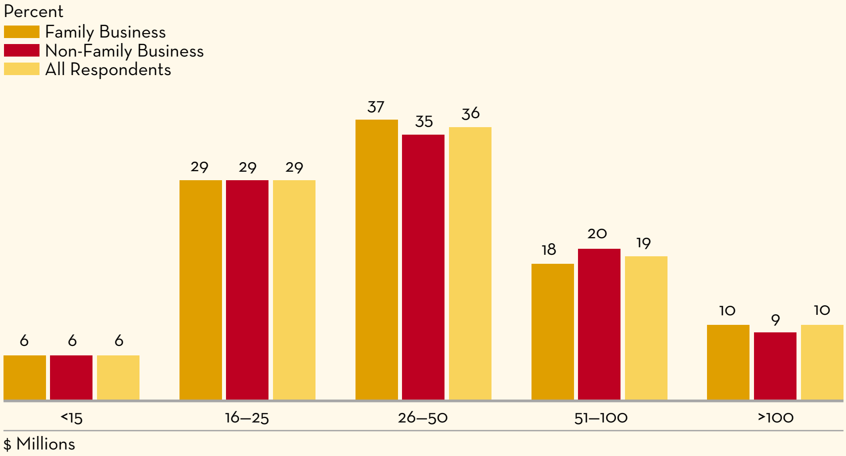


Exhibit 2
**Generations in the Family**

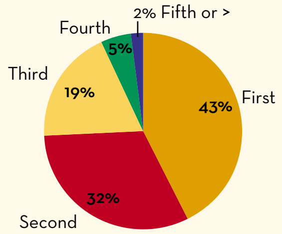
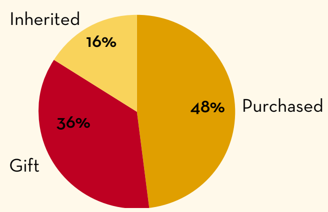



Exhibit 3
**How Was Ownership Secured?**



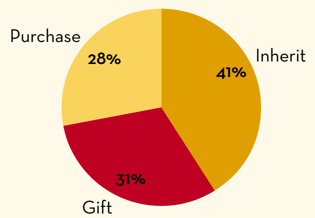

desire of the survey respondents. Of the respondents, 47% reported that they currently had family in the business, and 42% responded that they desired family members to ultimately own a controlling interest in the business. The same number (42%) stated that their catastrophic plan involved family ownership upon their demise. Lastly, 40% envisioned family members ultimately running their business. The symmetry between long-term ownership, ownership in the event of a sudden death or disability, and the people who will ultimately run the business is one of the most refreshing outcomes of the survey.

One of the most discussed facets of family-owned businesses is the difficulty of surviving the transition from one generation to the next. Exhibit 2 depicts the results of the survey, which yields a predictable outcome. Note that the responses are based on the number of generations that the business has been in the family, not whether the business has survived. The results underscore two trends. First, that there seems to be more professional management in construction companies. As a result, the business is more likely to be sold to a non-family member. Indeed, 48% of respondents that identified themselves as being from family-owned businesses planned on having non-family members become shareholders in the business. Second, it also demonstrates and underscores the difficulty in perpetuating a family business over the years.

In the survey, a third of the respondents reported that they had received their ownership interest in their firm as a result of a transaction with a family member. As Exhibit 3 indicates, a slight majority of respondents reported that their ownership interest was a result of an estate-planning tactic, whether it be a gift or an inheritance. The remainder were purchased outright.

Interestingly, the transactions contemplated for the next generation are quite different, as depicted in Exhibit 4. As noted in Exhibit 3, passing the ownership of a firm through an estate via an inheritance was the least likely means of ownership transfer; for the next generation, it is most likely, with 41% of respondents citing it as the exclusive method that they would use. Conversely, the current generation of owners are most likely to have purchased stock from a family member; in contrast, the next generation is less likely to purchase stock from a family member than any other means of acquiring it! This stark contrast in ownership transfer plans between generations is one of the more startling results of the survey.

Exhibit 4
**How Will Family Members Become Shareholders?**

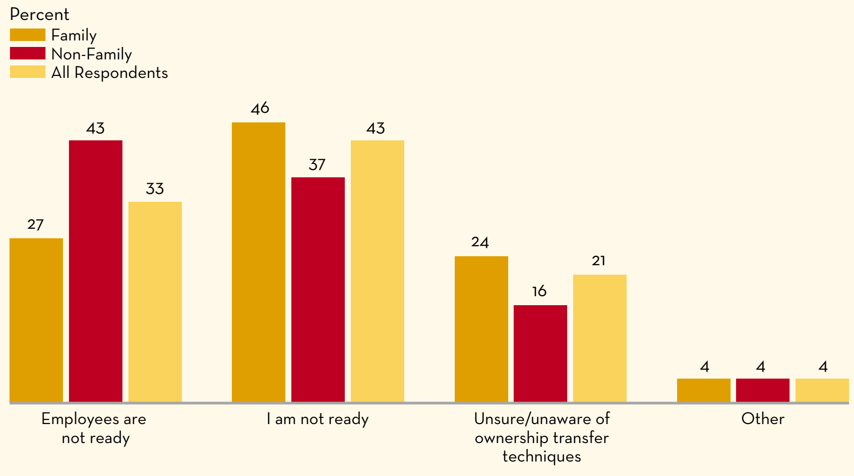



## CONCERNS OF THE FAMILY BUSINESS OWNER

As Exhbit 5 indicates, family-owned businesses have a much higher degree of confidence in their successors than non-family owned firms. Clearly, this arises from the belief of a parent that their progeny have the tools, temperment, and organizational constituency that a non-family member may not possess. Conversely, more family-owned businesses profess a lack of knowledge about ownership transfer techniques, probably due to the vagaries and difficulties of estate planning. Finally, the owners of family-held businesses are less likely than non-family businesses to be ready to leave. This, in all likelihood, stems from the impatience of executives in non-family member firms when the owner doesn't seem to be moving on.

In terms of specific concerns about family members, respondents were generally comfortable with the ability of the next generation to take on a larger role, with 48% stating that they had no concerns whatsoever. (See Exhibit 6.) Of those expressing a concern, the major one was the lack of experience of their successors in similar contracting firms. It has been FMI's experience that family members who spend

Exhibit 5
**Ownership Transfer Plan Concerns**



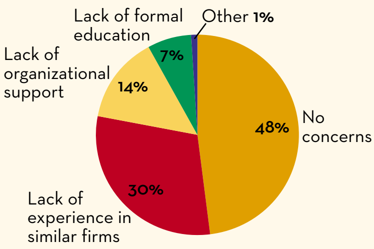
several years in another contracting organization bring much more to the table upon their reentry into the organization. Not only do they gain valuable knowledge of how other contractors work, but there is less stigma attached to their employment in the family firm because they have proved their mettle in another contracting business.

## PLANNING FOR FAMILY MEMBERS IN THE BUSINESS

In the survey, 58% of all respondents said that their children were currently in the business or they expected them to be employees at some point. Of this group, only 29% had a formal plan for their children to take over the family firm. Given the enormous risk of inter-generational transfers of family businesses, this number was shockingly low. In addition, it is surprisingly low since 51% of the respondents to the previous questions had some concerns about family members coming into the business. Of those that have a plan, mentoring (45%) was cited as the most critical component, followed by a formal training plan (28%) and clearly articulated experience milestones (27%).

Exhibit 6

**Concerns About Family Members**




The notion that family-business ownership is an outdated ownership model in the construction industry is a myth. The survey underscores the fact that many contractors envision that family ownership will form the basis of their ownership transfer and management succession strategy, and that the outright purchase of stock by the next generation is less likely than the use of an estate planning technique. Nonetheless, all too few contractors plan for this extremely risky proposition despite an acknowledgement by a majority that they have concerns about the next generation of family members entering the business. This lack of planning will no doubt accentuate the significant risk of family transitions. ■

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# How to Exit in an "Opportunistic" Market

An internal sale to employees may be the more profitable option for telecom and utility infrastructure contractors in the current hard market.

*By Chris Daum*

Declining volumes, tight margins, and thin profits are not the keys for attracting scores of buyers. Yet, many telecom and utility infrastructure contractors find themselves in this position today. Having ridden the telecom boom of the late 1990s to unprecedented levels of growth and prosperity, the industry has fallen on hard times.

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Whether large or small, public or private, those firms that have survived continue to experience difficult market conditions due to the sluggish economy, weak capital spending by utilities, and an overcapacity of construction services.

## THE GOOD OLD DAYS ARE GONE

The days are long gone when price was second to ability to perform and when there was more work than could be performed. So, too, are the days when multiple buyers offered to pay six times the last 12 months EBITDA for a company. Instead, a number of the roll-up and consolidator firms have failed, many of the survivors have written off large amounts of acquisition goodwill, and even the most fiscally sound of these former buyers are focused internally rather than on acquisitions.

## THE OPPORTUNISTIC BUYER

In our discussions with large public and private consolidators, most indicate that they are no longer looking at acquisitions. This is due to a number of reasons, including the need to focus on internal performance issues; a lack of support from their financial sponsors; poor market conditions; and a perceived lack of quality acquisition targets. Those firms that indicate a willingness to make further acquisitions always stress that they will do so on an "opportunistic basis." In other words, "Show us a great company, with strong management, in the right geography, in our core business, with a motivated seller, and we're interested."

### A BETTER DEAL?

From the buyer's perspective — particularly in light of the lessons learned from past acquisitions — that's not exactly a bad strategy. From the seller's viewpoint, it may not be very attractive. Yet, this represents the current marketplace reality, which may hold true indefinitely. So what about the owner who plans to exit the business in the next five to 10 years? Is there a potentially better alternative? Yes. Consider an internal sale to key employees.

### A CASE STUDY

Consider the hypothetical case of Resilient Construction Company. Resilient is a 36-year-old utility construction firm headquartered in the Southeast. The company performs both aerial and underground construction and maintenance services for the region's telephone and electric utilities and occasionally works for the area's cable television system operator. The company is owned by George Resilient, 52, who bought the company from his father 10 years ago. George's two children have finished college and are pursuing careers outside the industry.

Beginning in 1998, the company really took off when it began working for several new national carriers that were extending their long-haul fiber optic networks through the region. Toward the end of 1999, several buyers began expressing strong interest in buying the company. George listened to each, but remained undecided. However, one firm in particular was persistent and by March 2000 presented George with a formal offer to buy Resilient Construction for $18 million in cash and stock. The offer was equal to six times the company's net worth! George considered the offer too good to pass up and agreed to proceed.

**Having participated in hundreds of third-party sales over the past 25 years, we have learned that there are no absolutes when it comes to establishing the value and terms of a transaction.**

The buyer performed its due diligence and began drafting the formal legal documents. A week before the scheduled close in May, the buyer called to say they had to put the deal on hold. The stock market was down sharply and there was talk that several telecom carriers were in trouble. The deal never closed. The company that tried to buy Resilient filed bankruptcy at the end of 2000, and by early 2001, George's company was caught in the turmoil and fighting to stay alive in a tough market.

Today, thanks to its long-standing relationships with local utilities and other core customers, the Resilient team has managed to stabilize the business — albeit at a size just slightly larger than they were prior to the telecom boom of the late 1990s. (See Exhibit 1.) George is optimistic about the future, yet at 52, he has begun to think about his options for exiting the business. But who is left to buy the company, and how much are they willing to pay?

Exhibit 1
**Financial Performance — Resilient Construction Company**
Thousands

| | 1999 | 2000 | 2001 | 2002 | 2003F |
|---|---|---|---|---|---|
| Sales | $30,000 | $34,000 | $23,000 | $16,000 | $18,000 |
| Gross Profit | 7,500 | 7,480 | 4,140 | 3,040 | 3,600 |
| | *25%* | *22%* | *18%* | *19%* | *20%* |
| SG&A | 4,500 | 4,420 | 4,370 | 2,560 | 2,160 |
| EBIT | 3,000 | 3,060 | (230) | 480 | 1,440 |
| | *10%* | *9%* | *-1%* | *3%* | *8%* |
| Depreciation | 500 | 550 | 475 | 425 | 325 |
| EBITDA | 3,500 | 3,610 | 245 | 905 | 1,765 |
| | *12%* | *11%* | *1%* | *6%* | *10%* |
| Book Value | 3,000 | 3,400 | 2,800 | 2,800 | 3,000 |

Exhibit 2
**Valuation Ranges — Multilples of EBIT**
Thousands

| | EBIT | 3x | 4x | 5x |
|---|---|---|---|---|
| 2003 forecast | $1,440 | $4,320 | $5,760 | $7,200 |
| 3-year average | 563 | 1,690 | 2,253 | 2,817 |
| 4-year average | 1,188 | 3,563 | 4,750 | 5,938 |
| 5-year average | 1,550 | 4,650 | 6,200 | 7,750 |

## FAIR VALUE TO A THIRD PARTY

Having participated in hundreds of third-party sales over the past 25 years, we have learned that there are no absolutes when it comes to establishing the value and terms of a transaction. In all cases, the transaction comes down to a willing buyer and a willing seller who work hard to reach an agreement. As a general rule of thumb however, selling prices usually range between three and five times EBIT (earnings before interest and taxes), and one to two times adjusted book value. The structure of each transaction in terms of cash, stock, notes, earnouts, compensation agreements, etc. is unique to each transaction.

Two years ago Resilient lost money. In 2002, it made a modest operating profit of $480,000 and the current forecast is for a relatively strong operating profit of $1.4 million. One of the first challenges facing a potential buyer and seller will be to determine what the earnings of the company are going to be going forward. The seller will argue that 2003 is a baseline year and earnings will continue to improve over time. The buyer will make its own assumption of what a sustainable level of earnings for the company will likely be.

Exhibit 3

**Valuations of $1 Million EBIT**

Thousands

| | 3x | 4x | 5x |
|---|---|---|---|
| EBIT of $1 million | $3,000 | $4,000 | $5,000 |
| BV of $3 million equals multiple: | 1.0x | 1.3x | 1.7x |

The buyer will give no credit to the earnings in 1999 and 2000, rightly arguing that those days are over. They are equally unlikely to base their valuation solely upon the current year forecast given the previous two years' results and the uncertainty in the market. Due to the volatility of Resilient's past earnings, the buyer will be conservative. Let's assume that the buyer decides that $1 million is an appropriate EBIT to use when applying an earnings multiple to the stock. Exhibit 3 illustrates that a valuation of three to five times a $1 million EBIT ranges from $3 to $5 million and corresponds to a book value multiple of between 1.0 and 1.7. Even at $5 million, the offer from the "opportunistic" buyer is dramatically lower than the one Resilient received three years ago. George is not impressed.

### A BETTER ALTERNATIVE

Assuming George declines the offer or, more likely, no offer emerges, George should strongly consider structuring an internal sale to his key employees.

### THE INTERNAL SALE

George would like to remain active in the company for five more years after which he plans to start transitioning out of the business. He wants to be completely out by age 60, which is eight years from today. Other than himself, Resilient's management team consists of the two vice presidents of the telephone and electrical divisions and his chief financial officer. Their ages range from 36 to 42, and they have each been with the company for at least 10 years. After confirming that neither of his two adult children are interested in joining the company, George spoke with his three managers individually and discovered that each is interested in becoming part of the ownership team.

### MOTIVATION

The idea of an internal sale appeals strongly to George for three reasons. First, he likes the idea of Resilient Construction continuing beyond his leadership. He considers the success of the company to be part of his personal legacy. Second, he feels a sense of obligation to his key employees to provide them the opportunity to lead and own the company and build their own individual net worth. And finally, he views this as a way to maximize his financial deal over time through the combination of compensation and benefits, profit distributions, and stock sales.

## THE TERMS OF THE DEAL

Over the next few months, with the help of a trusted advisor, George and his team outlined an ownership transfer plan based on the following criteria:

1. The plan will need to work over an eight-year period, assuming the current level of volume and profits remain unchanged.
2. George will start the process by selling a small amount of stock to his three key managers (the "New Guys"). The New Guys will each contribute $50,000 from their deferred compensation plan balances to fund the initial purchase of stock.
3. The level of capital required to run the business at its current level of activity is determined to be $3 million. If the business is able to grow, then a proportional amount of future profits will be retained each year to support the growth.
4. The formula for determining the price of the stock was agreed to be 1.25 times book value.
5. A portion of the company's pre-tax profits will be paid to the new owners each year to fund the purchase of George's stock. The amount agreed upon is 30%.
6. All after-tax profits (after any amount retained to support future growth) are to be distributed to the shareholders. Distributions to the New Guys will be used to purchase shares from George until all of George's stock is acquired.
7. George will continue to receive his current salary and benefits based upon his leadership role until a successor is ready to take his place in about five years. After year five, he plans to reduce his responsibilities with the company and reduce his salary accordingly until his official retirement three years later.
8. All parties agree that if the profitability of the company increases through a combination of growth and/or margin improvement, the buyout process can be accelerated. If, on the other hand, the company's performance declines, the process of selling all of George's stock will take longer than eight years. Either way, George's primary leadership role will last five more years, and he will retire at 60. Any remaining stock that he owns at the end of eight years will be considered a source of capital to the new ownership team until such time as they can complete the buyout process.

## THE INTERNAL VS. THIRD PARTY SALE

Exhibit 4 compares the net proceeds from the internal sale vs. a sale to a third party. Exhibit 5 models the anticipated performance and proceeds of the internal sale according to the terms outlined above and assuming no growth or improvement in margins.

On an after-tax basis, George will

Exhibit 4

**A Comparison of Net Proceeds**

Thousands

| Proceeds | Internal | Third Party |
|---|---|---|
| Compensation | $1,600 | $1,250[1] |
| Sale of Stock | 3,750 | 5,000[2] |
| Sub S Distributions | 4,347 | – |
| Total, pre-tax | 9,697 | 6,250 |
| Less taxes | (2,185)[3] | (738)[3] |
| Net Proceeds, after-tax | $7,512 | $5,513 |

1. *Assumes George receives current salary as president for five years (length of noncompete)*
2. *Assumes the buyer pays 5 x EBIT of $1 million or 1.7 x book value*
3. *Ordinary income tax rate of 35% and capital gains tax rate of 15%*

receive approximately $7.5 million over eight years, or $2 million more than the $5.5 million he will receive in stock and compensation if he were to sell to the opportunistic buyer. He also receives the satisfaction of knowing that his key managers will have the opportunity to carry the business forward after his retirement.

Exhibit 5

**Internal Sale — Resilient Construction**

Thousands

| Assumptions | | | |
|---|---|---|---|
| Sale price (% of book) | 125% | Beginning revenue | $18,000 |
| Shares outstanding | 1,000 | Growth rate | 0.0% |
| George's initial shares | 1,000 | Pre-tax profit % | 7.0% |
| New Guys' shares | – | | |
| Initial book value (start of yr 1) | 3,000 | Initial cash purchase, Future Owners | 150 |
| Initial BV/share | 3,000 | Initial shares bought | 0.04 |
| Initial sales price/share | 3,750 | New Guys' bonus - % of oper profit | 30% |
| | | | |
| George's tax rate | 35% | George's beginning basis in stock | 3,000 |
| New Guys' tax rate | 35% | George's beginning basis per share | 3,000 |
| Capital gains tax rate | 15% | | |

| Ownership After Initial Purchase | | |
|---|---|---|
| | Shares | Percent |
| George | 0.96 | 96.0% |
| New Guys | 0.04 | 4.0% |
| | 1.0 | 100.0% |

| Earnings | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 |
|---|---|---|---|---|---|---|---|---|
| Earned Revenue | $18,000 | $18,000 | $18,000 | $18,000 | $18,000 | $18,000 | $18,000 | $18,000 |
| Pre-tax profit before special bonuses | 1,260 | 1,260 | 1,260 | 1,260 | 1,260 | 1,260 | 1,260 | 1,260 |
| New Guys' bonuses | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 |
| Profit before tax | 882 | 882 | 882 | 882 | 882 | 882 | 882 | 882 |
| Net earnings available for Sub S distributions | 882 | 882 | 882 | 882 | 882 | 882 | 882 | 882 |
| | | | | | | | | |
| New Guys' beg. ownership-share of distributions | 96.0% | 88.8% | 80.6% | 71.1% | 60.1% | 47.4% | 32.8% | 16.0% |
| New Guys' ownership-share of distributions | 4.0% | 11.2% | 19.4% | 28.9% | 39.9% | 52.6% | 67.2% | 84.0% |
| George's distribution before tax | 847 | 784 | 711 | 627 | 530 | 418 | 290 | 141 |
| New Guys' distribution before tax | 35 | 98 | 171 | 255 | 352 | 464 | 592 | 741 |
| | | | | | | | | |
| New Guys' bonuses used for purchases | 378 | 378 | 378 | 378 | 378 | 378 | 378 | 378 |
| New Guys' bonuses after tax | 246 | 246 | 246 | 246 | 246 | 246 | 246 | 246 |
| New Guys' distribution used for purchases | 35 | 98 | 171 | 255 | 352 | 464 | 592 | 741 |
| New Guys' distribution after tax | 23 | 64 | 111 | 166 | 229 | 301 | 385 | 481 |
| Total funds available for purchases | 269 | 310 | 357 | 412 | 475 | 547 | 631 | 727 |

| George | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 |
|---|---|---|---|---|---|---|---|---|
| Ownership % at beginning of year | 96.0% | 88.8% | 80.6% | 71.1% | 60.1% | 47.4% | 32.8% | 16.0% |
| Shares owned, beginning of year | 0.960 | 0.888 | 0.806 | 0.711 | 0.601 | 0.474 | 0.328 | 0.160 |
| Stock sale, $ | 269 | 310 | 357 | 412 | 475 | 547 | 631 | 601 |
| Stock sale, shares | 0.072 | 0.083 | 0.095 | 0.110 | 0.127 | 0.146 | 0.168 | 0.160 |
| Shares, end of year | 0.888 | 0.806 | 0.711 | 0.601 | 0.474 | 0.328 | 0.160 | – |
| Ownership % at end of year | 88.8% | 80.6% | 71.1% | 60.1% | 47.4% | 32.8% | 16.0% | 0.0% |
| | | | | | | | | |
| Initial cash purchase by New Guys | 150 | – | – | – | – | – | – | – |
| Salary | 250 | 250 | 250 | 250 | 150 | 150 | 150 | 150 |
| Sub-S distributions | 847 | 784 | 711 | 627 | 530 | 418 | 290 | 141 |
| Total sale of stock to New Guys | 269 | 310 | 357 | 412 | 475 | 547 | 631 | 601 |
| Annual dollars received before tax | 1,515 | 1,343 | 1,318 | 1,288 | 1,154 | 1,115 | 1,070 | 892 |
| **Cumulative dollars received before tax** | **1,515** | **2,859** | **4,176** | **5,465** | **6,619** | **7,735** | **8,805** | **9,697** |
| Annual dollars received after tax | 1,128 | 972 | 971 | 969 | 902 | 900 | 898 | 772 |
| **Cumulative dollars received after tax** | **1,128** | **2,100** | **3,071** | **4,040** | **4,942** | **5,842** | **6,740** | **7,512** |

| New Guys | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 |
|---|---|---|---|---|---|---|---|---|
| Shares owned, beginning of year | 0.040 | 0.112 | 0.194 | 0.289 | 0.399 | 0.526 | 0.672 | 0.840 |
| Ownership % at beginning of year | 4.0% | 11.2% | 19.4% | 28.9% | 39.9% | 52.6% | 67.2% | 84.0% |
| Shares purchased | 0.072 | 0.083 | 0.095 | 0.110 | 0.127 | 0.146 | 0.168 | 0.160 |
| Shares owned, end of year | 0.112 | 0.194 | 0.289 | 0.399 | 0.526 | 0.672 | 0.840 | 1.000 |
| Ownership % at end of year | 11.2% | 19.4% | 28.9% | 39.9% | 52.6% | 67.2% | 84.0% | 100.0% |
| Ownership at end of year at book value | 335 | 583 | 868 | 1,198 | 1,577 | 2,015 | 2,520 | **3,000** |
| Ownership at end of year at sales price | 419 | 728 | 1,085 | 1,497 | 1,972 | 2,519 | 3,149 | 3,750 |
| Distributions to owners after buy-out after tax | – | – | – | – | – | – | – | 127 |

## MORE THAN JUST A MODEL

To be successful, an internal sale to key employees requires much more than simply developing and implementing a model. The business must sustain itself during the term of the buyout and beyond. To do so requires the execution of effective business strategies. New leaders and owners must be identified and developed to assume key roles, and the organization must absorb the impact of these changes to the company's culture. The best succession plans take a comprehensive approach to addressing these needs simultaneously and will take time, careful planning, and a lot of hard work.

All things being considered, the internal sale is often the best option, particularly in today's opportunistic market.

## AN OPTION WORTH PURSUING

All things being considered, the internal sale is often the best option, particularly in today's opportunistic market. Perhaps that is why the majority of transactions in the construction industry are performed internally. If, by chance, the "good old days" return, the shareholders can always decide to sell at that time. In fact, strong performance and a great succession process are keys to making your company more valuable. ■

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# Life After Break-Even

A roofing company in Detroit, Mich., details its experience with the dual overhead recovery method. The company improved its annual net profit six-fold after transitioning to the new system.

***By Mark Bridgers***

Can a roofing firm improve its annual net profit six-fold and outpace its segment and the industry during a general economic slowdown? Most people would say that magic is necessary for that to happen. Yet, outlined below is a case study describing MacDermott Roofing and Sheetmetal — a company that did just that.

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The firm is owned by Dave MacDermott and jointly managed by Dave and Michelle White. They are located in Detroit, Mich., and provide new and replacement roofing services throughout the Detroit metro area. MacDermott implemented the dual-rate, overhead-recovery system in 1999. Their experience details some of the growing pains and ultimate success achieved from the adoption of this method. In short, this system helped transform the firm into one that outpaces its peers.

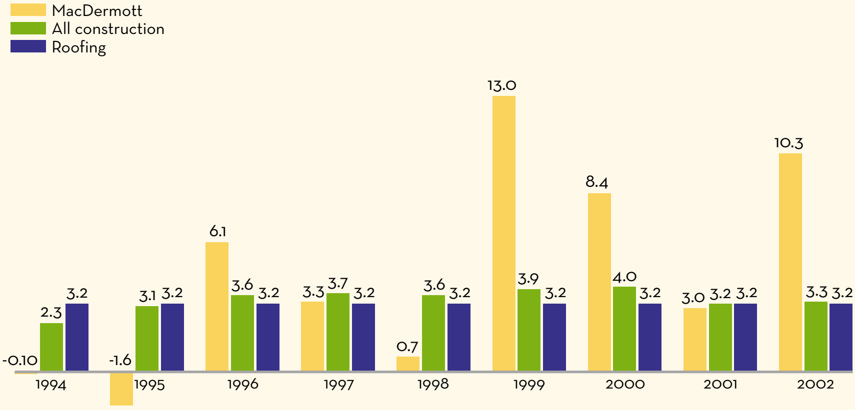
MacDermott Roofing is a non-union contractor founded in the 1950s by Dave MacDermott's father, David MacDermott. He started his business by shingling homes and continued to focus on the residential market through the 1970s. Dave MacDermott joined the business during this period after being honorably discharged from the Army. Immediately, he began to focus on growing the business, which required new customers. Towards this end, he pursued commercial roofing work. After several years, the firm totally moved away from the residential markets. Today, the company exclusively performs commercial roofing.

Exhibit 1

**Industry Average Net Profit**

Percent Return on Sales

The industry average net profit (return on sales) for roofing contractors was 2.8% for the period 1985 through 2002. For construction types, the industry average profitability was 3.2% over this same period.




*Source: Risk Management Associates, Annual Statement Studies 2002-2003, Philadelphia, PA.*

During their transition period from residential to commercial roofing, MacDermott operated in the public market — where clients purchase construction services exclusively based on price.

Prior to installing the dual-rate system, MacDermott used a traditional, single-percentage markup to recover overhead and profit. Due to competition in the public market, MacDermott frequently lowered their pricing. This system gave no regard to actual overhead costs that were incurred during a job, and made the process of forecasting financial performance nearly impossible. While MacDermott's old methodology provided little insight into the true cost of a project, there was some merit to the system. After several years of using this method, Dave had a good idea of what competitors would bid.

"If there were seven bidders vying for a particular project, we were always competitive," Dave explained. The company was able to secure between 60% and 70% of the roofing opportunities it aggressively pursued under this system, and there were normally minor spreads between the first and second bids. MacDermott's original bidding system was based on what the market would bear: the economy had a strong impact on prices. As one would expect, during strong economic times, a company can add more overhead and profit to an estimate. As the economy slows, frequently smaller amounts of overhead and profit can be added. During our most recent slowdown in the amount of work available, larger firms were beginning to chase small- to medium-sized jobs in MacDermott's geography and yet MacDermott has continued to produce healthy margins.

**As one would expect, during strong economic times, a company can add more overhead and profit to an estimate.**

## THE INTRODUCTION TO THE DUAL OVERHEAD RATE RECOVERY METHOD

In 1992, MacDermott's vice president of finance, Michelle White, read an article describing the dual overhead rate recovery method. She and Dave talked about switching to this methodology, but decided not to at the time. About five years later, Michelle and Dave revisited this idea. Michelle began to make some phone calls to firms mentioned in the article to get a clearer understanding of the system. After several encouraging conversations with firms that had successfully implemented the system, Michelle felt that experimenting with dual rates made sense for MacDermott roofing. During 1998, Michelle attended a seminar that detailed the use of the dual overhead recovery method. The following steps for implementation were identified:

- Analyze financial statements for the last three years (including internal statements from the accounting system).
- Review budget(s) developed to date.
- Review copies of estimating sheets for several recent jobs (breaking down direct costs, overhead recovery calculated, and profit) for the existing pricing system.
- Analyze these items and work through the initial calculation of the dual rates.
- Develop a budget and dual rate calculation for the entire company or two or more divisions. The steps to calculate the rates are outlined below.
    1. Develop an income statement budget for the entire company.
    2. Review several sample jobs to determine the typical breakdown of direct costs.
    3. Analyze the historical amount of overhead and begin to segment overhead from the income statement budget on a line by line basis.
    4. Segment overhead into largely fixed and largely variable types.
    5. Determine the variable relationship between overhead and revenue, labor hours, or material purchase.
    6. Calculate total variable overhead as a percentage of revenue and dollar amount.
    7. Calculate total fixed overhead as a dollar amount.
    8. Calculate operating income.
    9. Determine material and subcontract to labor ratio (labor intensity).
    10. Calculate X factor.
    11. Calculate rate on labor.
    12. Calculate rate on materials and subcontracts.
    13. Test budget and overhead rates for reasonableness.

## BEGINNING THE PROCESS

Michelle's first step was to review MacDermott's historical financial statements and determine where overhead dollars were being spent. Exhibits 3 and 4 show an amalgamation of several firms' experiences for the period 1994 to 1998. Direct costs have been segmented into five categories: material, subcontracts, labor, equipment, and other. In order to implement the dual-overhead rate recovery method, a firm must begin by

Exhibit 2
**M&S/L Ratio**

$$\frac{\text{Materials Cost} + \text{Subcontracts Cost}}{\text{Labor Cost}}$$

Exhibit 3

**Sample Financial Statements — 1994-98**

| | 1994 | | 1995 | | 1996 | | 1997 | | 1998 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dollars | % | Dollars | % | Dollars | % | Dollars | % | Dollars | % |
| Sales | 6,905,926 | 100 | 6,121,309 | 100 | 8,492,337 | 100 | 8,037,110 | 100 | 7,674,421 | 100 |
| | | | | | | | | | | |
| Materials | 2,494,910 | 36 | 2,292,012 | 37 | 2,794,326 | 33 | 2,183,288 | 27 | 2,464,372 | 32 |
| Subcontracts | 0 | 0 | 0 | 0 | 0 | 0 | – | 0 | – | 0 |
| Labor | 1,617,787 | 23 | 2,254,995 | 37 | 2,674,929 | 31 | 2,763,326 | 34 | 2,683,580 | 35 |
| Equipment | 47,958 | 1 | 38,241 | 1 | 0 | 0 | – | 0 | – | 0 |
| Other Costs | 377,674 | 5 | 237,679 | 4 | 604,059 | 7 | 821,802 | 10 | 543,807 | 7 |
| **Gross Profit** | **2,367,597** | **34** | **1,298,382** | **21** | **2,419,024** | **28** | **2,268,694** | **28** | **1,982,662** | **26** |
| | | | | | | | | | | |
| Overhead Expenses | 2,328,284 | 34 | 1,395,580 | 23 | 1,663,796 | 20 | 1,840,500 | 23 | 1,853,603 | 24 |
| Other Income and Expenses | 46,014 | 1 | -1,215 | 0 | 236,724 | 3 | 165,671 | 2 | 76,481 | 1 |
| **Net Income** | **-6,702** | **0** | **-95,983** | **-2** | **518,504** | **6** | **262,524** | **3** | **52,577** | **1** |
| M&S/L | 1.54 | | 1.02 | | 1.04 | | 0.79 | | 0.92 | |

*Note: The financial performance information presented in this case study was designed to describe the type of results achieved by firms using the dual rate overhead recovery method. The figures presented are an amalgamation of serveral firms' experiences.*

segmenting their direct costs for prior years. The intention is to determine the trends in labor intensity for the firm's work. In order to make this calculation, a firm will calculate its materials and subcontracts to labor ratio (M&S/L). (See Exhibit 2.)

In order to calculate the dual overhead rates for roofing jobs in 1999, Dave and Michelle needed the M&S/L ratio from work performed in 1998 and the accompanying overhead factor to determine the amount of overhead to apply to materials, subcontracts, and labor. Exhibit 4 displays overhead factors for M&S/L ratios from 0.0 to greater than 19.

In the amalgamation income statement for 1998, a M&S/L ratio of 0.92 was calculated. (See Exhibit 3.) Using the table above, an M&S/L ratio of 0.92 yields an X-factor of 2.39. This X-factor described the difference between the amount of overhead necessary to support the management of labor and the amount of overhead necessary to support the procurement/management of materials or subcontracts. The overhead factor, or "X-factor," is then used in the following calculation to determine the overhead rates to be applied to materials and subcontracts. Exhibit 5 is an example of the overhead recovery rate on materials or subcontracts and the overhead recovery rate labor for the amalgamation income statement for 1998.

**In order to implement the dual-overhead rate recovery method, a firm must begin by segmenting their direct costs for prior years.**

From this example, it is clear that approximately 20% of overhead is generated in the procurement/management of materials (there were no subcontract costs in 1998) and approximately half of the overhead is needed to manage the labor component. These percentages are then applied to every project estimated or priced.

Exhibit 4

### Overhead Factors

| M&S/L | X | M&S/L | X | M&S/L | X | M&S/L | X | M&S/L | X |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 1.82 | 3.9 | 4.36 | 7.8 | 6.28 | 11.7 | 7.31 | 15.6 | 7.80 |
| 0.1 | 1.88 | 4.0 | 4.42 | 7.9 | 6.31 | 11.8 | 7.33 | 15.7 | 7.81 |
| 0.2 | 1.95 | 4.1 | 4.48 | 8.0 | 6.35 | 11.9 | 7.35 | 15.8 | 7.81 |
| 0.3 | 2.01 | 4.2 | 4.54 | 8.1 | 6.38 | 12.0 | 7.37 | 15.9 | 7.82 |
| 0.4 | 2.07 | 4.3 | 4.60 | 8.2 | 6.42 | 12.1 | 7.38 | 16.0 | 7.83 |
| 0.5 | 2.13 | 4.4 | 4.66 | 8.3 | 6.45 | 12.2 | 7.40 | 16.1 | 7.84 |
| 0.6 | 2.20 | 4.5 | 4.71 | 8.4 | 6.49 | 12.3 | 7.42 | 16.2 | 7.84 |
| 0.7 | 2.26 | 4.6 | 4.77 | 8.5 | 6.52 | 12.4 | 7.43 | 16.3 | 7.85 |
| 0.8 | 2.33 | 4.7 | 4.82 | 8.6 | 6.55 | 12.5 | 7.45 | 16.4 | 7.86 |
| 0.9 | 2.39 | 4.8 | 4.88 | 8.7 | 6.59 | 12.6 | 7.46 | 16.5 | 7.86 |
| 1.0 | 2.46 | 4.9 | 4.94 | 8.8 | 6.62 | 12.7 | 7.48 | 16.6 | 7.87 |
| 1.1 | 2.53 | 5.0 | 5.00 | 8.9 | 6.65 | 12.8 | 7.49 | 16.7 | 7.88 |
| 1.2 | 2.59 | 5.1 | 5.05 | 9.0 | 6.68 | 12.9 | 7.51 | 16.8 | 7.88 |
| 1.3 | 2.66 | 5.2 | 5.10 | 9.1 | 6.71 | 13.0 | 7.52 | 16.9 | 7.89 |
| 1.4 | 2.72 | 5.3 | 5.16 | 9.2 | 6.74 | 13.1 | 7.53 | 17.0 | 7.89 |
| 1.5 | 2.79 | 5.4 | 5.21 | 9.3 | 6.74 | 13.2 | 7.55 | 17.1 | 7.90 |
| 1.6 | 2.86 | 5.5 | 5.26 | 9.4 | 6.79 | 13.3 | 7.56 | 17.2 | 7.90 |
| 1.7 | 2.93 | 5.6 | 5.31 | 9.5 | 6.82 | 13.4 | 7.57 | 17.3 | 7.91 |
| 1.8 | 2.99 | 5.7 | 5.36 | 9.6 | 6.85 | 13.5 | 7.59 | 17.4 | 7.91 |
| 1.9 | 3.06 | 5.8 | 5.41 | 9.7 | 6.87 | 13.6 | 7.60 | 17.5 | 7.92 |
| 2.0 | 3.13 | 5.9 | 5.46 | 9.8 | 6.90 | 13.7 | 7.61 | 17.6 | 7.92 |
| 2.1 | 3.19 | 6.0 | 5.51 | 9.9 | 6.92 | 13.8 | 7.62 | 17.7 | 7.93 |
| 2.2 | 3.26 | 6.1 | 5.56 | 10.0 | 6.95 | 13.9 | 7.63 | 17.8 | 7.93 |
| 2.3 | 3.33 | 6.2 | 5.61 | 10.1 | 6.98 | 14.0 | 7.65 | 17.9 | 7.94 |
| 2.4 | 3.39 | 6.3 | 5.65 | 10.2 | 7.00 | 14.1 | 7.66 | 18.0 | 7.94 |
| 2.5 | 3.46 | 6.4 | 5.70 | 10.3 | 7.02 | 14.2 | 7.67 | 18.1 | 7.95 |
| 2.6 | 3.53 | 6.5 | 5.75 | 10.4 | 7.05 | 14.3 | 7.68 | 18.2 | 7.95 |
| 2.7 | 3.59 | 6.6 | 5.79 | 10.5 | 7.07 | 14.4 | 7.69 | 18.3 | 7.96 |
| 2.8 | 3.66 | 6.7 | 5.83 | 10.6 | 7.09 | 14.5 | 7.70 | 18.4 | 7.96 |
| 2.9 | 3.72 | 6.8 | 5.88 | 10.7 | 7.20 | 14.6 | 7.71 | 18.5 | 7.97 |
| 3.0 | 3.79 | 6.9 | 5.92 | 10.8 | 7.14 | 14.7 | 7.72 | 18.6 | 7.97 |
| 3.1 | 3.85 | 7.0 | 5.96 | 10.9 | 7.16 | 14.8 | 7.73 | 18.7 | 7.98 |
| 3.2 | 3.92 | 7.1 | 6.00 | 11.0 | 7.18 | 14.9 | 7.74 | 18.8 | 7.98 |
| 3.3 | 3.98 | 7.2 | 6.05 | 11.1 | 7.20 | 15.0 | 7.75 | 18.9 | 7.99 |
| 3.4 | 4.05 | 7.3 | 6.08 | 11.2 | 7.22 | 15.1 | 7.76 | 19.0 | 7.99 |
| 3.5 | 4.11 | 7.4 | 6.12 | 11.3 | 7.24 | 15.2 | 7.76 | >19 | 8.00 |
| 3.6 | 4.17 | 7.5 | 6.16 | 11.4 | 7.26 | 15.3 | 7.77 | | |
| 3.7 | 4.23 | 7.6 | 6.20 | 11.5 | 7.28 | 15.4 | 7.78 | | |
| 3.8 | 4.30 | 7.7 | 6.24 | 11.6 | 7.30 | 15.5 | 7.79 | | |

*Source: This table originates from research originally conducted by FMI.*

Exhibit 6 details the costs of three different jobs, all with the same amount of total direct costs, but all with very different total estimated costs. What becomes evident is that it costs more to take on Job C because the labor component is higher than the other two, and conversely, Job A requires the least amount of labor and costs the firm the least to perform.

In 1999, MacDermott Roofing began using the dual overhead rates to estimate jobs. MacDermott committed to using this methodology for all of their estimates in 1999, but during the first year, the company priced projects with both the dual-rate system as well as their former pricing system. This pricing methodology often results in a different final price than those prices derived under the contractor's previous methods. Dave estimated a group of initial projects and shared the results with Michelle, indicating that the numbers could not be right. The company did not win the first few jobs it bid using dual rates and both Dave and Michelle recalled their frustration. "Dave was positive we would never win another job again," Michelle said.

After failing to gain new work and developing a feel for the numbers, Dave began tacking on a percentage he felt the market would bear.

"It was difficult to finish an estimate using dual rates and separate the percentage markup for overhead from the markup for profit when we had been adding a flat markup to every job using the old system." Michelle said. At first, Dave and Michelle would compute both methods, and they submitted some bids under the old system. But as they continued to compute both methods, Dave and Michelle noticed that despite producing higher bids, dual rates were really tuned into the true costs of the business.

After operating under the dual-rate method for several months, the company became more competitive on different types of projects. Both Dave and Michelle

Exhibit 5

**Rate on Materials, Subcontracts, and Labor***

| Rate on Materials and Subcontracts | Rate on Labor |
|---|---|
| $= \dfrac{\text{Overhead}}{[(X)\text{ Labor}] + \text{Materials} + \text{Subcontracts}}$ | $= \dfrac{(X)\text{ Overhead}}{[(X)\text{ Labor}] + \text{Materials} + \text{Subcontracts}}$ |
| $= \dfrac{1{,}853{,}603}{(2.39 \times 2{,}683{,}580) + (2{,}464{,}372 + 0)}$ | $= \dfrac{(2.39)\ 1{,}853{,}603}{(2.39 \times 2{,}683{,}580) + (2{,}464{,}372 + 0)}$ |
| $= \dfrac{1{,}853{,}603}{6{,}413{,}757 + 2{,}464{,}372}$ | $= \dfrac{4{,}430{,}111}{6{,}413{,}757 + 2{,}464{,}372}$ |
| $= \dfrac{1{,}853{,}603}{8{,}878{,}129}$ | $= \dfrac{4{,}430{,}111}{8{,}878{,}129}$ |
| = **20.88% of Materials and Subcontracts** | = **49.90% of Labor Costs** |

* *The dual rates calculated above are an amalgamation of serveral firms' experiences and are not representative of MacDermott Roofing.*

Exhibit 6

**Estimated Project Cost Summary***

| Direct Costs | Job A Dollars (estimated) | Job B Dollars (estimated) | Job C Dollars (estimated) |
|---|---|---|---|
| Materials | 350,000 | 400,000 | 250,000 |
| Labor | 200,000 | 250,000 | 550,000 |
| Subcontracts | 450,000 | 350,000 | 200,000 |
| Total Direct Costs | 1,000,000 | 1,000,000 | 1,000,000 |
| Overhead Applied 20.88% on Materials and Subcontracts | 167,040 | 156,600 | 93,960 |
| Overhead Applied 49.90% on Labor | 99,800 | 124,750 | 274,450 |
| **Total Estimated Cost** | **1,266,840** | **1,281,350** | **1,368,410** |
| | | | |
| Materials and Subcontracts/Labor Ratio | 4.00 | 3.00 | 0.82 |

* *The example projects and dual rates presented above are not representative of MacDermott Roofing.*

continued to study the financial cost structure of MacDermott to better understand performance and the type of project the company should pursue.

From this, MacDermott decided to de-emphasize public work. In a hard-bid arena, the dual-rate estimates that Dave reached were not competitive. Dave discovered many of the projects they had secured in the past were priced below breakeven and were actually costing MacDermott profit and overhead, in some instances, to put in place. These revelations sparked two new trends at the firm: 1) the company would chase work with negotiated characteristics and 2) MacDermott would explore opportunities to increase labor efficiency on all projects.

**After operating under the dual-rate method for several months, the company became more competitive on different types of projects.**

## WORK ACQUISITION TRANSITION

When MacDermott began substituting public work with negotiated work, the number of potential projects in the market dropped. While this seemed scary to Dave and Michelle, they knew they had trimmed less profitable jobs from their backlog. "It's not considered losing a job if you know your costs, bid the job right, and are not selected to perform the work," Michelle said.

Because of the new customer base they planned to chase, MacDermott began to ratchet up their marketing efforts to potential clients. Since the switch to dual rates, MacDermott has developed an entirely different customer base. "I've lost contact with a lot of my old customers, but now we have a much stronger customer base that needs our services," Dave said.

The implementation of dual rates has helped Dave and his staff become better estimators. They have a better idea of what material, labor, and overhead is necessary to run a job and are able to bring a more detailed and precise estimate with them on bid day. They are much less likely to request change orders during construction, which has made their customers very happy. But when change orders do arise, they are, as always, difficult to discuss.

"Change orders under this system are not as easy," Dave said. Frequently, the contract documents state that change orders are to be paid at cost plus 15%, which is often lower than MacDermott's overhead costs. Dave had to convince general contractors to allow MacDermott to submit change orders using the dual-rate method as opposed to what was detailed in the standard contract documents.

"It took some convincing with a few of our general contractors, but they agreed after a few meetings," he said. "The pricing scheme is usually not an issue with most general contractors when we send in a change order."

## PRODUCTIVITY IMPROVEMENT

MacDermott also committed to resolving labor issues and improving construction productivity during the switch. The company explored products and services that would help them become less labor intensive. The pursuit of this strategy was largely driven by the results of the dual-rate system, which revealed the company was not competitive on projects requiring a high percentage of labor to total job cost.

"We probably would not have pursued this type of productivity improvement at this point in our evolution had it not been for the dual rate recovery method," Dave said. Dave also looked for similar sized roofing firms in other geographic markets so he could explore how they put construction in place using different materials and labor-management approaches. Dave sent several employees to these firms to learn their techniques for driving high productivity.

At first, Dave cut crew sizes. "We dropped a man from what were typically four- or five-man crews and noticed that we were still getting as much or more production out of our crews."

Dave also implemented an incentive system for crews that complete a job on time and under budget. In addition, employees that identify and use techniques that add efficiency receive additional rewards.

"Once I win a job, if the crew can get on the job site and deliver the project for less than what I have in it, I let them split the leftover," Dave said. "I'm practically handing them money!"

"Achieving the pursued productivity improvements accomplished two things for our firm," Dave said. "First, we became more profitable in the work we were currently performing, and second, we began to expand our market share as we picked up work we could now perform profitably."

## RESULTS

With the dual overhead rate recovery method in place, MacDermott Roofing and Sheetmetal learned what it really takes to put construction in place profitably.

The financial performance information presented in this case study was designed to describe the type of results achieved by MacDermott. The figures presented in Exhibit 7 are an amalgamation of several firms' experiences and detail some of the improvements a firm can witness under the dual rate recovery method.

Exhibit 7
**Sample Financial Statements — 1999-2002**

| | 1999 | | 2000 | | 2001 | | 2002 | |
|---|---|---|---|---|---|---|---|---|
| | Dollars | % | Dollars | % | Dollars | % | Dollars | % |
| Sales | 8,536,851 | 100 | 8,795,959 | 100 | 9,506,368 | 100 | 11,908,428 | 100 |
| | | | | | | | | |
| Materials | 2,738,737 | 32 | 2,795,699 | 32 | 3,159,811 | 33 | 3,768,275 | 32 |
| Subcontracts | 191,212 | 2 | 42,551 | 0 | 126,637 | 1 | 160,969 | 1 |
| Labor | 1,892,247 | 22 | 2,554,534 | 29 | 3,072,911 | 32 | 3,318,102 | 28 |
| Equipment | 112,476 | 1 | 185,436 | 2 | 175,317 | 2 | 279,612 | 2 |
| Other Costs | 104,694 | 1 | 103,397 | 1 | 81,466 | 1 | 150,196 | 1 |
| Gross Profit | 3,497,485 | 41 | 3,114,342 | 35 | 2,890,226 | 30 | 4,231,274 | 36 |
| | | | | | | | | |
| Overhead Expenses | 2,317,333 | 27 | 2,376,267 | 27 | 2,545,663 | 27 | 2,954,627 | 25 |
| Other Income and Expenses | 70,597 | 1 | 548 | 0 | 77,149 | 1 | 49,011 | 0 |
| Net Income | 1,109,554 | 13 | 737,528 | 8 | 267,414 | 3 | 1,227,636 | 10 |
| | | | | | | | | |
| M&S/L | 1.55 | | 1.11 | | 1.07 | | 1.18 | |

Despite some hardships, concerns, and worry during the first year of installation, MacDermott Roofing has retooled its estimating system, marketing efforts, field-staff productivity, customer relations, and profitability.

**With the dual overhead rate recovery method in place, MacDermott Roofing and Sheetmetal learned what it really takes to put construction in place profitably.**

"I wish I had done this five years ago," Dave said. "We have improved the performance and management of our business, secured a customer base that values our services, improved our repeat business and the firm's profitability. What more can you ask as a manager of a construction firm? We still face challenges in our market with competition, shrinking construction expenditures, etc., but I believe I have a better understanding of what it takes to successfully manage our firm. With dual rates, we know what it costs us to put work in place. Rather than feeling around in the dark for the right overhead and profit mark-up, we use the dual rates as a flashlight to lead the way and help us understand what it really costs to put construction in place." ■

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*The financial performance information presented in this case study was designed to describe the type of results achieved by firms using the dual rate recovery method. The figures presented are an amalgamation of several firms' experiences.*

# Project-Dispute Resolution

Project dispute resolution processes offer the opportunity to build an improved partnering model in an era of larger projects, multiple delivery systems, and fast-track projects.

***By Bill Spragins***

When the initial partnering model was conceived in the late 1980s, a key objective was to create an effective dispute-resolution process that would result in reducing the number of claims and litigation being generated on projects. One way to achieve this is the issue-resolution process.

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Project teams who have correctly applied this concept have reaped the benefits and received a return on investment for their efforts. However, the truth is, issue resolution has been inconsistently implemented on projects, and the concept has been grossly misunderstood within the industry, producing inconsistent results on projects.

The success of a project dispute-resolution process is dependent not just on the resolution process itself, but also on how well a collaborative organization and problem-solving culture is developed and sustained on the project. This is critical in an era where multiple project delivery systems are prevalent.

Many in the industry jump to the conclusion that a one- or two-day partnering workshop will produce the answer to dispute resolution. However, those taking this short-cut fail to focus on other key components that will ensure an effective dispute-resolution process. The intent of this article is to revisit the issue-resolution concept, understand inherent weaknesses in the process, and produce an approach that will better meet current industry needs.

## FUNDAMENTALS OF ISSUE RESOLUTION/ESCALATION

A key premise of the issue-escalation model is to avoid the stove piping of issues as depicted in Exhibit 1. Stove piping occurs when an organization involved with a particular issue develops their own version/interpretation of the issue at the field or project level, and this version then gets "escalated" to the executive level of their respective organization without any of the other organizations having had the opportunity to discuss the issue with the other party. Stove piping can occur inadvertently where concerned project personnel just want to get an issue resolved as quickly as possible, or can happen deliberately where organizations go into a "case-building" mode before revealing their position to the other organizations.

In either situation, the result is that each executive may receive a different version of what the facts are surrounding the issue. Additionally, an executive in one organization may receive the issue at a different time than his or her counterpart receives it in the other organization(s), if it is received at all. This creates an inequitable escalation. This also produces a silo effect where issues remain within individual organizations. The result is that when an organization prematurely escalates an issue, the organization now must take a difficult-to-retreat-from position on the issue at a high level.

The equitable issue escalation process is intended to level the playing field and ensure all issues are first dealt with at the project level, and then, if no resolution is reached, are escalated equitably upwards as a team to the next level of management.

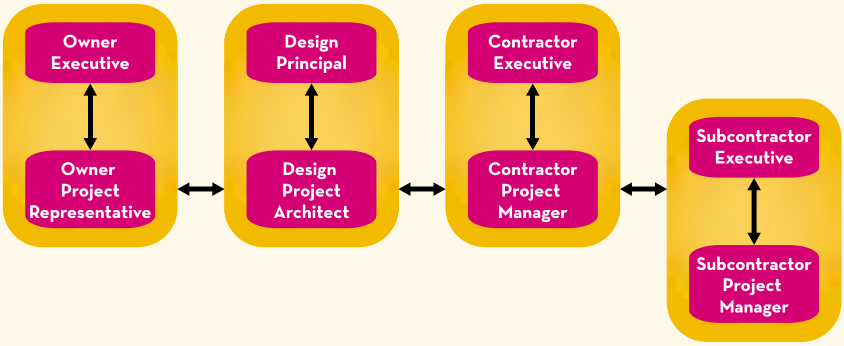
## WEAKNESSES OF PAST ISSUE RESOLUTION/ESCALATION MODELS

While the principles of issue escalation embraced by the original partnering model are fundamentally sound and can assist a project team with resolving the thorniest of disagreements, the original process has several potential weaknesses.

### The Silo Effect is Perpetuated by Problem-Solving Senior Managers

Construction industry personnel tend to get promoted through the ranks based not only on their knowledge, performance, and people-handling skills, but also on their ability to solve problems. In an effort to resolve issues, a senior manager will occasionally perpetuate the silo effect by "grabbing" an issue from a

Exhibit 1
The "Silo" Effect — The "Stovepiping" of Issues



subordinate that really should have been pushed back down to the appropriate level. Instead of requiring facts and asking if the individual has addressed the disagreement with his or her counterpart in the other organization, the senior manager gets involved with the issue. Once the senior manager is involved, the issue has effectively been escalated, whether or not the entire project organization knows it. The silo effect has been perpetuated and issue escalation process has failed.

> **The equitable issue escalation process is intended to level the playing field and ensure all issues are first dealt with at the project level, and then, if no resolution is reached, are escalated equitably upwards as a team to the next level of management.**

#### Failure to Locate the Disagreement Within the Project Organization

Sometimes a thorny issue will arise that causes managers from each organization to focus their people on preparing the best case for their side of the disagreement. In such cases, managers have forgotten the principles of issue escalation, and multiple levels of management may be working the issue within a respective organization. As the organizations become increasingly polarized, neither organization knows on what level the issue is being worked (field, project management, or operations). It is one organization vs. the other on this particular issue. In these cases, issue escalation has failed and trust between the organizations is in a precarious state.

#### Different Escalation Routes for Different Issues

Some people have dismissed the original escalation process as unrealistic and only good in theory because, they say, the resolution of an issue may follow different paths with different personnel, depending on the specific nature of the issue. For example, these critics say the personnel involved with resolving a structural issue is different than the personnel required to resolve a MEP issue and the issue escalation ladders do not account for this. These observations are correct, but the problem is not with issue escalation. The problem is with how the process was conceived for the specific project situation and then communicated to all team personnel.

#### The Process is Treated as an Exercise or Event

Issue escalation is only as good as the commitment it receives from senior managers. If the process is only an exercise in an effort to “check the box” during an event-oriented partnering workshop, the chances of its existence as a valuable tool to the team after the workshop are greatly reduced. If the process is not continually reinforced during the project by senior managers, it will die as soon as people walk out of the workshop. In these situations, the end result could be that the project moves along smoothly until the first major disagreement occurs. Then everyone falls back on typical case-building activities.

### STEPS TO A BETTER ISSUE RESOLUTION PROCESS

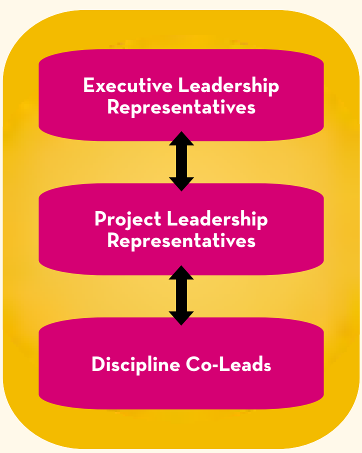
In consideration of the above weaknesses, and recognizing the trend in project delivery toward multiple delivery methods and fast-track projects, the following are three recommended steps to building better issue escalation processes on future projects:

1. Develop the collaborative organization
2. Implement a supporting partnering process
3. Build an issue escalation/resolution process.

For effective and timely dispute resolution to occur, all three steps must be present.

Exhibit 2

**Collaborative Organizational Development — Suggested Lines of Communication**




### COLLABORATIVE ORGANIZATIONAL DEVELOPMENT

A key step in issue resolution that is frequently missed by the project team is the development of the collaborative organization chart. This differs from day-to-day project organization charts because it attempts to identify discipline-specific, cross-organizational teams with co-leads who will be held accountable for issue resolution pertinent to their discipline area. Exhibit 2 depicts a base team structure at three distinct levels of management. This serves to eliminate the silo effect by focusing on team escalation of issues. From this structure, any project can evolve to a structure that best suits the project team's needs. Exhibit 3 is an example team-based structure for a large highway project, organized around disciplines. Exhibit 4 is a team-based structure for a general building project.

The four different levels of each exhibit are organized as follows:

- *Level 1* — these are dicipline teams, which includes any project personnel involved with this particular discipline.
- *Level 2* — these are the individuals designated as co-leads for this discipline. Any issues involving this discipline will need to pass through these individuals before being escalated out of this discipline. Project leaders from Level 3 need to identify whom these co-leads will be for each discipline.
- *Level 3* — these are the project leaders, usually comprised of the contractor's project manager, project architect/engineer from the designer, and their counterpart(s) from the owner/agency.
- *Level 4* — these are off-site executives from the various organizations.

Exhibit 3

**Highway Collaborative Organization Chart — Example**

| Level | Row | Utilities | Environ-mental | Public Outreach | Project Controls | Design | Construc-tion | Quality Mgmt. | Safety |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Discipline Team | Discipline Team | Discipline Team | Discipline Team | Discipline Team | Discipline Team | Discipline Team | Discipline Team | Discipline Team |
| 2 | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Contractor Co-Lead<br>Engineer Co-Lead |
| 3 | **Project Leadership Team**<br>Owner Representative(s)<br>Contractor Representative(s)<br>Engineer Representative(s) | | | | | | | | |
| 4 | **Executive Leadership Team**<br>Owner Representative(s)<br>Contractor Representative(s)<br>Engineer Representative(s) | | | | | | | | |

This structure will vary depending on the size and complexity of the project, and may actually involve a fifth level in larger applications.

To reinforce that as many issues as possible should be resolved in the field, the ladder is "inverted" to place those who will be truly building the project at the top of the organization — the field personnel (Level 1). Senior-level players are at the bottom of this ladder to emphasize that they should be the last resort at resolving the issue (Level 4). Their time is limited; they will not have as much specific knowledge about the particular problem, and they will need a lot of information to engage in problem resolution.

Not everyone in the project organization appears on this chart. Only those who have clear counterparts from the other organization(s) and clear decision-making authority qualify to be on this chart. The reason for this is that this is a dispute-resolution chart, not a day-to-day organizational chart. Therefore, lateral supporting players who provide information to the decision-makers do not appear on this chart. This clarifies and simplifies the process.

The format of these ladders is a departure from the traditional format where companies are organized on the chart in organizational columns. This organization only reinforces the silo effect, and makes it difficult on larger project applications to really ascertain below the project management level who are the true counterparts for a given issue. Benefits of this new format include:

- Organizing by discipline follows the natural organization breakdown of the project and allows easier identification of where an issue should reside.
- Organizing by teams with representation from each organization by

discipline drives accountability to a specific group of individuals for resolution and also sets the tone for a team climate.

- Depending on the discipline, subconsultant or subcontractor representation can be included on the team and, in some situations, actually serve as co-leads for a discipline.
- On smaller projects, it is logical that one individual from an organization may appear in one or more discipline areas at the Level 2 co-lead level. Regardless of where, or how many times, an individual appears on the chart, the key is to identify who will be responsible for resolving issues in a specific discipline area.

**Discipline-based organizational development is a critical first step for developing an issue-resolution process.**

Discipline-based organizational development is a critical first step for developing an issue-resolution process. Those who bypass this step as they attempt to partner a project (particularly large and complex projects) have significantly reduced their chances of creating an effective process.

## SUPPORTING THE PARTNERING PROCESS

Once the path for issue resolution has been defined, the next step to effective issue resolution is to establish a culture of accountability within the partnering process. The process must drive accountability, not by individual organizations, but by team organizations, as depicted in Exhibits 3 and 4.

An effective partnering process will not be a workshop. Therefore, the intent here is not to describe the activities of a partnering workshop but to focus on the follow-up activities necessary to sustain the effort toward issue resolution. The process should be ongoing and should include the following elements:

- *Ongoing executive level involvement* — (Level 4 of the organizational chart in Exhibits 3 and 4.) Executives should be meeting on a proactive basis to assess project progress, relationships, and the culture of the organization. The effectiveness of the relationships developed at this level will set the culture for the project and set the tone for how issues will be resolved. It is recommended that executives should be meeting no less than once per quarter. At a minimum, a joint project update should be given by the project leadership team (Level 3 in Exhibits 3 and 4) to the executives as well as the status on all unresolved issues. Agendas beyond these two critical items can vary depending on the needs of the project.
- *Ongoing reporting processes at the project level* — Reporting should be occurring from discipline co-leads to the project leadership team on achievement of project goals, status of potential escalatable issues (see definition below), and team dynamics. This reporting should be done no less than once per month.

Exhibit 4

**General Building Collaborative Organization Chart — Example**

| Level | Site Work | Civil/Structural | MEP | Tenant Improvement | Commissioning | Quality Close-Out |
|---|---|---|---|---|---|---|
| 1 | Discipline Team | Discipline Team | Discipline Team | Discipline Team | Discipline Team | Discipline Team |
| 2 | **Discipline Co-Leads**<br>Owner Co-Lead<br>Design Co-Lead<br>Contractor Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Design Co-Lead<br>Contractor Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Design Co-Lead<br>Contractor Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Design Co-Lead<br>Contractor Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Design Co-Lead<br>Contractor Co-Lead | **Discipline Co-Leads**<br>Owner Co-Lead<br>Design Co-Lead<br>Contractor Co-Lead |
| 3 | **Project Leadership Team**<br>Owner Representative(s)<br>Design Representative(s)<br>Contractor Representative(s) | | | | | |
| 4 | **Executive Leadership Team**<br>Owner Representative(s)<br>Design Representative(s)<br>Contractor Representative(s) | | | | | |

> Face-to-face reports between the co-leads and the project leadership team enhance a culture of accountability on the team. Many projects will rotate different discipline co-leads into the face-to-face meetings over a period of time.

Once a sustainable reporting process has been established between the co-lead teams through the executive teams, then the project is ready to support an effective issue resolution process.

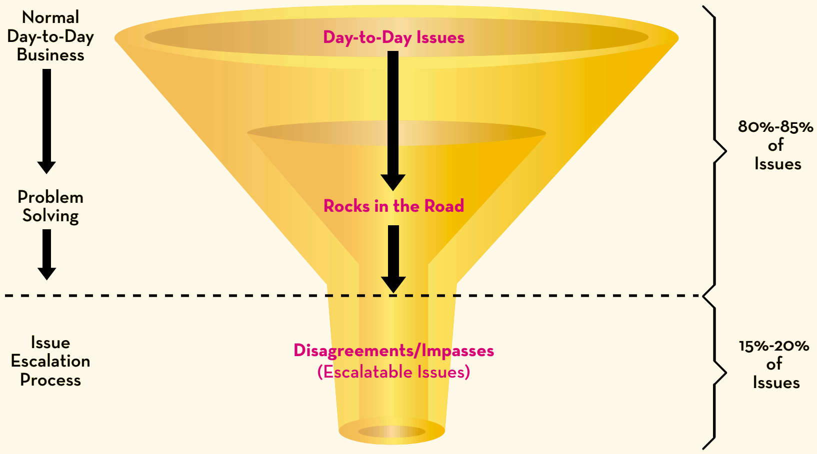
## ISSUE ESCALATION PROCESS

### The Difference Between Issues and Disagreements

Project-team members frequently get confused between what is an issue that just needs to be resolved and what is an issue that needs to be escalated. Exhibit 5 depicts the path of issue resolution. It shows that on a typical project 80% to 85% of all the issues the team will encounter on a project can be resolved prior to going through an issue-escalation process. A portion of these issues will get handled through normal day-to-day business. Some of these do not pose real threats to the schedule, budget, safety, or quality of the project and are easily resolved in a quick meeting or phone call. In these situations, expertise and advice may be taken from all levels of management to get the issue resolved.

Other issues will require a bit more focus from two or more individuals from different organizations. They threaten the success of the project if not resolved. These are called "rocks in the road," or just plain rocks. Rocks may involve clarifications of drawings, submittals or RFIs, resolution of technical issues, coordinating drawings, constructability issues, or field activities. A rock is "an issue that is a problem or

Exhibit 5
**Path of Issue Resolution**




challenge on the project that can be worked through and resolved with a counterpart from the other organization."

Some people may wonder why all the fuss is generated over just 15% to 20% of all issues. This is where the 80/20 rule applies. If disagreements are not handled in an appropriate manner, then there is a good chance that 20% of the issues will negatively impact 80% of the relationships on the project. It only takes one high-impact disagreement to polarize organizations and plant the seeds of distrust that could ultimately undo the relationship.

**The issue-escalation process was designed to help the project participants resolve the disagreements as they arise.**

#### Guidelines for Issue Escalation

The partnering process does not create a perfect world and recognizes that disagreements will arise during the course of a project. It is there to deal with the 15% to 20% of issues that become impasses. The issue-escalation process was designed to help project participants resolve disagreements as they arise. To accomplish this, it is essential that a consistent set of guidelines be applied uniformly across the project.

The intent of the process is to ensure that as many disagreements as possible are resolved at what is referred to as "the lowest level" or more appropriately "the field level." However, field personnel are encouraged to elevate issues if they cannot resolve them. This creates a pressure-release point when relationships get stressed to the point where the business relationship is threatened. Above all else, it is important that the business relationship be preserved. Other guidelines include:

- *Present the facts* — to reduce the effect of emotions and strong personalities, disagreeing parties are encouraged to produce facts to back their position vs. opinions when escalating the issue. Then, the next level of management can make a business decision based on solid information.
- *Escalate equitably* — to ensure equitable escalation of the issue, disagreeing parties are encouraged to notify their peers from the other organization. This helps reduce the silo effect that could result in an issue reaching a very high level within one organization while still being at the field level of another organization — this could cause one organization to make a hasty decision at a higher level that it cannot back down from.
- *Do not use up all of the float on the schedule before escalating an issue* — with more and more projects delivered in a fast-track or design-build mode, managers on these projects are laying down this guideline to ensure time-sensitive issues are escalated before they impact the schedule and, consequently, the budget.
- *Live with the decision* — once an issue has been escalated and a decision rendered by the next level of management, everyone else must abide by the decision for the sake of the project.

**Required Escalation Information**

To assist project personnel in knowing what information will be required to be passed onto the next level of management, senior managers are encouraged to require brief write-ups from escalating individuals. (See Exhibit 6.) Ideally, a presentation should be made from each side in the dispute to both senior managers at the next level of management in the same room. Information should include:

**A number of disputes arise on projects because personnel either did not understand what the contract says or did not read the contract at all.**

- *Basic description of the issue with supporting facts*
- *Goals affected* — this is to remind everyone involved that despite the disagreement we are still working toward team goals. Additionally, it gets parties in a disagreement focused toward positive aspects of the relationship, and this, in turn, may help diffuse emotions surrounding the issue.
- *Contract specifications affected* — this is a critical piece of the information. A number of disputes arise on projects because personnel either did not understand what the contract was saying or did not read the contract at all. Forcing individuals to recite specific contract specifications affected by the dispute will often cause a disagreement to go away once individuals understand who was contractually obligated in any given situation. However, if an

interpretation issue arises regarding what the contract says, then that may be where the dispute has its roots, so the issue escalation process should continue.

- *Actions taken to date* — brief description describing what has been done to resolve the issue.
- *Proposed resolutions* — while project personnel may not have signature authority to resolve disputes on some issues, they certainly should have enough knowledge about an issue to propose a solution to resolve the disagreement. The last thing the next level of management wants to see happen is to have an issue dropped on their lap with no ideas on how to resolve it.
- *Why resolution has failed to date* — a brief explanation on why we are still at a disagreement if all of the above has been done.
- *Timeline needed to resolve the issue* — in the early days of partnering, project teams would stipulate timeframes for how long issues should stay at any given level before escalation is required. For example, two to four hours for an issue to stay at Level 1, one day at Level 2, two days at Level 3, etc. While good in theory, this approach was difficult to implement in practice, as every issue is different in scope and nature. Therefore, this revised approach provides flexibility on timeframes depending on the specific nature of the issue. Ask: Does it need to be resolved today, in a few days, next week, in a month, or in a few months?

Exhibit 6

**Issue Escalation Information**

**At the time of escalation, the following items must be addressed:**

- Description of issue, identify which project goals are impacted, and identify the specific contract provisions affected.
- Facts to the issue – analysis.
- Actions taken to date.
- Provide any proposed resolutions – recommended plan forward.
- Explain/discuss why actions/resolutions failed to date.
- Provide timeline needed to get the issue resolved.

**Role of Senior Managers**

To reinforce the escalation process within their organizations, senior managers are encouraged to do the following when a subordinate raises an issue that even sniffs of a disagreement. Ask three simple questions to maintain the integrity of the process:

- At what level within the organization is the issue currently being resolved? If the answer is "I don't know," then refer the subordinate to the escalation chart so expectations can be set as to how the issue will be resolved.
- Have you spoken with your counterpart from the other organization(s) regarding the issue? If the answer is "no," then the issue should be pushed back down to the subordinate and his or her counterpart.
- Have you filled out the escalation information? (See Exhibit 6.) If the answer is "no," then the issue once again should be pushed back to the subordinate and his or her counterpart.

If the subordinate answers "yes" to all of the above questions, then the senior manager should begin planning an escalation meeting.

**Senior Management's Response**

Once an issue has been escalated and heard, management has several options, including:

- Redirect the issue back to the escalating team or another team for further fact-finding or problem solving with a set date for reporting back.
- Resolve the issue with the escalating team.
- Thank the escalating team for the information, excuse the escalating team from the room, and resolve the disagreement on their own.
- After reviewing the information, agree to disagree and continue the escalation process onto the next level of management.

If the issue is resolved, it is important that the team determine how the resolution will be communicated to the entire project team to ensure everyone knows the status of the issue.

With the advent of different project-delivery systems, fast-track projects, and larger projects, it is critical that project leaders come to grips with how they will deal with disagreements and disputes that inevitably arise. These issues will arise not because their project personnel have intentions to argue from the start of the project, but because human beings all have different perceptions of what they see and read within the contract and specifications. Building an effective issue escalation process requires 1) developing a collaborative organization chart, 2) implementing a supporting partnering process, and 3) implementing a sound set of issue escalation principles. Following these steps will raise the chances of success on your project and leave you with a process that builds and improves upon the original partnering model. ■

With the advent of different project-delivery systems, fast-track projects, and larger projects, it is critical that project leaders come to grips with how they will deal with disagreements and disputes that inevitably arise.

*__Bill Spragins__ is a director with FMI Corporation. He may be reached at 303.398.7211 or by e-mail at bspragins@fminet.com.*

# Working With the Best

**The relationship between general contractor and subcontractor is critical to the construction process. Sundt Construction Inc. shares three models it has for ensuring a strong, working relationship.**

***By Doug Pruitt, Chairman and CEO, Sundt Construction Inc.***

For the casual or occasional participant in the construction process, the role of the general contractor may appear simple: get bids from a sufficient number of subcontractors per trade, take the lowest price, and go to work. This is hardly an accurate description of the process.

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Just as most general contractors prefer to do business with good subcontractors, the reverse is also true. Subcontractors prefer to work with good general contractors and their pricing usually reflects their image of the general contractor.

Low price doesn't always provide the best solution, and contractors are not all created equal. For the experienced construction buyer or professional, the foregoing is old news. Experienced players always prefer to work with the best. They usually buy the best-value solution. That may mean the lowest price, but only from a qualified team. Highly qualified teams not only provide good pricing but ultimately yield the best value in terms of cost, schedule, working relationship, and satisfaction of customer needs.

Excellent teams seldom happen by accident. Strong general contractors put together highly qualified teams by intent, experience, and science. Strong teams must also be nurtured. The *FMI Quarterly* asked Doug Pruitt, Chairman and CEO, Sundt Construction Inc., to share some how-tos with our readers. Here's his response.

The relationship between a general contractor and its subcontractors is vital to the success of any construction project. The interaction and communication between a general contractor and subcontractors begins long before the first shovel of dirt is turned over on a project. It continues long after the project is completed.

You cannot count on strong teams staying strong without active efforts toward continued improvement. Sundt Construction Inc. is like any other successful general contractor who aims at continued improvement. We enhance our subcontractor relationships with both currently recognized methods as well as through innovative means. Three of our most recent enhancements to our subcontractor-relationship process include: our subcontractor prequalification program, our subcontractor default protection program, and our subcontractor insurance protection program.

### SUBCONTRACTOR PREQUALIFICATION PROGRAM

We insist upon using the best available and most financially stable subcontractors to perform work with us on our projects. We raise our standards as we continue to improve the quality of our work. We have developed a five-step subcontractor prequalification program that further raises the standards to help us build projects with the best subcontractors.

**We insist upon using the best available and most financially stable subcontractors to perform work with us on our projects. We raise our standards as we continue to improve the quality of our work.**

#### Step 1 — Subcontractor Information

All of our subcontractors complete a prequalification form, which includes information under these topics:

- History (Company and Projects)
- Personnel
- Legal
- Scope of Capabilities (References)
- Safety
- Insurance

Subcontractors also submit a copy of their latest financial information completed by an outside accountant. If a subcontractor does not wish to send us this information, our controller visits with the subcontractor in their offices to review the information privately.

#### Step 2 — First Evaluation

For identification and control purposes, each subcontractor is assigned a JD Edwards (JDE) and Prolog subcontractor number.

Financial information is compared to our threshold requirements. If the subcontractor's financial information is not acceptable, the subcontractor is notified that they are not yet able to bid on our work. The standards necessary to bid on our work are further discussed with the subcontractor at that time.

**Step 3 — Develop a SAM Score for Each Subcontractor**

- We run Dun & Bradstreet (D&B) reports on new subcontractors.
- Subcontractor information is automatically transferred from JDE into D&B's Supplier Assessment Management (SAM) database and periodically evaluated.
- We installed the SAM database on Sundt's server in 2002.
- Our information is refreshed monthly, including the addition of new subcontractors.
- The SAM software confirms information, including the following:

  Paydex
  SER (Supplier Evaluation Risk) score
  FSS (Financial Stress Score)
  D&B rating
  Parent-subsidiary relationships
  Bankruptcy, liens, and judgement information
  Automatic bankruptcy notifications.

A SAM score is developed.

**Step 4 — Evaluate SAM Score**

This SAM score is compared to threshold scores. If the subcontractor's SAM score is not acceptable, the subcontractor is advised and is unable to bid on Sundt's work until they meet an acceptable level. These limits are discussed in detail with those subcontractors who wish to work with Sundt.

**Step 5 — Maximum Contract Guidelines**

For contractors with satisfactory SAM scores, we establish a maximum contract amount guideline. This guideline differs for different subcontractors because the maximum contract amount guideline is the lesser of:

- Stockholder's equity + unused portion of revolving credit facility
- Five times working capital
- 25% of prior year revenues.

Maximum contract guidelines can be exceeded after discussion and approval by joint agreement of our controller, preconstruction services manager, and operations manager.

Subcontractors meeting these guidelines for qualification are able to compete with other qualified subcontractors and work successfully with Sundt on future projects.

## SUBCONTRACTOR DEFAULT PROTECTION PROGRAM

Prior to 1999, our focus on the prevention of subcontractor default claims centered mainly upon:

- Prequalification process
- Bid process
- Project management
- Job close-out management.

We required payment and performance bonds for subcontracts greater than $100,000, but made several exceptions. As a result, we were bonding less than 50% of our subcontractors.

This meant that our company would be solely responsible for paying the resulting costs for one-half of the subcontractors, if they failed. For the other 50%, we found that bond claims often resulted in unwanted litigation, even where we did not have responsibility.

We considered the subcontractor default insurance product, Subguard, offered by Zurich Insurance. Subguard is a first-party insurance program that protects the project owner and general contractor from costs that result from the inability or unwillingness of a subcontractor to comply with their contractual requirements. The three biggest hurdles we felt we might encounter were:

**We required payment and performance bonds for subcontracts greater than $100,000, but made several exceptions. As a result, we were bonding less than 50% of our subcontractors.**

1. Abilities of a fairly new product
2. Internal training needs
3. Owner acceptance.

We carefully reviewed this product over a period of 12 months. We sought legal opinions on the comparison of Subguard to subcontractor-furnished payment and performance bonds. We considered the number of recent failures to several sureties who furnished subcontractor bonds. We then decided to begin this program.

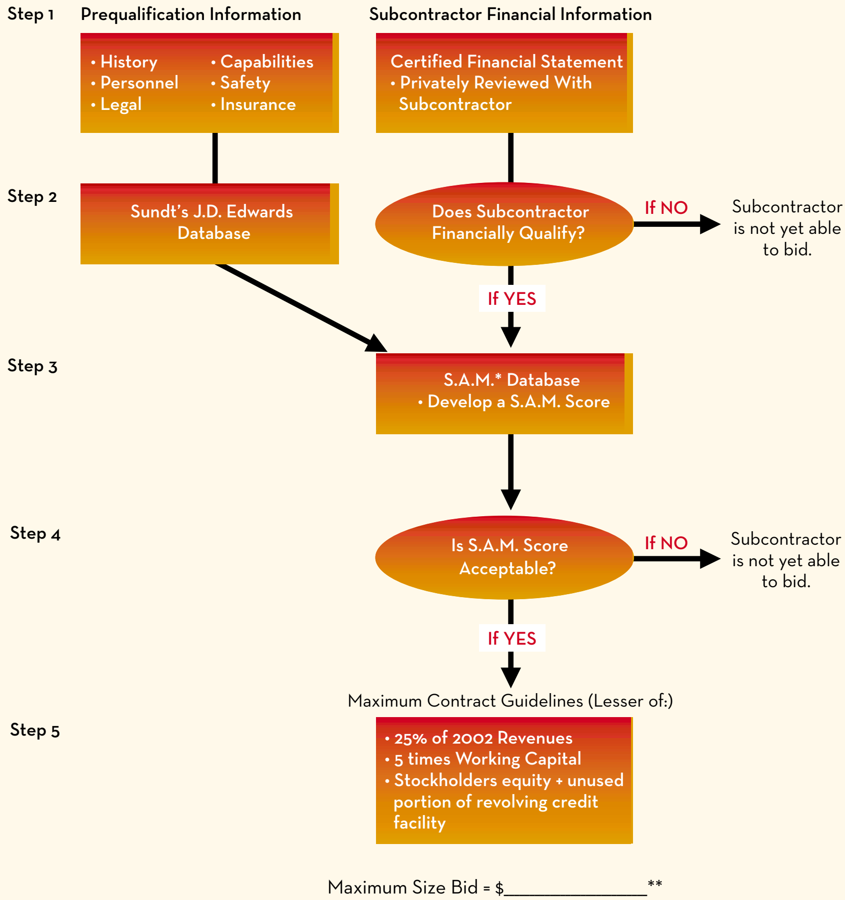
Now, four years later, we can attest to our success in the use of this program. Once our internal training needs were satisfied, we began discussions with our project owners, who benefit greatly from this coverage. We began the program and continue to use it on our projects today.

We realized some additional benefits from the use of this program, such as:

- Increased awareness of the importance of subcontractor relationships
- Additional incentive to improve our prequalification process
- Long-term protection and additional feeling of comfort in an ever-changing legal environment.

Exhibit 1

**Sundt's Subcontractor Prequalification Program**




* *S.A.M. = Supplier Assessment Management (A Dunn & Bradstreet Product)*

** *Subject to change if approved by Controller, Legal, and Operations V.P.*

## SUBCONTRACTOR INSURANCE PROTECTION PROGRAM

Over the past few years we have seen the deterioration of insurance coverage afforded to our subcontractors. As a result, the majority of our qualified subcontractors have found themselves unable to meet the "flow-down" requirements for Commercial General Liability (CGL) insurance, passed down from our project owners. Many subcontractors can no longer obtain:

1. Adequate insurance limits
2. Completed operations coverage
3. Coverage from "A" rated insurers
4. Contractually required "Additional Insured Endorsements"
5. Adequate coverage for subsidence, residential, etc. risks.

This list goes on, and the problems worsen. Our general liability program of many years is solid and intact. Knowing that the insurance problems for our subcontractors could further deteriorate, we have taken a direct approach to solve this issue by purchasing commercial general liability insurance for our subcontractors on our projects.

The program, called Construction Total Risk (CTR), is also from Zurich Insurance. We qualified for this program, based upon our favorable experience in the Subguard program combined with Zurich's awareness of both our subcontractor prequalification program and our leading-edge accident prevention efforts. The CTR program includes the following:

**Knowing that the insurance problems for our subcontractors could further deteriorate, we have taken a direct approach to solve this issue by purchasing commercial general liability insurance for our subcontractors on our projects.**

- Substantial limits of coverage (per project) for subcontractors
- Ten-year coverage beyond project completion
- Coverage for on-site work
- Certificates of insurance sent to project owner and Sundt from the subcontractors providing "primary coverage" in accordance with the contract documents
- Uniform coverage that complies with the owner's "flow-down" insurance requirements.

Prior to commencement of the program we held meetings for all of our subcontractors at our office locations to field their questions and concerns. Subcontractor support was key to our decision process. Many questions were raised by our subcontractors and their representatives that we were able to answer satisfactorily.

The continuing success of this program depends upon our management teams and our subcontractors. The perceived benefits are:

| | |
|---|---|
| Subcontractors: | They will enjoy broad insurance protection.<br>They have satisfied the contract requirements.<br>They are provided up to 10 years of protection. |
| Project owners: | They are insulated from lawsuits.<br>They maintain 10 years of project protection. |
| Sundt: | Our CGL insurance is insulated from lawsuits.<br>This protection is maintained for 10 years. |

The CTR program is not a panacea for all risks. We cannot use this program on any “for sale” projects nor does the insurance afford mold coverage. Nevertheless, it provides additional capability for us to continue to work with the best subcontractors.

Sundt Construction Inc. continuously seeks to improve the processes through which it delivers customer service and quality work. Sundt’s subcontractor qualification program, subcontractor default protection program, and subcontractor insurance protection program are three such improvements. We appreciate Sundt’s willingness to share some of their techniques with our readers. ■

# The Next Series of Labor Shortages

A craft labor study assesses the magnitude and timing of potential labor shortages. Indianapolis serves as a case study.

***By Randy Giggard***

Shortages of skilled craft construction labor may seem like a distant memory from the last decade. But they shouldn't. Many economists believe that the current economic downturn has merely provided a brief respite from the longer trend toward severe labor shortages. In fact, as the current construction workforce has dwindled with a soft economy, the longer-term threat of severe shortages upon recovery is actually magnified.

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The Indianapolis Metropolitan Statistical Area (MSA) provides a unique preview both of what challenges our recovering markets may pose and of how we might address those issues. The Indiana Construction Roundtable Inc. (ICR) is a nonprofit organization serving construction consumers in the greater Indianapolis market. In addition to prominent building owners with ongoing capital projects, ICR also counts leading contractors, design professionals, and labor organizations among its members. ICR members became increasingly concerned during 2002 that concurrent plans for a number of high profile projects could significantly impact the availability of skilled craft labor. They were concerned in particular that shortages of skilled craft labor could lead to extended schedules, project delays, or spiraling costs.

ICR contracted with FMI Corporation in January 2003 to conduct a craft labor study to assess the magnitude and timing of potential labor shortages. Importantly, the study was undertaken with broad cooperation and funding from ICR, Top Notch (an organized labor-management consortium), the Associated Builders & Contractors (representing the open shop), and a group of 19 individual stakeholders in the Indianapolis construction market.

To gain a sense of the challenge in Indianapolis, consider the following findings:

- Total construction volume bottomed in 2002 at approximately $6.8 billion.
- Total volume in 2003 was projected to show a 7% gain to $7.3 billion.
- Construction volume will reach $8.6 billion in 2005 and $9.1 billion in 2007.
- Therefore by 2005, just one year away, the Indianapolis labor market will need to support construction of $1.8 billion dollars more than was completed during 2002.

If that isn't challenging enough, there is an additional complication. Residential construction comprises more than one-half of the total construction market. The residential segment is projected to maintain relatively stable growth in the range of 6% to 7% annually. The greater share of incremental growth will come in non-residential segments, and much of it in very complex work.

- Non-residential construction totaled approximately $3.2 billion last year and will exceed $4.4 billion in 2005.

Within just two years, the Indianapolis labor force will need to put in place 39% more non-residential construction than it did in 2002; and much of this work will be highly complex.

In two years, Indianapolis will experience a shortage of 6,500 skilled craft workers within the 14 crafts studied, based on current craft labor availability.

## PROJECT SCOPE

The craft labor study was designed to develop a comprehensive assessment of craft labor supply and demand variables. This involved development of an extensive market-forecasting model within parameters of the following scope.

- Three years of history and a 5-year planning horizon, 2003 through 2007
- A quarterly forecast looking forward over the next four years
- Geographic boundaries encompassing Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties in Indiana
- Fourteen specific skilled crafts for study, including:
  - Ironworkers — Structural
  - Ironworkers — Rodmen
  - Operating Engineers
  - Carpenters — Interior/Framing

Carpenters — Drywall
Carpenters — Other (e.g. concrete forming, flooring)
Electricians
Glaziers
Laborers
Masons
Painters
Pipefitters and Plumbers
Roofers
Sheet-Metal Workers.

The study and resulting market model assessed the balance between market demand and available labor supply.

Market demand relates to construction put in place, either historical or projected. These values were then translated to the amount of skilled craft labor required to do the work. This translation is dependent on several variables, including the growth/ decline of individual market segments and the characteristics of those structures.

Market supply relates to the availability of skilled craft labor (both organized and open shop) within specific time-frames. The study also assessed the impact of "travelers" that may enter the market from other areas.

Additional research was performed to generally assess market conditions in five nearby cities, determining the likelihood that travelers would or would not enter the Indianapolis market.

The residential construction market was backed out of the analysis of craft labor supply and demand (though broader market sizing and characteristics were included as a point of reference). The projects that are the focus of ICR members tend to be non-residential and often, highly complex. These projects require a different skill set than is normally required within the residential sector. Bearing in mind that the objective was to identify potential shortages in critical areas, it was determined that focusing the project on non-residential work would provide a more accurate view of these skilled crafts.

**The Indianapolis construction market has successfully weathered the storm of a slow economy with relative strength and resilience.**

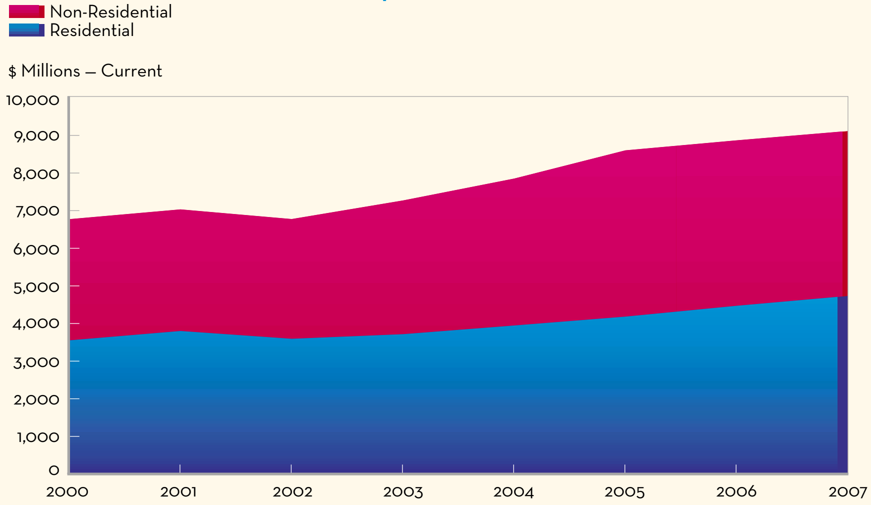
#### INDIANAPOLIS: AN OVERVIEW

The Indianapolis construction market has successfully weathered the storm of a slow economy with relative strength and resilience. The market today sits on the threshold of a building boom unlike any it has previously seen. (See Exhibit 1.)

The total value of construction put in place is projected to move from a low of $6.8 billion in 2002 to $8.6 billion in 2005. As noted previously, the non-residential segment represents a disproportionate share of this growth, climbing from $3.2

Exhibit 1

**Total Construction Put in Place — Indianapolis MSA**




billion in 2002 to $4.4 billion in 2005. Is this overstated? We don't think so. These estimates are drawn from real projects that are highly probable, and in many cases are already underway.

Historically, the city's growth was spurred by World War II. Industrial production soared 570% from 1939 to 1949. Over the past 50 years, Indianapolis has remained a strong manufacturing center and hub for distribution. It is easily accessible and one-half of the nation's population is within a day's drive. But the city has also seen significant growth and revitalization beyond its industrial roots. Construction of the Indianapolis Convention Center and hotel properties established Indianapolis as a nationally competitive convention host. While office vacancies in other cities climbed in 2002, downtown Class A office space in Indianapolis fell to its lowest level in 15 years.

Today the city of Indianapolis offers:

- A low cost-of-living
- Strong workforce and Midwestern work ethic
- Collaboration between public and private sectors
- Presence of major universities
- World-class health facilities
- Central location with good transportation access
- Very strong mix of employers (manufacturing, distribution, healthcare, pharmaceuticals, electronics, and retail).

With more than 1.6 million residents, the Indianapolis market area is vibrant and growing. The age distribution highlights a demographic strength in the market that is not characteristic of the nation as a whole, or of most other Midwestern cities. Twenty-seven percent of the population is under the age of 18 (think school construction), and 41% are between the ages of 18 and 44, representing a strong potential pool of youthful labor. Baby boomers and retirees represent a comparatively

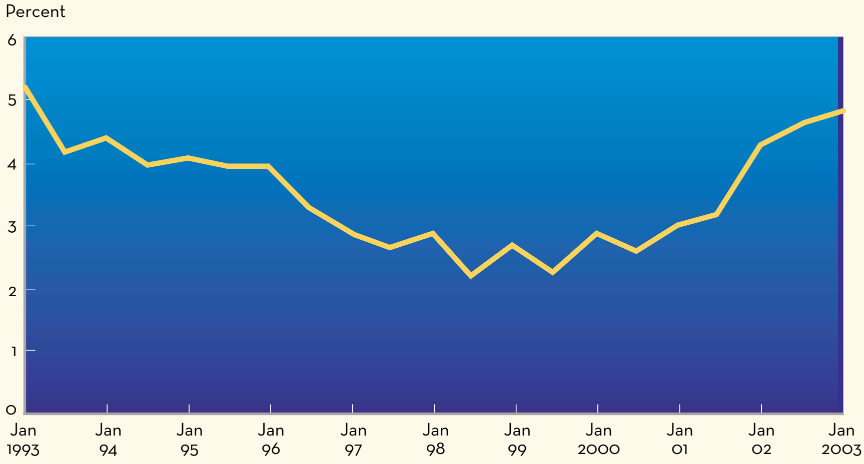
Exhibit 2

**Indianapolis Age Distribution**

| Geographic Area | Total Population 2001 Est. | Under 18 Years | 18 to 24 Years | 25 to 44 Years | 45 to 64 Years | 65 and > Years | Median Age (Years) | Males Per 100 Females: All Ages | Males Per 100 Females: 18 and > Years |
|---|---|---|---|---|---|---|---|---|---|
| Indiana | 6,080,485 | 1,574,846 | 614,129 | 1,793,743 | 1,343,787 | 753,980 | 35.2 | 96.3 | 93.3 |
| | | | | | | | | | |
| **County** | | | | | | | | | |
| Boone County | 47,408 | 13,416 | 2,987 | 14,317 | 11,093 | 5,594 | 36.9 | 95.4 | 90.9 |
| Hamilton County | 197,477 | 60,823 | 11,059 | 68,919 | 41,865 | 14,811 | 34.1 | 96.8 | 93.5 |
| Hancock County | 57,160 | 15,147 | 3,887 | 17,148 | 14,519 | 6,402 | 37.4 | 97.5 | 94.5 |
| Hendricks County | 110,784 | 31,020 | 7,755 | 35,783 | 25,370 | 10,746 | 35.6 | 100.6 | 99.4 |
| Johnson County | 119,240 | 32,433 | 10,374 | 36,726 | 26,591 | 13,116 | 34.9 | 96.0 | 92.8 |
| Madison County | 132,352 | 31,500 | 12,044 | 37,456 | 31,632 | 19,720 | 37.4 | 97.1 | 94.4 |
| Marion County | 856,938 | 221,090 | 85,694 | 281,933 | 173,101 | 95,120 | 33.6 | 93.6 | 90.0 |
| Morgan County | 67,513 | 18,364 | 5,199 | 20,659 | 16,068 | 7,156 | 36.0 | 98.9 | 96.5 |
| Shelby County | 43,580 | 11,636 | 3,486 | 13,335 | 9,849 | 5,317 | 36.2 | 98.0 | 95.8 |
| | | | | | | | | | |
| Indianapolis | 1,632,452 | 435,429 | 142,484 | 526,277 | 350,088 | 177,983 | | | |

Exhibit 3

**Indianapolis Unemployment Rate**




small mix of the population at 21% and 11% respectively. (See Exhibit 2.)

The Indianapolis labor force has continued to grow modestly despite the soft economy. Unemployment fell back to 4.8% in January 2003. While this is up slightly from its recent low of 2.3%, it is a level that is very attractive relative to national and historic benchmarks. (See Exhibit 3.)

Construction activity for the next several years will rival most any market in the nation. Major investments have been announced (and in many cases are underway) spanning a range of key market segments. Examples include:

- The Indianapolis Airport Authority's Midfield Terminal project, estimated at $900 million, is scheduled to be completed in 2007. Initial work is already progressing on the entrance roads and new FAA control tower with no indication that this work will be slowed by the current woes of the airline industry.

- The level of INDOT highway construction has been amazing, growing by 154% from 1996 to 2001. INDOT construction awards for Indianapolis will be approximately $163 million in 2003, and rise to $201 million by 2007. In January 2003, a hike in gasoline taxes brought Indiana to the national average of $.18, contributing to future funding.
- The city has a $1 billion plan to correct combined sewer overflows over the next 20 years.
- The Indianapolis Public School System (IPS) has embarked on a 10-year program of school construction and renovation. But this activity is not limited to the city. Aggressive plans are underway throughout the nine individual counties that make up the Indianapolis MSA. Total education construction spending will rise from $276 million in 2003 to approximately $356 million by 2007.
- Healthcare construction put in place for 2001 totaled $152 million. The estimated total for 2003 of $427 million is nearly three times as large, and is projected to swell to $438 million by 2005. Major healthcare owners including Clarian, St. Vincent's, and Wishard each have very active capital construction programs.
- Industrial construction in the market would be expected to improve anyway, but the activity of Eli Lilly within this segment is staggering. Eli Lilly currently has 29 separate programs planned that are each in excess of $5 million. The company will spend a total of approximately $300 million annually for the next several years. Total industrial construction for the Indianapolis MSA of $335 million in 2001 is expected to reach $654 million in 2003.

Although 2005 is a critical year, total non-residential construction put in place is expected to maintain this high level throughout 2006 and 2007. (See Exhibit 4.)

Exhibit 4

**Total Non-Residential Construction Put in Place — Indianapolis MSA**

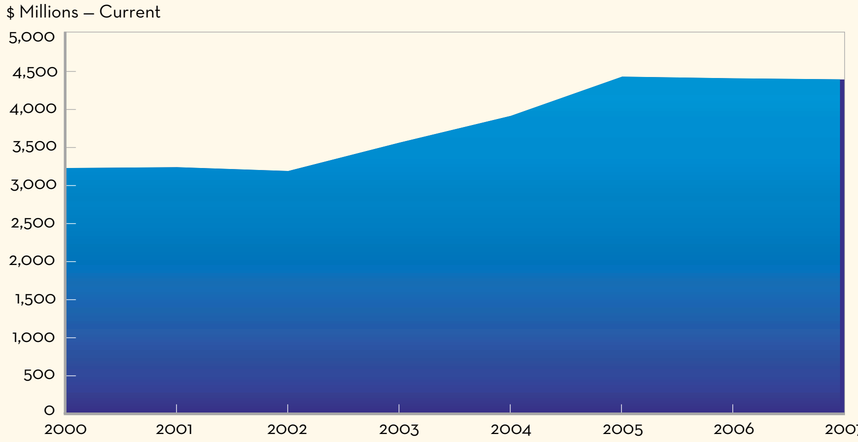
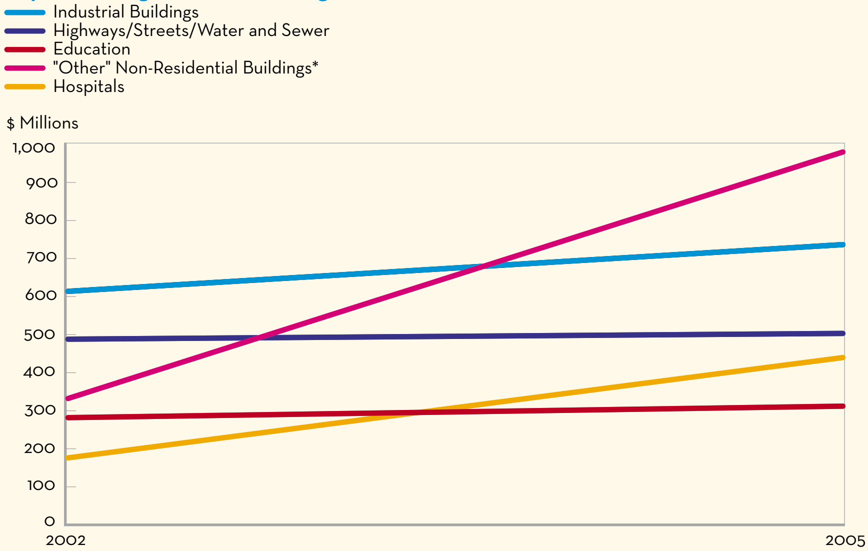


Exhibit 5

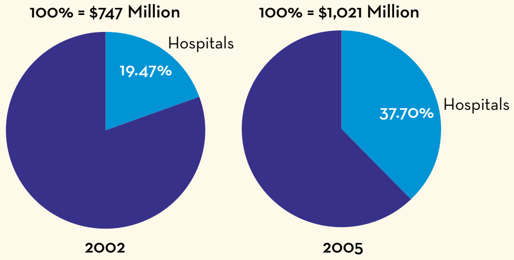
**Key Market Segments Contributing to Growth**




** Includes airport construction*

Exhibit 6

**Market Mix of Non-Residential Building Improvements**




Key market segments that will contribute to this growth (new and improvements) are shown in Exhibit 5.

In terms of skilled craft labor, it is also important to consider the role of hospital construction. Most of the growth in healthcare will include expansion to existing facilities as opposed to new construction. Over the period 2002 through 2005, not only will the total market for building improvements expand by $274 million, but the percentage of this larger pie that is comprised of hospital wor k will expand from approximately 19.5% to nearly 38%. These expansions and renovations will involve work that is often even more complex, and again, require particularly high skill levels. (See Exhibit 6.)

## SKILLED CRAFT LABOR DEMAND

Translation of the construction volume put in place to the number of skilled craft workers required involved two key steps:

- Assessment of Indianapolis building construction characteristics
- Development of craft labor demand factors.

## BUILDING CONSTRUCTION CHARACTERISTICS

Individual market segments differ in their propensity to utilize a particular type of structure. For example, buildings included within the hospital segment tend to utilize hot rolled, steel-framing members. Forty-eight percent of hospital buildings are built using this method. By contrast, the mix of buildings categorized as hotels and motels only utilize steel construction 19% of the time, and are more likely to be stick-built (40%). In the case of hotels and motels, this reflects a strong component of low-rise, typically suburban structures.

**A higher value indicates that there needs to be a higher level of construction before a new worker is needed. Therefore, a higher value reflects lower craft intensity.**

These characteristics directly impact craft labor demand. In the examples illustrated above, we would anticipate a higher intensity of ironworkers in the hospital segment and more framing contractors in the hotel segment.

Usage rates for the various building types also tend to impact related building systems and products. For example, a steel-framed office building is more likely to utilize a curtain wall than a stick-built office. These factors relate directly to which craft will do the work.

Other factors, such as wall-to-floor area ratios and the number of stories also relate to craft intensity. For example, hospitals and hotels have a high ratio of wall-to-floor area resulting from many relatively small rooms. This directly impacts carpenters, drywallers, and electricians.

It should be understood that in the real world there is a nearly limitless combination of hybrid building structures and systems. Building characteristics developed for this model simply characterize the likelihood of building structure/system/product combinations in a way that supports reasonable analysis of the impact on labor.

Exhibit 7 is a partial extract of building characteristic data.

Exhibit 7

**Building Characteristics**

| June-03 | Avg. Cost per SF Floor Area | Est. Total SF Area (000's) | % Usage by Structural Construction Method: Steel | Concrete | Concrete Masonry | Pre-Engr'd Bldgs. | Stick Built | Exterior Wall to Fl. Ratio | Partition Wall to Fl. Ratio |
|---|---|---|---|---|---|---|---|---|---|
| **New Construction** | | | | | | | | | |
| Education | $103.56 | 2,317 | 42% | 10% | 34% | 6% | 8% | 422 | 756 |
| Hospitals | $122.01 | 254 | 48% | 20% | 15% | 3% | 14% | 372 | 2,189 |
| Hotels and Motels | $102.12 | 413 | 19% | 17% | 21% | 3% | 40% | 708 | 2,058 |
| Industrial Buildings | $73.79 | 7,006 | 38% | 25% | 22% | 11% | 4% | 815 | 228 |
| Office and Professional | $80.46 | 2,424 | 43% | 10% | 16% | 10% | 21% | 479 | 714 |

## CRAFT LABOR DEMAND FACTORS

Values have been developed for each of the 14 skilled crafts studied in Indianapolis, within each of 17 non-residential construction segments. These values are expressed as millions of dollars of total construction in that segment per required craftsperson.

Exhibit 8

**Craft Intensity**

$ Millions – Total construction per required craftsperson

| | Structural Ironworker | Operating Engineer | Electrician | Pipefitter/ Plumber |
|---|---|---|---|---|
| Industrial Buildings | 1.24 | 1.65 | 0.72 | 0.91 |
| Churches | 2.11 | 1.65 | 1.00 | 1.26 |
| Hospitals | 1.18 | 1.52 | 0.95 | 0.96 |
| Highway/Water and Sewer | 0.59 | 0.25 | 3.89 | 347.60 |

A higher value indicates that there needs to be a higher level of construction before a new worker is needed. Therefore, a higher value reflects lower craft intensity.

Consider the example data extract in Exhibit 8.

As we would expect, structural ironworkers and operating engineers are much more intensive in highway (including bridges) and water and sewer projects, but less intensive for church construction. Electricians and pipefitters are more intensive on industrial projects.

Total craft labor demand estimates for the study were then calculated by dividing construction values put in place by the craft labor demand factor. This calculation was made for each craft, for each market segment, and for each year within the scope of the study.

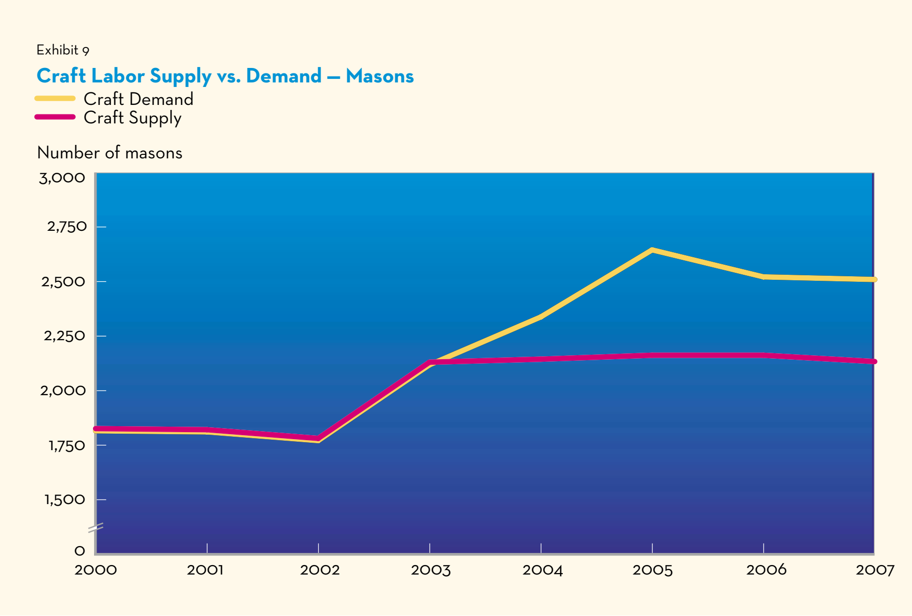
## CRAFT LABOR SUPPLY VS. DEMAND

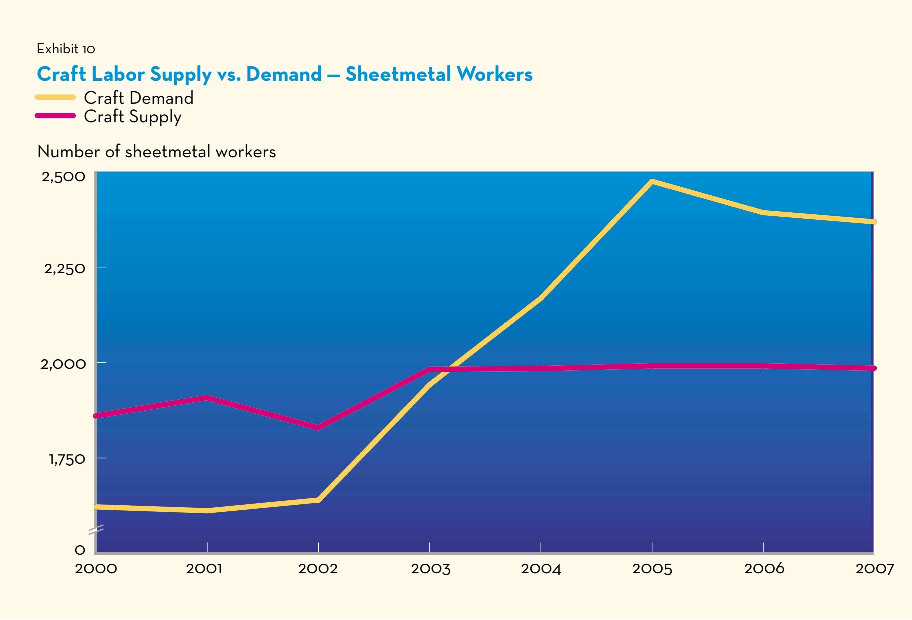
By subtracting the estimated labor supply for each skilled craft from the calculated demand, we calculated the difference. Where this figure is negative, a labor shortage generally is implied.

There are two critical caveats:

1. Labor supply estimates have been developed with extensive cooperation of entities representing both the unionized and open-shop environments through May 2003. We have not attempted to estimate what changes might occur in future years on a "business-as-usual basis." The research cannot reliably predict either additions or attrition in the available supply. We have therefore used the 2003 level as a constant baseline within each craft from which to measure the number of additional workers that will be needed.

2. A modestly positive delta value will almost certainly result in significant shortages. There are several reasons for this. First, the construction cycle in Indianapolis is seasonal. The workload in the fall is historically 18% to 20% greater than that of winter. The delta can then be positive and still result in severe shortages at the height of the season. Also, the study estimates craft labor at a high level. For example, electricians may be available in general, but in short supply for specific skill sets such as controls or voice/data/video. Similarly, pipefitters and plumbers may be generally available, but in short supply for high-purity process piping.




The following graphs illustrate projected supply vs. demand for three representative crafts. (See Exhibits 9, 10, and 11.)

The availability of masons has been tracking virtually on top of the demand line since 2000. This would indicate spot shortages and delays with virtually no bench strength. Availability expanded in 2003, but will quickly fall behind demand without continued growth. We anticipate a shortage of 484 masons peaking in 2005. This would represent 18% of the total market demand.

Availability of sheet-metal workers increased significantly in 2003 after slipping in 2002. However, the growth in market demand for complex sheet-metal work will quickly pass the supply unless there are strong gains. A shortage of 483 workers is projected by 2005. This would represent 20% of the demand requirement.

The total supply of electricians has been good and a str ong gain is indicated for 2003. However, the demand will quickly outstrip supply without significant gains. The shortage is projected to peak in 2005 at 598 workers. This shortage represents 13% of the total projected demand.

Virtually all of the 14 crafts that were studied are projected to experience severe craft labor shortages by summer 2005 unless significant gains are made. Without significant gains in craft labor supply, shortages in most crafts will be seen by summer 2004.

The total labor shortage within the 14 skilled crafts studied is expected to r each 6,500 by fall 2005. (See Exhibit 12.)

Exhibit 11

**Craft Labor Supply vs. Demand — Electricians**

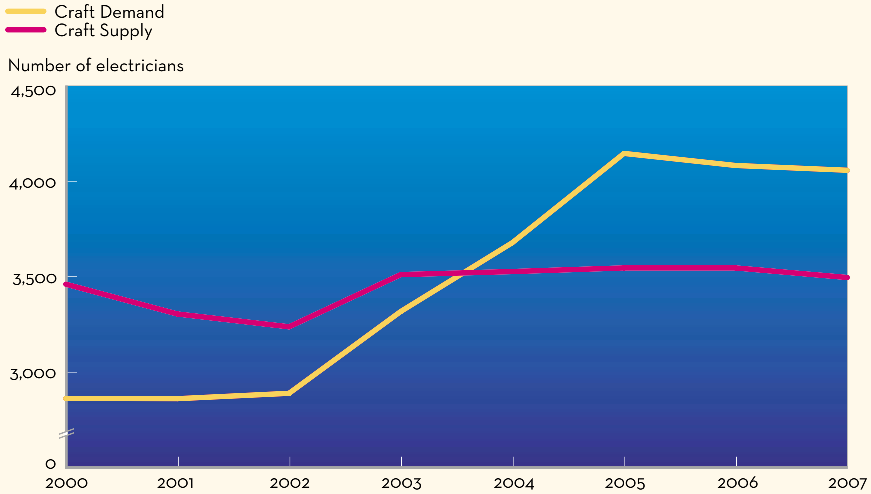
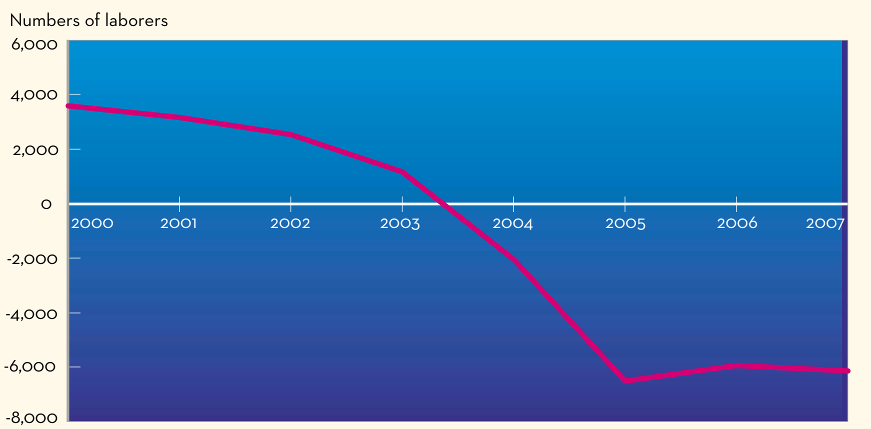



Exhibit 12

**Total Craft Supply Less Total Demand — All Crafts**



As a percentage of the total demand that would not be met with the current supply, the most serious shortages are projected for:

- Pipefitters/Plumbers
- Masons
- Carpenters — Interior & Framing
- Sheetmetal Workers.

In part, because of the leadership exhibited by construction consumers, this is a northern city that is seeing unparalleled cooperation between unionized and open-shop stakeholders to address the issues.

### THE SOLUTIONS

As we said earlier, the growth projections for craft labor demand in Indianapolis are very real, grounded in major projects that can be specifically identified. Yet, this is a city that is bringing fresh thought to old problems. This is a city where, uncharacteristically, construction consumers have become full partners with contractors in tackling construction industry concerns. In part, because of the leadership exhibited by construction consumers, this is a northern city that is seeing unparalleled cooperation between unionized and open-shop stakeholders to address the issues. This is a city with a history of collaboration between government, owners, contractors, labor, and the design community in its revitalization initiatives.

The Indiana Construction Roundtable and the many stakeholders in the Indianapolis construction market have a real challenge to be sure. But planning is well underway to meet the challenges head-on through extraordinary collaboration and coordination.

The ICR is coordinating and spearheading a variety of critical initiatives to attract and develop skilled labor, including:

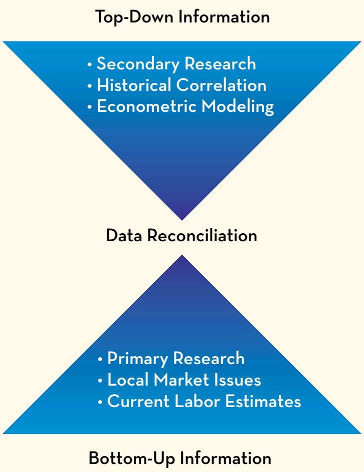
- Innovative resource materials for use in schools
- Career videos
- Electronic access to job boards, industry links, and apprenticeship programs
- ICR Schools Outreach Program
- Programs for civic groups
- ICR Minority Outreach Committee.

ICR's initiatives are being coordinated to amplify and dovetail with the workforce development and training programs developed by government agencies and labor.

Will they be successful? Keep a sharp eye on Indianapolis. We think they're on the right track with a strong collaborative effort.

Exhibit 13

**Methodology Basis**




## STUDY METHODOLOGY

Methodology for the project is based on a reconciliation of what is termed "top-down" and "bottom-up" information.

### Top-Down Information

Top-down information reflects an outsider's view of how the market should behave relative to industry information and benchmarks. This view involves development of a market model based on secondary research and econometric modeling. Demand estimates were developed based on historical data for construction volume put in place, and econometric forecasting of how those values should change based on correlation to economic variables. Supply estimates were based on the correlation between historical labor data (e.g. Bureau of Labor Statistics), characteristics of construction in Indianapolis (e.g. structural material, number of stories), and construction projections.

### Bottom-Up Information

Information was developed through primary field research to reflect local market drivers and trends that may be unique to the marketplace. Demand issues include current project status and planning, and local market issues (e.g. infrastructure, taxation) of importance to project owners. Labor supply estimates were provided by local labor officials and contractors.

This is an iterative process. Information has been drawn from a variety of sources providing different pieces (sometimes conflicting pieces) of the puzzle. Reconciliation of the top-down and bottom-up information is achieved by flagging conflicting information for additional research, and through experienced judgement.

Through this process, data was collected from a wide range of sources. In no case did one set of responses exclusively drive these estimates. Information from all sources was assessed in the context of the broader information, and was subject to adjustment.

Key project work steps included:

1. Extensive secondary research was conducted to support the top-down modeling, and to frame questions for the bottom-up primary research. Resources used included a wide range of government reports and statistics, construction data, project announcements, articles, trade press, business journals, and various web sites.

2. A preliminary econometric forecast was developed for construction put in place by market segment within the Indianapolis MSA.

3. Primary research was conducted in phases using a variety of techniques. This research was used to expand on the secondary research, to support bottom-up assessments, and to provide validation of multiple resources. Key phases of primary research included:

   - On-site market interviews
   - Written survey of ICR-member owners
   - Written survey of open shop craft labor (associations and contractors)
   - Written survey of organized craft labor (unions representing 14 subject crafts)
   - Follow-up telephone survey of open shop craft labor
   - Follow-up written survey of organized craft labor
   - "Drill-down" telephone interviews.

The various primary research resources yielded a total of 234 points of contact.

4. A table of key building characteristics was developed based on primary and secondary research. This is an important element in translating construction volume in dollars to the craft labor required. For example, to determine the number of structural ironworkers required in the office segment, we first need to understand the mix of buildings in that segment (square footage, number of stories, mix of structural steel/concrete/stick-built).

5. Craft labor demand factors were developed for each of the 14 crafts within each of the construction segments. These factors represent craft intensity by market segment, expressed as millions of total construction dollars put in place per required craftsperson.

6. The demand forecast was developed and finalized:

   - FMI's preliminary econometric forecast model provided a baseline
   - The preliminary forecast was refined based on primary research and project records
   - The refined forecast (in dollars) was then translated to a labor requirement by craft

7. The supply side estimates were developed:

   - Primary research of organized labor officials
   - Primary research of open shop labor officials and contractors
   - Secondary data from the Bureau of Labor Statistics, Bureau of Apprenticeship Training and the Indiana Department of Workforce Development

8. A preliminary market model was developed to assemble the various supply and demand inputs and run the calculations.

The Craft Labor Model went through phases of testing and validation. In several cases, this testing led to additional follow-up research and refinement.

9. Output data generated by the Craft Labor Model was then analyzed and interpreted. Observations and recommendations were developed. ■

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*Note: The work was conducted from an unbiased, third-party perspective as related to the objectives and scope. No research or assessments are implied concerning issues such as the share of construction performed by either organized or open-shop labor, wage rates, or productivity. Such issues, while obviously of interest to many, were not the focus of this research, and they cannot be reliably inferred from any part of the results.*

# Developing Leaders

Training programs help companies win the war for talent, meet and exceed customer expectations, plan for succession, and align employee goals with business needs. These programs can have a direct impact on a firm's bottom line.

***By Vanessa Winzenburg***

According to an international survey by the American Society for Training and Development (ASTD) of more than 2,500 firms of all sizes in all industries, training and development accounted for $704 (or about 2% of annual payroll) per employee in 2000. And, despite the current economic slowdown, investments in training and development at all levels are continuing to increase. However, although companies are making continual investments in training and development, few have examined the impact of this investment on their human capital or bottom line.

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During the past several years, companies working with ASTD have begun utilizing standardized definitions and metrics for capturing and valuing their training investments, and we are learning about the true impact of training and development in organizations. If done correctly, the training and development of future leaders can be instrumental in meeting the challenges of the war for talent, customer demands, succession planning, and employee alignment. Consequently, developing leaders can result in cost savings and increased productivity, adding to the organization's bottom line.

### WAR FOR TALENT

The labor market has loosened some since the terrorist attacks in September 2001. Does this mean that the war for talent is over? Not according to Duane Roggow, vice president of human resources for Hanscomb International Construction Consultants. Speaking at the Construction Management Association of America's 2001 National Conference, Roggow warned that the "construction industry is faced with a potential labor crisis as the pool of U.S. workers evaporates over the next decade. … We need more than half-a-million new workers by 2008, and the two questions we need to start asking ourselves are where are we going to find them and how are we going to keep them?" According to U.S. Labor Department estimates, the construction industry — in which the average worker age is 47 years and climbing — needs to attract 240,000 new workers each year just to replace those who are retiring or leaving the industry. This need is in addition to the 550,000 new jobs expected to be created within the construction industry by 2008. In fact, a survey by the Construction Industry Institute indicates that 75% of contractors are currently experiencing labor shortages that are costing time and money.

**According to the American Management Association, more than half of all companies currently use their leadership development program as a tool for recruitment of qualified professionals.**

Companies can use training and development programs to alleviate some of these pressures and attract future leaders in at least two ways. First, employers can market themselves and their training program to prospective employees. Companies may not be able to offer job security, but they can offer opportunities for training and development. In an article published in *Manage* magazine, James Waldroop and Timothy Butler of the Harvard Business School state that the best way to attract high-quality employees is to help them get on the right career path and to help them move forward on that path as quickly as possible. In other words, offer them opportunities for career development. According to the American Management Association, more than half of all companies currently use their leadership development program as a tool for recruitment of qualified professionals.

In addition to use as a direct recruiting tool, a training and development program helps to create satisfied employees, who in turn will cause other people to want to work for the company. Simply put, a good training and development program can sell the company informally, putting the company on the radar screens of the best talent in the market.

Second, in addition to addressing recruitment needs, training can help companies manage turnover. More than $140 billion is spent by U.S. companies annually for recruitment, training, and administrative costs associated with employee turnover, according to the U.S. Department of Labor. These costs include only the direct costs of turnover — the cost of separating the former employee and recruiting, selecting, hiring, and training the employee's replacement. There are also indirect costs of the vacancy, including the costs of redistributing workload and deterioration of employee morale and team synergies. In addition, once a new employee is hired, it sometimes takes as long as a year before that person is fully productive.

The average turnover rate for all U.S. industries is around 12% annually, according to the Bureau of National Affairs in Washington, D.C. Some contractors, however, have rates as high as 80%, according to *Builder* magazine. The training and development of future leaders plays an essential role in reducing these turnover rates.

Development of leaders is also important in retaining top talent at all levels of the organization. A recent Gallup Organization study that surveyed two million workers at 700 companies found that the main reason people quit their jobs is poor supervisory behavior. Employee-supervisor relationships largely determine the length of an employee's stay with an organization, highlighting the need for leadership training and development. Providing current leaders with training leads to improved employee retention. As reported in *Workforce* magazine, Richard Roth, managing director of Hackett Benchmarking and Research, found that "companies that spend $218 per employee in training and development have more than 16% annual voluntary turnover [4% above the national average], while companies that spend $273 per employee have less than 7% annual voluntary turnover [5% below the national average]."

**Workforce expertise is a sustainable competitive advantage that can be achieved through investment in training and development.**

## CUSTOMER DEMANDS

In addition to helping companies win the war for talent, investing in training and development can aid companies in meeting customer demands. This help can occur in two ways. First, by developing their current and future leaders, organizations are creating a competitive advantage over other companies in the market. Workforce expertise is a sustainable competitive advantage that can be achieved through investment in training and development. Employees with updated skills and expanded knowledge better enable a construction company to adapt quickly to market changes with little interruption in daily operations. According to Bill Carpitella, senior vice president of organizational development for Havnovian Enterprises, "If we can create an environment of learning that stimulates our associates to grow, then we have an advantage against our competition, hands-down." Training and development programs can be used as a marketing tool, showing prospective clients that what sets the company apart from others in the market is a solid commitment to having well-trained employees with expert knowledge and skills.

Second, training programs are being credited more and more with strengthening customer satisfaction. Employee loyalty, achieved in part through training and development, is the foundation of customer service. Loyal employees will nurture relationships with customers, in turn creating loyal clients. While good training can improve customer satisfaction, lack of training can have the opposite effect. In a recent survey of 3,005 households by a division of PriceWaterhouseCoopers, one third of all respondents indicated that turnover is a critical factor in quality of service received, and 57% of respondents noted poor training as a leading aspect of service deficiencies. In other words, training and retaining good employees can have a direct impact on the service customers receive.

### SUCCESSION PLANNING

Employee training and development is a key tool in succession planning. A recent study by Development Dimensions International (DDI) indicates that due to the aging of the American workforce, as much as 20% of top management positions and 25% of middle management positions could be vacant by 2005. In addition, DDI found that organizations are not focusing enough on leadership development, meaning that when positions become available, there will not be workers prepared to move into those positions. Traditionally, organizations have looked externally to find and recruit top talent, but that is becoming more difficult as the pool of top leadership diminishes. Instead, organizations need to look internally and develop their own future leaders.

There are at least three reasons for developing leaders internally rather than recruiting external leaders, in addition to the supply and demand problem and the high cost of external recruiting. One reason for developing internal leaders is that career development opportunities are an excellent recruitment and retention tool. Companies are better able to recruit and retain top talent if those employees are being groomed and developed for future leadership roles within the organization. An employee who has been developed into a leader can become a role model for others in the organization with aspirations of leadership. Another reason is that assessments in association with training and development give employers good information about the strengths and weaknesses of current employees. Companies have the opportunity to align the right employee with the right position and develop the skills necessary to make the employee successful when a leadership position is vacated. Finally, by investing in employee development, future leaders will have been exposed to the organizational culture and be fully aware of the values and vision of the organization. Internally developed employees also have a better understanding of the

**Employee loyalty, achieved in part through training and development, is the foundation of customer service. Loyal employees will nurture relationships with customers, in turn creating loyal clients.**

work that their subordinates perform because they have done the same work themselves. In short, there may be less transition time and more continuity from an internally developed leader.

**For a company to be highly successful, it takes both a boss and employees who are in alignment and willing to make a difference. Leaders must see employees as vital partners in the company's success.**

### EMPLOYEE ALIGNMENT

The best companies recognize that the alignment of company and employee vision and goals is vital to business success. For a company to be highly successful, it takes both a boss and employees who are in alignment and willing to make a difference. Leaders must see employees as vital partners in the company's success. Employees should be made aware of their impact on company productivity, growth, and success. Every day employees make decisions based on what is good for them in the short- and long-term. If they can be made to see that what is good for the company is also good for them, they will begin to factor company needs into their decisions much more frequently.

Future leaders want to know how they contribute to the organization. The way to foster this understanding and improve employee alignment with company goals and values is through training and development programs. These programs allow the company to broaden workers' view of the overall corporate strategy, share information about how employees fit into this broad strategy, and shape decision-making strategies to better align employee and business goals.

### COST SAVINGS AND PRODUCTIVITY

Evidence indicates that recruitment and retention of future leaders is vital to company success. It is costly to replace existing employees (approximately 30% of an employee's salary is required to replace them, not to mention loss of productivity and other indirect costs of turnover). The amount of training investment needed to decrease turnover rates to 7% is only $273 per employee per year, according to a study by Hackett Benchmarking and Research. This number is substantially lower than the 30% of an employee's salary required to replace them. Firms that are able to reduce recruiting efforts due to the reputation they have achieved as an employer of choice are also able to directly reduce recruitment costs.

There are cost savings associated with succession planning as well. Here again, it is less costly to develop a leader internally than to recruit one from outside the organization. With employee alignment, cost savings also come in the form of employee decisions that can reduce organizational costs of operation. Training can also reduce the direct costs of work. For example, after job-specific training, scrap costs at Marine Mechanical, a supplier of propulsion systems, fell 60% in just one year, according to an in-house study reported in *Training* magazine.

In addition to these cost reductions, training and development can improve employee productivity, thereby reducing costs. In a recent study cited in *Alaska Business Monthly*, 29% of variability in productivity over a three- to four-year period is directly attributable to how leaders manage their human assets. A big piece of this management is their commitment to training and development.

### BOTTOM LINE

What is the impact of training and development on the bottom line? In a survey by the Institute of Management, small firms with less than 100 employees have increased formal training by 25% in four years. Of these, around 60% are now reporting financial benefits. Some of these financial benefits are in the form of cost savings and productivity. Eventually, the benefits will include increased profitability, market value, and shareholder returns. In fact, an ASTD study found that companies that spent an average of $1,595 per worker in training saw 24% higher profit margins than those that spent less. The 1998 ASTD State of the Industry Report indicates that employers in the top half in terms of training expenditures ($900/employee) had higher annual net sales and higher annualized profits per employee than companies in the bottom half ($275/employee).

**A joint report released in 2000 by ASTD and Saba, a California-based provider of knowledge management systems, indicates that total stockholder return can be greatly impacted by training and development.**

The impact of training and development is also felt on Wall Street. The same report indicates that the market-to-book ratio was higher for companies in the top half of training expenditures than for those in the bottom half. The companies in the bottom half actually saw a slight decrease in their market-to-book ratios from the end of 1996 to the beginning of 1997, while those in the top half saw significant increases in market-to-book ratios.

A joint report released in 2000 by ASTD and Saba, a California-based provider of knowledge management systems, indicates that total stockholder return can be greatly impacted by training and development. A firm's training investment is directly related to the median return in the subsequent year. Those with the most investment receive the highest returns, while those with the lowest investment receive the lowest returns. After accounting for market factors, "firms that spend more than average on training have total stockholder returns that are 86% higher than firms that spend less than average, and 45% higher than the market average," according to the ASTD report. ASTD also found that an increase of about $680 annually per employee on training would generate a 6% increase in the following year's total stockholder return, even after controlling for many other factors.

In summary, the investment in training and development of current and future leaders is an important factor of business success that should not be overlooked. Not only can training programs help companies win the war for talent, meet and exceed customer expectations, plan for succession, and align employee goals with business needs, these programs can have a direct impact on a firm's bottom line through the reduction of costs and improvements in productivity. ■

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