Partnering on Defense Contracts

Charles R. Glagola, P.E., M.ASCE,[1] and William Malcolm Sheedy, P.E., M.ASCE[2]

Abstract: Contracting on government construction projects has historically been structured and adversarial. The decade of the 1990s saw the advent of a new attitude in government contracting that emulated success stories from the private sector. After witnessing several high-profile success stories such as constructing the Atlanta Olympic Park, the government embraced the concept of partnering as a primary method of contract administration. The private sector consistently demonstrated an ability to contract for services while realizing a marked decrease in claims and litigation costs with partnering. Their success was founded in the building of trust within the project team by creating a common bond between previously dissociated parties. This was achieved through developing a mutual understanding of the other parties' interests and goals in the project while maintaining a team focus on the ultimate goal of a successful project. The government espied partnering as a way to improve its relationships with contractors and reduce the volume of litigation that seemed to only be increasing in the industry. The government began a paradigm shift by instilling a new attitude of openness and communication with contractors as well as implementing several broad contract administration changes. This paper examines the process of partnering, its key elements and core competencies, and how various agencies apply these principles in their construction management. The paper further researches stakeholder goals and important issues when entering into a partnering relationship on government contracts and what barriers are perceived that preclude the process from working as effectively as possible.

DOI: 10.1061/(ASCE)0733-9364(2002)128:2(127)

CE Database keywords: Contractors; Private sector; Partnerships; Construction management; Government.

Introduction: Character of Partnering

Lawsuits are inimical to the basic nature and goal of the industry. Construction is not an individual endeavor like long-distance running, but rather a business of team-building. The fabric of the industry depends, or should, on a strong weaving of owner, architect, engineer, and contractor into a team. Successful teams are built on the strengths of each member, while successful lawsuits are founded on capitalizing on the weaknesses of team members. Litigation is not counterproductive if it helps define legal and factual issues, building a foundation for fair and expeditious settlements, but that is not often the case, and the current flood of suits is so strong that it erodes both the process and people of construction.

As managers of our individual or corporate duty, we must take advantage of the opportunities uniquely available not only to achieve sensible resolutions of disputes but also to avoid the conflicts in the first place (''Your'' 1991). Partnering is not a panacea for the ills of the construction industry. Partnering will fail if applied improperly, either as a process or in the wrong situation. It is not a quick fix and will not guarantee extra profits, nor is it license to ignore contract requirements. Partnering is a commitment-intensive process that requires effort from all the parties involved. What it offers is an alternative to the traditionally acrimonious relationship between an owner and a construction contractor (U.S. Department of Interior 1991).

In the construction industry, partnering is a paradigm shift for building contractor and owner relations. The Construction Industry Institute (CII) defines partnering as:

> . . . a commitment between two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant's resources. This requires changing traditional relationships to a shared culture without regard to organizational boundaries. This relationship is based on trust, dedication to common goals, and an understanding of each other's individual expectations and values (Construction Industry Institute 1995).

In partnering, all parties to a project meet before construction begins and agree to specific management procedures for the project. They create team-based approaches, focusing on creating cooperation and developing working relationships. The relationships are carefully built upon the tenets of trust, mutual respect, and integrity (Welch 1996).

A recent study by the CII examined the process and determined that long-term partnering offers major opportunities for the U.S. construction industry. Their study researched six categories of benchmarks, including cost, schedule, safety, quality, claims, and other. They compared traditional metrics of the construction industry such as total project cost, schedule changes, lost workdays, rework, number of claims, and job satisfaction. As a rule, the study used discrete metrics to compare project performance. The only metric, which was not discrete, was the ''Job Satisfaction'' metric. In this case, the study used a subjective rating for the respondents. The study compared the results of partnering efforts versus the industry average for all other construction. In every category, the projects which were partnered outperformed the rest of the industry. A summary of the results is listed.

[1]Assistant Professor, Dept. of Civil Engineering, Univ. of Florida, 345 Weil Hall, P.O. Box 116580, Gainesville, FL, 32511-6580.

[2]Lt. Commander, United States Navy Civil Engineering Corps.

Note. Discussion open until September 1, 2002. Separate discussions must be submitted for individual papers. To extend the closing date by one month, a written request must be filed with the ASCE Managing Editor. The manuscript for this paper was submitted for review and possible publication on June 20, 2000; approved on October 13, 2000. This paper is part of the ***Journal of Construction Engineering and Management***, Vol. 128, No. 2, April 1, 2002. ©ASCE, ISSN 0733-9364/2002/2-127–138/$8.00+$.50 per page.

While the results of partnering are impressive, the CII research team noted their results were skewed by two factors. First, the study included several long-term partnerships. The study noted these types of partnerships typically establish very aggressive goals as part of their partnering charter. In addition, the research team noted the single-project partnering efforts appeared to have easily achieved their charter's objectives. The team noted that, in most of those instances, the team could have achieved more aggressive goals, had they pursued them. In summary, the CII research team concluded the competitive advantage of partnering is barely tapped at this time (CII 1996).

While the contract establishes the legal relationships amongst the parties, partnering attempts to develop working relationships among ''stakeholders'' to the project. Prior to partnering relationships, resolving contract issues was the responsibility of the owner and general contractor. Other parties such as subcontractors and designers were not integral to the direct discussions (AGC 1991).

Partnering in Public Sector

The U.S. Army Corps of Engineers (COE) is credited with implementing partnering in the public sector in 1988 during the construction of the William Bacon Oliver Lock and Dam in Alabama. In response to the emerging litigious nature of construction contracts, they sought a process to promote dispute prevention and reduce exposure to litigation. The Corps recognized the historically adversarial nature of their traditional contractual relationships with contractors was detrimental to their desire to reduce claims and litigation. In addition, the COE realized there was a distinct lack of open communication between the contractors and the COE contract administrators and acknowledged that it was time for change (Podziba 1995).

For those experienced in government contracting, though, the myriad of real-time problems, including cost overruns, delays, excessive and avoidable change orders, and litigation threats and actions, may seem insurmountable for any management process, much less partnering, where the parties are supposed to communicate freely. Historically, owners and contractors are faced with confrontation. Who is at fault for delays and additional work requirements? Was it contractor negligence, lack of owner direction, an outside factor not anticipated by either party, lack of communication leading to misunderstandings, or a combination of any or all of those factors? Who ultimately pays for the additional work or delay? The question becomes, ''Can partnering withstand the realities of a construction project?'' The answer is unequivocally ''yes.'' Why? because ''this revolutionary management process [partnering] emphasizes cooperation rather than confrontation'' (Herbert Chock 1996).

The partnering process seeks to create a new cooperative attitude in completing government contracts. To create this attitude, each party must seek to understand the goals, objectives, and needs of the other—their ''win'' situation—and seek ways that these objectives overlap (Edelman et al. 1991):

> To achieve this new attitude, several actions must take place. Partnering advocates recommend specific partnering guidelines be implemented. Most of the guidelines are self-explanatory. For example, all stakeholders should be included in the process if a truly open environment can be established for communication. Similar logic applies for using competent and willing participants.

Partnering Guidelines

- Involve subcontractors, suppliers, local authorities, and testing and inspection services. The partnering process should include everyone who will become involved in the project.
- Successful partnering projects should be advertised. Nothing succeeds more than success. Public awareness of the process and the advantages to be gained will make subsequent attempts at partnering easier to implement.
- Without competent people, the partnering process will be difficult to achieve.
- Some advocates of the process recommend a two-day retreat to get to know each partner better, but it doesn't end there. Follow-up and periodic meetings throughout the project are an absolute necessity.
- The use of a formalized decision-making process will result in the creation of documents that memorialize the event.
- Backup team members should be selected so that momentum is not lost if one or more members of the original team are transferred to other projects or leave the company (Levy 1994).

The sole agenda of the initial session should be to establish the basis for the partnering arrangements for the project. This includes developing a project charter and conflict resolution procedures at a minimum. Other strategies may be developed as appropriate for the project, such as value engineering mechanisms. Discussing these arrangements in advance of construction beginning on site go a long way to avoid conflict before it arises (AGC 1991; Welch 1996).

Professional facilitators provide expertise in a number of areas, including communications, group and organizational dynamics, and team building (Edelman et al. 1991). The need for a neutral facilitator can not be overstated. The diverse nature of the team members makes it virtually impossible for an internal entity to conduct the session. First and foremost, the internal entity would appear to bias the partnering towards their organization. Secondly, it would be extraordinarily awkward to place an employee in a situation where they may have to ''assist'' their CEO/supervisor to keep on the track of the meeting. What is recommended is that each organization identifies ''champions'' for the team. These individuals assist in nurturing the partnering effort within their organization. A top-level champion ensures organizational support was maintained for the process, whereas the working-level champion would ensure the day-to-day managing of the process was maintained (Edelman et al. 1991).

Key Elements of Partnering Integral to Government Commitment

The CII details the nine elements, listed below, as being essential to a successful partnering effort:

- A formal planning process is in place for partner selection and/or team building.
- A partnering/team-building implementation plan is in place.
- The objectives for team building and/or selecting partners are defined.
- There is a formal process for selection of teams and partners.
- The partnering/team-building selection process, implementation plan, objectives, etc., are communicated to the organization.
- A partnering agreement has been developed and is in place.
- A team is established.

J. Constr. Eng. Manage., 2002, 128(2): 127-138

- A leadership workshop is held along with training sessions.
- Partnering/team building takes place on an ongoing basis (CII 1995).

Central to developing these elements, three core competencies of partnering must exist: commitment, communication, and conflict resolution. Commitment refers to the resolution by all levels of participation to enable and effect the tenets of partnering. Partnering reflects a change in attitude and requires personal commitment from every individual in the process. This includes both the working-level people who deal with the realities of the job site on a daily basis and the top level management as well. ‘‘The jointly-developed Partnership Charter is not a contract, but a symbol of commitment’’ (AGC 1991). An easy way to secure this commitment is to have all the affected individuals develop a personal relationship with their counterpart(s) (Edelman et al. 1991). In this way, each person would better know the different motivations of the team.

Communication lies at the heart of the partnering process. Without it, partnering does not exist. Each member of the team must be completely open and honest in their communications. This should be reflected in both their day-to-day operations as well as their goals and objectives for the project. By allowing this communication to develop, each team member will more fully understand the risks of the other parties in the process. This fosters the development of trust amongst the team. Further, open communications provide a forum for a synergistic relationship to overcome obstacles as they develop. By understanding the goals and objectives of the other team members, individual stakeholders begin to use win-win thinking to jointly develop strategies for implementing their mutual goals as well as the mechanisms for overcoming obstacles to individual goals (AGC 1991).

In implementing their new program, the Corps of Engineers realized that conflict resolution is the centerpiece of partnering. Within a conventional construction management structure, two distinct management teams exist, one with the owner and one with the contractor. As they make decisions independent of the other, conflicts are inevitable. As conflicts occur, adverse actions follow and resources end up being expended on items other than the project, up to and including litigation. Perhaps it was best said by Daniel Burns, Chief of Construction Operations, COE North Pacific Division:

> ‘‘The end result of [of current ‘adversary management’] is a continuing upward spiral of risk and cost: risk of the contractor going broke, risk of projects taking longer than necessary for completion, and risk of significant cost overruns. These costs do not go to productive facilities, but instead to overhead, litigation, and contesting experts. Partnering seemed to offer the opportunity of harnessing capabilities, talents, and positive energies of both owner and contractor groups and focusing them on mutually agreed-upon goals. It offered the opportunity for all parties to change preconceived attitudes in order for both to win in the long run’’ (Edelman et al. 1991).

Partnering has an almost immediate effect on resolving conflict. As part of the initial workshop, prevention mechanisms are developed. A common form of this is called ‘‘forced escalation.’’ As a dispute occurs, the working level has a specified amount of time to resolve the issue. At the end of the specified time, the dispute is automatically forwarded up one management level. That level has a specified period of time to resolve the issue. This continues until the CEOs (or equivalents) receive the dispute. Should the issue still remain unresolved at that point after the specified period of time, arbitration or mediation is mandated. This system ensures issues are resolved expeditiously and do not linger. This allows the working level not to be distracted by issues that would otherwise be detrimental to the project (Herbert Chock 1996). Once these core competencies exist amongst the stakeholders, the elements delineated by CII become easy to attain.

Concerns in Public Sector Partnering

Consistent with any major change in management style, the shift to partnering does not occur, initially, without concerns raised by the principal parties. Specific concerns shared by both the public agencies and the contractors included:

- Whether the added expense of Partnering was worth the benefits to be gained, and
- A perceived risk in trust.

Early on in public sector partnering, the major concern of the public sector seemed to focus on the cost-benefit analysis. It was presumed that the only benefits realized from the partnering process were improved interpersonal relationships amongst the participants. There appeared to be no tangible benefit, related to traditional concerns for cost and schedule, gained as a result of the process. Rather, skeptics pointed to the added cost to conduct the sessions as a waste of taxpayer dollars. Contrary to this perception, experience has shown the partnering process significantly reduces the administration required for a contract. Affected parties have reasonable mechanisms and strategies to resolve conflicts and disputes before they approach litigation (AGC 1991 Edelman et al. 1991).

A concern also exists in a perception that unreasonable risk is taken by trusting a former adversary. There is concern that partnering places the owner and contractor too close to maintain objectivity. Again, experience proves this concern is unfounded. The adversarial relationships consistently build ‘‘paper walls’’ between the parties, typically resulting in claims and/or litigation. It appears that, although concerns exist to embracing partnering, a properly conducted process effectively mitigates the common concerns (AGC 1991; Edelman et al. 1991).

Specific Government Agency Philosophies and Elements

This section addresses the different philosophies, elements, and anticipated benefits for various organizations involved with public sector contracting. These organizations include the Association of General Contractors (AGC), the U.S. Army Corps of Engineers (COE), Naval Facilities Engineering Command (NAVFAC), and the General Services Administration Public Buildings Service (PBS). The core competencies of the previously mentioned philosophy, key elements, and benefits are central to all these organizations.

It is easy to understand why philosophical differences would exist between the AGC and the public agencies. What was interesting was to discover the differences between the various public agencies. Although they are very similar when considering partnering as a process, there are both specific and distinct differences between the agencies as well as subtle differences in their application of the principles of partnering. Those differences are presented here.

Association of General Contractors

Philosophy

The AGC acknowledges that construction is a very competitive and high-risk industry. They recognize the competitive nature of

J. Constr. Eng. Manage., 2002, 128(2): 127-138

the industry contributed to the former adversarial type relationships, as contractors and owners appeared to maintain conflicting objectives on projects. The AGC implored the industry to also recognize that the time had come to ''step forward and work together to take control of this costly and intolerable situation'' (AGC 1991). As a result, AGC adopted partnering as one concept to achieve their goal. They define partnering as follows:

> A fundamentally different approach, partnering provides a basis to 'reorient' the parties to a ''win-win'' approach and foster synergistic teamwork. Recent developments, primarily the acceptance of partnering as viable management tool, has vaulted this technique to the forefront of construction project management. General contractors throughout the United States are successfully using partnering on all sizes and types of projects (Welch 1996).

Elements

The AGC has also identified two other elements, equity of the stakeholders and timely responsiveness, as central to successful partnering. When explaining equity of the stakeholders, the AGC focuses on the theme of each party truly understanding the goals of the other stakeholders. Their desire is to have all parties committed to considering all other interests when making decisions on the project. The AGC specifically states their desire is for a win-win solution to be developed in every decision. With respect to timely responsiveness, the AGC is reminding the process that, especially in the construction industry, time equates to money. Timely decisions not only increase production, but also reduce the possibility a conflict will evolve into a dispute or claim. This philosophy is similar to the forced escalation method already presented (AGC 1991).

Benefits

In addition to the benefits already mentioned, the AGC recognizes an increased profitability can result from a successful partnering process. From the owner perspective, they typically receive their facility faster as a result of partnering. The contractor also realizes greater profits through the expedited decision-making process, referring again to the ''time equates to money'' analogy. As the contractor realizes earlier completion, lower tier subcontractors and suppliers realize increased profits as a result of earlier payments (AGC 1991).

Concerns

Concerns raised by the AGC are directly related to the potential profit benefits. Their most significant concern is a lack of commitment on the public sector's part. They are concerned the parties may only have ''lip-service'' commitment. In that case, the added expense to partnering will be for naught, since there was never any intention to develop the trust amongst the parties. The other concern is a residual attitude of ''must win'' by any of the parties. Their position is that this attitude will directly oppose the efforts of the stakeholders willing to take the risks, open the communication paths, and be committed to reducing conflict. (AGC 1991).

U.S. Army Corps of Engineers

Philosophy

As previously stated, the COE claims to have founded the principles of partnering in government contracting. As such, their philosophy does not deviate from the core competencies discussed for partnering. An agency would be reasonable if they considered the COE's philosophy as the benchmark for partnering. In summary, their philosophy is simply:

> Partnering, designed to create a positive, disputes prevention atmosphere during contract performance. Partnering uses team-building activities to help define common goals, improve communication, and foster a problem solving attitude among a group of individuals who must work together throughout the contract performance.... A central object of partnering is to encourage contracting parties to change from their traditional adversarial relationships to a more cooperative, team-based approach and to prevent disputes (Podziba 1995).

Elements

Similar to philosophy, three of the COE's key elements have already been stated as the core competencies for partnering. In addition to these elements, the COE views two other main elements as essential to a successful partnering effort, as well as several minor elements. The main elements include the elimination of the adversarial relationship and establishing a partnering charter. The minor elements included preparing early for the partnering process and planning combined activities.

When analyzing the adversarial relationship, the COE realized there had to be a better way of doing business. They were spending a great deal of resources ''posturing'' themselves as claims developed. Likewise, the contractor was expending resources posturing themselves on the same issue, resulting in lower profits on projects. As profits declined, contractors diverted resources from delivering the quality of the workmanship to cover the added expenses. In the end, neither could afford the continued posturing efforts. The COE concluded:

> The adversarial management relationship jeopardizes the ability of ''either'' side to realize its expectations. The result is increased costs for the taxpayer and declining profit margins for the contractor. This is truly a lose-lose outcome for all (Edelman et al. 1991).

The COE considers the development of a meaningful partnering charter as a key element to a successful partnering effort. This charter is merely a statement of the goals and objectives for the project. The charter is established during the initial workshop and defines several items. First and foremost, it establishes common objectives for the project. Without common goals, the stakeholders have no reason to partner. It is critical to the success of the partnering effort to define common objectives.

A primary strategy established in the charter must be how to manage conflicts and disputes, with an emphasis on preventing their occurrence. Secondary considerations in the charters are the main individual goals of the principal participants. These items help define the risk each stakeholder has in the project and why the success of the project is important to them. This assists the other stakeholders in developing strategies to allow every party to realize success as a result of the partnering process (Edelman et al. 1991).

J. Constr. Eng. Manage., 2002, 128(2): 127-138

Benefits

The COE believes that when partnering works, the adversarial relationships yield to open communication and a spirit of cooperation. They typically see some or all of the attributes listed below as indicators to this openness and trust in the contracting relationships. Similarly, they use a lack of these indicators to detect when partnering efforts are not realizing their potential benefits:

- Sharing a common set of goals,
- Clear expectations shared by each participant,
- Trust and confidence amongst the participants,
- Commitment by all participants,
- Responsibility being recognized and accepted without conflict,
- Courage of the participants to be honest and forthright in confronting issues and resolving conflict,
- Understanding and respecting the goals of the other stakeholders,
- Synergy amongst the team through the collaboration of resources, and
- Excellence expected from others and delivered in turn (Edelman et al. 1991).

Concerns

The COE have identified one additional concern to those previously mentioned, that of relaxing contract requirements ''in the spirit of partnering.'' This is based on a misunderstanding about what partnering is and what it can do. Partnering is the sharing of information. Partnering does not mean public interest can be compromised simply because it does not suit another party to the process. Rather, partnering is the process by which the other party understands why a law or regulation must be complied with.

Naval Facilities Engineering Command

Philosophy

The Naval Facilities Engineering Command defines partnering as ''a common sense communication process'' (Buffington 1992). NAVFAC concurs with the philosophies defined as core competencies and base their model for partnering on a hybrid of the COE, AGC, and CII methods. They state that ''through commitment, trust, communications and shared objectives, partnering creates an attitude of teamwork and an atmosphere for effective problem solving'' (Buffington 1992). NAVFAC further believes the principles of partnering can be effectively applied in their noncontractual relationships. This is based in the philosophy that the team building and cooperative aspects of partnering are beneficial whenever multiple agencies/organizations are involved. Specifically, RADM Jack Buffington wrote:

> Partnering will not only help us serve our customers better, faster, and with less costs, but also make our people's job more enjoyable by reducing conflict with our customers and suppliers (Buffington 1992).

Elements, Benefits, and Concerns

NAVFAC uses the AGC guide as a basis for key elements and benefits of partnering. While the profit-motivated elements are not applicable in a pure sense, NAVFAC has applied a ''profit'' theory by using the principles of partnering with their other relationships. In doing this, they treat organizations they have relationships with as customers. Open communication, trust, and commitment become the pillars to maintaining the ''repeat business'' and healthy and cooperative relationships. This change in attitude has resulted in significantly improved relations with these organizations (Gunn 1991; Buffington 1992).

General Services Administration Public Buildings Service

Philosophy

The Public Buildings Service of the U.S. General Services Administration (GSA) adopted partnering as a standard business practice in January 1994. They apply partnering on all construction projects in excess of one million dollars. They encourage the use of partnering on smaller projects if the situation warrants its use, specifically if the project is particularly complex or controversial. Their corporate philosophy states:

> Partnering is a formal management process in which all parties to a project voluntarily agree at the outset to adopt a cooperative, team-based approach to project development and problem resolution to eliminate, or at least minimize, conflicts, litigation, and claims. While partnering can be applied to any working relationship, it has become a common practice on large construction projects both within and outside of government. Agencies or owners, architect-engineer, construction managers, and building contractors and subcontractors all have their own priorities—providing a breeding ground for conflict. Partnering helps avoid unproductive ''positioning'' of any one or all of the parties by generating an environment of cooperation and trust. (U.S. GSA 1996).

Elements, Benefits, and Concerns

GSA does not specifically list elements that they consider important, other than the core competencies previously mentioned. They emphasize the creation of a cooperative, nonadversarial atmosphere with their contractors. Construction contracts that include partnering specifically state PBS's intent to partner with the successful bidder. They include all the stakeholders in their partnering effort, even if the projected impact to the project is small. They typically employ external facilitators to assist the partnering efforts and the cost is shared equally amongst all team members. They indicate improved safety, reduced construction time, and greater value engineering savings as the principal benefits realized to date (U.S. GSA 1996).

Dispute Prevention Goals

It is not unreasonable to surmise that, but for dispute prevention, partnering does not need to occur. In pursuit of dispute prevention, three distinct goals exist. The first is dispute resolution. As a goal, it is essential the partnering charter specifically address how the stakeholders will resolve disputes and conflicts. In every construction project, conflicts will occur. Conflict in this case refers to conditions being different from those depicted in the project documents. Dispute resolution is the mechanism devised to keep the conflicts from going to litigation. As a close relative to dispute resolution, resolving schedule conflicts is the second dispute prevention goal. This goal deals specifically with those issues related

J. Constr. Eng. Manage., 2002, 128(2): 127-138

Table 1. Categories of Barriers to Partnering

Interpersonal	Knowledge and skill	Project structure	Partnering process
• Past adversarial relationships	• Experience with partnering	• Lack of long-term commitment	• Top-level management commitment
• Past adversarial experiences	• Lack of understanding the principles	• Specific contract language	• Working-level commitment
• Ego/personality indifference	• Lack of common goals\fear of relationship getting too close	• Low-bid mentality	• Expense of conducting
• Fear of the unknown	• Fear of micromanagement	• Contract size too small	• Having the right facilitator

to time and the impact that changes to schedule have on completion of the project. The last dispute prevention goal is claims avoidance. The construction industry became a haven for litigation beginning in the 1980s. By the end of the decade, the litigious nature of the industry demanded a change. Partnering was born out of the need for an alternative to the court system. It is rare to see a partnering charter that does not include a specific goal to have no litigation as a result of the project.

Financial Goals

In theory, every benefit of partnering is connected to the financial side of a project. Whether it is open dialog between an inspector and a superintendent to prevent lost time and rework or avoiding litigation and letting the lawyers expend resources that would otherwise be profits, every goal of partnering benefits the profitability of a project. This profitability also applies to the government agency as well. Not normally thought of as profit, receiving the benefit of a project in an expedited fashion is cheaper for the agency. Partnering achieves this with the other goals.

With respect to pure profitability, though, partnering has helped foster three other goals. First and foremost is cost control for the contractor. When the contractor receives open communication from the owner, he is better able to plan the project to maximize the productivity and effectiveness of the labor force. When the contractor realizes more efficient cost control, minor conflicts and delays are absorbed without delay claims being submitted. The same if true for minor changes in the work. Essentially, as the contractor is more efficient, cost control is increased and profits are maximized. The other contractor goal is payment processing. The contractor typically seeks to define a reasonable and efficient method to process payments. By establishing this procedure, the contractor is better able to manage the cash flow for the project, again maximizing the profitability.

One financial goal that is shared by both the owner and contractor is reducing the contract administration required for the contract. In reducing the paperwork required to complete the project, both parties realize reduced costs. This is not to presume that either party relinquishes their contractual rights and obligations. Merely, this goal is typically to streamline the paperwork trail to minimize the cost of administering the contract.

Barriers

While much literature has been written regarding the success of partnering, there are many occasions where partnering does not work. Typically, the process did not work for one of three reasons. First, the project did not lend itself to being partnered. Second, the process was not applied correctly. Either of these failures have different reasons why partnering did not work. This report does not address these failures. Rather, this report will focus on the third failure of partnering—the existence of one or more barriers in the process. These barriers can be either real or perceived. Despite the best intentions of the parties involved, sometimes, the barriers cannot be overcome. Nonetheless, the barrier(s) existed at the time of the partnering effort. Table I details the four categories of barriers and identifies typical examples of those types.

Interpersonal Barriers

Interpersonal barriers are those items that work against the key element of trust. These barriers originate from the individual people and are the hardest to overcome. They typically arise from the personal experiences of the people in their previous contractual relationships and are associated with the attitude and working styles of the people. Past adversarial relationships and experiences directly relate to the personal experiences of individuals. The traditional nature of the relationships in construction has bred an air of mistrust. Instinctively, an owner's management team is suspicious of the contractor as a result of their background and training. Coupled with previous adversarial experiences, management personnel have established a mindset and tend to harbor mistrust. The owners are also generally the hardest group of individuals to effect a change in attitude. Training the people is the best way to overcome these barriers. By showing the principles and benefits that have been documented with partnering, mutual trust can be attained.

Ego and personality indifference roots back to the past experiences of the people. This is analogous to a Jurassic Park theme, where the experienced persons are the hardest to change. When asked, these people typically state "I tried it once and it didn't work. Why try it again!" As a rule, these personalities require more assistance and training to create the team-building and trust expected in partnering. One way to mitigate this barrier is through education on the positive experiences with partnering.

Fear of the unknown is a common barrier with stakeholders with little to no experience in partnering. The inherent fear of change, coupled with previous experience in the industry, establishes systems and methods that accomplish the project, oftentimes despite the individuals involved. Through training, these individuals can see the benefits realized through successful partnering ventures. It can be shown that partnering can and will save the owner time and the contractor money in completing the project (Larson and Drexler 1997).

Knowledge and Skill Barriers

Knowledge and skill barriers are those items that work against the partnering process solely because of lack of understanding how the system works. These barriers originate from the lack of experienced people and are probably the easiest to overcome. The lack of experience with partnering is the simplest barrier to overcome. The way around this is by being a team member in a partnering process. If it is not feasible for an individual to be part of a team, being an observer or even support staff to members of the team

J. Constr. Eng. Manage., 2002, 128(2): 127-138

are ways to gain exposure to the process. By gaining the exposure, the individuals will assimilate some of the ideals of partnering. With respect to the lack of understanding the principles of partnering, there are two distinct problem sets here. The first is those people with no experience with the process. Legitimately, they have not seen how the process works to see the full impact of the system. This barrier is easy to resolve by simply involving the individual in the process. The other set is the people experienced in partnering, but who do not understand the process. They can be called the ''in the spirit of partnering'' people. These individuals try too hard to ensure no conflict occurs at any time between the parties. Instead of explaining what can reasonably be done in a situation, they waive a contractual right or pay additional money for items which they ordinarily would not, solely in the interest of having no ''ruffled feathers.'' These people typically need refresher training on the principles of partnering to overcome this barrier.

The other common skill barriers are a perceived lack of common goals, a fear of the relationship getting ''too close,'' and the fear of micromanagement. These are fallout from the traditional management style of the ''my way or the highway'' mentality and are difficult to break. The perceived lack of common goals barrier is as a result of a closed-minded view of the project. The underlying, and often unstated, objective of all the stakeholders is a timely completion of a project within budget. How each individual stakeholder arrives at this objective may differ, but in reality, they have a common purpose, whether realized or not. The fear of the relationships getting too close is similar to the lack of understanding partnering's principles barrier. Obviously, there is the possibility that a relationship may lead to decisions being made in an unfair and unethical manner. The counter to this argument, though, is that the relationship would probably have been compromised without partnering. Education is the key to mitigating this barrier. The micromanagement barrier goes directly against the key element of partnering to allow issues to be resolved at the lowest level possible. As with the other knowledge and skill barriers, training and education of the existing management structure is the key to mitigating this barrier (Larson and Drexler 1997).

Project Structure Barriers

While attitude, experience, and lack of experience are central to the previous barriers, project structure barriers work against the principles of partnering because most construction projects are relatively short in duration. By the time the stakeholders truly understand their team members, the project is approaching completion. As such, long-term relationships rarely mature in construction projects. In addition to the short-term nature of the projects, specific contract language, customary practices in the industry, and contract size contribute to these barriers. Mitigation and reduction of these barriers generally involve creative solutions.

The primary barrier in this category is the lack of long-term commitment. Projects in the construction industry, as a rule, are short in duration. The ideals of partnering are suited to fast-track relationships amongst the stakeholders in the attempt to achieve a level of trust normally seen in long-standing relationships. Sometimes, this barrier can not be overcome, simply due to a lack of time. The only way to mitigate this barrier is by risking one's position and trusting another individual sooner than you would otherwise.

The other barriers in this category require creative solutions to overcome. Often, there is specific contract language that prevents one or more of the stakeholders from achieving a goal. In these cases, the owner and contractor should do whatever is in their authority to support the goal. The ''low-bid'' mentality of the industry prevents contractors from including costs in their bid to allow for partnering. Unless the project documents specifically direct the bidders to include the costs, they typically will not be there at bid time, since a contractor will not risk losing a bid on a projected management style. The owner has the responsibility in this case to ensure the project documents clearly state their intentions with respect to implementing the process.

The last barrier in this group may be the simplest to overcome, that of the contract size being too small. In many cases, contracts are too small to warrant the use of formal partnering and be cost effective. In these cases, it is incumbent on the stakeholders of these projects to apply the principles of partnering to the project. By applying the principles, these contractors can also benefit from the process without spending the extra resources for a facilitator and off-site workshops. Instead, the partnering can be done informally in the normal conduct of business (Larson and Drexler 1997).

Partnering Process Barriers

There are inherent barriers to the partnering process. These barriers exist within the framework and principles of partnering, if they are not applied adequately or correctly. As with the project structure barriers, creative solutions are often required to overcome these barriers. The commitment barriers are self-explanatory. If either the top management or the working level is not committed to the process, partnering will not work. A recent summit meeting was conducted between the AGC and NAVFAC. One of the key issues arising from the meeting was AGC's concern that the top-management commitment to partnering was waning. Specifically, the minutes indicate:

> AGC expressed concern that partnering was losing interest at the top. They felt that both sides need to create the culture of the organization for every job, that partnering is important and that top management needs to be involved. NAVFAC agreed to issue an updated policy letter on partnering which includes encouraging management level support and involvement above the Resident Officer in Charge of Construction [project manager] level. NAVFAC also agreed to prepare a policy statement on partnering which could be included in the AGC magazine (Miller 1997).

Once the top management commitment falls off, the working level commitment follows suit. Education and advertising the successes of partnering will overcome this barrier.

The expense of conducting partnering has often been cited as a reason to avoid the process. Education and publicizing the cost data is required to overcome this barrier. A recent survey by the COE indicates the cost of partnering is approximately 0.15% of the total project cost. In comparison, a recent study by CII indicates that partnering realized a 7–26% reduction in total project costs (Consensus Building Institute 1996). The final barrier is having the right facilitator. There is no good answer on how to avoid this barrier. Sometimes, despite their best intentions, the character and personality mix of the team members and the facilitator do not mix. One may postulate that the partnering may have failed anyway. Nonetheless, this barrier may exist (Larson and Drexler 1997).

J. Constr. Eng. Manage., 2002, 128(2): 127-138

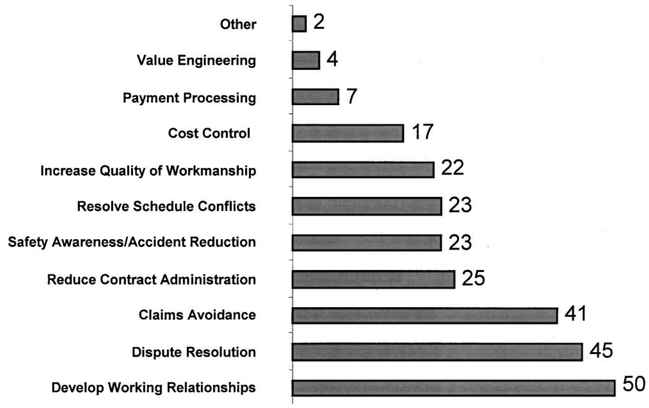

Fig. 1. Goals: response summary of all respondents

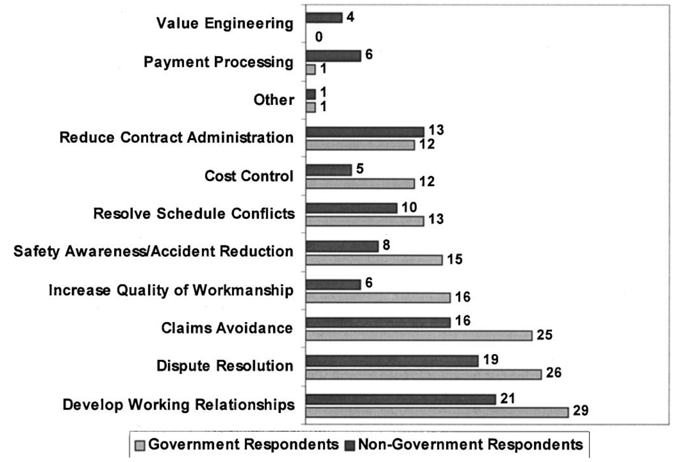

Fig. 2. Goals: response comparison by background of respondent

Current Environment

Public agencies have embraced partnering as the management style of choice due to the benefits to be gained from the process. The process takes two groups of people with differing goals and unites them with a common set of objectives. Unfortunately, this ‘‘paradigm shift’’ has been met with a tendency to resist the change. This study attempts to identify the goals of the major stakeholders in the process as well as what barriers prevent the stakeholders from achieving their goals.

Survey of Government Sector Stakeholders

A survey was developed with the specific intent to determine what stakeholders have for their goals in the process and what barriers prevent attainment of those goals. The survey was sent to three groups of construction organizations including public sector owners, contractors, and consultants specializing in partnering facilitation. The initial distribution was by facsimile and e-mail transmission to 12 agencies and private companies. Each contact at those agencies was asked to redistribute the survey to other persons with partnering experience, including top-level management and field personnel. Without full knowledge of the overall redistribution effort, only 25–30 responses were expected. It appears the contact persons were more effective than anticipated. Fifty surveys were received by the requested deadline.

Analysis of Results

Goals

The survey was designed to determine what goals stakeholders have when entering a partnering workshop. The question asked the respondent to choose at least five of ten goals listed. There was an eleventh goal listed as ‘‘Other’’ for respondents to use should they have a goal not listed. A presurvey expectation was that respondents would be experienced in partnering and would choose goals consistent with its philosophy.

The three goals chosen most often were developing working relationships, dispute resolution, and claims avoidance. These responses were consistent with the presurvey expectations. The balances of the goals, and how they ranked by total response, are summarized in Fig. 1. The number at the end of the bar represents how many respondents chose that goal as one of their five choices.

The data was analyzed to determine if there were deviations between respondents with a government background compared to those with a nongovernment background. No significant difference was found. Fig. 2 shows a comparative list of the goals.

The data was further analyzed by comparing executive management responses against working level and facilitator responses. The responses from the executive management and the working level managers were consistent but differed from those of facilitators. The executives and working managers tended to emphasize goals related to potential litigation situations. Specifically, claims avoidance and reducing contract administration were more prevalent in these groups, whereas increased quality of work was rated higher by the facilitators. It is hypothesized the facilitators responded this way since quality of work receives a lot of attention during the formal sessions of the process. Fig. 3 details the comparative summary by worker classification.

In addition to the comparative charts presented, the survey also asked each respondent to identify the single largest benefit from partnering. This question was posed using a narrative response. The responses received are consistent with the ranking of the goals.

Barriers from Study

The survey was tailored to collect data on the current barriers to partnering. Similar to the goal-ranking question, each respondent was asked to rank five barriers from a list of nineteen barriers, including an ‘‘Other’’ category if needed. The presurvey expectations for this portion were expected differences in opinion on what the barriers were, depending on the working level of the respondent.

Similar to the responses on goals, the top barriers chosen by all respondents were clearly set apart from the rest of the data points. Seven barriers were chosen by at least 40% of the respondents. They included top management commitment, ego/personality indifference, low-bid mentality, working level commitment, lack of common goals, lack of understanding the principles, and past adversarial experiences. Fig. 4 summarizes the overall analysis of responses.

Unlike the goals analysis, significant differences were noted when comparing the responses between government and nongovernment respondents. The government respondents’ choices indi-

J. Constr. Eng. Manage., 2002, 128(2): 127-138

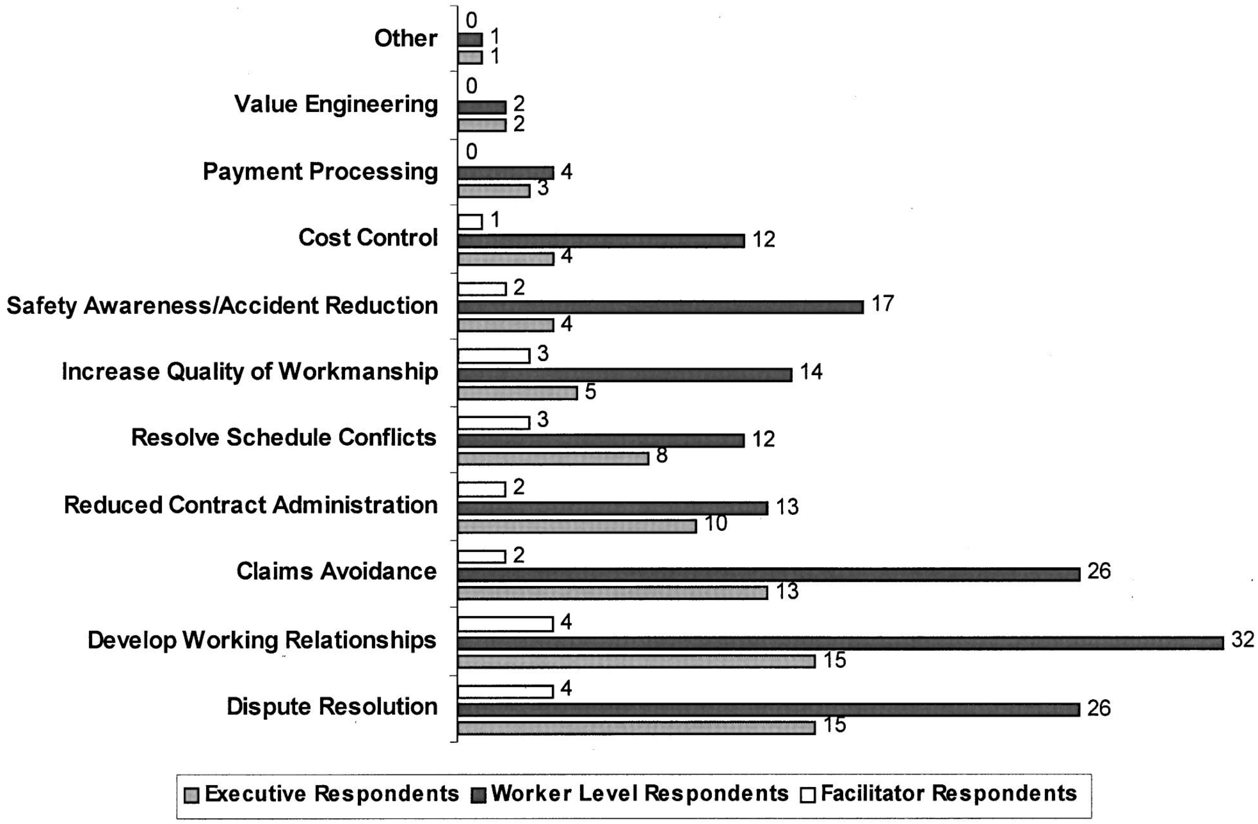

Fig. 3. Goals: response comparison by working level of respondent

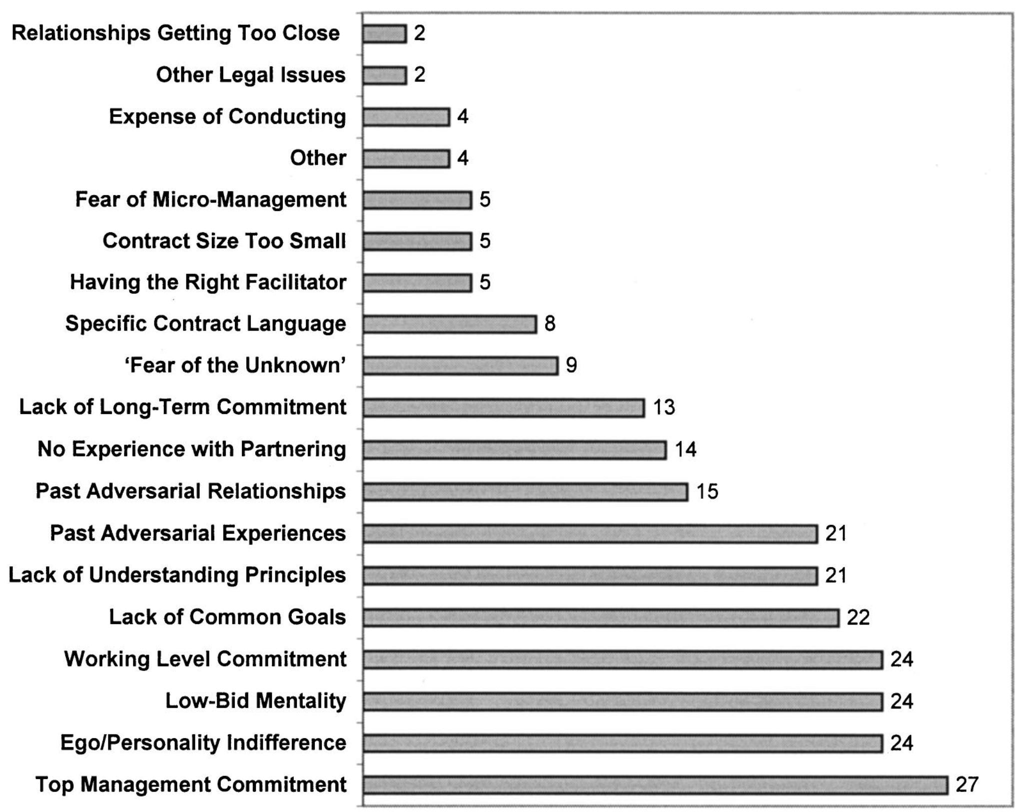

Fig. 4. Barriers: response summary of all respondents

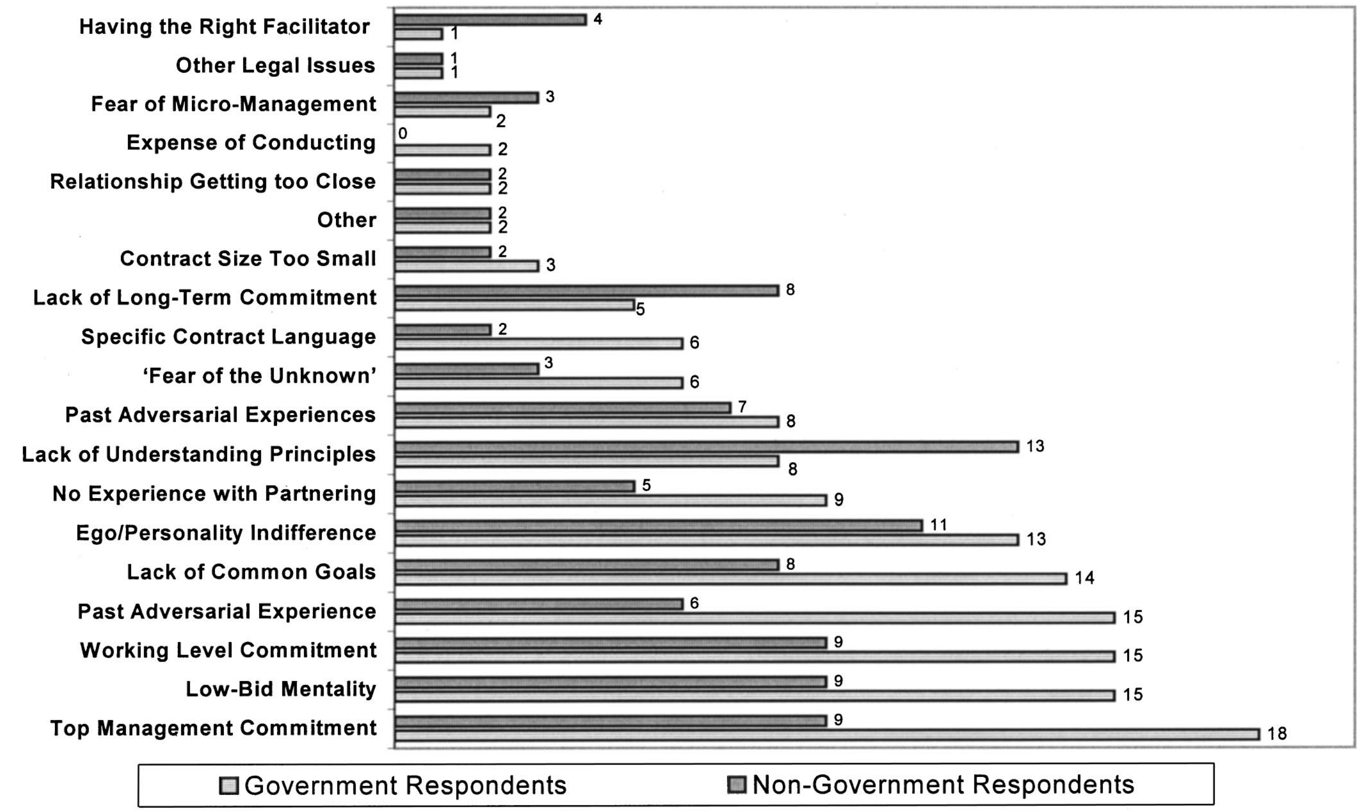

Fig. 5. Barriers: response comparison by background of respondent

cate a lack of trust and commitment to the partnering concept. Their most chosen barriers included top management commitment, low-bid mentality, working level commitment, past adversarial experiences, and lack of common goals.

Contractor responses reveal a similarly distressing viewpoint. Their most chosen barriers include lack of understanding the partnering principles and ego/personality indifference in addition to the low-bid mentality and top management and working level commitment. This seems to center on a lack of communication and understanding of the owner's perspective. This is precisely what they chose as their top barrier, a lack of understanding the principles of partnering. Fig. 5 compares the two data sets.

When comparing the responses across the worker level, another anomaly was discovered. Although not unexpected, there were distinct differences when comparing the choices between the executives and the working level. The executive perspective appeared to be lofty, suggesting the barriers to partnering were a lack of commitment and trust. The working level, however, chose barriers related to a lack of involvement by top management. Their choices also included items they felt top management could change, such as the low-bid structure of contracting. Meanwhile, facilitators chose barriers that suggested failure of the stakeholders to understand and commit to the process. These responses validate the contrasting observations made between top and working managers. Fig. 6 illustrates the contrasting viewpoints.

Some encouraging results were realized with a relatively low rating of certain barriers from all groups. Barriers normally associated with a catastrophic breakdown of a partnering effort were rarely chosen. Those included the fear of micromanagement, relationships getting too close, expense of conducting partnering, and other legal issues. It appears the basic principles of partnering are understood and are achieving some of the fundamental benefits that are associated with the process.

In addition, a similar narrative question was posed to each respondent to identify the single largest barrier to partnering. The responses included a good mix of candor on some of their "real-life" experiences with the partnering process.

Conclusions and Recommendations

Conclusions

The objective of this study was three-fold. The first objective was to generally evaluate the partnering process as it has evolved, how it applies to construction industry, and how it achieves its goals. An extremely interesting part of that research was discovering the various dynamics of how the different sectors of the industry viewed partnering, both in the application of its principles as well as the benefits and concerns from the organizations. Specifically, it was intriguing to discover the myriad of definitions and applications of partnering, especially amongst similar organizations in the public sector.

From the data, the conclusion is that partnering is not just another management style that will be replaced in 3–5 years. Partnering is the essence of good business practices. Its roots are founded in the tenets of trust, mutual respect, and integrity. It achieves its goals and objectives through open communication and mutual risk taking and profit sharing.

Partnering is about joint strategies to achieve common goals. The second part of the research was to understand why the parties come to the table to be a part of the project team. For this re-

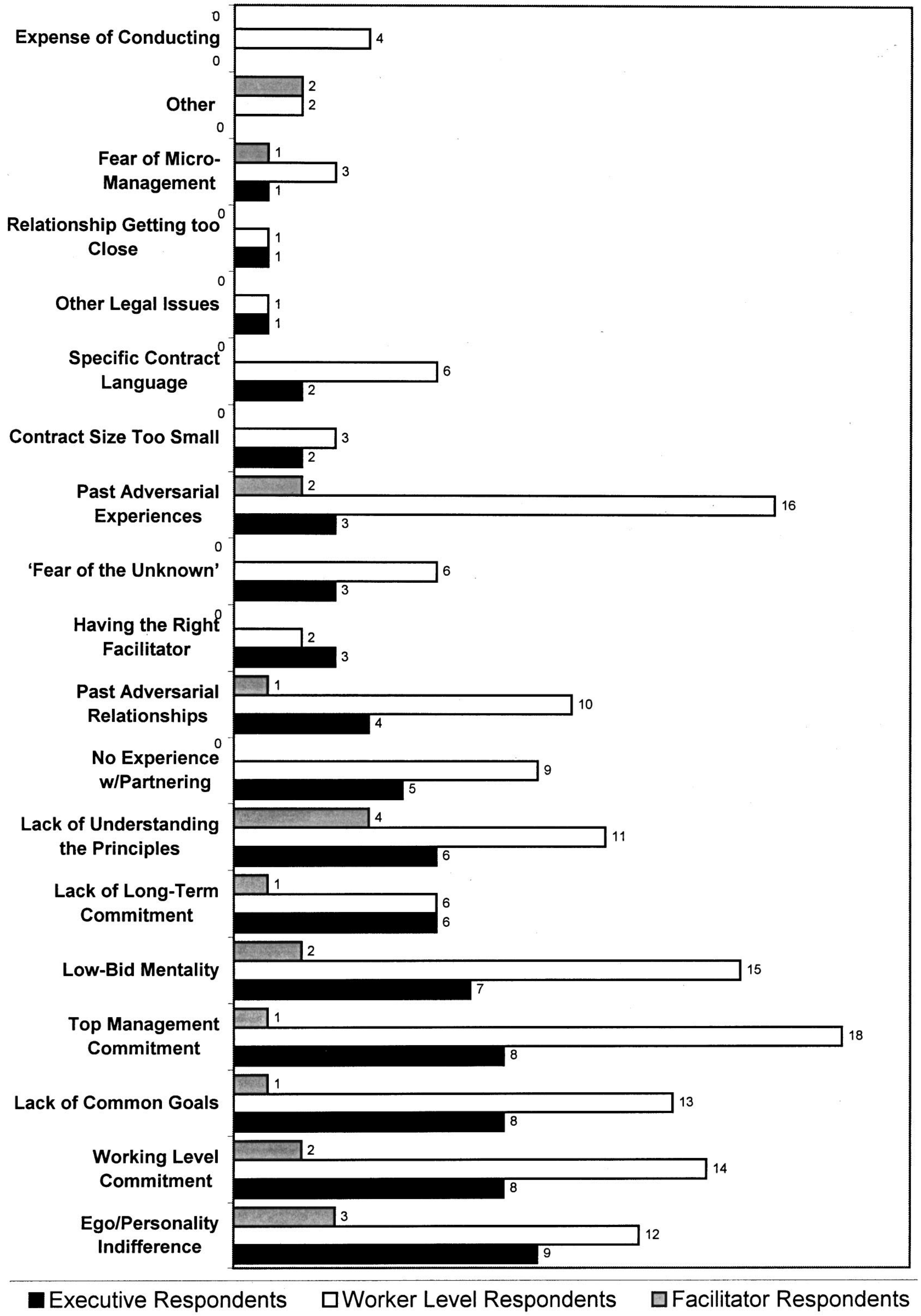

Fig. 6. Barriers: response comparison by working level of respondent

search, a survey was conducted to identify what goals are driving the stakeholders in the process. The analysis of the survey yielded expected results and supported two key conclusions. First, stakeholders are sophisticated in what they want and how they want it. Second, the goals are consistent, not only between the owners and contractors, but also across the various working levels. The construction industry has embraced partnering and is willing to take the risks to make the paradigm shift.

The final portion of the research, and possibly the most important, was to understand what barriers still prevent organizations from achieving their goals and objectives. This portion of the study brought interesting results. As unified and consistent as the goals were, the barrier analysis showed inconsistencies. The survey showed significant differences in perception, depending whether you are an owner or contractor, or top management as opposed to project management. This perception can, and will,

J. Constr. Eng. Manage., 2002, 128(2): 127-138

lead to disastrous results if left unchecked. It appears to be an evolutionary process in which the parties come together and, for some time, embrace traditional singular goals and objectives without regard to the other parties to the process. With evolution, through involvement in additional partnered contracts, project participants will evolve into true partners with common goals and objectives having shed their ''baggage'' from their earlier adversarial experiences.

Recommendations

Two recommendations are being made. First, partnering, on public sector projects, should be used in all cases where it is reasonable to do so. The process can virtually assure success when applied properly. Government owners and contractors alike should continue to keep building on the foundation that is in place and continue to learn from the private sector in which the inertia is not so great. To that end, the principles of partnering should be employed as a business standard, even if a formal process is not implemented on a given project. Its principles remind us of when mutual respect and trust were commonplace, traits that have been eroded by the ever-growing mountain of litigation.

Lastly, further study is recommended to identify solutions for the barriers that still exist. This would include ways for top-level management to be more visible in the project arena as well as further empowering the working level. Entrusting the project managers will leaves more time for top management to continue bridging the communication gap between owners and contractors.

References

Associated General Contractors of America (AGC). (1991). *Partnering—a concept for success*, Alaxandria, Va.

Buffington, J. E. (1992). ''Partnering.'' *Mimeographed Rep.*, Naval Facilities Engineering Command, Alexandria, Va.

Consensus Building Institute. (1996). ''Partnering, consensus building, and alternative disputes resolution: current uses and opportunities in the U.S. Army Corps of Engineers.'' *IWR Working Paper 96-ADR-WP-8*, U.S. Army Corps of Engineers, Washington, D.C.

Construction Industry Institute (CII). (1995). *Guideline for implementation of CII concepts: best practices for the construction industry*, Austin, Tex.

Construction Industry Institute (CII). (1996). *Model for partnering excellence*, Austin, Tex.

Eastern Federal Lands Highway Division. (1996). *Partnering implementation guide*, Sterling, Va.

Edelman, L., Carr, F., and Lancaster, C. L. (1991). ''Partnering.'' *IWR Pamphlet 91-ADR-P-4*, U.S. Army Corps of Engineers, Washington, D.C.

Gunn, T. E. (1991). ''Partnering.'' *Mimeographed Rep.*, Naval Facilities Engineering Command, Alexandria, Va.

Herbert Chock and Associates. (1996). ''Partnering...'' *Partnering: American team building at Herbert Chock and Associates, Inc.*, Honolulu.

Larson, E., and Drexler, J. A. (1997). ''Barriers to project partnering: report from the firing line.'' *Project Management Journal*, March.

Podziba, S. L. (1995). ''Deciding whether or not to partner small projects: a guide for U.S. Army Corps of Engineers managers.'' *IWR Pamphlet 95-ADR-P-6*, U.S. Army Corps of Engineers, Washington, D.C.

U.S. Department of the Interior. (1991). *Partnering: a new concept for attaining construction goals*, Washington, D.C.

U.S. General Services Administration (U.S. GSA). (1996). ''Partnering in federal design and construction.'' ⟨www.gsa.gov/pbs/pc/gd_files/partner.htm⟩.

Welch, J. (1996). ''Partnering: construction project management.'' *Online management*, Four Corners Management Systems, Durango, Colo.

''Your choice makes the difference.'' *Engineering News Record*, February.

J. Constr. Eng. Manage., 2002, 128(2): 127-138