

TRAINING AND MOTIVATION:  
KEY TO A QUALITY AND PRODUCTIVITY-DRIVEN COMPANY CULTURE

By

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By

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By

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Chair: Robert Cox  
Co chair: Raymond Issa  
Department: Building Construction

The objectives of this study were to identify the key factors to achieving a quality and productivity-driven company culture; and to conduct a pilot evaluation of the industry's effectiveness in implementing them. The two factors key to a quality and productivity-driven company culture were training and motivation, as revealed in the literature review and supported by the survey results. Effective training is key to quality performance as much as motivation is to productivity performance. Training and motivation thrive most effectively where an endless and growing commitment from management exists at all levels of implementation. Quality and productivity-driven company cultures have characteristic of having lower employee turnover rates; and higher levels of employee satisfaction. Such a company culture thus benefits from the capability of achieving maximum quality and productivity performance.

The industry's implementation of training, although relatively effective, still has room for improvement. Training programs sponsored by the companies in the industry are currently not well defined. But, considering that most of them are still in their first decade of existence (based on the survey responses), they are moving on the right track. In comparison to the current effectiveness in implementation of training, the same cannot be said for the implementation of motivation. The construction industry's effectiveness in implementing motivation at the project personnel level is mediocre and needs special attention with all areas and issues pertaining to workforce motivation. It appears that the over focus on executive-level personnel motivation has blinded the industry to motivating its project-level personnel (who are directly responsible for delivering quality and productivity); and also the bottom line. The construction industry needs more effective implementation of motivation at all levels (in the way of employee recognition when accomplishments in quality and productivity performance are achieved). Effects and interaction of the above factors resulting from this initial study may be used by the construction industry to better manage its workforce and influence its company culture in an effort to achieve a company's quality and productivity potential.

## CHAPTER 1 INTRODUCTION

### **Problem Statement**

“The chief obstacle confronting the contractor in his quest for a profit is having to operate in a competitive environment” (Park and Chapin 1992, p.64). Characterized by its very competitive nature and high bankruptcy rates, the U.S. construction contracting business is faced with various problems remaining competitive both at home and in the international construction market (Nunnally 2000).

The decline in productivity and cost effectiveness in recent years evidently served to reduce construction’s share of the U.S. gross national product (Nunnally 2001).

Increasingly the construction industry faces fierce competition and high-risk, and low-margin returns compared with other industries (Jackson 1999). The increased competition in the construction industry places firm on a constant push to improve capital productivity to remain in business and make a profit (Sanders and Thompson 1999).

The construction process, as for other industries, it is important to remember that people are the essential element to improving productivity and cost effectiveness (Nunnally 2001). Perhaps the greatest challenge currently facing the construction industry, and over the next decade, is attracting and retaining qualified workers (Sanders and Thompson, 1999). The Construction Industry Training Report (Paul and Wilson 1999) confirms the continued struggle facing construction companies in finding qualified people at both the craft and management levels (at the cost of performance in terms of productivity and profitability). This is causing companies to re-examine employee

relations and the ways in which they are attracting, retaining, and developing their workforce. It is management's responsibility to provide its employees with an environment in which they can thrive and perform at their maximum potential in an effort to establish a quality and productivity-driven company culture. After all, the work of these talented individuals directly brings about the high quality and productivity that reinforces a company's competitive edge.

The Center for Construction Productivity and Quality Management at the University of Florida emphasizes low productivity and inadequate quality management (currently evidenced by costly time, budget overruns, and expensive and lengthy claims), as the direct threat facing the construction business (CCPQM 2001). In an industry where clients are increasingly demanding more for less, effective implementation of quality and productivity have become key for construction companies to make a profit and stay in business. Thus, it is necessary to define and analyze those critical factors affecting quality and productivity performance a talented workforce is out to promote.

### **Objectives of Study**

The objective of this study is to define the key factors, as defined by industry advocates, to achieving a quality-and-productivity-driven company culture; and to evaluate the industry's effectiveness in implementing them. The findings on the effects and interaction of the above factors resulting from this study may be used by the construction industry to better manage its workforce and influence its company culture in an effort to achieve a company's quality and productivity potential.

### **Scope and Limitations**

This scope of the thesis results if limited to general contracting companies in the State of Florida, members of the of the AGC (The Associated General Contractors) and the

ABC (Associates Builders and Contractors). Since only those companies appearing in the AGC and ABC membership directories that have a working website or email address were contacted, the results are further limited to this. Furthermore, only professionals within the company personnel at the Executive Level and Project Level were invited to participate. Executive-Level personnel include the CEO, CFO, President, VP, and HR Director. Project-Level personnel include Project Managers, Project Engineer, Superintendents, and other jobsite or project-based professionals. The research covers strictly those professional individuals, as the aim of the thesis is to study quality and productivity performance strictly at the professional level. Consequently, non-professional-level personnel and laborers were not asked to participate.

A total of 386 individuals from 116 different companies were invited to participate. Of these 37 individuals from 10 different companies actually participated in the study. In other words, approximately a 10% response was attained within a total of 3 weeks. As a result of the relatively small sample-size available to work with, the study may more accurately apply to those company-demographics characteristic to the participants in this study. The sample demographics include those companies with an estimated annual volume of \$10 to \$100 million, with less than 100 employees, and average project sizes of \$1 to \$10 million.

### **Methodology Overview**

A literature review was made to define the key quality and productivity (Q&P) factors most referenced by industry advocates, which encourage the attraction, retention, and development of a workforce, in an effort to attain a company's performance potential. Surveys were then prepared to evaluate the accuracy, perception, and correlation of the defined key factors to workforce quality and productivity performance, employee

turnover, and employee satisfaction. The effectiveness and the actual level of implementation of these critical Q&P factors on the company culture were then assessed, and recommendations were made on the findings.

### **Thesis Overview**

This introductory chapter is followed by a literature review in Chapter 2 that defines those key factors to a quality-and-productivity-driven company culture. All key factors are identified and discussed separately in the way they affect quality and productivity according to established studies and theories by industry advocates. The industry advocates' recommendation for each key factor to quality and productivity is also discussed in this chapter, along with those secondary issues that affects them.

Chapter 3 narrates the methodology used in this study. The process used to acquire and analyze the data is presented in this chapter. The information is acquired from two main sources, the literature review and surveys, respectively. The population sampled in the survey is that of general contracting companies in the state of Florida. These surveys were used to verify the validity and effectiveness in implementation of the key factors defined in the literature review.

An analysis on the findings of the data acquired from the surveys is presented in Chapter 4. Each key factor herein is addressed in the way it affects quality, productivity, employee turnover and satisfaction. Rough data and additional charts from the analysis narrative made in this chapter can be found in Appendices D and E.

Chapter 5 is the last chapter where a summary of the study along with the conclusions established is presented. Recommendations for future research are also provided in this final chapter denoting those items in need of special attention when conducting similar studies.

## CHAPTER 2 LITERATURE REVIEW

### **Introduction**

After reviewing quality and productivity studies, journals, books, and other literature, two critical factors kept resurfacing. One of them, directly related to quality, is training. “Changing technology, industry consolidation, population shifts, and the shrinking labor pool ... have led contractors to recognize the need to boost the training and development efforts of their people” (Cox and Issa, 2000, p.6). Finding qualified people at the supervisory and management level is one of the top ranked challenges facing an already highly competitive construction industry (Wolfe 1997). While the importance of training seems relatively low by construction firms, given the challenge of finding quality management, the importance of training and education is repeatedly mentioned on every study as a necessity in achieving quality. According to Matthews and Burati (1989), a Construction Industry Institute (CII) study indicated that training performed by contractors resulted in increased quality awareness. The second factor, crucial to productivity, is motivation. Once again, worker motivation became the center topic in achieving workforce productivity on several studies. The Construction Industry Cost Effectiveness (CICE) Study, probably the most comprehensive study ever made of the U.S. construction industry, confirms that inadequate performance in the areas of training and motivation have significantly led to the problems facing the U.S. construction industry in remaining competitive (BR 1982a, Nunally 2001). As a result of these



findings, both training and motivation factors will be analyzed in detail to find the way in which they individually affect quality and productivity, respectively. These factors will be scrutinized and broken down to their influential elements to discover the effective ways to address them. After all, an environment where these quality and productivity stimulating factors are implemented allows for a talented workforce to perform at their maximum potential. Without the awareness and management of these stimulating factors, a contractor is at risk of losing its talented workforce and consequently producing poor quality work at a low productivity level. In turn, these issues and suggestions provide the industry an understanding of areas in need of attention, and on solution proposals that it should apply to excel in the highly competitive construction industry.

The individual factors that are critical to quality and to productivity also interact to affect one another, as it will be noted in this study. This interaction is why it is important to consider both quality and productivity issues together when seeking to improve a company's competitive standing.

### **Training Factors Involving Quality**

Training is found in this study to be the factor with most effect on quality by industry advocates. In an industry where quality awareness is growing, as owners demand more for less, improving company quality-performance through the implementation of training provides that additional edge over the competition to get the job. As respected industry advocate Ariel de Geus puts it, "the ability to learn faster [through training] than your competitors may be the only sustainable competitive advantage." (Park and Chapin, 1992, p.42) So why have the benefits of training on quality performance been undermined in the construction industry? Recent studies conducted by the M.E. Rinker School of Building Construction at the University of Florida report that potential reasons

are “the cyclical nature of employment, the extreme high volume and growth of the current market, the fear of training and then not retaining the employee, and the lack of evidence that training improves the profitability of the firm” (Cox and Issa, 2000, p.4).

For quality training to occur and be successful there must first be a desire, be it from the individual or from the person in need of training, to want to get trained or to want to seek training from the employer or elsewhere. Before one can capitalize on the benefits of training, strong management involvement and good employee relations are needed to establish an environment where this desire and the need to get trained can naturally exist and be sustained. A company cannot expect training of others, such as subcontractors and laborers, without first expecting training of itself starting with its construction professionals with the largest authority and power to affect the company’s direction. Consequently, the focus of this study is placed on management, at both the executive and project levels, where construction professionals are the responsible party for establishing the expected level of quality and making sure that it is reached.

The current necessity for management’s role in quality and training is made clear in an exhaustive study of quality related literature undertaken by Saraph, Benson, and Schroeder (1989). In their study of critical factors that are used to achieve quality management in an organization are narrowed to eight critical areas:

- Role of divisional top management and quality policy
- Role of quality department
- Quality-related training
- Product/service design
- Supplier quality management
- Process management and operating procedures
- Quality data and reporting
- Employee relations

The third point highlights the acknowledged need for quality-related training being discussed which can only be achieved with the success of the first and second points that represent management's essential role and determination to the quality effort. The control of quality will not improve unless management acts upon it to change work procedure, and to communicate this information effectively to the workforce. Ensuring that the flow of information regarding the quality criteria extends right through to the workforce can change this situation (Churcher and Johnson 1996). This can be further achieved by implementing the hierarchy of quality documents originally introduced in the book titled The Control of Quality on Construction Sites (Churcher and Johnson 1996). These quality documents promote training at all levels, which in turn encourage quality awareness. The quality document levels are:

- **Level 0, specification:** From client/design team to contractor
- **Level 1, contractor's site quality plan:** From contractor head office to staff. May be approved by client's representative.
- **Level 2, inspection and test plan:** From contractor site managers or senior engineers to engineers and supervisors.
- **Level 3, method statement:** Originates with contractor or subcontractor; for internal use but may be approved by client's representative.
- **Level 4, operation plan:** From contractor's site engineers to site foremen
- **Level 5, operational feedback**

Training managers on these and other tools available is essential to improving quality performance in the currently fast-paced information age. After all, without the proper transfer of information or education on the best and current methods available, a company's performance cannot operate at its maximum potential. Many training programs have become stagnant out-dated because they fail to view training as a highly

dynamic process that must evolve along with the rapid changes in technology, information, and resources (Alter and Koontz 1996).

A well-respected quality expert named K. Ishikawa influenced greatly the quality movement with his six quality-related characteristics. These included company-wide quality control; education and training in quality control; quality control circles; and quality control audits, among others. Company-wide quality control relates to managements role in promoting quality; education and training in quality control is just as critical in the automobile industry as in construction; quality control circles represent a quality culture where training can subsist; and audits provide a form of employee feedback and involvement (positive employee relations). Corbett (1997) said that maximum staff involvement and feedback (as achieved in training sessions) is crucial to insuring that quality factors are given appropriate consideration. It is worth noting how employee relations are another critical element of a successful quality oriented management team in the effectiveness of establishing and maintaining a desire and need for training.

Churcher and Johnson (1996) said quality depends just as much on human interaction between the workforce and management as on the appropriate skills needed to complete the job (p. 29). Management's efforts in maintaining strong employee relations, to achieve a quality-eager culture that is attentive to training, are further supported by Total Quality Management (TQM) principles. In his thesis on the effectiveness of TQM principles, Floyd (1996) confirms through statistical data that better employee relations are commonly achieved when total quality management practices are applied.

Total quality management identifies the existence of both internal and external customers. The external customer defined as the end customer, owner, or client who receives the final product or service and is responsible for the revenue. On the other hand, the internal customers are the contractor's employees and are responsible for the profit. A contractor most often deals with a much larger amount of internal customers (employees) than external customers (owner/client). Therefore, a considerable amount of management training focus should be placed on employee relations (internal customers), which in turn lead to the successful implementation of quality. A quality system, according to Kolarik, constitutes a culture of people who functions as a unit or team (Corbett 1997). Training's emphasis on teamwork and team development is critical in the maintenance of an atmosphere capable of sustaining continuous improvement.

Deming (1982) developed fourteen points that are essential to improving and reaching Total Quality Management. Corbett describes Deming's principles as a "range from the institution of education, self-improvement and leadership training among workers to the elimination of slogans, numerical quotas and financial merit systems, which encourage performance, but may inhibit team spirit and organization growth. His [Deming's] principles place the responsibility on management to create a work environment that is conducive to quality improvement through pride in workmanship, commitment and cooperation." (Corbett, 1997, p. 21)

After all, management role in learning and developing each individual team member's assets and pooling all resources available is critical to accomplish the task result maximize profits (Achor 2000). Deming's fourteen points [see: Implementation of Training into Company Culture] complement management's critical role in creating a

pleasant and satisfying environment for its employees where pride, education, self-improvement, leadership, and teamwork coexist. Deming's points are to this date validated by industry advocates. It is all of these elements that contribute to an atmosphere in which quality can flourish where people are encouraged and eager to seek training.

The incentives for contractors to implement training are clearly there. Contrary to the common misconception that training is costly for contractors, research indicates that training improves employee attitudes and morale and leads to reduced absenteeism and staff turnover (Stewart 2000). A survey by the FMI Corporation, management consultants for the construction industry, found that 86% of the construction companies utilize "on-going skills training" while 71% reported the use of "internal career development" as mechanisms to attract and retain good workers. The incentives for training don't stop here. Recent studies support that implementing training effectively provides an evident source of return on investment at the bottom-line of a company. Findings by Card and Kruger in 1992 reinforce this relationship between training and earning power first made in Denison's 1967 studies. Furthermore, studies by Glover support that an increase in the level of training is associated with an increase in productivity (Glover 1999).

The individual factors that are critical to both quality and productivity will consequently indirectly affect one another as well. This is why it is important to consider both quality and productivity issues together when seeking to improve a company's competitive standing.

### **Implementing Training into Company Culture**

In 1993, a group of industry advocates on Total Quality Management (TQM) published a report that gathered six common traits from twenty different studies selected for their flawless methodology and focus on TQM practices of organizations. This report, titled Does Quality Work? A Review of Relevant Studies (Hiam 1993) became known as the Conference Board's Report Number 1043. Two out of the six traits identified that played a pivotal role in quality management's success included those companies where:

- Employees were asked and empowered to continuously improve all key business practices.
- Management nurtured a flexible and responsive corporate culture.

High employee interaction and feedback, along with an accommodating company culture, as seen in the above traits, are the first steps to a company's self-sufficient training program where employees are proactive in the desire for maintaining and achieving greater quality.

The continuous improvement through employee involvement that training provides is a critical element to the success of total quality management.

Deming (1982) proposed the following issues to consider when implementing a training program (and worth applying to any quality-driven company culture)

- Institute training on the job.
- Institute leadership. The aim of supervision should be to help people, machines, and gadgets to do a better job. Supervision of management is in need of overhaul, as well as supervision of production of workers.
- Drive out fear, so that everyone may work effectively for the company.
- Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.
- Eliminate slogans, exhortations, and targets for workforce asking for zero defects and new levels of productivity. Such exhortations only create adversarial

relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the workforce.

- Eliminate work standards (quotas) on the factory floor. Substitute leadership.
- Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.
- Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.
- Remove barriers that rob people in management and in engineering of their right to pride of workmanship. This means, *inter alia*, abolishment of the annual or merit rating and of management by objective.
- Institute a vigorous program of education and self-improvement.
- Put everybody to work to accomplish the transformation. The transformation is everybody's job. (Deming, 1986, p.23; Hall, 1997, 91-98)

Management as well as all employees should be educated and trained on these or any principles the company culture seeks to embrace as part of their culture. The implementation of training is most effective when it reflects not only its company goals but also the principles and quality standards established as part of its culture. Training programs that focus on improving those skills that will reinforce the strategic goals and objectives of the firm experience greater effectiveness in impacting the bottom-line results of the firm (Cox and Issa 2000).

### **Motivation Factor in Productivity**

Motivation can be defined as a “combination of influences that causes the individual to want to do the job as quickly and/or as good as possible consistent with safety and quality goals while cooperating, on a larger scale, with his team in execution of the project as a whole” (Warren, 1989 p. 2). Evidently, motivation drives the employee to perform the task at hand in a timely and efficient manner in unison for a common purpose while preserving quality standards.

A motivated team can exert a major influence on the success of a project (Anchor 2000). Conversely, a lack of motivation resulting from low job satisfaction leads to high



employee turnover rates and consequently to a demise of a company's talented and valuable workforce (Whyte 1960). Some of the worker demotivators identified in a study by industry advocates Borcharding and Garnee include: (Nunnally 2001, p.524-5)

- Disrespectful treatment of workers
- Lack of sense of accomplishment
- Non-availability of materials and tools
- Necessity to redo work
- Lack of recognition for accomplishments
- Failure to utilize worker skills
- Incompetent personnel
- Inadequate communication between project elements
- Workers not involved in decision making

The Department of Energy indicates in a study that worker turnover and absenteeism can have a major impact on total project productivity (BR 1982b). Efforts to minimize employee turnover and absenteeism on the job must be made through the injection of motivation into the working environment and the employees themselves to help maximize productivity.

Studies suggest that increased employee motivation results in increased productivity, and vice-versa, since a motivated employee will seek efficiency solely from the personal satisfaction of being able to perform his job without delays and other interference (Warren 1989). People further attain job satisfaction when their efforts are reflected on the permanent structures they placed their efforts in to produce. Thus, work facilitation is a strong motivator for individuals, and is easily achieved by management through the implementation of construction motivation programs.

When it comes to productivity, motivation is of the essence. Motivation is affected by recognition, working environment, responsibility, communication, and rewards among

others. Job conditions, management actions, and rewards can increase or decrease individual effort and its incentives.

Motivation driven by financial incentives can be advantageous in that it can lead employees to improve the efficiency of construction methods, and to encourage other more inexperienced or less hard-working co-workers to excel. On the other hand, in striving for higher output and efficiency, quality and safety may be neglected. Likewise, the differences in earnings between employees resulting from incentives or inaccurate bonus rates, may give rise to bad feeling and employee problems onsite. (Heap 1987)

It is important to understand that different incentive implementation strategies may be required for different organizations or even different employee groups within the same organization (Boyett 1998). While no single incentive pay strategy is right for everyone, “...skill-based pay plans that tie an individuals compensation to his or her ability to learn and to perform specific tasks of value to the organization is a good idea” (Boyett 1998, p.284). However, incentive programs should be approached with great caution, considering difficulty of measuring employee performance and the variability in the construction environment, which can lead to competition conflicts that tend to harm the team setting in a working environment (BR 1982b).

Other literature suggests that high performance can still be realized without the need for conflict-threatening incentives or rewards if upper management gives proper direction with constraints removed, and the employee has adequate knowledge and skills. A workforce will be motivated to attain higher skills – that will lead to higher morale and performance – when management provides the tools for necessary training, proper recognition, and appropriate communication. (BR 1982b)

Observations of work performance by various industry advocates, including Connellan, Epstein, Johnson, Knapp, Hopper, and Bell, show that while money is not enough to motivate people to perform, rewards do. Rewarding and sincere appreciation for good performance does motivate people to perform better. (Hall 1997)

Communication across all levels makes employees feel valued and part of a team, which in turn increases their motivation that leads to higher performance. The Business Round Table Report A-2 Construction Labor Motivation, (BR 1982b) affirms how a construction employee will often be highly motivated if there is a sufficient supply of information, equipment, materials, energy and space for the needs of every team. Furthermore, participatory decision making through quality circles greatly improve employee motivation beyond what would normally be accomplished on a well-managed project (BR 1982b). Along with the above issues and methods, a satisfying work environment is essential to the enhancement of motivation on the job.

Managers should also show concern for all level employees. Concern for employees' capacity for work as it is affected by their age, nutrition, climate, health, and adaptation. Age affects the capacity at which physical labor is performed, but at the same time it is counterbalanced by the experience and efficiency gained from it. Adequate nutrition from balanced meals that provide high calorie and protein content should be encouraged on the site, as it gives workers more energy to perform tasks efficiently. Heat and humidity can lead to decreased work capacity and heat stroke. As a result, management should consider starting work at first light and avoid the heat for the day. Good health at the construction site should be encouraged through the enforcement of good hygiene and sanitation practices. New and unpracticed employees – characterized for their initially

low productivity – need time to adapt and get instructed to the work before productivity can be improved. In a few words, as Heap puts it, “if the employees observe that management is poor, unfair or corrupt, their morale, motivation, and consequently productivity will be reduced”. (Heap 1987, p. 91-93)

### **Implementing Motivation into Company Culture**

The importance of motivation to construction productivity is clear, and is best achieved in a company by implementing the following motivators: (Nunnally 2001, p. 525)

- Good employee relations, good safety programs, and enjoyable work
- Good worker orientation programs
- Well-defined goals, and well-planned projects
- Good pay, and recognition for accomplishments

The implementation of good relations, good safety programs and enjoyable work positively affect job satisfaction and a satisfying work environment. Motivating employees through job satisfaction has proven very effective. A satisfying work environment is one that provides and maintains good working conditions through the implementation of everything from adequate safety standards to even social activities, which will also increase morale among workers. A strong management concern for their employees’ well being – when expressed – can be a significant motivator for any workforce. (BR 1982b)

Implementing Heap’s critical elements that comprise job satisfaction motivation provide a clear guideline for companies seeking to maximize employee-performance. The basic principle a firm should establish to attain is good working conditions, good worker-employee relations, and good terms of employment. The company should then encourage a work environment where employees have a sense of belonging by making

each employee's usefulness apparent. At the same time companies should be encouraging employees' sense of achievement when performance goals are met, through the use of recognition and acknowledgement to further promote job satisfaction. Finally, pride in skill and a sense of responsibility are also to be encouraged; these should be rewarded with opportunities for advancement and promotion. (Heap 1987)

Rewarding employees does not have to be costly. An acknowledgement and an honest show of appreciation can greatly enhance performance at little or no cost at all (Hall 1997).

The implementation of good worker orientation programs more closely addresses the importance training and education has in motivating employees to perform. Just-in-time training targeted to each employee's specific needs is key to a program's effectiveness. Each employee should be oriented on the specific tools, techniques, methods and technology available to perform their specific task best. (Boyett 1998)

A firm can effectively motivate its workforce to perform as a team through the establishment of well-defined goals and well-planned projects, supported by open communication and readily available information to its workforce. Better, timelier, and more complete information about the organization's strategies, goals, and current performance motivates employees to strive for improved human performance (Boyett 1998).

As for communication, it must be open and effective. Project orientations, suggestion boxes, newsletters, and bulleting boards have proved to be effective methods of communication – other than oral – that should be employed. (BR 1982b)

A company seeking to improve the quality and timeliness of the information people receive can boost performance as much as 20 to 50% by providing employees the following two types of information: (Boyett, 1998, p.288)

- First, they need information to give them direction. They must understand the mission of their company, its business strategy, and what constitutes as performance.
- Second, they need information for confirmation. They need measures, goals, and objectives they can use to monitor and get feedback on their day-to-day performance.

Appreciation in form of recognition by management must be shown to those individuals that engage in efficient practices as a way of stimulating motivation. Proper recognition should offer suitable publicity, or other public show of appreciation.

Companies are encouraged to implement strong financial and non-financial incentives that are directly contingent upon superior performance and/or performance improvement (Boyett 1998). These can come in several forms such as awards, paid time-off, promotion, and financial incentives.

Company incentives are most effective when employees participate in the development of the incentive system with efforts focused on what is important to the project at hand (Cox, 2000). In this manner it is a win-win situation for the company and its employees since the incentives will motivate individuals to maximize performance for the common benefit of the project.

Incentive systems that compensate employees at both the individual and group level have proven most effective. The success of such compensation systems rests on base pay reflecting individual's skills and skill acquisition, while keeping incentive pay tied to group and/or company rather than individual performance. This model is ideal since it

allows for corporate-wide profit sharing and stock ownership, coupled with gain sharing in major operating units. Nevertheless, before this or any such incentive plan is put into action, companies should first train employees to understand the method used to measure and monitor their performance and that of the business, and should hold regular meetings to keep all employees informed about the status of the business (Boyett 1998).

A performance appraisal system should seek to measure “job specific” key performance indicators developed through a collaborative effort with the employee on an individual basis without being too generic. Companies should be reminded that when monitoring employee performance the idea is to “measure to improve not to punish,” the evaluation must conclude with an agreed upon strategy to improve (Cox 2000, p.31).

### **Summary of Literature Review**

A strong correlation exists between training to quality, and between motivation to productivity. The literature review further reveals (Figure 2-1) how those implementing training and motivation into their company culture are more effective at attracting, retaining, and developing its workforce. Consequently, these company cultures are characteristic of having lower employee turnover rates and a higher level of employee satisfaction. These benefits of training and motivation, as evidenced from industry advocates in the literature review, provide those companies that implement them effectively into their company culture a higher quality and productivity performance potential. Training and motivation thrive most effectively where an endless and growing commitment from management exists at all levels of implementation. Such company culture will consequently benefit from the capability of achieving maximum quality and productivity performance. Attaining this quality-and-productivity-driven company culture results in a significantly higher competitive edge that serves to balance out the

inequities between the high-risk to low-marginal-returns (profits) characteristic of the current construction environment.

Figure 2-1 shows how training and motivation ultimately lead to quality and productivity performance. The dark exterior arrows show this primary relationship while emphasizing the more direct connections found between training to quality and motivation to productivity. The other two types of arrows within the figure display secondary relationships and connections between the issues affected, which serve to reinforce the primary relationship. Notice how a talented workforce, supported by the exterior dark arrows at the center of the figure, plays a crucial role in the way quality and productivity is reached through training and motivation. For the implementation of training and motivation to be effective and sustainable it must be infused into the company culture. The figure encloses company culture in a shaded ellipse to illustrate how it entails time to evolve and grow to embrace the key factors to quality and productivity referenced herein.

The sequence the figure follows can be interpreted as follows. Implementation of training and motivation into a company culture provide for a working environment characteristic of high satisfaction where the attraction, retention, and development of a talented workforce are stimulated. This consequently minimizes employee turnover and improves a company's competitive edge through high quality-and-productivity performance.



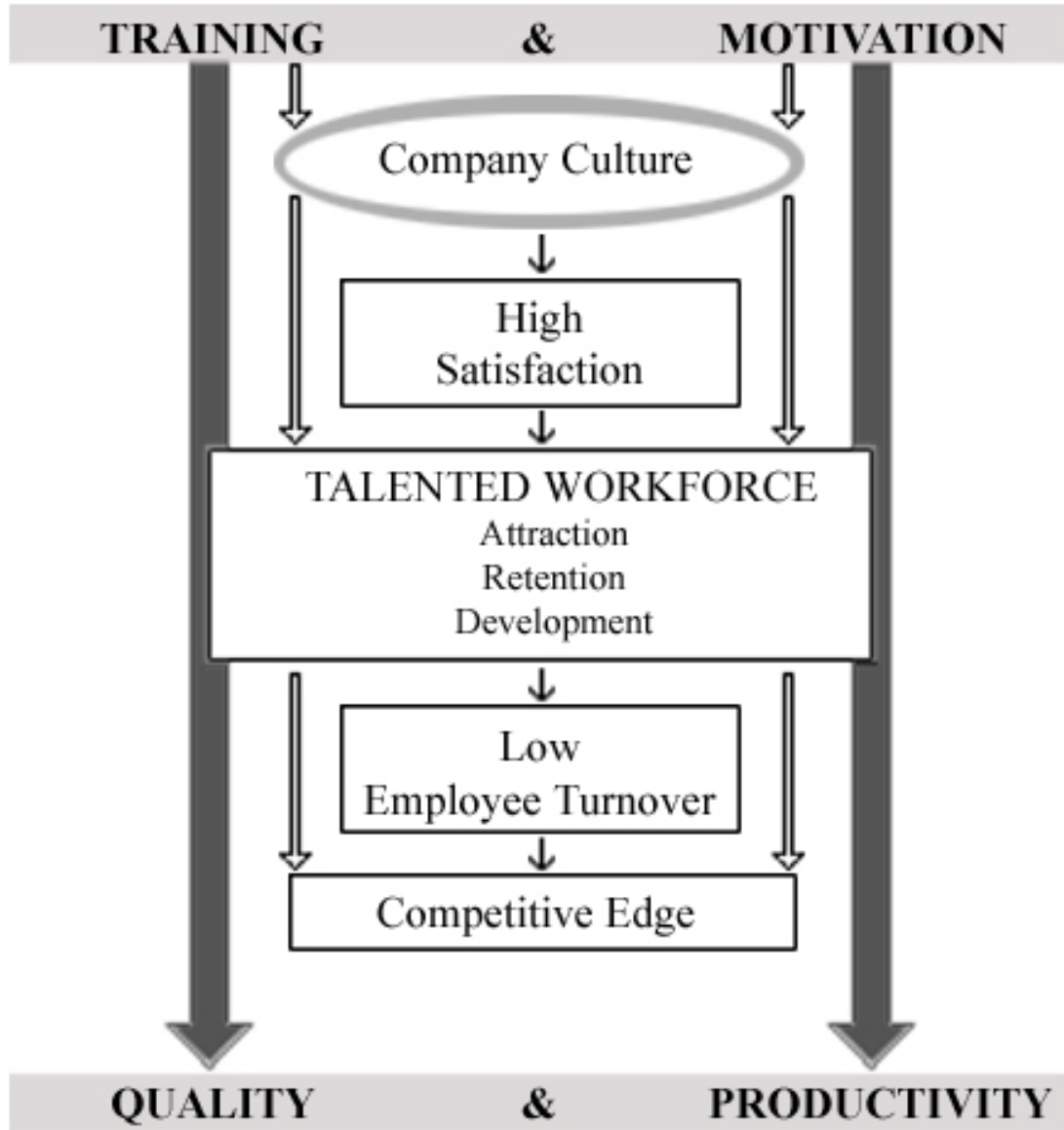


Figure 2-1. Quality and productivity roadmap

## CHAPTER 3 METHODOLOGY

### **Research Methodology**

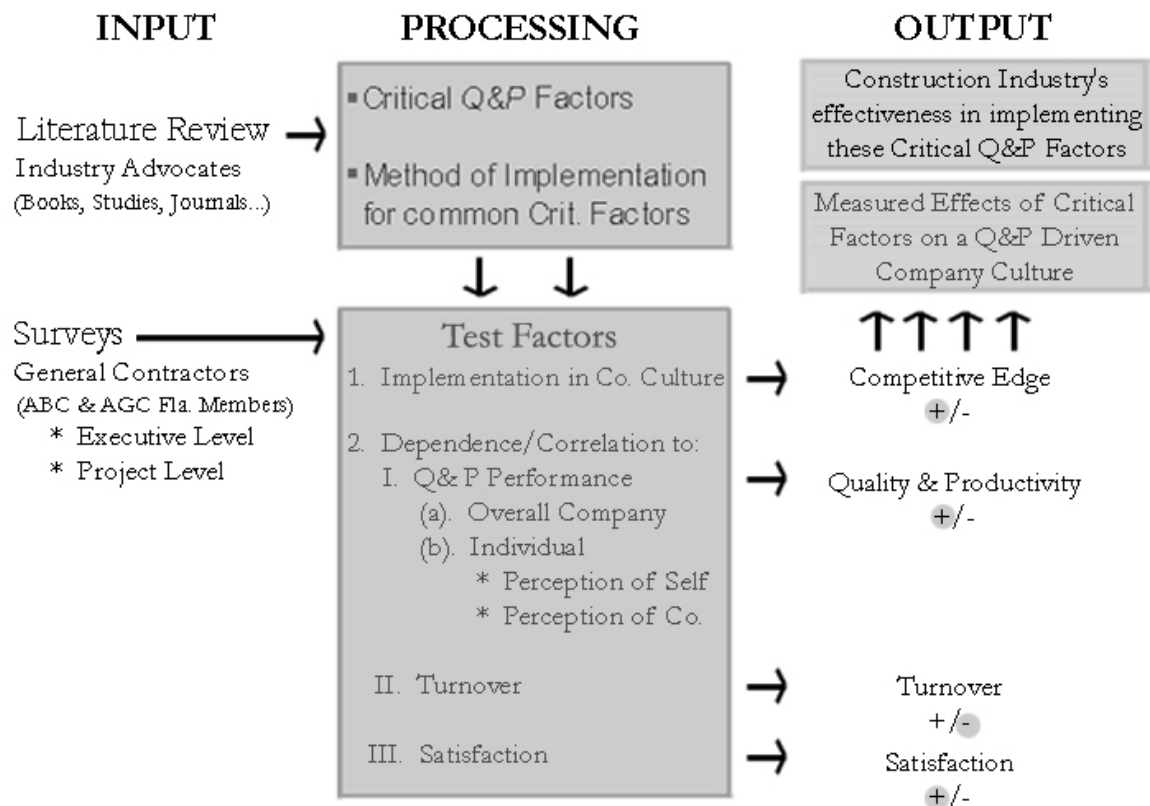
Figure 3-1 illustrates the methodology used for this research. As the methodology shows, this thesis will first define and measure those key critical factors that lead to a quality-and-productivity-driven (Q&P) company culture, which encourages the attraction, retention, and development of a talented workforce, in an effort to attain a company's performance potential. Moreover, once these Q&P factors are analyzed, this study will then determine the current effectiveness of their implementation by the construction industry.

The thesis will follow the following structure and sequence. Information will be gathered at the "Input" stage from literature review and surveys, respectively. The literature review will focus on defining the key quality and productivity factors as referenced by industry advocates. Before the surveys are prepared, all the factors collected from the literature review will be analyzed, weighted, and narrowed-down, as shown in the "Processing" stage, to obtain only those critical factors that have the most profound effect on workforce quality and productivity. Only the most critical factors, once defined, will be considered.

Surveys will then be prepared to evaluate the accuracy, perception, and correlation of the defined critical factors to workforce quality and productivity, employee turnover, and satisfaction, as illustrated in the "Processing" stage in Figure 1-2. It will also be

interesting to note the effectiveness and the actual level of implementation of these critical Q&P factors into the company culture of the surveyed entity or individual.

The final stage in the methodology is the “Output” stage where all the individual results previously evaluated have been sorted to obtain more accurate overall results. The categories in which the results will be sorted are designed to characterize a quality-and-productivity-driven company culture. The categories selected are a company’s competitive edge, productivity and quality, employee turnover, and employee satisfaction. Consequently, the final “Output” will be a set of measured effects of the critical Q&P factors, earlier determined in the literature review and analyzed, on a quality-and-productivity driven company culture where a performance potential is met and maintained.



**Figure 3-1. Methodology flow chart**

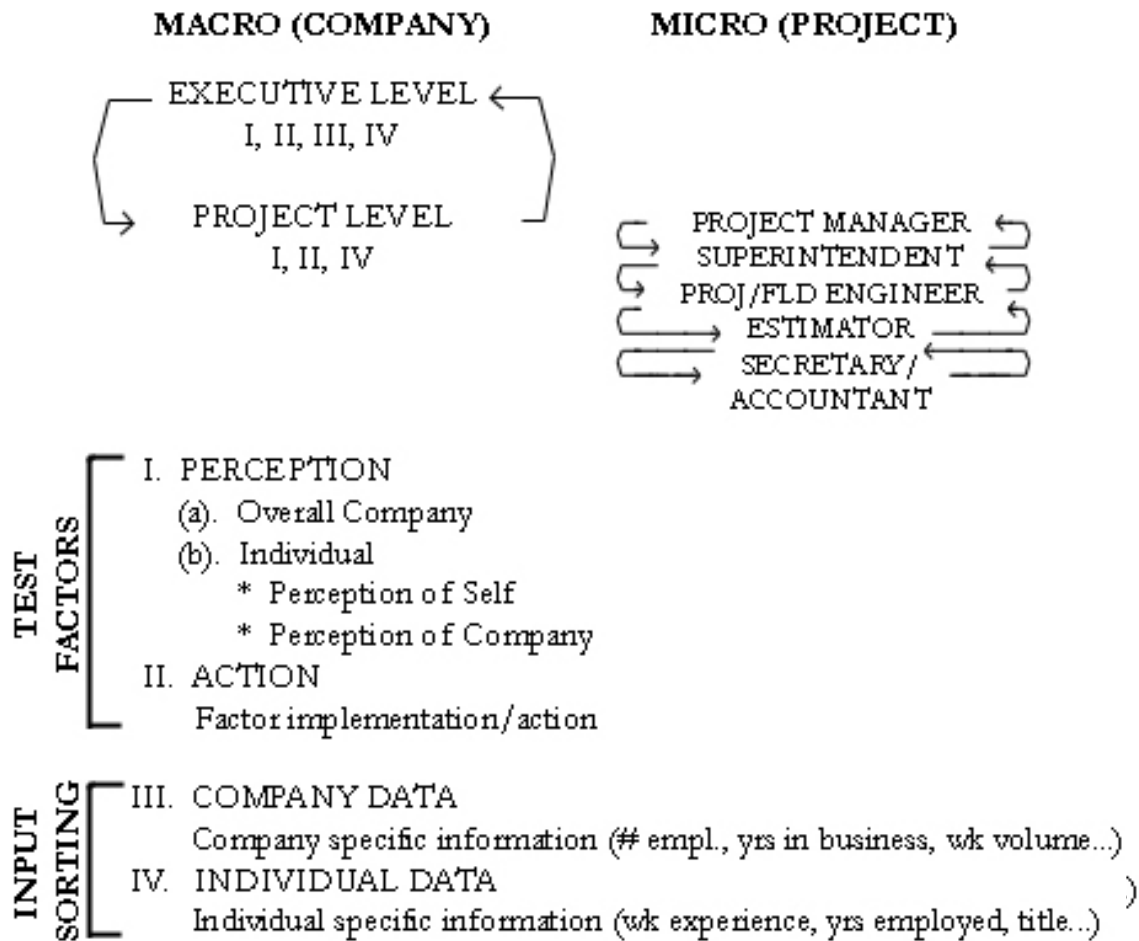
### Survey Overview

Two different surveys were prepared and presented to each general contracting company. As Table 3-1 shows, the first survey [S1] contains questions that are designed to obtain basic company-specific information and facts. This survey is to be completed only by someone with authority within the Executive Level of the company. The second survey [S2] is a more personalized one that focuses on an individual's perceptions and experiences. This later survey is to be completed by both Executive Level and Project Level personnel, where they are asked for their level of agreement to a series of statements on a Likert scale. The participants may choose with each statement to: "strongly disagree", "disagree", "somewhat disagree", "somewhat agree", "agree", "strongly agree", or may choose the statement is "not applicable" to them. A copy of the executive-level survey (S1) and project-level survey (S2) can be found in Appendix A and Appendix B, respectively.

**Table 3-1. Overview of surveys**

SURVEY 1 (S1)		SURVEY 2 (S2)	
I.	Company specific information and facts.	I.	Individual's perceptions and experiences.
II.	Executive Level ( <u>Only</u> ) <ul style="list-style-type: none"> <li>• Macro-Level</li> <li>• Administrative Personnel</li> <li>• CEO, CFO, President, VP...</li> </ul>	II.	Executive Level, <u>and</u> <ul style="list-style-type: none"> <li>• Macro-Level</li> <li>• Administrative Personnel</li> <li>• CEO, CFO, President, VP...</li> </ul> Project Level <ul style="list-style-type: none"> <li>• Micro-Level</li> <li>• Operational Personnel</li> <li>• Project Manager, Superintendent, Project Engineer, Estimator, Secretary/Accountant...</li> </ul>
III.	Twenty-eight (28) multiple choice questions	III.	Fifty-four (54) statements participants provide their level of agreement to on a 7-point Likert Scale

The Executive Level, as mentioned above, is composed of those individuals high up in the company structure with authority that administer the company in a macro-level. Whereas, the Project Level is composed of those individuals directly employed by the general contractor that are most commonly found on a job-site performing daily management and supervisory activities for a specific project, thus in a micro-level. These individuals include: Project Managers, Superintendents, Project/Field Engineers, Estimators, and Secretaries/Accountants. This type of closed loop surveying, illustrated in Figure 3-2, gives a more accurate overall company condition by considering the perception of individual's at both the macro and micro levels within a typical construction company. The Closed Loop Surveying figure further illustrates that information gathered to be used as test factors [I, II] and that used as input sorting information [II, IV]. The test factors refer to the perception of individuals on their own and their company's Q&P performance, and the way in which their companies implement or act on them. The input sorting is composed of company data and individual's data. Company and individual specific information (such as number of employees, work volume, work experience, years employed, etc.) is used for input sorting when evaluating the test factors.



**Figure 3-2. Closed loop surveying**

### **Website Survey**

General contracting companies appearing in the AGC (The Associated General Contractors) and the ABC (Associated Builders and Contractors) membership directories for the years 2000 and 2002, respectively, that have working website or email address were invited to participate in the survey. A letter of invitation to participate in the study was sent via email to executive and project level personnel with addresses made public by either their company's website or by the ABC and AGC directories. This invitation

letter contained a link that automatically directed the individual to the survey website. A copy of the survey invitation letter emailed to participants can be found in Appendix C. Once on the website the participant selects and completes the survey that best fits its job title or position. When the survey is completed the participant is asked to click on a link titled “End Survey” which automatically generates an output file of the responses. Additional information presented on the website can be found in Appendix D.

## CHAPTER 4 DATA ANALYSIS AND RESULTS

### **Summary of Literature Review Results**

The key factors to a quality-and-productivity-driven company culture, according to an extensive literature review of related material, were determined to be training and motivation. Although both factors are inter-related and can both affect quality and productivity performance in some way, overall, it was evident that training was most critical to quality performance while motivation was found to be most critical to productivity performance. In addition, the literature review suggests that quality-and-productivity-driven company cultures are characteristic of having lower employee turnover rates and higher levels of satisfaction.

### **Survey Data Analysis**

Surveys prepared and distributed to contractors are designed to confirm the validity of the identified key factors, and to evaluate the effectiveness in their implementation by the industry. As explained in the Survey Overview section of this thesis, the first survey [S1] contains questions designed to obtain basic company-specific information, completed by personnel in the Executive Level (i.e. CEO, President, VP, etc.) of the company. The second survey [S2] is a more personalized one that focuses on an individual's perceptions and experiences, completed by both Executive Level and Project Level (i.e. PM, Superintendent, PE, etc.) personnel, where they are asked for their level of agreement on a Likert scale to a series of statements. Refer to Appendices A and B for both surveys as



presented on the website. The rough data results from both surveys are found in Appendix E, while Appendix F contains the responses in spreadsheet form.

### Survey Response Breakdown

A total of 116 companies were contacted via email and invited to participate in the survey. In its entirety, 389 emails were sent out directly to the individuals' email when available and/or to the general-information email address provided by the company. Out of the gross number of emails sent, 50 were deemed undeliverable for several reasons, including but not limited to: outdated email address, unable to contact server, etc.

Survey responses were received for a period of three weeks, during which two extra survey-participant invitations were distributed via email as a reminder to complete the survey. Table 4-1 displays the actual amount of responses received. During the three-week period a total of thirty-seven people from ten different companies participated in the survey, from which twenty-three are executive level personnel and fourteen are project level personnel. The higher level of Executive-level participants to Project-level participants is largely due to the fact that most of the emails publicly available are those of executives. The executive level participants completed both surveys [S1 and S2], while the project level participants were only asked to complete one of the two [S2].

**Table 4-1. Categorized survey responses**

Survey		Participants			Total No.
#	Description	#	Description	%	Questions
[S1]	Company-specific Data	23	Executive Level only	100%	28
[S2]	Individual Perception	14	Executive Level, and	62%	54
		<u>23</u>	Project Level	<u>38%</u>	
		37		100%	

In total there were thirty-seven participants for Survey 2, and twenty-three participants for Survey 1. Sixty-two percent of the responses to the statement-perception survey [S2] came from executive level personnel, while the project level personnel makes up the remaining 38 percent.

Four out of the ten different companies that completed the survey have participants at both the executive and project levels. The names of the participating companies were not disclosed for confidentiality reasons. Instead, the companies were labeled alphabetically. The four companies with participants from both the executive and project levels were identified as companies A, B, C, and D. The raw data results from these surveys are found in Appendix E, while Appendix F contains the responses to both surveys in spreadsheet form.

### **Group/Category Analysis**

The rough data obtained from the two surveys was analyzed in three mayor categories for clearer interpretation. Each response to a question in the statement perception survey [S2] was collectively categorized into the executive level personnel responses (EXEC), the project level personnel responses (PROJ), and the general responses of both executive and project level personnel all together (ALL). Appendix E includes the rough-data analysis of the above three categories for this survey. Graphic tools such as pie charts, bar charts, and line graphs were used as an aid to demonstrate in a more visual manner the degree of selection for each response, which in turn allows for easier comparison across the board between data.

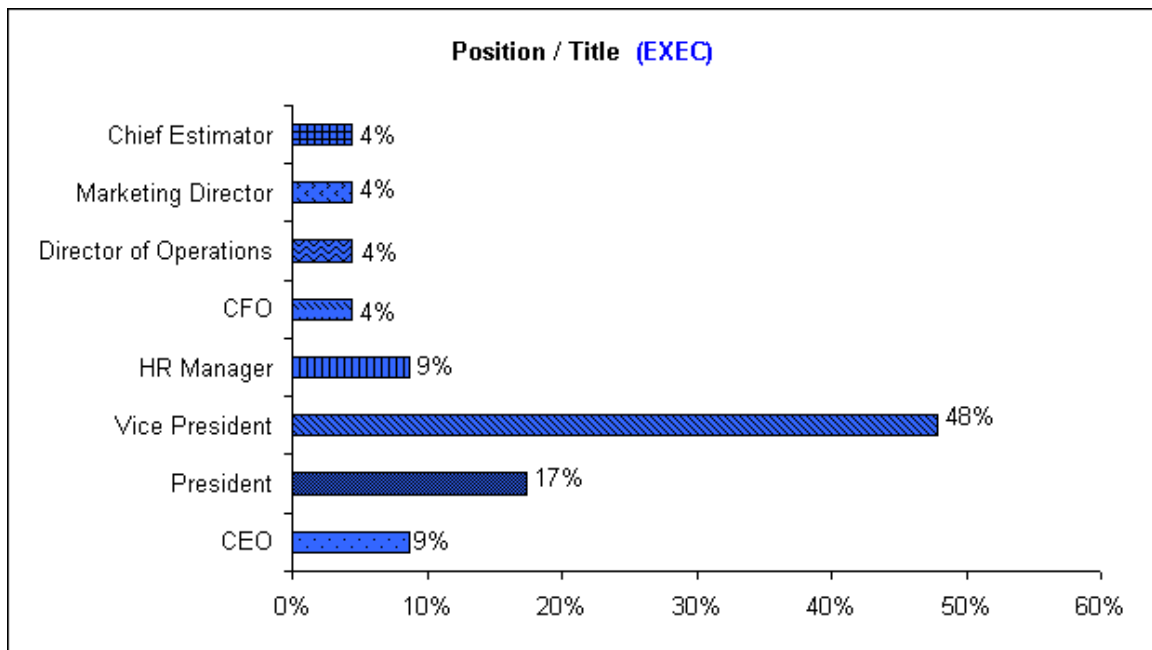
## Participant Demographics

### Personal Profile

All participants, from both the executive and project level, were asked to provide their job-title, the number of years working for their current company, and the number of years working in the industry. This information was important to recognize areas where experience and job title have a significant effect on the individual's response.

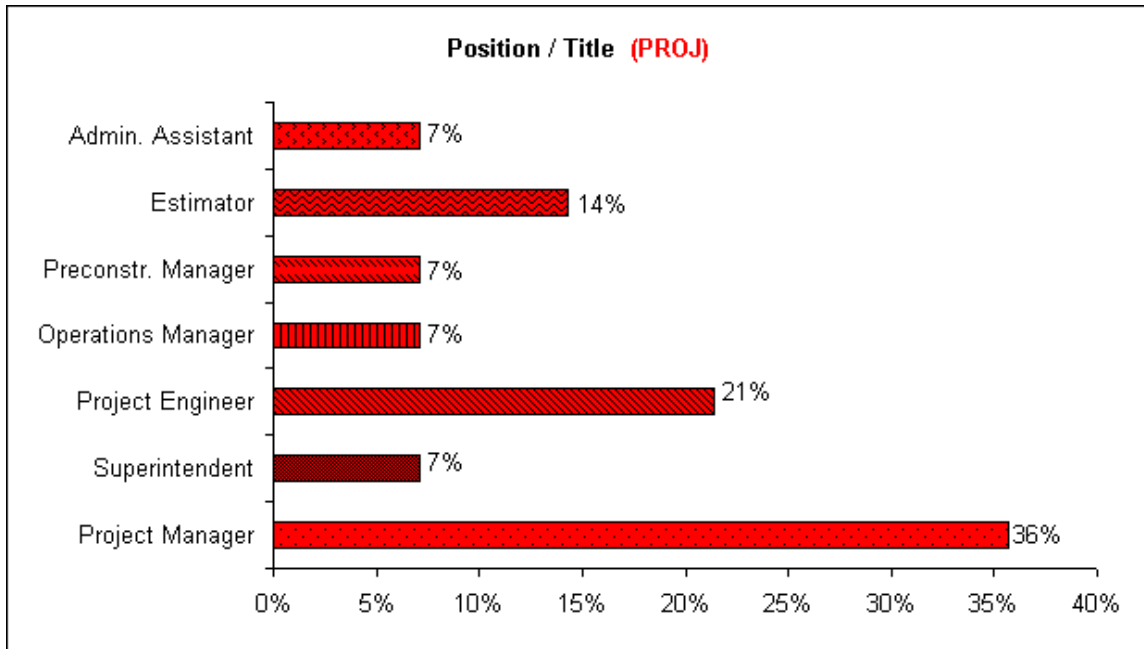
A close look at the job-titles of the survey participants revealed how company vice-presidents largely represented executive level participants, and how project managers represented the majority of the project level participants. Figures 4-1 and 4-2 show the executive and project level participants' job titles, respectively.

Figure 4-1 shows Vice-Presidents making up 48% of the executive-level participants. Followed by Presidents at 17%, Human-Resources Managers and CEOs at 9% each, and the remaining executive participants at 4% each.



**Figure 4-1. Executive level participants [N=23]**

Figure 4-2 shows Project Managers making up 36% of the project-level participants. Followed by Project Engineers at 21%, Estimators at 14%, and the remaining project-level participants at 7% each.

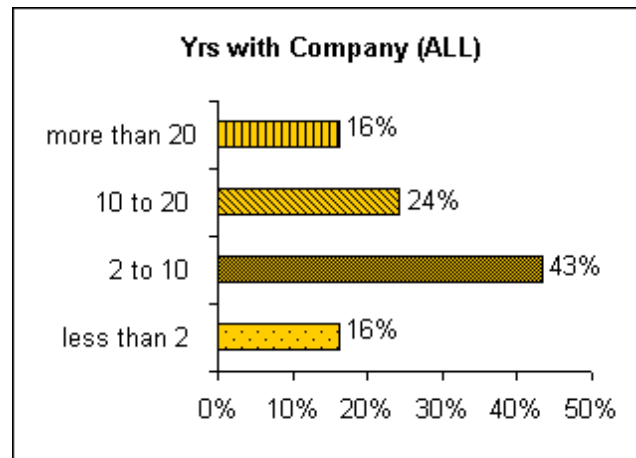


**Figure 4-2. Project level participants [N=14]**

Once the representation of the participants from each level was identified, the work experience at both the executive and project levels was defined. The executive and project-level participants' experience in terms of years with their company is illustrated in Figures 4-3 through 4-5, while their experience in terms of years in the industry is as seen in Figures 4-6 through 4-8. The figures analyze the responses at all three categories, as discussed in the Group/Category Analysis section of the Survey Response Breakdown in this Chapter.

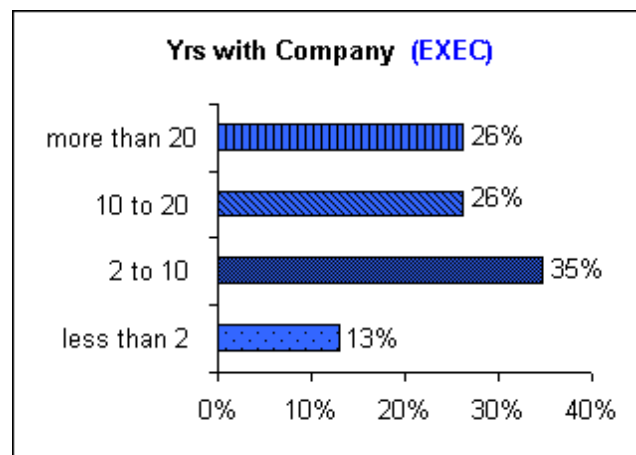
According to the survey results, as Figure 4-3 shows, 43% of both executive and project-level participants (ALL) have been with their current company for anywhere between 2 to 10 years. Followed by 24% that have worked with the same company for

10 to 20 years. At last, out of the remaining 32%, half (16%) have worked for more than 20 years while the other half (16%) have for less than 2 years.



**Figure 4-3. Years with company (ALL) [N=37]**

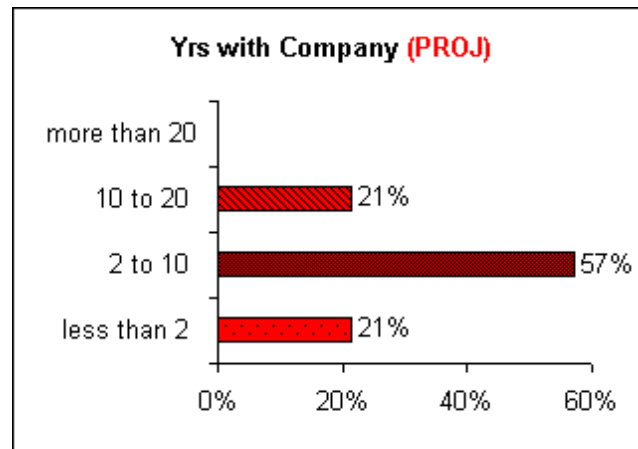
Figure 4-4 shows that 35% of executive-level participants (EXEC) have been with their current company for anywhere between 2 to 10 years. Followed with 26% each by that group that has worked with the same company for 10 to 20 years, and that which has for more than 20 years. The remaining 13% have worked for less than 2 years for their company.



**Figure 4-4. Years with company (EXEC) [N=23]**

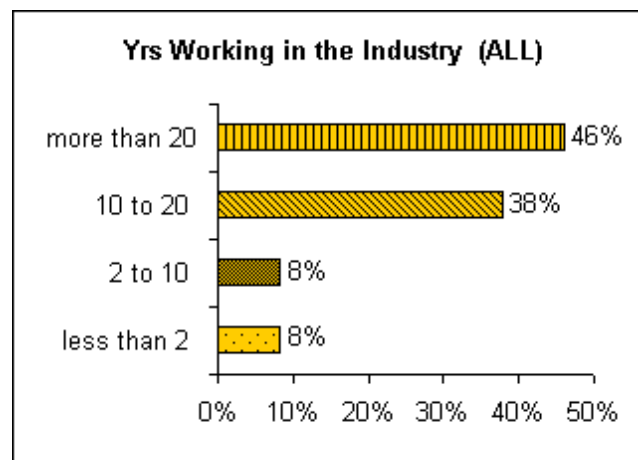
Figure 4-5 shows that 57% of project-level participants (PROJ) have been with their current company for anywhere between 2 to 10 years. Followed with 21% each by that group that has worked with the same company for 10 to 20 years, and that which has for

less than 20 years. None of the project-level participants have worked for their current company for more than 20 years.



**Figure 4-5. Years with company (PROJ) [N=14]**

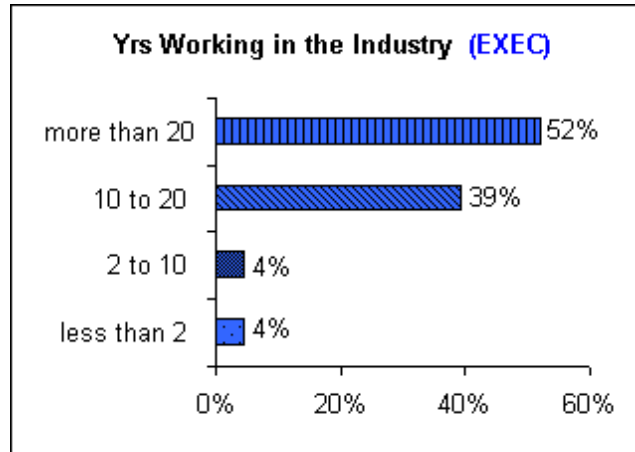
According to the survey results, as Figure 4-6 shows, 46% of both executive and project-level participants (ALL) have been working in the construction industry for more than 20 years. Followed by 38% that have worked in the industry for 10 to 20 years. At last, out of the remaining 16%, half (8%) have worked for anywhere between 2 to 10 years while the other half (8%) have for less than 2 years.



**Figure 4-6. Years working in the industry (ALL) [N=37]**

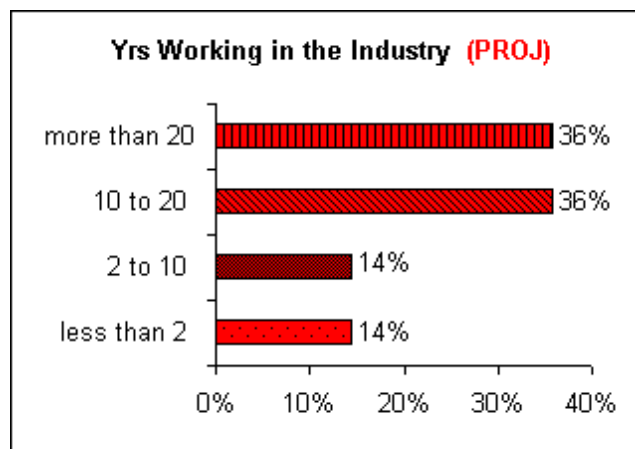
Figure 4-7 shows that 52% of executive-level participants (EXEC) have been working in the industry for anywhere between more than 20 years. Followed by 39% that have

worked in the industry for 10 to 20 years. Out of the remaining 8% of executives, half (4%) have worked for anywhere between 2 to 10 years while the other half (4%) has for less than 2 years.



**Figure 4-7. Years working in the industry (EXEC) [N=23]**

Figure 4-8 shows that the group that has worked in the industry for 10 to 20 years, and that which has for more than 20 years each represents 36% of the project-level participants. Out of the remaining 28% of project-level participants, half (14%) have worked for anywhere between 2 to 10 years while the other half (14%) have for less than 2 years.



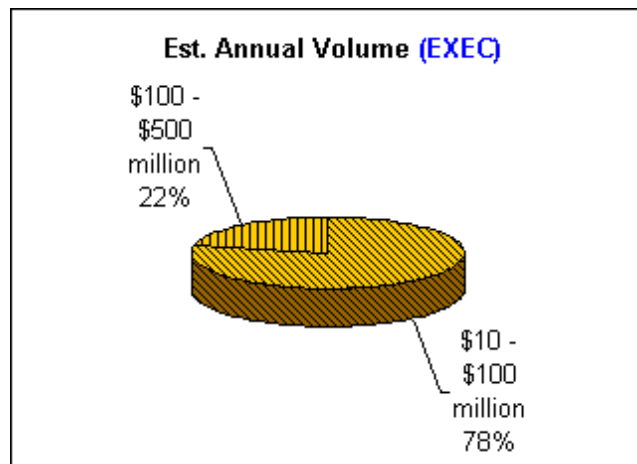
**Figure 4-8. Years working in the industry (PROJ) [N=14]**

The previous six figures reveal that the average responded has more than 20 years of work experience in the industry, out of which at least half of that time has not been by

working under their current employer. It is interesting to note that none of the project level respondents have been with their current company for more than 20 years, while twenty-six percent of executive level respondents have. Yet over one-third of the project-level participants have worked in the industry for more than 20 years, while over one-half of executive-level participants have worked in the industry for more than 20 years. Furthermore, out of the 46% of participants (ALL) that have been working in the industry for more than 20 years, only 16% have spent at least 20 of those years working for their current company. That is a difference of 30% of both executive and project-level participants (ALL) that have worked for at least more than one employer up to this point in their career. The percentage gaps between those years working in the industry and those working for the current company by both level participants give us an insight into the employee turnover experienced in the companies of the sample surveyed.

### **Company Profile**

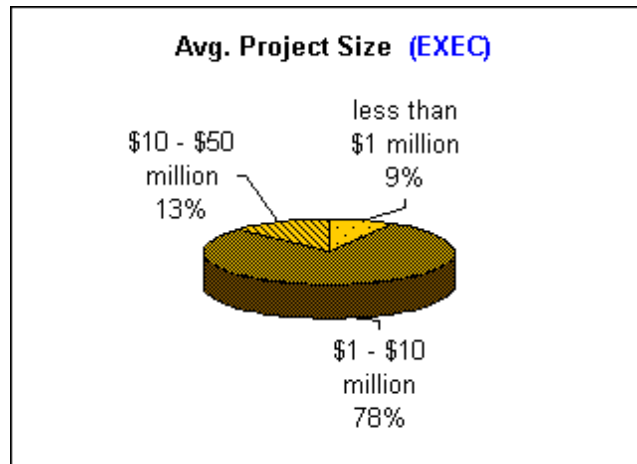
An estimated annual company volume ranging from \$10 to \$100 million was common for 78% of the companies participating in the survey, while the remaining 22% experienced annual volume of \$100 to \$500 million [Figure 4-9].



**Figure 4-9. Estimated annual volume [N=23]**

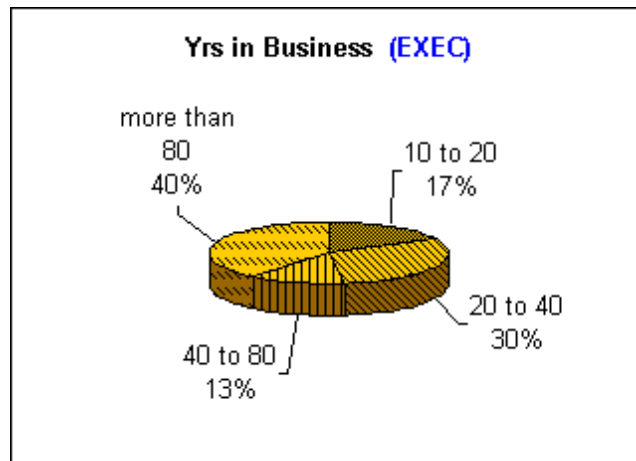


It was also found that of the companies surveyed 78% had an average construction project size of \$1 to \$10 million, while just 13% of the companies maintained an average project size of \$10 million or more. The remaining 9% of the companies had average project sizes of less than \$1 million. [Figure 4-10]



**Figure 4-10. Average project size [N=23]**

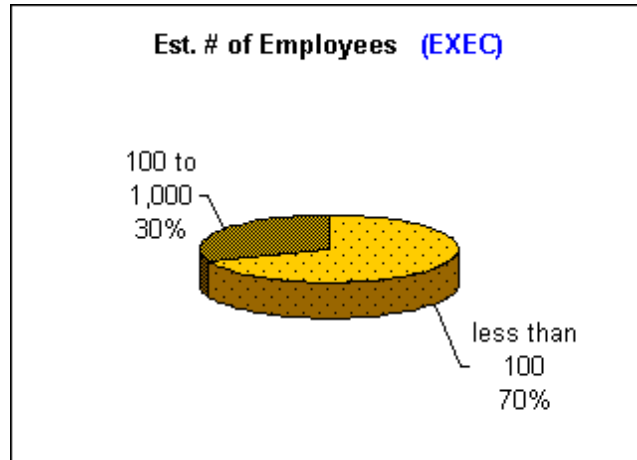
Most (40%) of the companies that participated in the survey have been in business for more than 80 years. Thirty percent of the companies have been in business for anywhere between 20 to 40 years, seventeen percent for 40 to 80 years, and thirteen percent for 10 to 20 years. [Figure 4-11]



**Figure 4-11. Years in business [N=23]**

The number of employees is estimated at less than 100 hundred for 70% of the companies surveyed, while the remaining 30% estimate anywhere between 100 to 1,000

employees [Figure 4-12]. Although, contractors employing one hundred or more workers make up less than 1 percent of the nation's construction firms, they still account for about 30 percent of the value of work performed (Nunnally, 2001, p.2).

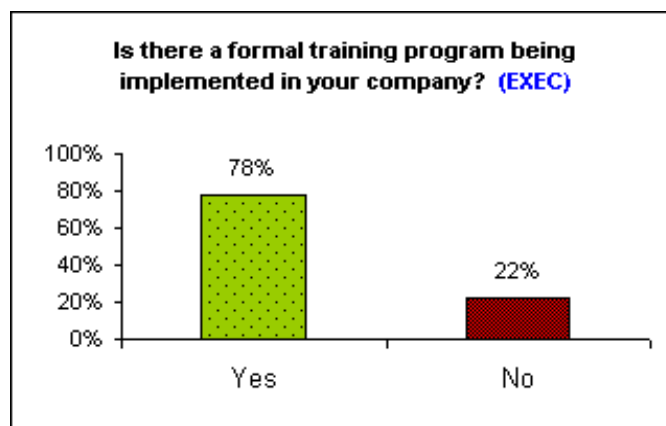


**Figure 4-12. Estimate # of employees [N=23]**

The later data reveals how the majority of the survey participants work for small to medium-sized general contracting companies. Consequently, the survey results will more closely apply to similarly sized companies in the Florida construction industry.

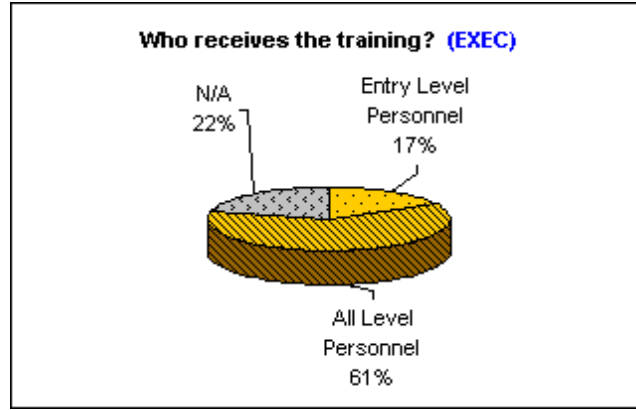
### **Company Training Implementation Profile**

While most (78%) companies, according to executive level participants, implement a formal training program, there are still 22% of them that don't implement one at all [Figure 4-13].



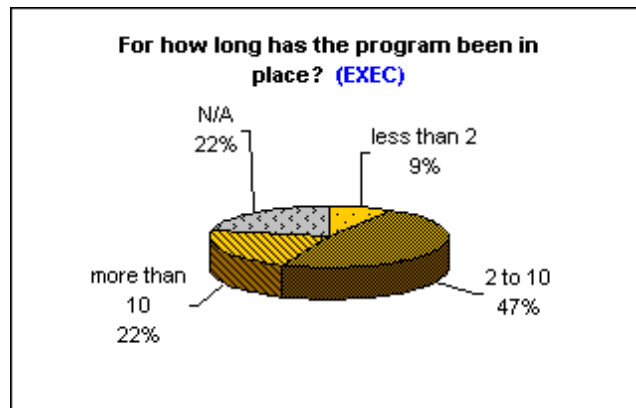
**Figure 4-13. Companies implementing training programs [N=37]**

The training is offered to all-level personnel in 61% of those companies surveyed. On 17% of the companies the training is offered to only entry-level personnel, while the remaining 22% of the companies do not offer training at all. [Figure 4-14]



**Figure 4-14. Personnel receiving training [N=23]**

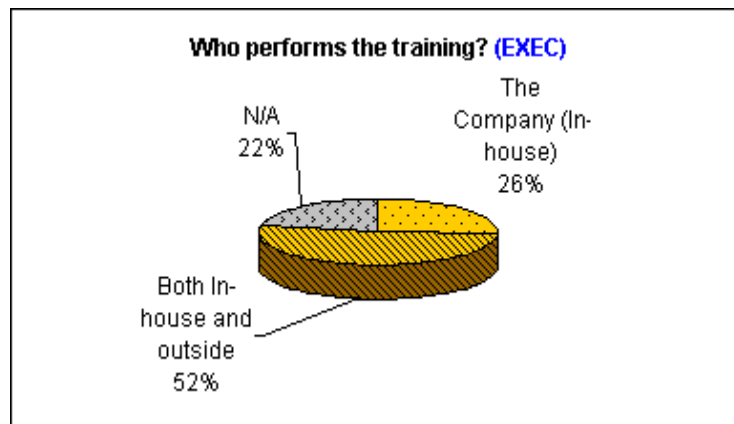
Forty-seven percent of all the companies surveyed have their training programs in place for anywhere between the last 2 to 10 years. Twenty-two percent of the companies have one established for more than 10 years. Nine percent recently established one in the past 2 years. Note that the remaining 22% of the companies do not have one established in the first place. Although most of the companies have been in business for over 80 years seen in Figure 4-11, these formal training programs are still relatively new. Over 70% of only those companies that actually offer a formal training program started implementing it within the last 10 years. [Figure 4-15]



**Figure 4-15. Length of establishment of training program [N=23]**

Fifty-two percent of the companies surveyed have training programs where training is performed by both the company (In-house) and outside individuals/organizations.

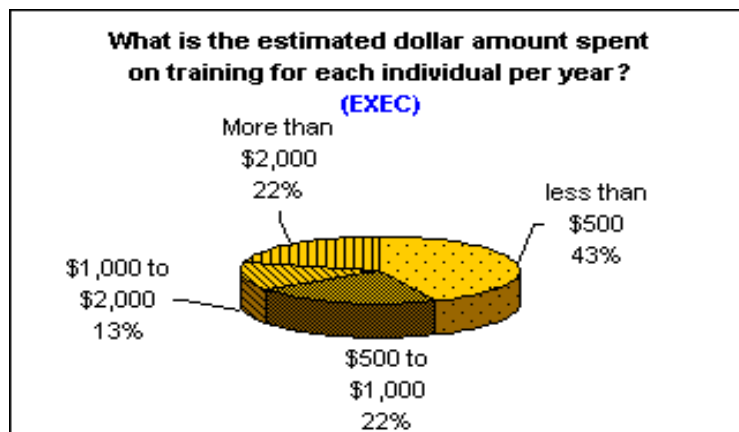
Twenty-six percent have training performed solely by the company (In-house), while the remaining 22% do not offer a formal training program at all. [Figure 4-16]



**Figure 4-16. Source of training [N=23]**

The estimated dollar amount spent on training for each individual per year is less than \$500 for 43% of the companies surveyed. Twenty-two percent of the companies spend \$500 to \$1,000 per year. Another 22% of them spend more than \$2,000. The remaining 13% of the companies spend \$1,000 to \$2,000 per year in training for each individual.

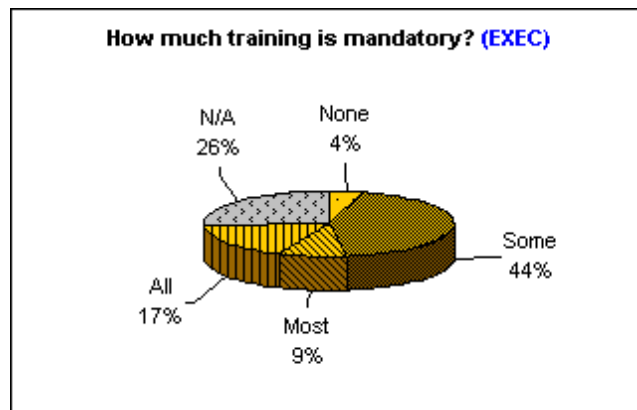
[Figure 4-17]



**Figure 4-17. Investment on training [N=23]**

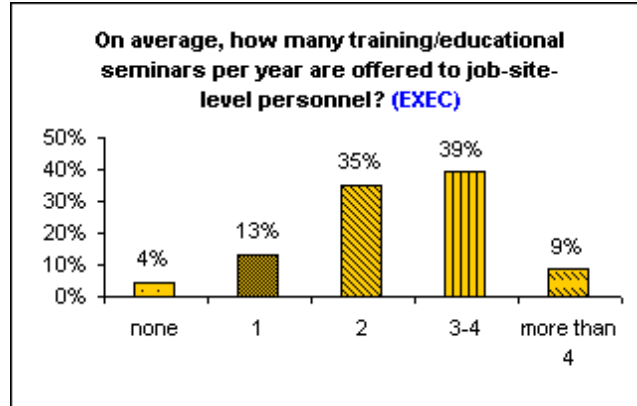
While in most cases both the company personnel and an outside organization perform the training provided by the employer, the average company invests less than \$500 per individual annually on training. This is considerably lower than the national average amount invested in senior level and middle level management personnel of \$2000 and \$1000, respectively (Cox and Issa 2000). This translates to an average investment in ALL training of 2.3% as a percentage of payroll (Cox and Issa 2000).

Of the training offered by the average company, only "some" of it is mandatory. Forty-four percent of the companies surveyed state that some training is mandatory. Seventeen percent state that all training is mandatory. Nine percent deem most of the training mandatory. Four percent do not have mandatory training. The remaining 26% of all companies surveyed found the question not applicable to them for the most part because they do not offer a training program in the first place. [Figure 4-18]



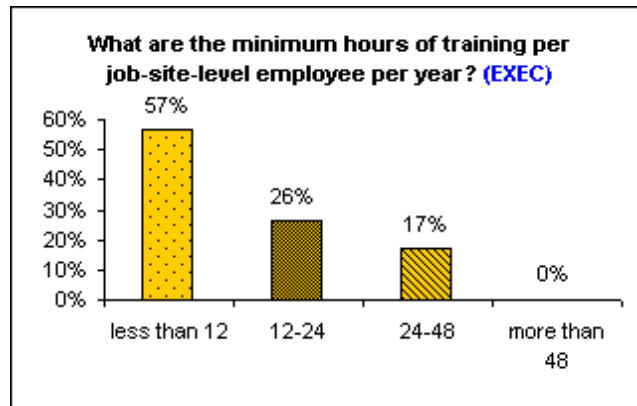
**Figure 4-18. Mandatory company training [N=23]**

Thirty-nine percent of the companies surveyed offer 3 to 4 training/educational seminars per year to jobsite-level (project-level) personnel on average. Thirty-five percent offers 2 of them on average. Thirteen percent offers one per year. Nine percent offer more than 4 per year, while the remaining 4% of the companies do not offer these training seminars to jobsite-level (project-level) personnel. [Figure 4-19]



**Figure 4-19. Training/educational seminars offered [N=23]**

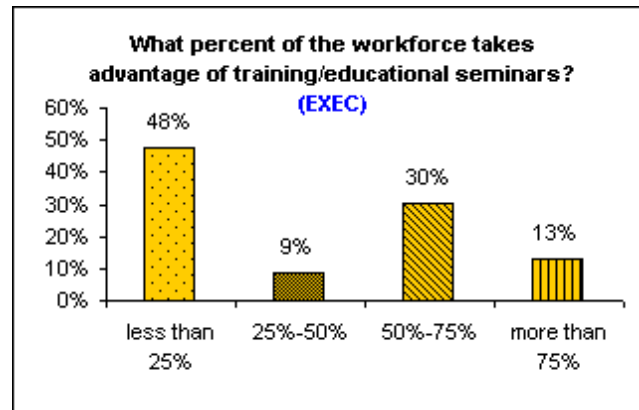
The minimum hours of training per jobsite-level (project-level) employee per year are less than 12 hours according to 57% of the companies surveyed. Twenty-six percent of them offered a minimum of 12 to 24 hours of training, while the remaining 17% of the companies offered 24 to 48 hours minimum. None of the surveyed companies offered more than 48 hours of training as a minimum to their project-level personnel. [Figure 4-20]



**Figure 4-20. Minimum hours of training per project-Level employee [N=23]**

The two previous figures illustrate how average most companies offer three to four training seminars annually for project-level personnel that all together total less than 12 hours.

Forty-eight percent of executives affirm that less than  $\frac{1}{4}$  of their company's workforce takes advantage of training/educational seminars. Thirty-one percent affirm  $\frac{1}{2}$  to  $\frac{3}{4}$  of their company's workforce, thirteen percent affirm more than  $\frac{3}{4}$ , and the remaining 9% of executives felt it was more of  $\frac{1}{4}$  to  $\frac{1}{2}$  of their company's workforce that takes advantage of training. [Figure 4-21]



**Figure 4-21. Workforce taking advantage of training [N=23]**

### **Company Motivation Implementation Profile**

Motivation can come in many forms as discussed in the literature review. The statements analyzed on this section deal with those issues that most closely affect workforce motivation as defined in the literature review. Some of those issues include: formal recognition events, education programs, incentives, mentor programs.

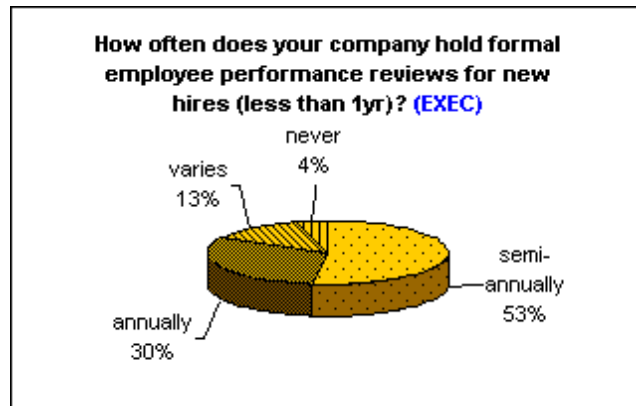
Mentor programs usually involve the assignation of a company individual to guide and advice an employee, most commonly a newly hired one, in an effort to assist on his/her development with the company. Survey results show that thirty-nine percent of the companies surveyed generally assign a mentor to a newly hired individual. Thirty-five percent sometimes assign a newly hired individual a mentor, twenty-two percent generally do not, and four percent of these companies always do. [Figure 4-22]



**Figure 4-22. Mentor program [N=23]**

Formal employee performance reviews for new hires are held semi-annually by 53% of the companies surveyed. Thirty percent hold them annually, 13% of the companies vary their frequency, while 4% never hold performance reviews for newly hires at all.

[Figure 4-23]

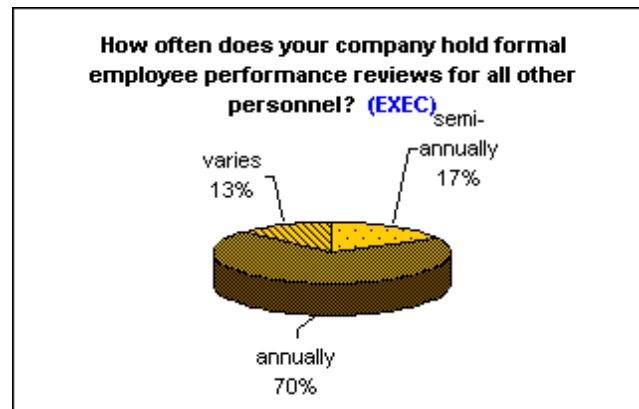


**Figure 4-23. Employee performance reviews (newly hired) [N=23]**

Survey results show that the majority of all newly hired individuals are assigned a mentor and are given formal employee performance reviews semi-annually, as Figure 4-23 revealed. On the other hand, formal employee performance reviews for all other personnel are used by all the companies, and are usually held on an annual basis. Formal employee performance reviews for all other hires are held annually by 70% of the companies surveyed. Seventeen percent hold them semi-annually, and 13% of the

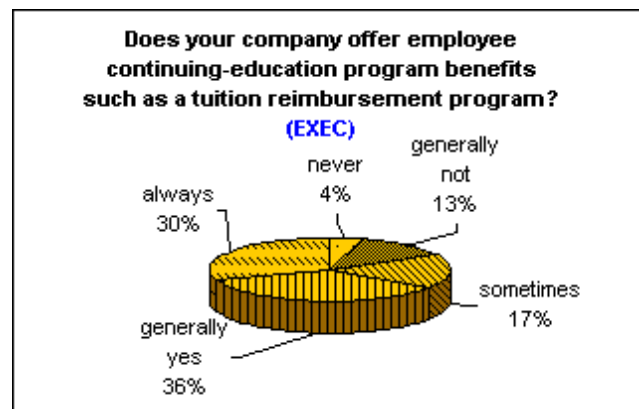


companies vary the frequency they hold formal employee performance reviews. [Figure 4-24]



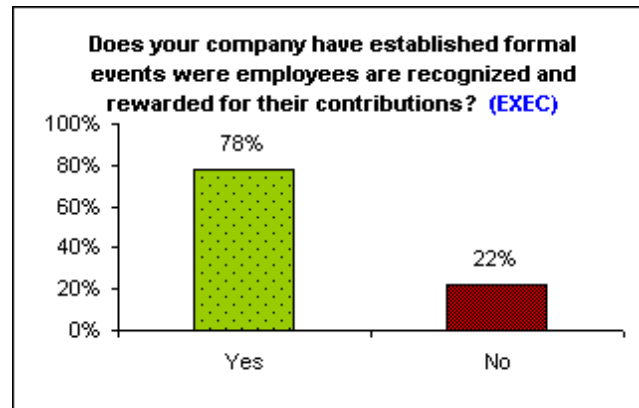
**Figure 4-24. Employee performance reviews (not newly hired) [N=23]**

The majority of the companies are also implementing continuing-education program benefits, such as a tuition reimbursement program. Thirty-six percent of the companies surveyed generally implement such program, 30% of the companies surveyed always implement it, and 17% sometimes do. Companies that generally do not implement continuing-education program benefits make up 13% of those surveyed, and those that never implement it make up 4%. [Figure 4-25]



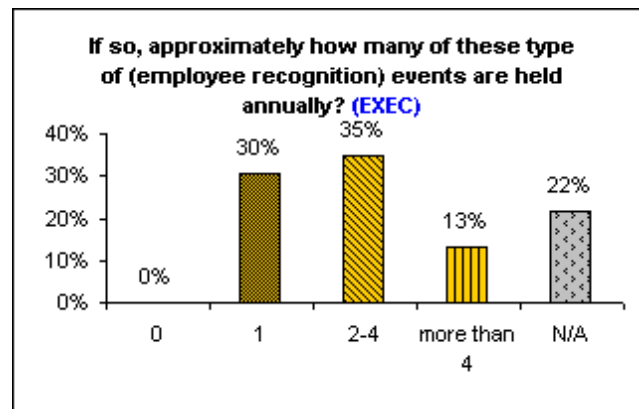
**Figure 4-25. Continuing-education program benefits [N=23]**

Formal events where employees are recognized and rewarded for their contributions are established in 78% of the companies; the remaining 22% do not have such events formally established [Figure 4-26].



**Figure 4-26. Companies offering formal employee-recognition events [N=23]**

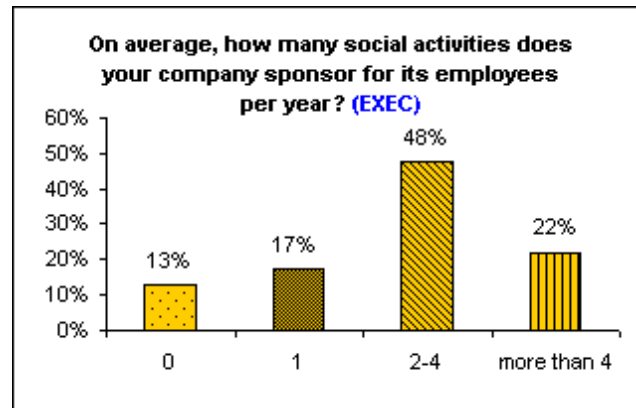
Thirty-five percent of the companies surveyed hold 2 to 4 of these formally established employee-recognition events annually. Thirty percent hold these events once a year; thirteen percent hold these more than 4 times a year. The remaining 22% of the companies surveyed do not offer these employee recognition events at all; those companies responded “not applicable”. [Figure 4-27]



**Figure 4-27. Formal employee-recognition events held annually [N=23]**

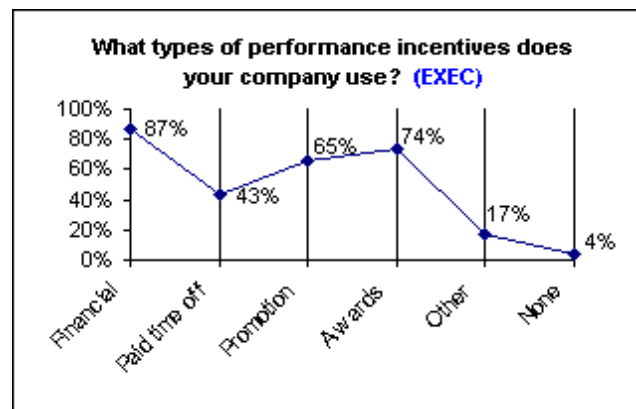
Social activities sponsored by the company for its employees are offered by 87% of the companies surveyed; the remaining 13% do not hold any at all. Forty-eight percent of

the companies surveyed hold social activities 2 to 4 times per year. Twenty-two percent of the companies surveyed hold these social activities more than 4 times a year, while 17% of them do it only once a year. [Figure 4-28]



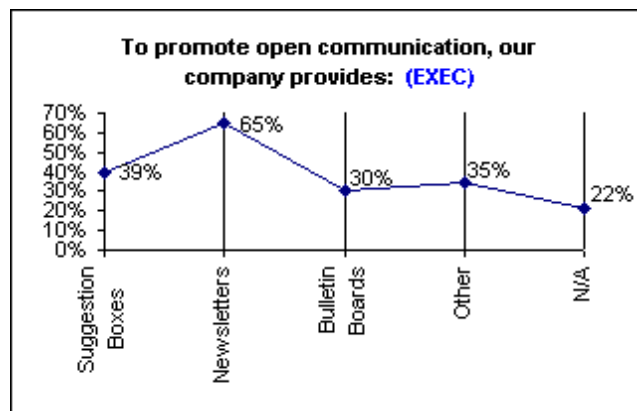
**Figure 4-28. Company-sponsored social activities held annually [N=23]**

According to executives the most common performance incentives used by their companies are financial incentives, awards, promotion, and paid time off, respectively. Financial incentives are used by 87% of the companies surveyed, awards by 74%, promotion by 65%, and paid time off by 43% of them. Seventeen percent of the companies surveyed also implemented other incentives in addition, while 4% did not use any form of incentives at all. Most companies offer all four of the prior incentives to motivate its workforce, while the remaining use a combination of them. [Figure 4-29]



**Figure 4-29. Performance incentives [N=23]**

In an effort to promote open communication within the company, the preferred method was reported to be through newsletters. Suggestion boxes are also a popular means of communication. As for performance incentives, companies used a combination of these tools to promote open communication. Sixty-five percent of the companies surveyed provided newsletters, followed by 39% that used suggestion boxes, 35% used other tools, and 30% used bulletin boards. Twenty-two percent of the companies found the question “not applicable” to them. [Figure 4-30]



**Figure 4-30. Open communication tools [N=23]**

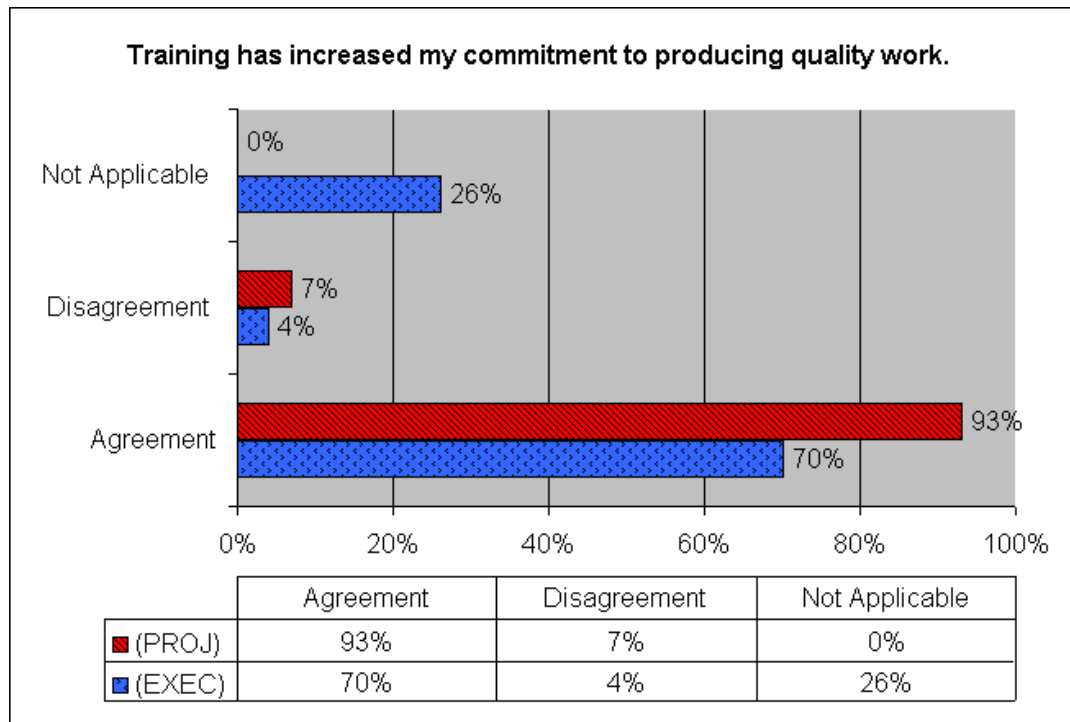
According to the surveyed company executives, 61% of the companies offer competitive employee benefits, while the other 39% affirm they offer employee benefits that exceed the industry. [Figure 4-31]



**Figure 4-31. Companies offering competitive employee benefits [N=23]**

### Quality Performance through Training

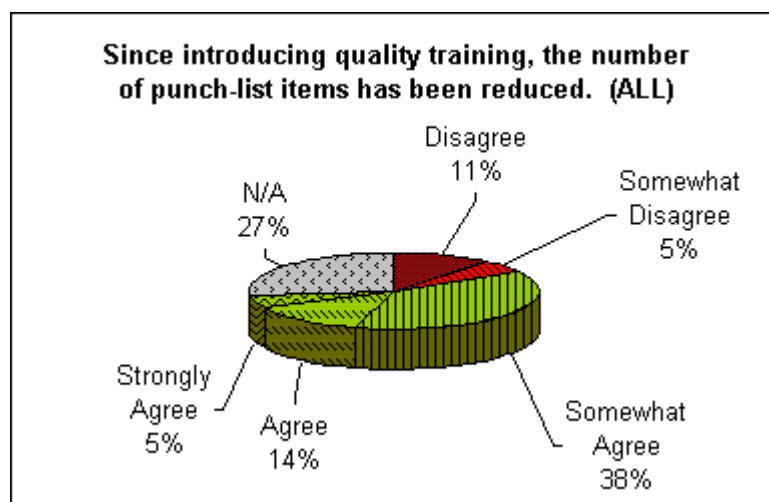
Survey results show that most executive and project level personnel (80%) agree that company-training efforts had improved their quality performance. Furthermore, an even higher percentage (95%) of them agree to some level that the overall quality awareness was improved through company training. Although company sponsored training leads to improved quality awareness and performance, it is important to evaluate the direct influence training has on a company culture in increasing its commitment to producing quality work, see Figure 4-32. This influence is most perceived by project personnel, as reflected by their high (93%) level of agreement, in contrast to the lower (70%) level of agreement by executives. This difference is due in part to 26% of them that found it “not applicable”.



**Figure 4-32. Training's influence on quality work [N=37]**

Conceivably, while company training keeps its workforce up to speed with new methods and innovations that improve the quality of work, this benefit is most perceived at the project level rather than at the executive.

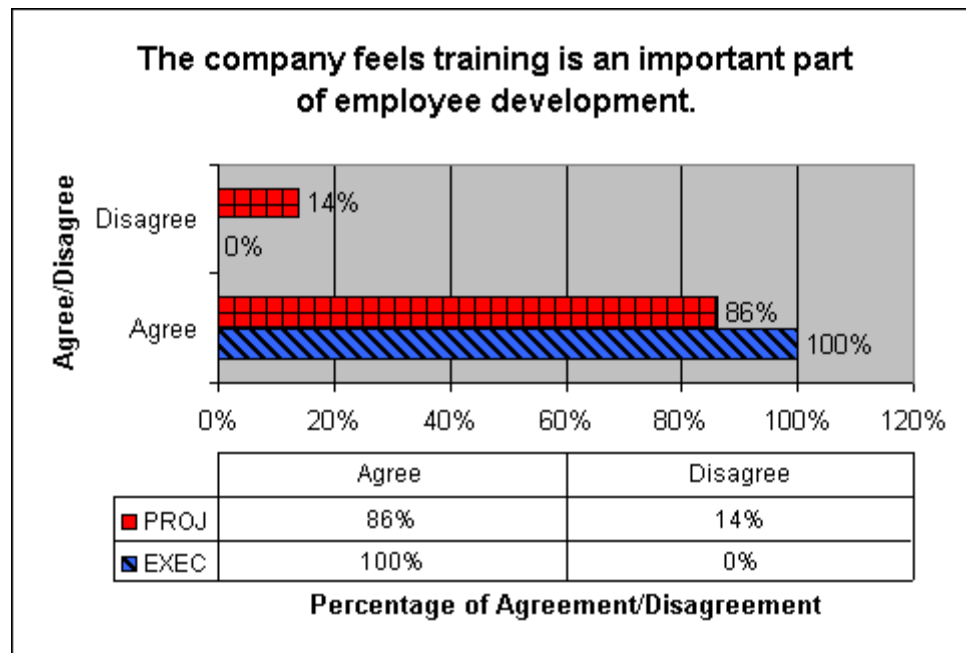
In response to the question in Figure 4-33 stating that the number of punch-list or deficient items had been reduced since the introduction of quality training, 57% “somewhat agreed”, but the statement received a 27% response of being “not applicable” by both executive and project level participants. This could be interpreted in two ways: either most participants don’t directly deal with punch-list items, or they just do not find a connection between quality training and punch-list items. Initially the logic and the aim of the question was that when applying quality training one is made more aware of potentially deficient items (punch-list items) and can act to prevent them from occurring, resulting in a reduction of the items. Off course something that was or was not prevented from happening is hard to measure and track especially when each project can present new and unique challenges that are not common from project to project, be it a result of new building issues or new individuals in the construction team.



**Figure 4-33. Quality training and punch-list items [N=23]**

Ninety-seven to one hundred percent of all survey participants “strongly agree” their company thinks that training employees is beneficial to company quality performance, and that their investment in training leads to increased time and money savings.

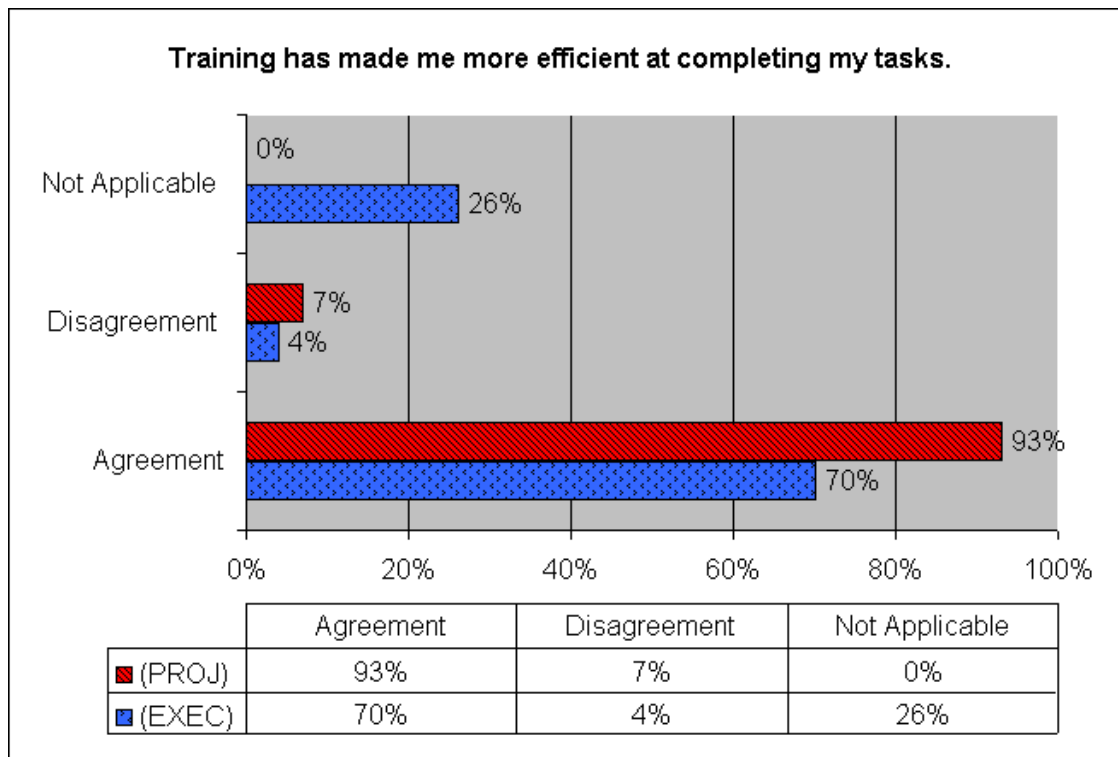
It is interesting to note that although there is a 97% agreement from both executives and project level personnel that their company values the benefits of training, not all project level participants agree that their company feels this training is as important for their development. Figure 4-34 illustrates that while 100% of executives believe their company indeed feels that training is an important part of their development, 14% of project level personnel disagree (while the remaining 86% agree) with their company’s importance placed in training as part of their development.



**Figure 4-34. Training and employee development [N=37]**

It is interesting to note that the 14% of the project level personnel seen here also feel their current company training is ineffective and poorly defined. Nevertheless, they all strongly agree that company training is important and that more training opportunities are

needed. So far the survey results make known project level personnel's stronger desire for training and its benefits than the executives themselves. To further confirm this tendency, Figure 4-35 illustrates how 70% of executives in comparison to 93% of project level participants are in agreement with the fact that training had made them more efficient at completing their tasks. Twenty-six percent of the executive-level personnel found the statement "not applicable" to them, while none of the project-level personnel responded in the same manner. Perhaps executives do not find training as having as much of a direct connection with task efficiency as project-level personnel does. Another reason for this difference could rest in that executives are not involved on as many task-oriented activities as project-level personnel is exposed to as part of their job.

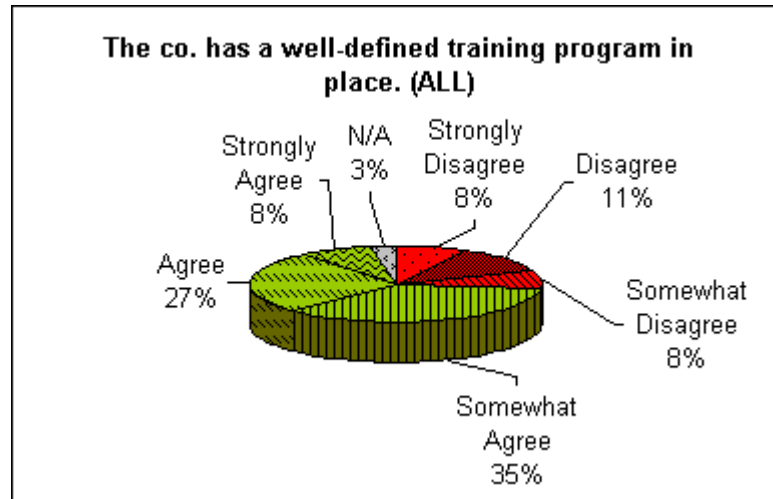


**Figure 4-35. Training's influence on task efficiency [N=37]**

Even though 96% "strongly agree" their company encourages training and 86% feel the training programs are effective, as survey results show, there is still 27% of all

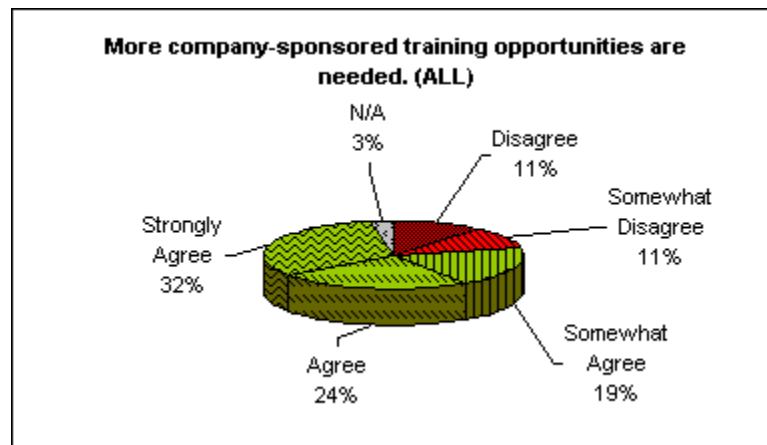


participants that feel the company's training program is not well defined. On the other hand, there is the 70% of both executive and project-level participants that responded favorably to their company having a well-defined training program [Figure 4-36].



**Figure 4-36. Well-defined training program [N=37]**

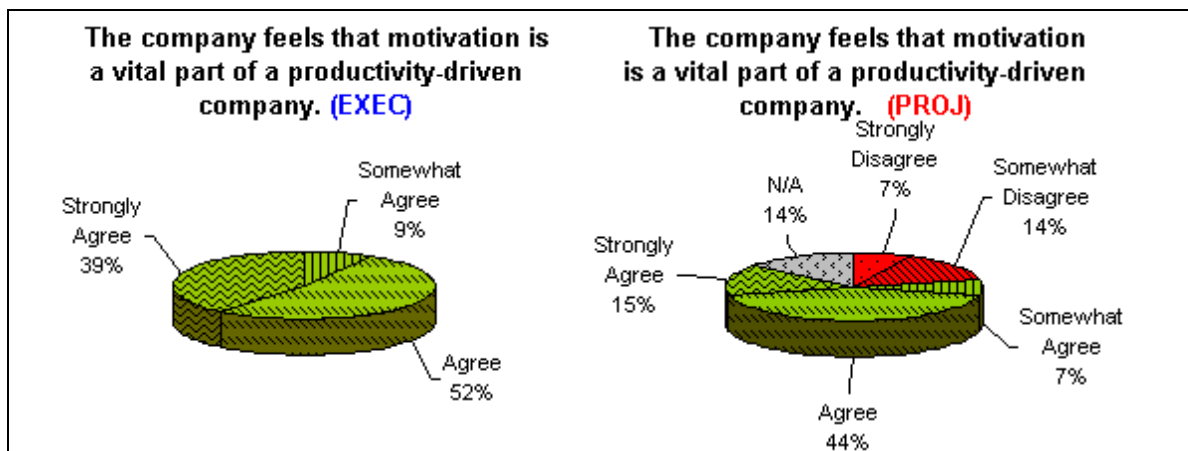
For executive and project level personnel, company-sponsored training is important and it has been beneficial to them. Moreover, most “strongly agree” that additional company sponsored training opportunities are needed. Seventy-five percent of all respondents responded favorably to the need for more company-sponsored training, while 22% disagree to some level of such need. [Figure 4-37]



**Figure 4-37. Need for training [N=37]**

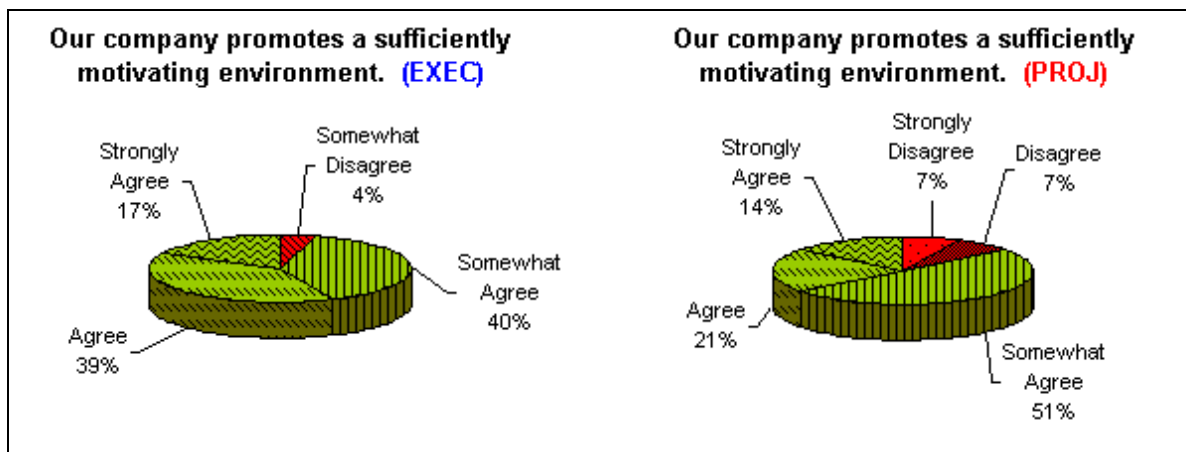
### Productivity Performance through Motivation

Out of all the survey participants no one objected to the fact that maximum productivity potential is best achieved within a motivating environment. The survey results reveal that motivating employees is beneficial to job and productivity performance. Executive and project level personnel showed a high-level of agreement with the statement that company motivation encourages more productive work. Interestingly enough, while all executives surveyed believe management feels that motivation is a vital part of a productivity-driven company, 21% of project level participants are in disagreement [Figure 4-38]. This 21% also believes that company motivation is indeed beneficial to job performance and strongly agree that a motivated workforce significantly influences the success of a project. Furthermore, while this group of project-level personnel agrees that feeling valued and appreciated by their company motivates them, they all feel the company doesn't value their opinion. Two out of three from this group of project level personnel believe their company does not promote a sufficiently motivating environment and are not currently motivated to perform up to their maximum potential.



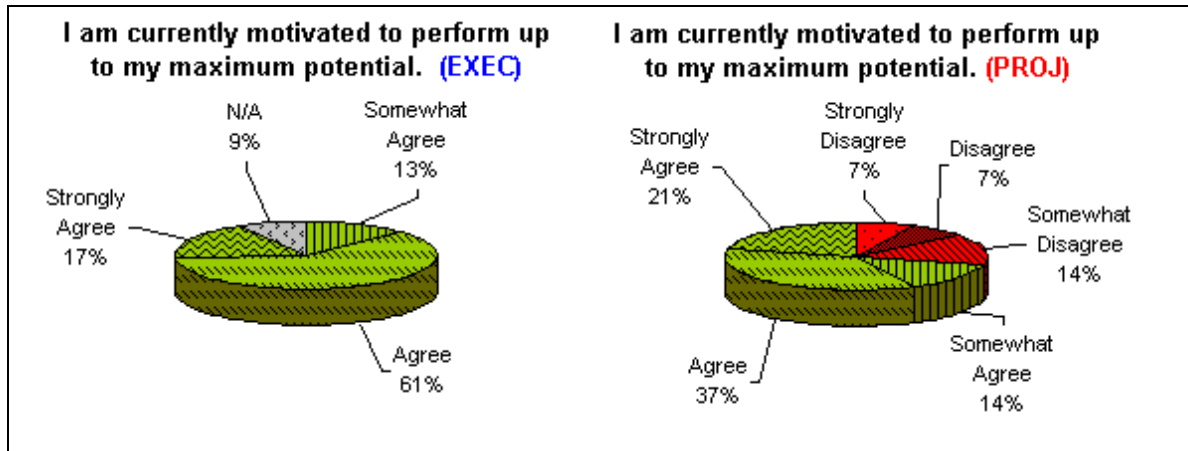
**Figure 4-38. Motivation for a productivity-driven company [N=23; N=14]**

Evidence to the possible motivation preference placed on executives versus other personnel can be seen from the 96% level of agreement by executives in comparison to the 86% level of agreement by project level personnel to the statement that their company promotes a sufficiently motivating environment [Figure 4-39]. Overall both executive and project level personnel “somewhat agreed” with the above statement. Even though the level of agreement percentages are relatively high, there is still more improvement needed from the companies to achieve a truly motivating environment with especial consideration placed on project level personnel motivation. Management needs to do a better job at keeping its workforce motivated. Twenty percent of the participants do not feel that management is doing a good job motivating its workforce. Even 17% of the high level executives themselves are in disagreement with the statement that management is doing a good job at keeping its workforce motivated.



**Figure 4-39. Company motivating environment [N=23; N=14]**

The survey results reveal a difference in the levels of motivation between executive and project level personnel. Figure 4-40 shows how approximately 30% of the project participants are in disagreement with the statement that they are currently motivated to perform up to their maximum potential.



**Figure 4-40. Maximum performance potential through motivation [N=23; N=14]**

Conversely, the executives showed no disagreement to the same statement, instead 91% of them were in agreement with being motivated to perform up to their maximum potential, while the remaining 9% found it “not applicable” [Table 4-2].

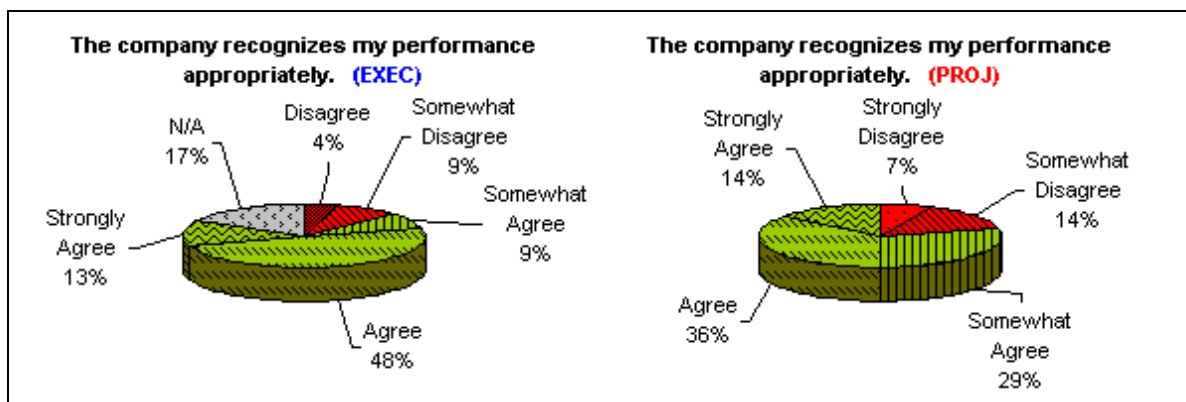
**Table 4-2. Maximum performance potential through motivation**

I AM CURRENTLY MOTIVATED TO PERFORM UP TO MY MAXIMUM POTENTIAL			
(EXEC)			
	#	Resp	Response
	0%	0	Strongly Disagree
	0%	0	Disagree
0%	0%	0	Somewhat Disagree
	13%	3	Somewhat Agree
	61%	14	Agree
91%	17%	4	Strongly Agree
	9%	2	N/A
100%	23		Total Responses
(PROJ)			
	#	Resp	Response
	7%	1	Strongly Disagree
	7%	1	Disagree
29%	14%	2	Somewhat Disagree
	14%	2	Somewhat Agree
	36%	5	Agree
71%	21%	3	Strongly Agree
	0%	0	N/A
100%	14		Total Responses

Although 75% of this group of project level personnel agrees that their company promotes a sufficiently motivating environment, the same respondents also feel their company does not recognize their performance or value their opinion. This is important since 3 out of 4 of the individuals in that 29% group also agree that feeling valued by the company motivates them. Half of that 29% of project level personnel believe management is doing a good job at keeping its workforce motivated. They all in turn

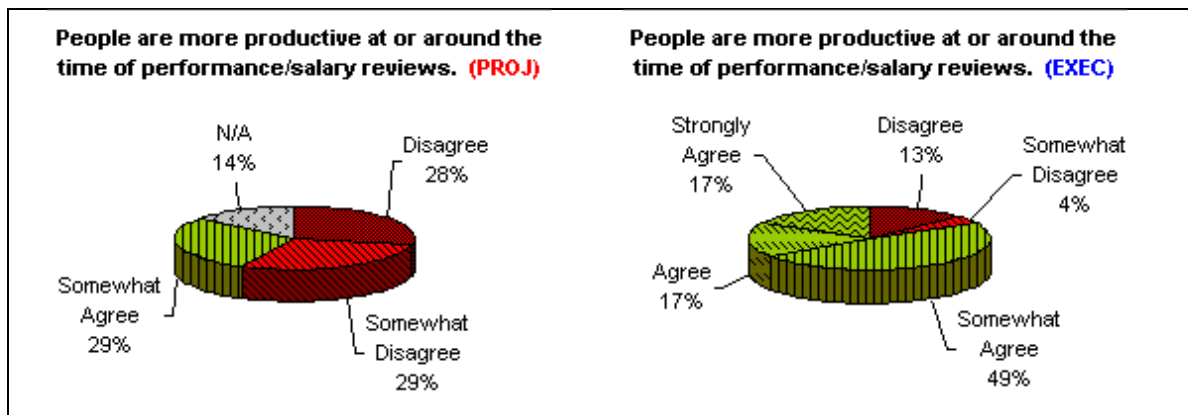
strongly agree a motivated workforce significantly influences the success of a project. Furthermore, along with the other project level individuals, they all agree company motivation is beneficial to job performance and acknowledge that maximum productivity potential is best achieved within a motivating environment. While most people agree that they are currently motivated to perform up to their maximum potential, the question now is whether they feel the company is recognizing their performance appropriately.

As we learned from the literature review in this study, recognition is a very important part of employee motivation. When management recognizes an employee's performance and dedication, motivation can be increased and maintained. Survey participants "agree" their company recognizes their performance appropriately, but a closer look at Figure 4-41 reveals that 21% of project level and 13% of executive level personnel are actually in some form of disagreement with this statement. This leads to the conclusion that companies still have improvements to make in the way they are recognizing their employees' performance. Companies cannot ignore the need for employee-recognition since as the survey results reflect it can greatly affect motivation, which in turn affects task efficiency that leads to maximum performance and high productivity. After all, a motivated workforce considerably influences the success of a project.



**Figure 4-41. Companies on employee recognition [N=23; N=14]**

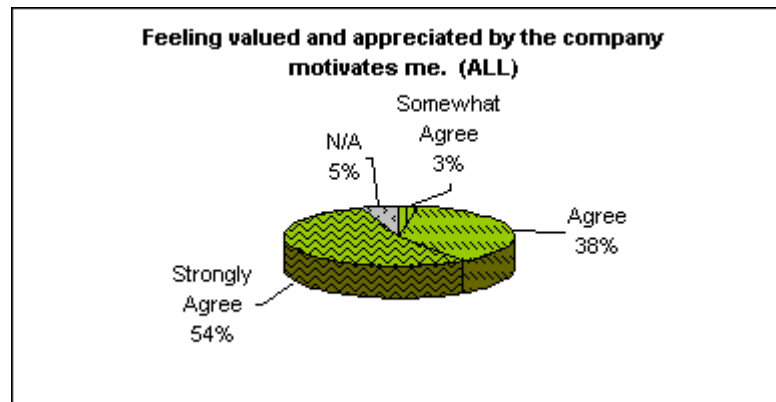
Survey participants were also asked to provide their opinion on whether they felt people are more productive at or around the time of performance/salary reviews. The general response was not very affirmative, as Figure 4-42 illustrates most participants only “somewhat agreed” to the statement. One third of all respondents expressed a level of disagreement with this statement, largely coming from 57% of the project level personnel in contrast to 17% of the executive level personnel that also expressed disagreement. On the other hand, the remaining 83% of executives feel that people are indeed in some degree more productive at or around the time of performance/salary reviews. Once again a considerable difference between executives and project level personnel is seen.



**Figure 4-42. Employee productivity and performance/salary reviews [N=23; N=14]**

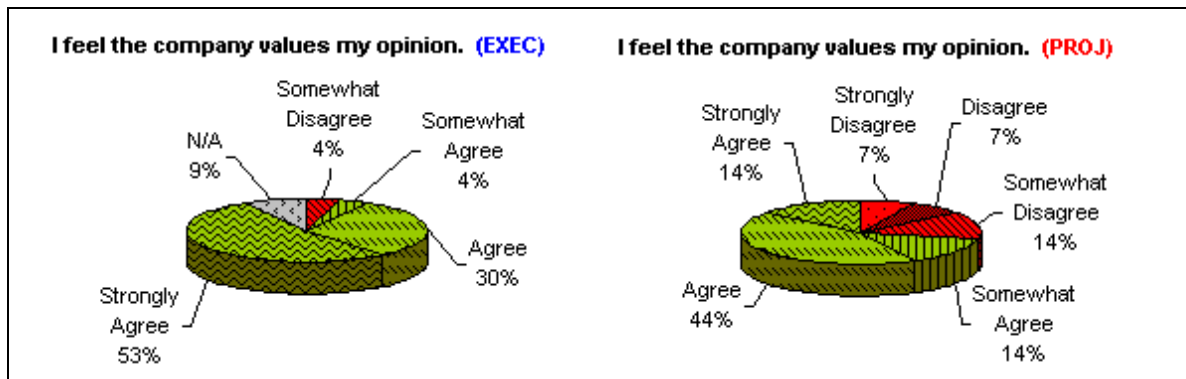
The basic conception behind the statement in question is that one is willing to perform more productively at or around the time of such review since one's dedication to high productive performance should ideally result in valuable recognition and/or rewards by one's company. Even though performance/salary reviews have some effect on employee productivity performance at or around the time at which they are held as the results suggest, there are too many mixed feelings by employees overall to validate and much less generalize this statement.

Other important elements affecting motivation are also addressed in the survey to evaluate how effective companies generally are at implementing them. These elements include feeling valued and appreciated, company incentives, working conditions, social activities, and company benefits. Feeling valued and appreciated by the company motivates both executive and project level participants as seen in Figure 4-43, for most of them “strongly agree”.



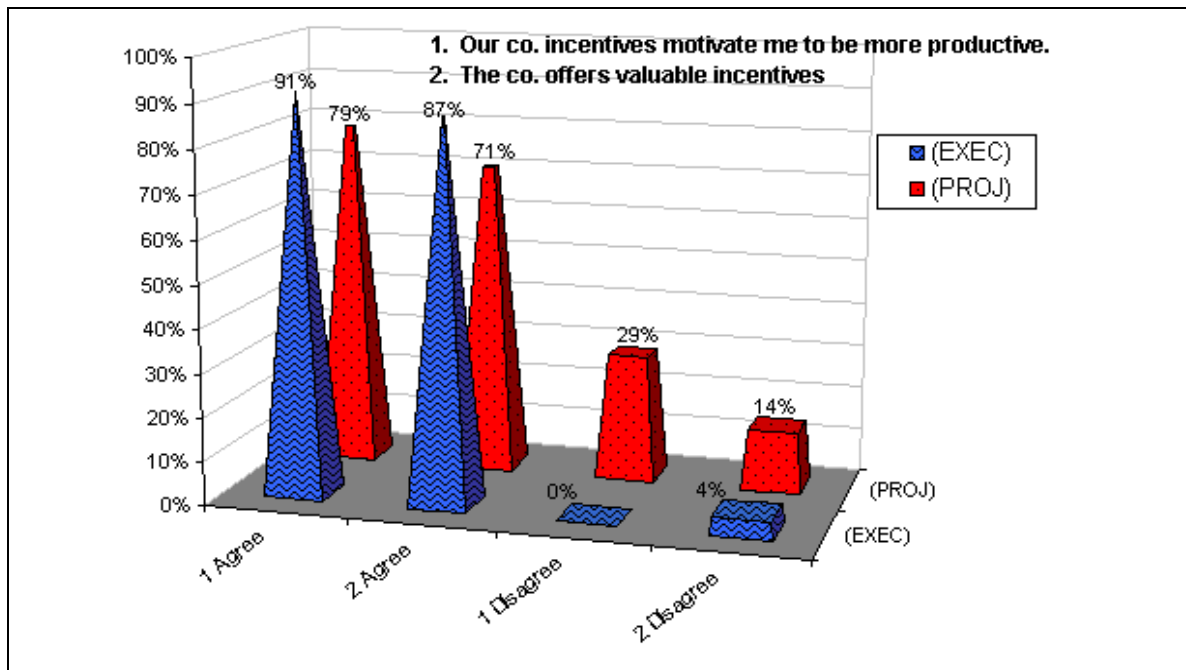
**Figure 4-43. Feeling valued and appreciated effect on motivation [N=37]**

It is not a complex relationship to understand that feeling valued and appreciated by one's employer is motivating. Yet the companies surveyed are having difficulties with effectively projecting this feeling to their employees across all levels, as Figure 4-44 illustrates. Approximately one third (31%) of project level personnel as compared to only 4% of executives say they don't feel their respective company values their opinion. In other words, companies surveyed are more effective at making executive-level personnel feel valued than they are at making the project-level personnel feel the same way.



**Figure 4-44. Valuing employee opinion [N=23; N=14]**

Company incentives proved to be another area where inequities between executive level and project level can be perceived, as Figure 4-45 illustrates. While all executives feel without any disagreement that their company incentives motivate them to be more productive, 29% of project level personnel feel otherwise. The reason for this can be deducted from the 91% agreement from executives to the company currently offering them valuable incentives, versus the lower 79% agreement to the same statement from project level personnel.



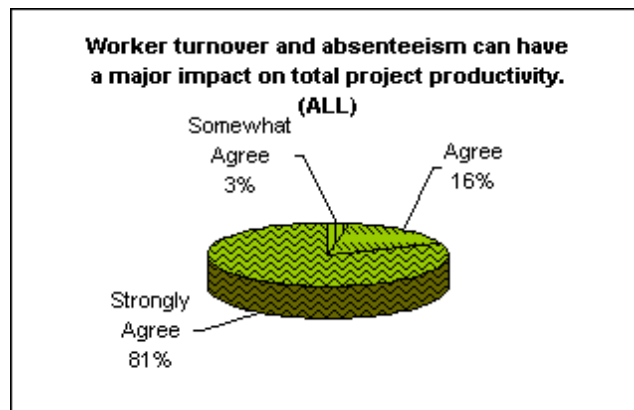
**Figure 4-45. Company incentives and motivation [N=23; N=14]**



Most companies, over 92% of them, offer appropriate working conditions and competitive benefits according to the project and executive personnel. As for social activities, the majority of all participants (87%) believe their company sponsors social activities that increase the morale among workers.

### **Effects of Training and Motivation on Employee Turnover**

The survey results further confirm employee turnover and absenteeism strongly influence productivity performance. Executive and project-level personnel are all in agreement with the statement that worker turnover and absenteeism can have a major impact on total project productivity. Eighty-one percent of all participants “strongly agree” with the statement, 16% “agree”, and 3% somewhat agree. [Figure 4-46]



**Figure 4-46. Turnover and absenteeism on productivity [N=37]**

Effective training as well as effective motivation minimizes employee turnover, as survey results illustrate in Figures 4-21b and 4-21c. A closer look at training shows how 39% percent of all participants “somewhat agree” with the statement that effective training minimizes employee turnover. In addition, thirty-two percent “agree”, 16% “strongly agree”, 8% “somewhat disagree”, and 5% “disagree” with the same statement. Overall, 87% of all participants responded favorably to training’s ability in minimizing employee turnover. [Figure 4-47]



**Figure 4-47. Training on employee turnover [N=37]**

Similarly, motivation received a favorable response on its ability to minimize turnover. When the same participants were asked for their level of agreement to, 40% of all participants “agree” with the statement that effective motivation minimizes employee turnover. An additional 30% “somewhat agree”, 24% “strongly agree”, 3% “somewhat disagree”, and 3% “disagree”. In total, 96% of all participants responded favorably to motivation’s ability in minimizing employee turnover. [Figure 4-48]



**Figure 4-48. Motivation on employee turnover [N=37]**

Although both factors were perceived to have a considerable effect on employee turnover, motivation received a higher overall percentage of responses on its capacity of minimizing employee turnover than training did. Nevertheless, the survey results show that a company’s investment on their employees, by ways of training for example, are

perceived as beneficial to keeping employee turnover to a minimum. Forty-one percent of all participants “agree” that employees are less likely to leave a company that invests in their career. In addition, 27% “strongly agree”, 24% “somewhat Agree”, 5% “disagree”, and the remaining 3% of participants “somewhat disagree” to the above statement. [Figure 4-49]



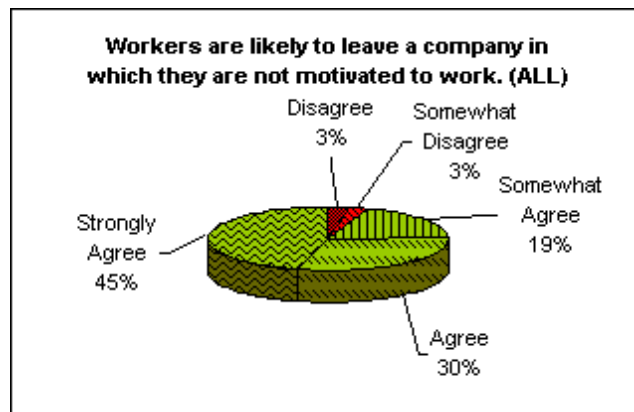
**Figure 4-49. Career development Investment and employee turnover [N=37]**

The availability of training programs is shown to contribute to the attraction of more qualified candidates. Only 3% of both the executive and project-level personnel surveyed “somewhat disagree” with training’s ability to attract qualified candidates, while the remaining 97% responded favorably to it. In total, 60% “somewhat agree”, 32% “agree”, and 5% “strongly agree” with the statement that the availability of training programs attracts more qualified candidates. [Figure 4-50]



**Figure 4-50. Attracting qualified candidates through training [N=37]**

It is important that the company establishes a working environment in which its employees are motivated to work. Ninety-four percent of all participants expressed agreement to the statement that employees are likely to leave a company in which they are not motivated to work. While out of the remaining 6%, 3% “disagree” and the other 3% “somewhat disagree” to the statement. The majority (45%) “strongly agree” employees are likely to leave a company in which here they are not motivated to perform. This was followed by 30% of participants that “agree” and 19% that “somewhat agree”. [Figure 4-51]



**Figure 4-51. Motivating workplace and employee turnover [N=37]**

Companies should keep in mind, as survey results show [Figure 4-52], that employee turnover is also affected by the length of employment of the individual. All survey participants are in agreement with the statement that employee turnover declines with the length of employment; Forty-nine percent “agree”, 27% “strongly agree”, and 24% “somewhat agree”. With this in mind, company efforts to minimizing employee turnover of talented personnel and thus maximizing their length of employment can be achieved by decreasing their likeliness of leaving their company. As survey results have shown [See previous Figures 4-49, 4-51] employees are less likely to leave a company that invests in their career and one in which they are motivated to work. Consequently, the

effective implementation of training and motivation is not just key to quality and productivity performance, but also plays an important role in addressing employee turnover. [Figure 4-52]



**Figure 4-52. Employee turnover and length of employment [N=37]**

#### **Effects of Training and Motivation on Employee Satisfaction**

Survey results show how both company training and a motivating environment are conducive of employee satisfaction. As Figure 4-53 illustrates, all responses received were favorable to training's capacity in promoting job satisfaction. Forty-eight percent "agree" company training promotes job satisfaction, 30% "strongly agree", and the remaining 22% of the participants "somewhat agree".



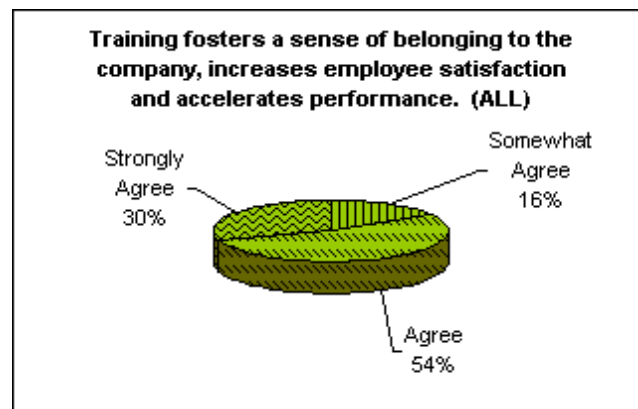
**Figure 4-53. Company training on job satisfaction [N=37]**

Motivation received a seemingly favorable response as training did on its conduciveness of employee satisfaction. Fifty-two percent “agree” a motivating working environment is conducive of employee satisfaction, 43% “strongly agree”, and the remaining 5% of the participants “somewhat agree”. [Figure 4-54]



**Figure 4-54. Motivation on employee satisfaction [N=37]**

All survey participants also make evident the importance of training to employee satisfaction, which in turn affects company performance. Fifty-four percent of the survey participants “agree” training fosters a sense of belonging to the company, increases employee satisfaction and accelerates performance. In addition, 30% of them “strongly agree”, while the remaining 16% “somewhat agree” to the same statement. [Figure 4-55]



**Figure 4-55. Training on belonging, satisfaction, and performance [N=37]**

That sense of belonging to the company is a vital to employee satisfaction and cannot be fully perceived unless the employee feels as a contributing source to the company. Survey results show, as seen in Figure 4-56, that 97% of all surveyed are in agreement with the statement that training encourages new hires to quickly develop into informed, contributing employees. Forty-eight percent “agree”, 38% “strongly agree”, 11% “somewhat agree”, and the remaining 3% of the participants “somewhat disagree”.



**Figure 4-56. Training on employee development [N=37]**

The advantages of company training on its employees and on the firms itself do not stop here. The benefit of company-sponsored training in increasing the potential of employees as it helps their careers is perceived by 97% of all personnel surveyed. Fifty-seven percent of the participants “strongly agree” to the statement that company sponsored training increases my potential and helps my career. Thirty-five percent “agree”, and the 5% of the participants “somewhat agree” to this statement. The remaining 3% of respondents found the statement not applicable to them. [Figure 4-57]



**Figure 4-57. Company-training on employees' career and potential [N=37]**

Social activities among employees are viewed as morale boosting activities that contribute to satisfying environment for 92% of the survey participants. Forty-nine percent of executives and project-level personnel “agree” social activities among employees increase morale among workers. Twenty-seven percent “strongly agree”, 16% “somewhat agree”, and the remaining 8% of the participants “somewhat disagree” to the benefits of social activities may have on increasing employee morale. [Figure 4-58]



**Figure 4-58. Social activities on morale and satisfaction [N=37]**

### **Characteristics of Effective Training Implementation**

In an effort to identify the common characteristics or qualities to effective training implementation a more detailed analysis of the survey results was made. A number of questions from the surveys were selected according to their ability to ‘identify’ the



companies among those surveyed whose participants perceived it to implement training effectively. It is worth noting is that for training implementation to be successful, as survey results suggest, it must first be formally established and perceived as effective and beneficial not just to the company itself but most importantly to its employees. Only those participants that are employed by a company which implements a formal training program [per S1 survey results] and that responded favorably (in agreement) to the ‘identifying’ survey statements were analyzed. This group of participants is defined as the Selected Participants (SP). The two statements selected are as follows:

- The company training programs are effective.
- The training provided by the company has been beneficial.

The Selected Participants (SP) group thus represents those survey participants that are employed by a company which implements a formal training program that is perceived as effective and beneficial to them. For distinction purposes all of the survey participants, even those not part of the SP group will be referred to as the All Participants (AP) group. The All Participants (AP) group simply represents all of the survey participants, or in other words, the general surveyed population.

In total, 70% of the executive-level participants and 43% of project-level responded favorably to the previous ‘identifying’ statements. The executive level represents 73% of the Selected Participants group, while the project level represents the remaining 27%. Refer to Table 4-3 on the following page for a clearer visual interpretation of the above information.

**Table 4-3. Identifying statements to effective training implementation**

EFFECTIVE TRAINING IMPLEMENTATION					
<b>‘IDENTIFYING’ STATEMENTS</b>					
(S2: T1) The company training programs are effective. *					
(S2: T4) The training provided by the company has been beneficial. *					
EXECUTIVE-LEVEL PARTICIPANTS [N= 23]		PROJECT-LEVEL PARTICIPANTS [N= 14]		ALL PARTICIPANTS [N= 37]	
YES	NO	YES	NO	YES	NO
70%	23%	43%	43%	59%	30%
16	5	6	6	22	11
CODING: (S2: T1) Survey 2: Training question # 1					
The Selected Participants (S.P.) group is composed of 73% executive-level participants and 27% project-level participants.					
SELECTED PARTICIPANTS (S.P.):					
70% OF EXEC	=	16 Participants	=	73% S.P.	
43% OF PROJ	=	<u>6 Participants</u>	=	<u>27% S.P.</u>	
TOTAL S.P.	=	22 Participants	=	100% S.P.	
The All Participants (A.P.) group encompasses all the survey participants. This group includes all of the executive-level participants and all of the project-level participants that are either in agreement or in disagreement with the statements evaluated herein (does not include those participants responding ‘not applicable’ to any one of the statements, or those that are ‘not available’).					
ALL PARTICIPANTS (A.P.):					
59% OF EXEC	=	22 Participants	=	100% S.P.	
30% OF PROJ	=	<u>11 Participants</u>	=	<u>0% S.P.</u>	
TOTAL S.P.	=	33 Participants	=	100% S.P.	
* NOTE: Not all percentages may add up to 100% since some participants may have selected the statement to be “not applicable” instead of agreeing or disagreeing to it.					

These participants were then individually analyzed in their responses to a selected number of ‘qualitative’ statements from the survey. These ‘qualitative’ statements refer to the qualities characteristic of an effective training program as presented in the literature review. The following are the seven ‘qualitative’ statements selected for analysis:

- The company has a well-defined training program in place
- The company [training] has improved my quality performance
- Company training improved overall workforce quality awareness
- Company training keeps me up to speed with new methods and innovations
- Training has made me more efficient at completing my tasks
- Training programs have improved teamwork
- Who receives training?

The responses of the Selected Participants (SP) to each statement are compared to those of All Participants (AP) in the survey, as previously defined in Table 4-3. In this analysis, any favorable or agreeable response to a statement is represented by a YES answer, while any unfavorable or disagreeable response to a statement is represented by a NO answer. Each ‘qualitative’ statement for analysis is discussed and presented in its own Table.

Refer to Figure 4-59 for a graph that illustrates the performance of those Selected Participants group in implementing training effectively as compared to that of the All Participants group.

The analysis of the first statement, as summarized in Table 4-4, shows that 86% of the Selected Participants, compared to 70% of All Participants, believe their company has a well-defined training program in place. This percentage difference between both groups means that 16% more companies have well-defined training programs in the SP group than in the AP group. On the other hand, the remaining 14% of the Selected Participants, compared to 27% of All Participants, believe their company does not have a well-defined training program in place. Evidently, a characteristic of those companies perceived to effectively implement training, according to its employees, is having a well-defined training program.

**Table 4-4. Well-defined training program**

---

(S2: T2) The company has a well-defined training program in place. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
86%	14%	70%	27%	16%	13%

---

The second ‘qualitative’ statement analysis, summarized in Table 4-11, shows 100% of the Selected Participants, compared to 81% of All Participants, believe their company [training] has improved their quality performance. This percentage difference between both groups means that 19% more companies have improved its employees’ quality performance through training in the SP group than in the AP group. On the other hand, 0% of the Selected Participants, compared to the remaining 16% of All Participants, believe the company [training] has not improved their quality performance. Consequently, successful training is characteristic of addressing and improving quality

performance; according to the SP group of employees that perceive their companies effectively implement training.

**Table 4-5. Quality performance through training**

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(S2: T5) The company [training] has improved my quality performance. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
100%	0%	81%	16%	19%	16%

---

The third ‘qualitative’ statement analysis, summarized in Table 4-6, shows that 100% of the Selected Participants, compared to 95% of All Participants, believe their company training improved overall workforce quality awareness. This percentage difference between both groups means that 5% more companies have improved overall workforce quality awareness through training in the SP group than in the AP group. The small difference in percentage between the SP and AP group does not necessarily validate this characteristic being of as high priority as perhaps the others previously discussed, which encounter greater percentage gaps. Nevertheless, successful training is characteristic of improving overall workforce quality awareness, according to the SP group of employees that perceive their companies effectively implement training.

**Table 4-6. Quality awareness through training**

---

(S2: T7) Company training improved overall workforce quality awareness. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
100%	0%	95%	0%	5%	0%

---

The fourth ‘qualitative’ statement analysis, summarized in Table 4-7, shows that 86% of the Selected Participants, compared to 78% of All Participants, believe their company training keeps them up to speed with new methods and innovations. This percentage difference between both groups means that 8% more companies keep their workforce up to speed with new methods and innovations through training in the SP group than in the AP group. On the other hand, the remaining 9% of the Selected Participants, compared to 8% of All Participants, believe their company does not have a well-defined training program in place. Although the relatively small percentage difference doesn’t hold as much weight as that of a well-defined training program, as previously discussed in Table 4-8, training that keeps personnel up to speed with new methods and innovations is nevertheless another characteristic of those companies perceived to effectively implement training.

**Table 4-7. New methods and innovations through training**

(S2: T8) Company training keeps me up to speed with new methods and innovations. *					
SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
86%	9%	78%	8%	8%	1%

The fifth ‘qualitative’ statement analysis, summarized in Table 4-8, shows 91% of the Selected Participants, compared to 78% of All Participants, believe training has made them more efficient at completing their tasks. This percentage difference between both groups means that 13% more companies made their workforce more efficient at completing their tasks through training in the SP group than in the AP group. On the other hand, 0% of the Selected Participants, compared to the remaining 5% of All

Participants, believe training has not made them more efficient at completing their tasks. Consequently, successful training is characteristic of improving task efficiency; according to the SP group of employees that perceive their companies effectively implement training.

**Table 4-8. Task efficiency through training**

---

(S2: T9) Training has made me more efficient at completing my tasks. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
91%	0%	78%	5%	13%	5%

---

The sixth ‘qualitative’ statement analysis, summarized in Table 4-9, shows 86% of both the Selected Participants and All Participants group believe training programs have improved teamwork. This equality between both groups means that the same percentages of companies have improved teamwork through training in both the SP group and the AP group. On the other hand, 0% of the Selected Participants, compared to the remaining 6% of All Participants, believe training has not improved teamwork. The percentage distributions still suggest that successful training is characteristic of improving teamwork; according to the SP group of employees that perceive their companies effectively implement training.

**Table 4-9. Teamwork through training**

---

(S2: T13) Training programs have improved teamwork. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
86%	0%	86%	6%	0%	6%

---

The seventh and last ‘qualitative’ statement analysis, summarized in Table 4-10, shows 95% of the Selected Participants, compared to 61% of All Participants, are employed by companies that offer training to all-level personnel. This percentage difference between both groups means that 34% more companies offer training to all-level personnel in the SP group than in the AP group. In addition, companies that offer training to just entry-level personnel employ 5% of the Selected Participants, compared to 17% of All Participants. Furthermore, 22% of the AP group, compared to 0% of the SP group, found the question not applicable to them; reason being that their companies do not implement training at all in the first place. Notice that only executive-level personnel participated in this question since it was part of Survey 1 (S1), which was only distributed to executives. Consequently, successful training is characteristic of covering all-level personnel; according to the SP group of employees that perceive their companies effectively implement training.

**Table 4-10. Personnel training coverage**

(S1: 1b) Who receives training?							
SELECTED PARTICIPANTS (Execs only) [N=16]				ALL PARTICIPANTS (EXECS ONLY) [N=23]			
N/A	ENTRY LEVEL	HIGH LEVEL	ALL LEVEL	N/A	ENTRY LEVEL	HIGH LEVEL	ALL LEVEL
0%	5%	0%	95%	22%	17%	0%	61%

This isolated analysis of the responses from this selected group of participants revealed the following common characteristics that provide a starting point to the successful implementation of training. A n effective company-training program:

- Is Well-defined
- Improves quality performance and awareness



- Actualizes employees with new methods and innovations
- Maximizes employees' task efficiency
- Emphasizes teamwork
- Covers all-level employees

Applying these characteristics as a base for the implementation of training, as survey results show, serves to maximize a company's quality performance.

### **Characteristics of Effective Motivation Implementation**

The same analytical process carried out to find the common characteristics to effective training implementation was performed here to identify those qualities common to the effective implementation of motivation. Once again a series of 'identifying' statements were used to filter-through those participants that perceive their company's implementation of motivation best. This means that only those participants who responded favorably (in agreement) to all 'identifying' statements were considered. This group of participants is defined as the Selected Participants (SP). The three statements selected are as follows:

- Our company promotes a sufficiently motivating environment.
- I am currently motivated to perform up to my maximum potential.
- Management is doing a good job at keeping its workforce motivated.

The Selected Participants (SP) group thus represents those survey participants that are employed by a company that promotes a sufficiently motivating environment where they are currently motivated to perform up to their maximum potential and where management is doing a good job at keeping its workforce motivated, as perceived by the employees themselves. For distinction purposes all of the survey participants, even those not part of the SP group will be referred to as the All Participants (AP) group. The All Participants

(AP) group simply represents all of the survey participants, or in other words, the general surveyed population.

In total, 74% of the executive-level participants and 64% of project-level responded favorably to the above identifying statements. The executive level represents 65% of the Selected Participants group, while the project level represents the remaining 35%. Refer to Table 4-11 on the following page for a clearer visual interpretation of the above information.

**Table 4-11. Identifying statements to effective motivation implementation**

EFFECTIVE MOTIVATION IMPLEMENTATION					
<b>‘IDENTIFYING’ STATEMENTS</b>					
(S2: M1) Our company promotes a sufficiently motivating environment.					
(S2: M6) I am currently motivated to perform up to my maximum potential. *					
(S2: M12) Management is doing a good job at keeping its workforce motivated.					
EXECUTIVE-LEVEL PARTICIPANTS [N= 23]		PROJECT-LEVEL PARTICIPANTS [N= 14]		ALL PARTICIPANTS [N= 37]	
YES	NO	YES	NO	YES	NO
74%	23%	64%	36%	70%	27%
17	5	9	5	26	10
CODING: (S2: M1) Survey 2: Motivation question # 1					
The Selected Participants group is composed of 65% executive-level participants and 35% project-level participants.					
SELECTED PARTICIPANTS (S.P.):					
74% OF EXEC	=	17 Participants	=	65% S.P.	
64% OF PROJ	=	<u>9 Participants</u>	=	<u>35% S.P.</u>	
TOTAL S.P.	=	26 Participants	=	100% S.P.	
The All Participants group encompasses all the survey participants. This group includes all of the executive-level participants and all of the project-level participants that are either in agreement or in disagreement with the statements evaluated herein (does not include those participants responding ‘not applicable’ to any one of the statements, or those that are ‘not available’).					
ALL PARTICIPANTS (A.P.):					
70% OF ALL	=	26 Participants	=	100% S.P.	
27% OF ALL	=	10 Participants	=	0% S.P.	
TOTAL A.P.	=	36 Participants			
* NOTE: Not all percentages may add up to 100% since some participants may have selected the statement to be “not applicable” instead of agreeing or disagreeing to it.					

These participants were then individually analyzed in their responses to a selected number of ‘qualitative’ statements from the survey. These ‘qualitative’ statements refer to the qualities characteristic of an effective training program as presented in the literature review. The following are the eight ‘qualitative’ statements selected for analysis:

- The company recognizes my performance appropriately
- I feel the company values my opinion
- The company offers valuable incentives
- The company offers competitive benefits
- The company feels that motivation is a vital part of a productivity-driven company
- The company feels that motivating employees is beneficial to productivity performance
- Our company incentives motivate me to be more productive

The responses of the Selected Participants (SP) to each statement are compared to those of All Participants (AP) in the survey, as previously defined in Table 4-11. In this analysis, any favorable or agreeable response to a statement is represented by a YES answer, while any unfavorable or disagreeable response to a statement is represented by a NO answer. Each ‘qualitative’ statement for analysis is discussed and presented in its own Table.

Refer to Figure 4-56 for a graph that illustrates the performance of those Selected Participants group in implementing motivation effectively as compared to that of the All Participants group.

The analysis of the first statement, as summarized in Table 4-12, shows that 92% of the Selected Participants, compared to 73% of All Participants, believe their company recognizes their performance appropriately. This percentage difference between both groups means that 19% more companies recognize their workforce's performance appropriately in the SP group than in the AP group. On the other hand, the remaining 4% of the Selected Participants, compared to 16% of All Participants, believe their company does not recognize their performance appropriately. Evidently, a characteristic of those companies perceived to effectively implement motivation, according to its employees, is the appropriate recognition of their workforce's performance.

**Table 4-12. Employee performance recognition**

---

(S2: M7) The company recognizes my performance appropriately. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
92%	4%	73%	16%	19%	12%

---

The second 'qualitative' statement analysis, summarized in Table 4-13, shows that 92% of the Selected Participants, compared to 81% of All Participants, feel their company values their opinion. This percentage difference between both groups means that 11% more companies value the opinion of their workforce in the SP group than in the AP group. On the other hand, the remaining 4% of the Selected Participants, compared to 14% of All Participants, feel their company does not value their opinion. Again, a characteristic of those companies perceived to effectively implement motivation, according to its employees, is the way in which their workforce's opinion is valued.

**Table 4-13. Valuing employee-opinion**


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(S2: M9) I feel the company values my opinion. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
92%	4%	81%	14%	11%	10%

---

The third ‘qualitative’ statement analysis, summarized in Table 4-14, shows that 100% of the Selected Participants, compared to 86% of All Participants, believe their company offers valuable incentives. This percentage difference between both groups means that 14% more companies offer valuable incentives to their workforce in the SP group than in the AP group. On the other hand, 0% of the Selected Participants, compared to 8% of All Participants, feel their company does not offer valuable incentives. Thus, a characteristic of those companies perceived to effectively implement motivation, according to its employees, is the valuable incentives offered to its employees.

**Table 4-14. Valuable incentives**


---

(S2: M16) The company offers valuable incentives. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
100%	0%	86%	8%	14%	8%

---

The fourth ‘qualitative’ statement analysis, summarized in Table 4-15, shows that 100% of the Selected Participants, compared to 92% of All Participants, feel their company offers competitive benefits. This percentage difference between both groups means that 8% more companies offer competitive benefits to their workforce in the SP group than in the AP group. On the other hand, 0% of the Selected Participants,

compared to 8% of All Participants, feel their company does not offer competitive benefits. Consequently, successful motivation is characteristic of offering competitive benefits; according to the SP group of employees that perceive their companies effectively implement motivation.

**Table 4-15. Competitive company benefits**

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(S2: M17) The company offers competitive benefits.

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
100%	0%	92%	8%	8%	8%

---

The fifth ‘qualitative’ statement analysis, summarized in Table 4-16, shows that 100% of the Selected Participants, compared to 86% of All Participants, believe their company [management] feels that motivation is a vital part of a productivity-driven company values their opinion. This percentage difference between both groups means that 14% more companies believe motivation is a vital part of a productivity-driven company in the SP group than in the AP group. On the other hand, 0% of the Selected Participants, compared to 8% of All Participants, believe their company [management] feels that motivation is a vital part of a productivity-driven company. Again, a characteristic of those companies perceived to effectively implement motivation, according to its employees, is the way in which motivation is made a vital part their productivity-driven company.

**Table 4-16. Motivation's significance to company productivity**


---

(S2: M18) The company feels that motivation is a vital part of a productivity-driven company. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
100%	0%	86%	8%	14%	8%

---

The sixth 'qualitative' statement analysis, summarized in Table 4-17, shows that 100% of the Selected Participants, compared to 89% of All Participants, believe their company [management] feels that motivating employees is beneficial to productivity performance. This percentage difference between both groups mean that 11% more companies believe motivating employees is beneficial to productivity performance in the SP group than in the AP group. On the other hand, 0% of the Selected Participants, compared to 6% of All Participants, believe their company [management] feels that motivating employees is beneficial to productivity performance. Therefore, successful motivation is characteristic of making employees feel its company truly finds motivating them is beneficial to productivity performance; according to the SP group of employees that perceive their companies effectively implement motivation.

**Table 4-17. Driving performance with employee motivation**


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(S2: M19) The company feels that motivating employees is beneficial to productivity performance. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
100%	0%	89%	6%	11%	6%

---



The seventh and last ‘qualitative’ statement analysis, as summarized in Table 4-18, shows that 100% of the Selected Participants, compared to 81% of All Participants, believe their company incentives motivate them to be more productive. This percentage difference between both groups means that 19% more companies have company incentives that motivate its workforce to be more productive in the SP group than in the AP group. On the other hand, 0% of the Selected Participants, compared to 11% of All Participants, believe their company incentives don’t motivate them to be more productive. Evidently, a characteristic of those companies perceived to effectively implement motivation, according to its employees, is offering company incentives that motivate its workforce to be more productive.

**Table 4-18. Company incentives on employee productivity**

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(S2: M11) Our company incentives motivate me to be more productive. \*

SELECTED PARTICIPANTS [N=22]		ALL PARTICIPANTS [N=37]		DIFFERENCE (SP – AP)	
YES	NO	YES	NO	YES	NO
100%	0%	81%	11%	19%	11%

---

The following common characteristics serve as guidelines to an effective implementation of motivation, as evident from the selected group of participants herein and their companies. Companies effectively implementing motivation:

- Recognize employee performance
- Value employees and their opinion
- Offer valuable incentives and benefits
- Acknowledge motivation as a vital part of productivity performance

These qualities all emphasize the importance for the need of individual attention employees require from their company. Feeling valued and recognized is the essence around which employee performance is maximized. Implementation efforts to address these needs serve to build a strong and determined company culture.

### **Improvement Areas to Effective Training and Motivation**

Once the characteristics to each effective training and motivation implementation were defined through an analysis of ‘qualitative’ statements from the survey, their importance was then prioritized. The idea behind prioritizing these characteristics is to identify those areas in most need of attention that are key to the effective implementation of training and motivation.

The graph in Figure 4-59 plots each ‘qualitative’ statement characteristic of effectively implemented training and motivation previously analyzed in the series of Tables 4-5 and 4-6. The percentage of companies, according to its respondents, that possessed each one of these qualities were plotted for the Selected Participants (SP) group and the All Participants (AP) group.

As previously discussed, the Selected Participants group for the ‘qualitative’ training statements represents those survey participants that are employed by a company which implements a formal training program that is perceived as effective and beneficial to them. The Selected Participants group for the ‘qualitative’ motivation statements represents those survey participants that are employed by a company that promotes a sufficiently motivating environment where they are currently motivated to perform up to their maximum potential and where management is doing a good job at keeping its workforce motivated, as perceived by the employees themselves. Finally, the All

Participants group simply represents all of the survey participants, or in other words, the general surveyed population.

Comparing between both groups [SP and AP] serves to highlight those characteristics and qualities of high priority that are most prevalent in an organization that effectively implements training and motivation. The characteristics of high priority are those where All Participants (AP) realized the highest percentage-gaps of affirmative responses in the plotted graph [Figure 4-59] to the Selected Participants (SP), and consequently the ones in need of more immediate attention. Furthermore, these comparisons give us an idea of the current state of the general surveyed population (AP) relative to that of those already effectively implementing these key quality-and-productivity factors (SP).

Figure 4-59 shows a graph with four lines plotted. The top line defined by a dark-blue diamonds represents the affirmative (YES) responses to the ‘qualitative’ statements by the Selected Participants, while the bottom line defined by light-blue squares represents the negative (NO) responses to the same ‘qualitative’ statements by the Selected Participants. Likewise, the top line defined by red triangles represents the affirmative (YES) responses to the ‘qualitative’ statements by All Participants, while the bottom line defined by the orange X represents the negative (NO) responses to the same ‘qualitative’ statements by All Participants. The X-margin and Y-margin on the graph represent the percentage of YES/NO responses and the corresponding ‘qualitative’ statement, respectively. The data table for the graph is presented with the figure for intelligibility along with the actual statement that accompanies it. The plotted data table provides information acquired from the initial analysis of the ‘qualitative’ statements undertaken in the series of Tables 4-5 and 4-6, which includes the percentages for each YES and NO

answer to a statement along with the coding and numbering system that identifies where each statement came from.

The graph serves as a good visual tool that shows the parallel performance of both the AP and SP groups on implementing the ‘qualitative’ statements to both effective training and motivation. On average, the general surveyed population (AP) is performing 15% lower relative to those companies perceived to effectively implement training (SP).

It is evident from the graph in Figure 4-59 that the highest percentage-gaps, which denote those issues of high priority in most need of attention, are encountered with the following ‘qualifying’ statements:

- The company has a well-defined training program in place [1. (S2: T2)]
- The company [training] has improved my quality performance [2. (S2: T5)]
- The company recognizes my performance appropriately [7. (S2: M7)]
- Our company incentives motivate me to be more productive [13. (S2: M11)]

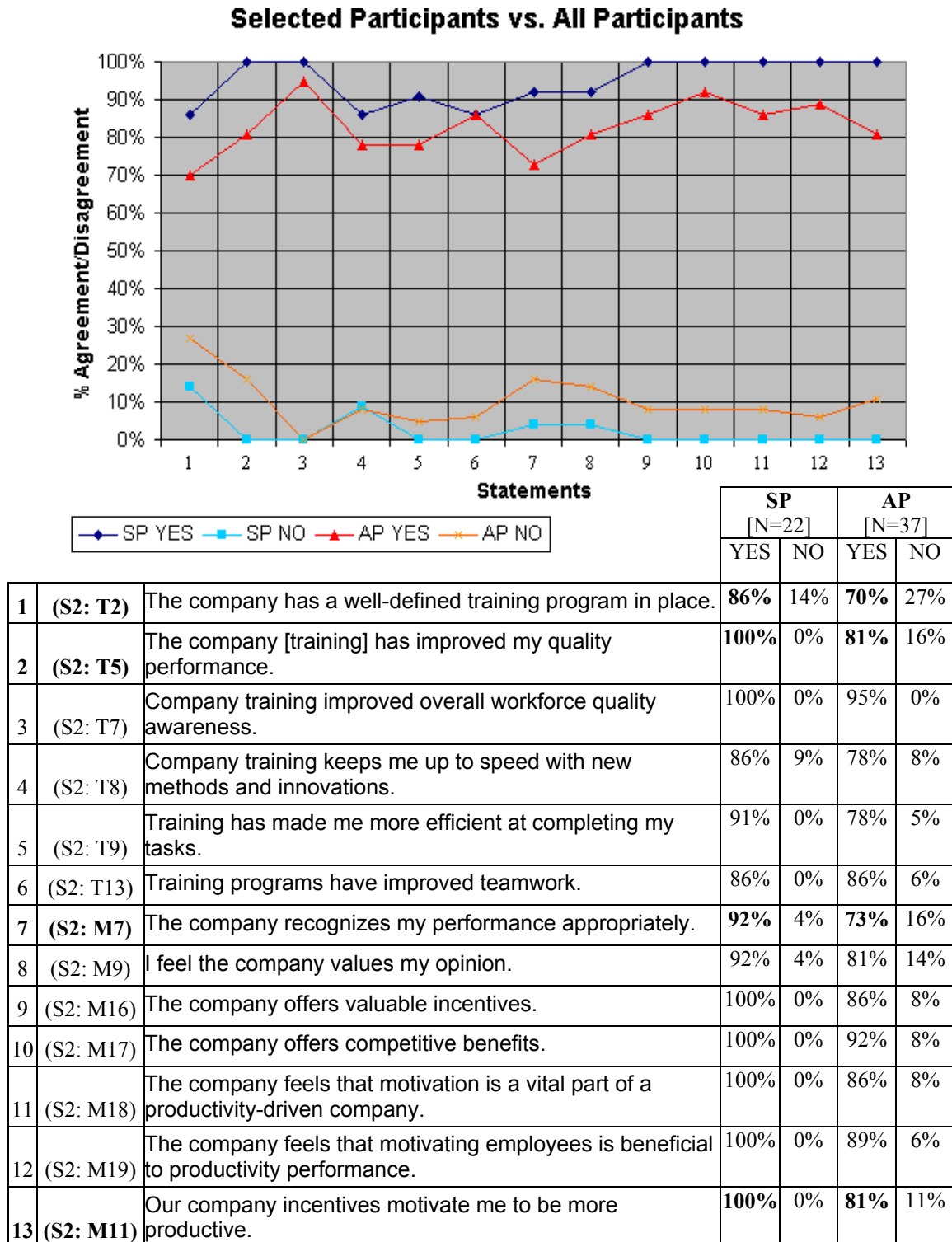
The coding system displayed in parenthesis after each of these four high-priority ‘qualifying’ statements tells us that the first two statements are of key importance to the effective implementation training, while the last two are of key importance to the effective implementation of motivation. This means that for the general surveyed population (AP) to reach the level of implementation of the Selected Participants it must first address these four issues. To remain competitive with the SP, AP should have better-defined training programs in place that address quality-performance, and improve employee-recognition along with incentives geared to increase productivity-performance.

In addition, the graph in Figure 4-59 also shows those areas where even those companies perceived to effectively implement training (SP) still have room to improve.

The Selected Participants (SP) may still improve performance by an additional 10%, and All Participants by an additional 25%, on the following six 'qualitative' statements:

- The company has a well-defined training program in place [1. (S2: T2)] – H.P.
- Co. training keeps me up to speed with new methods and innovations [4. (S2: T5)]
- Training has made me more efficient at completing my tasks [5. (S2: T9)]
- Training programs have improved teamwork [6. (S2: T13)]
- The company recognizes my performance appropriately [7. (S2: M7)] – H.P.
- I feel the company values my opinion [8. (S2: M9)]

Interestingly enough, two already noted high-priority issues still have room for improvement even for those companies already perceived to be implementing the key Q&P factors effectively. These two issues point out the increased need for better definition of training programs and better employee-recognition. Furthermore, these companies can further increase the edge over their competition by introducing more innovative methods that increase task-efficiency and teamwork through its training programs, while showing added value towards employee-opinion.



**Figure 4-59. Effectively implementing training and motivation**

### **Summary of Survey Results**

The surveys confirm that both training and motivation are indeed key factors crucial to quality and productivity performance, as industry advocates point out in the Literature Review. The effectiveness in the implementation of training and motivation by the industry was split and inconsistent.

Even though the implementation of training received good results, it is still far from its maximum potential. Training programs offered by the companies are not well defined and lack direction, especially at the project level. But in comparison to the shortcomings perceived in the implementation of motivation, training did not fare bad at all.

The implementation of motivation was the area of greatest concern where most companies are performing in an average manner, as perceived by the survey participants on 10 of the 19 statements presented. A significant imbalance in the implementation of motivation between executive and project-level personnel is evident. The following are some of the areas in need of attention:

- Project-level personnel are not currently motivated as much as the executive-level personnel to perform at their maximum potential. Twenty-nine percent of project-level participants expressed disagreement to the statement that they are currently motivated to perform up to their maximum potential, while none of the executives expressed any disagreement at all.
- Companies are not doing a good enough job at motivating or at recognizing executive personnel's performance appropriately, and much less that of the project personnel.

- Only 64% of project-level personnel are in agreement that the company feels motivation is a vital part of a productivity-driven company culture, while 100% of executive level personnel are in full agreement.
- Companies are not making the project-level personnel's opinion feel anywhere as valued as that of the executive's.
- Company incentives are as effective in motivating project-level personnel, as they are executive level personnel.
- Social activities meant to increase the morale among workers and valuable incentives are not being implemented at the project level as effectively as they are at the executive.



## CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

This study is limited to small-to-medium-sized general contractors in the State of Florida with an estimated annual volume of \$10 to \$100 million, less than 100 employees, and average project sizes of \$1 to \$10 million. Contractors not listed in the AGC and ABC membership directories with a working website or email were not contacted. This study is further limited to professional personnel at both the executive and project levels only; laborers are not covered.

### **Introduction**

High turnover rates, fierce competition, and high risk to low marginal-returns in respect to other comparable industries has led the construction industry to focus on the ways in which current human resource management is affecting bottom-line quality and productivity performance. Implementation of training and motivation, key quality and productivity performance factors, by management may lead to greater worker quality and productivity, and can further serve to stimulate the attraction, preservation and development of talented workforce.

Management's important leadership role in implementing training and motivation into their company culture is at the cornerstone for a quality-and-productivity-driven environment. Conversely, a company's triumph rests on the value management places on these key factors that not only affect its employees' welfare but also the company's quality and productivity performance. The need for effective implementation of training and motivation is key to achieving a quality-and-productivity-driven company culture.

Attaining this quality-and-productivity-driven company culture results in a significantly higher competitive edge that serves to balance out the inequities between the high-risk to low-marginal-returns (profits) characteristic of the current construction environment.

### **Conclusions**

The two key factors to a quality-and-productivity-driven company culture are training and motivation, as identified in the literature review. Effective training is key to quality performance, while motivation is key to productivity performance. Both factors, training and motivation, not only complement each other but also affect employee turnover and employee satisfaction in a positive manner when effectively implemented. The results from the literature review and those of the survey confirm how effective implementation of training and motivation into a company culture lead to increased quality and productivity, lower employee turnover, increased satisfaction, and consequently an increased competitive edge.

After measuring the gross effectiveness in implementation of the key factors by all participants surveyed, an implementation effectiveness of the participating construction companies was split. Small to medium sized Florida construction contractors' implementation of training, although relatively effective, still has room for improvement. Company-sponsored training programs although lacking definition, they are moving on the right track considering that for the most part they are still on their first decade of existence, as survey results reflect.

In comparison to the current effectiveness in implementation of training, motivation is follows far behind. The construction industry's low effectiveness in implementing motivation at the project personnel level is in need of special attention with all areas and issues pertaining to employee motivation. It appears that companies' over-focus on

executive level motivation has led them to forget about motivating its project level personnel, which is directly responsible for delivering not just quality and productivity but also the bottom line. The construction industry needs to be more effective in their implementation of motivation at all levels, especially in the way of employee recognition when accomplishments in quality and productivity performance are perceived.

Survey findings suggest a training program that can be effectively implemented is one that is well defined, improves quality performance and awareness, keeps informed employees with new methods and innovation, maximizes employee's task efficiency, emphasizes teamwork, and covers all-level employees. Similarly, survey findings confirm that effective implementation of motivation is best achieved when a firm recognizes employee performance, values employees and their opinion, offers valuable incentives and benefits, and acknowledges motivation a vital part of productivity performance.

The Literature Review provides information that can serve the construction industry in effectively implementing training and motivation into company culture that elaborates on the characteristics mentioned herein.

It is important to realize that the implementation of both training and motivation can only be as effective as it is perceived by not just the company but most importantly how it is perceived by its employees. This is why it is critical to involve employees directly from the start at the design, development, and implementation stages of a program.

### **Recommendations for Future Research**

The results of this survey are limited to small-to-medium-sized general contracting companies in Florida. Future research is encouraged to cover a wider geographical area, or even the whole nation. Another limitation of this study is the small sample size

available to work resulting from a lack of resources and time. Shorter surveys with fewer questions than the one used here will yield more participants and thus a larger sample size. Larger sample sizes in future research will allow for more accurate results.

Appendix G includes a recommended shorter survey composed of only those questions of most significance to this study and its results. A similar study could be designed that focuses on the labor-level instead of the professional-level personnel, which allows for a comparison of both. Surveys are encouraged to be distributed by all channels available, including post-mail and fax, and not just limited to email and a website surveying, in an effort to reach more potential participants.

APPENDIX A  
EXECUTIVE-LEVEL SURVEY (S1)



**Training and Motivation:  
Key to a Quality & Productivity Driven Company Culture**

**Executive Level Survey.**

**GENERAL INFORMATION.**

Company	<input type="text"/>
Position	<input type="text"/>
Years with current company	<input type="text" value="less than 2 years"/>
Years of working in the industry	<input type="text" value="less than 2 years"/>
Estimated Annual Volume	<input type="text" value="less than \$1 million"/>
Average Project Size	<input type="text" value="less than \$1 million"/>
Estimated # of Employees	<input type="text" value="less than 100"/>
Years in Business	<input type="text" value="less than 10"/>

**Please answer the following questions.**

1. Is there a formal training program being implemented in your company?	<input type="text" value="Yes"/>
a. For how long has the program been in place?	<input type="text" value="n/a"/>
b. Who receives the training?	<input type="text" value="n/a"/>
c. Who performs the training?	<input type="text" value="n/a"/>
d. How much training is mandatory?	<input type="text" value="n/a"/>
2. What is the estimated dollar amount spent on training for each individual per year?	<input type="text" value="less than \$500"/>

3. On average, how many training/educational seminars per year are offered to job-site-level personnel?

none

4. What are the minimum hours of training per job-site-level employee per year?

less than 12

5. What percent of the workforce takes advantage of training/educational seminars?"

0%

6. Is a mentor assigned to a newly hired individual?

never

7. Does your company offer employee continuing-education program benefits such as a tuition reimbursement program?

never

8. How often does your company hold formal employee performance reviews?

never

a. For New Hires (less than 1yr):

semi-annually

b. For All Other Personnel:

semi-annually

9. Does your company have established formal events where employees are recognized and rewarded for their contributions?

Yes

a. If so, approximately how many of these types of events are held annually?

n/a

10. What types of performance incentives does your company use? (Select all that apply). *Press and hold CTRL key to make multiple selections.*

none  
financial  
paid time off  
promotion  
aw ards  
other

11. To promote open communication, our company provides: (Select all that apply). *Press and hold CTRL key to make multiple selections.*

Suggestion Boxes  
New sletters  
Bulletin Boards  
Oher  
n/a

12. On average, how many social activities does your company sponsor for its employees per year?

n/a

13. Does your company offer competitive employee benefits?

None

Continue Survey

**ALL OF THE INFORMATION PROVIDED WILL BE KEPT STRICTLY CONFIDENTIAL!**



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APPENDIX B  
PROJECT-LEVEL SURVEY (S2)



**Training and Motivation:  
Key to a Quality & Productivity Driven Company Culture**

**Project Level Survey.**

**GENERAL INFORMATION**

Company	<input type="text"/>
Position	<input type="text"/>
Years with current company	less than 2 years ▼
Years of working in the industry	less than 2 years ▼

**Indicate your level of agreement with the following fifty statements by selecting one of the seven options in the drop-down list.**

\*1. Strongly Disagree, \*2. Disagree, \*3. Somewhat Disagree, \*4. Somewhat Agree, \*5. Agree, \*6. Strongly Agree, \*7. N/A.

QUALITY PERFORMANCE - Training	
1) The company training programs are effective.	Please Select One ▼
2) The company has a well-defined training program in place.	Please Select One ▼
3) The company encourages training.	Please Select One ▼
4) The training provided by the company has been beneficial.	Please Select One ▼
5) The company has improved my quality performance.	Please Select One ▼

6) Employees regard company-sponsored training as important.	Please Select One 
7) Company training improved overall workforce quality awareness.	Please Select One 
8) Company training keeps me up to speed with new methods and innovations.	Please Select One 
9) Training has made me more efficient at completing my tasks.	Please Select One 
10) Training has increased my commitment to producing quality work.	Please Select One 
11) More company sponsored training opportunities are needed.	Please Select One 
12) Since introducing quality training, the number of punch-list items has been reduced.	Please Select One 
13) Training programs have improved teamwork.	Please Select One 
14) The company feels that training is an important part of employee development.	Please Select One 
15) The company thinks that training employees is beneficial to company quality performance.	Please Select One 
16) The company values the benefits of training.	Please Select One 
17) The company's investment in training leads to increased time and money savings.	Please Select One 

PRODUCTIVITY PERFORMANCE - Motivation	
1) Our company promotes a sufficiently motivating environment.	<input type="text" value="Please Select One"/>
2) Company motivation is beneficial to job performance.	<input type="text" value="Please Select One"/>
3) Company motivation encourages more productive work.	<input type="text" value="Please Select One"/>
4) Motivation affects task efficiency.	<input type="text" value="Please Select One"/>
5) Maximum productivity potential is best achieved within a motivating environment.	<input type="text" value="Please Select One"/>
6) I am currently motivated to perform up to my maximum potential.	<input type="text" value="Please Select One"/>
7) The company recognizes my performance appropriately.	<input type="text" value="Please Select One"/>
8) People are more productive at or around the time of performance/salary reviews.	<input type="text" value="Please Select One"/>
9) I feel the company values my opinion.	<input type="text" value="Please Select One"/>
10) Feeling valued and appreciated by the company motivates me.	<input type="text" value="Please Select One"/>
11) Our company incentives motivate me to be more productive.	<input type="text" value="Please Select One"/>
12) Management is doing a good job at keeping its workforce motivated.	<input type="text" value="Please Select One"/>

13) A motivated workforce significantly influences the success of a project.	Please Select One ▼
14) Our company provides appropriate working conditions.	Please Select One ▼
15) The company sponsors social activities that increase the morale among workers.	Please Select One ▼
16) The company offers valuable incentives.	Please Select One ▼
17) The company offers competitive benefits.	Please Select One ▼
18) The company feels that motivation is a vital part of a productivity-driven company.	Please Select One ▼
19) The company feels that motivating employees is beneficial to productivity performance.	Please Select One ▼
<b>EMPLOYEE TURNOVER - Training &amp; Motivation</b>	
1) Effective training minimizes employee turnover.	Please Select One ▼
2) Employees are less likely to leave a company that invests in their career.	Please Select One ▼
3) Availability of training programs attracts more qualified candidates.	Please Select One ▼
4) Employee turnover declines with the length of employment.	Please Select One ▼

5) Effective motivation minimizes employee turnover.	Please Select One ▼
6) Worker turnover and absenteeism can have a major impact on total project productivity.	Please Select One ▼
7) Workers are likely to leave a company in which they are not motivated to work.	Please Select One ▼
<b>SATISFACTION - Training &amp; Motivation</b>	
1) Training sponsored by the company increases my potential and helps my career.	Please Select One ▼
2) Company training promotes job satisfaction.	Please Select One ▼
3) Training encourages new hires to quickly develop into informed, contributing employees.	Please Select One ▼
4) Training fosters a sense of belonging to the company, increases employee satisfaction and accelerates performance.	Please Select One ▼
5) Effective company organization increases morale among workers.	Please Select One ▼
6) Social activities among employees increase morale among workers.	Please Select One ▼
7) A motivating working environment is conducive of employee satisfaction.	Please Select One ▼

End Survey

**ALL OF THE INFORMATION PROVIDED WILL BE KEPT STRICTLY CONFIDENTIAL!**



APPENDIX C  
SURVEY-PARTICIPANT INVITATION LETTER





## UF GRADUATE STUDY

### **Training and Motivation: Key to a Quality & Productivity Driven Company Culture**

Dear Sir/Madam,

I am a graduate student in the Building Construction Program at the University of Florida. As part of my course work I am conducting a survey, the purpose of which is to analyze how training and motivation in a supporting company culture contributes to the attraction, retention, and development of a skilled workforce and how it affects quality & productivity performance.

I am asking you to participate in this survey because of your close connection with these issues. You will not have to answer any question(s) you do not wish to answer. Only I will have access to the survey that you fill out. The statistical data collected from your survey and others will be documented in my thesis. Your identity will be kept confidential to the extent provided by the law and your identity will not be revealed in the final manuscript.

Visit the website below to participate on this survey or to find more information on this study.

<http://www.nauro.com/caicedo/>

**Please forward this email to your co-workers and/or company list-server to assure that all interested individuals get an equal opportunity to participate.**

Sincerely,

[Luis Caicedo](#)

University of Florida

If you have any questions about this research protocol, please contact me at (954) 523-5346 or my faculty supervisor, Dr. R. Raymond Issa, at (352) 392-7438. Questions or concerns about your rights as a participant may be directed to the UFIRB office, University of Florida, Box 11225, Gainesville, FL 32611; ph (352) 392-0433.



APPENDIX D  
SURVEY WEB PAGES



# UNIVERSITY OF FLORIDA

THE RINKER SCHOOL OF BUILDING CONSTRUCTION

## **Training and Motivation: Key to a Quality & Productivity Driven Company Culture**

GRADUATE THESIS

BY

[LUIS CAICEDO](#)

Continue

Any questions please direct them to: [vivacali@ufl.edu](mailto:vivacali@ufl.edu)



## INFORMED CONSENT

### Training and Motivation: Key to a Quality & Productivity Driven Company Culture

#### Survey Questionnaire

Dear Participant,

I am a graduate student in the Building Construction Program at the University of Florida. As part of my course work I am conducting a survey, the purpose of which is to analyze how training and motivation in a supporting company culture contributes to the attraction, retention, and development of a skilled workforce and how it affects quality & productivity performance.

I am asking you to participate in the survey because of your close connection with these issues. The survey should take you no longer than 20 minutes to complete. You will not have to answer any question(s) you do not wish to answer. Only I will have access to the survey that you fill out. The statistical data collected from your survey and others will be documented in my thesis. Your identity will be kept confidential to the extent provided by the law and your identity will not be revealed in the final manuscript.

There are no anticipated risks, compensation or other direct benefits to you as a participant in this survey. You are free to withdraw your consent to participate and may discontinue your participation in the survey at any time without consequence.

If you have any questions about this research protocol, please contact me at (352) 224-6439 or my faculty supervisor, Dr. R. Raymond Issa, at (352) 392-7438. Questions or concerns about your rights as a participant may be directed to the UFIRB office, University of Florida, Box 11225, Gainesville, FL 32611; ph (352) 392-0433.

**By filling out the provided survey, you give me the permission to report your responses anonymously in the final manuscript to be submitted to my faculty supervisor as part of my course work.**

Sincerely,

[Luis Caicedo](#)

University of Florida

I accept the consent terms described above.

No, I do not wish to participate in this survey.



**Please select the survey that best matches your job title.**

[Executive Level Survey.](#) (CEO, CFO, President, Vice-President, etc.)

[Project Level Survey.](#) (Project Manager, Superintendent, Project Engineer, Field Engineer, Assistant Superintendent, Assistant PM/PE, Estimator)



**Thank you for participating in this survey.**

developed and hosted by

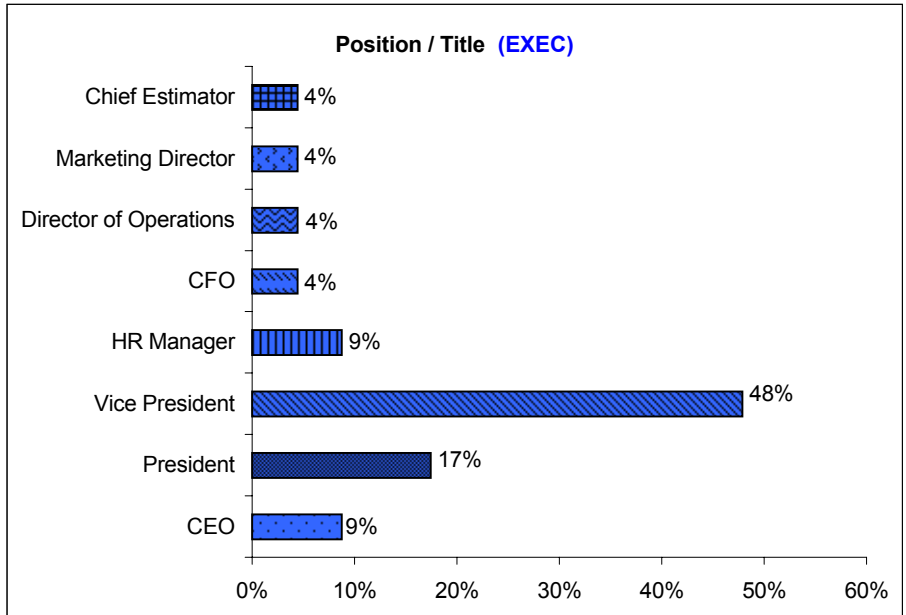
**nauro.com**

APPENDIX E  
SURVEY ROUGH DATA ANALYSIS

# POSITION / TITLE

#	Co.	(EXEC)
[1]	E	President
[2]	B	President
[3]	F	CEO
[4]	G	V.P. - Operations
[5]	C	President
[6]	D	VP
[7]	A	Exec. VP/Co-Owner
[8]	B	Director of Operations
[9]	A	Vice President Business Development
[10]	H	HR Manager, Division Manager
[11]	I	CFO
[12]	J	Vice President
[13]	K	Vice President, Design Build
[14]	L	Human Resources Manager
[15]	M	Vice President
[16]	L	Vice President/ Director of Business Development
[17]	C	Vice President/Owner
[18]	N	Chief Estimator
[19]	O	Vice-President
[20]	P	President
[21]	Q	Vice President
[22]	R	Marketing Director
[23]	B	CEO

Position / Title (EXEC)		
	# of Responses	Response
9%	2	CEO
17%	4	President
48%	11	Vice President
9%	2	HR Manager
4%	1	CFO
4%	1	Director of Operations
4%	1	Marketing Director
4%	1	Chief Estimator
100%	23	Total Responses
100%		

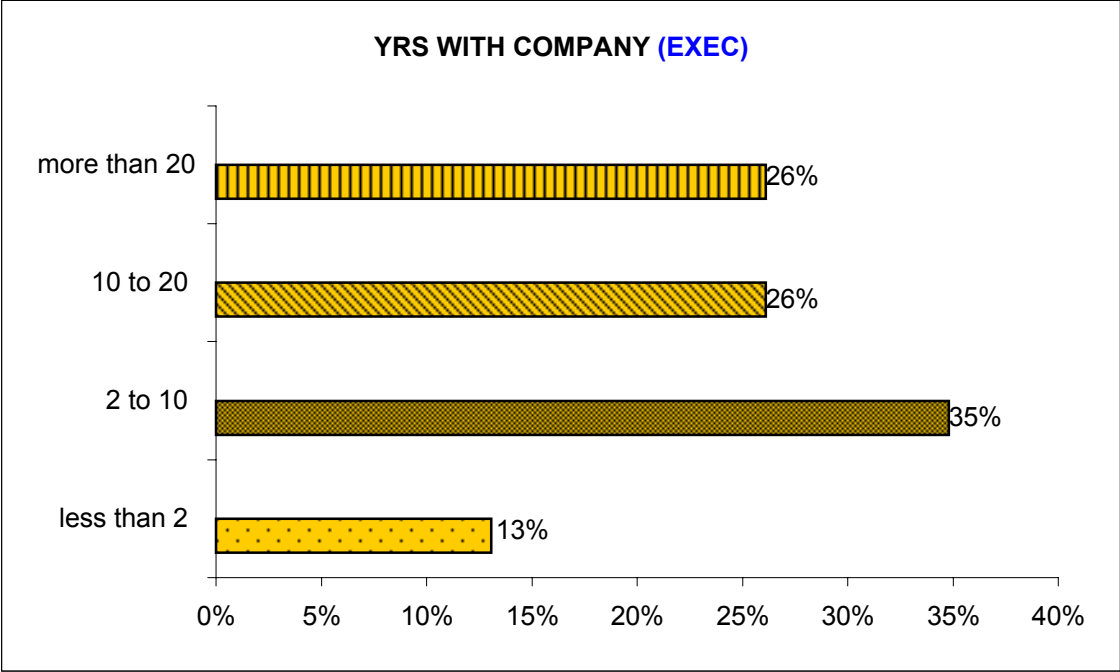




YEARS WITH COMPANY

#	Co.	(EXEC)
[1]	E	more than 20
[2]	B	more than 20
[3]	F	more than 20
[4]	G	10 to 20
[5]	C	more than 20
[6]	D	less than 2
[7]	A	2 to 10
[8]	B	2 to 10
[9]	A	less than 2
[10]	H	2 to 10
[11]	I	2 to 10
[12]	J	10 to 20
[13]	K	2 to 10
[14]	L	less than 2
[15]	M	10 to 20
[16]	L	10 to 20
[17]	C	10 to 20
[18]	N	2 to 10
[19]	O	10 to 20
[20]	P	more than 20
[21]	Q	2 to 10
[22]	R	2 to 10
[23]	B	more than 20

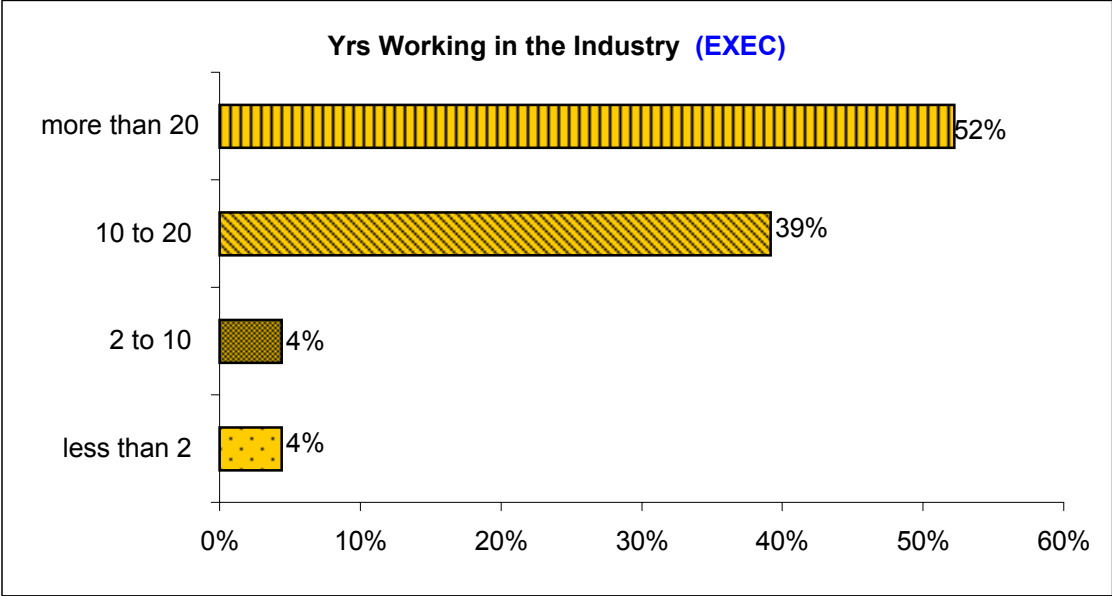
Yrs with Company (EXEC)		
	# of Responses	Response
13%	3	less than 2
35%	8	2 to 10
26%	6	10 to 20
26%	6	more than 20
100%	23	Total Responses
100%		



YEARS WORKING IN THE INDUSTRY

#	Co.	(EXEC)
[1]	E	more than 20
[2]	B	more than 20
[3]	F	more than 20
[4]	G	more than 20
[5]	C	more than 20
[6]	D	more than 20
[7]	A	more than 20
[8]	B	10 to 20
[9]	A	10 to 20
[10]	H	2 to 10
[11]	I	10 to 20
[12]	J	10 to 20
[13]	K	more than 20
[14]	L	less than 2
[15]	M	10 to 20
[16]	L	10 to 20
[17]	C	10 to 20
[18]	N	more than 20
[19]	O	more than 20
[20]	P	more than 20
[21]	Q	10 to 20
[22]	R	10 to 20
[23]	B	more than 20

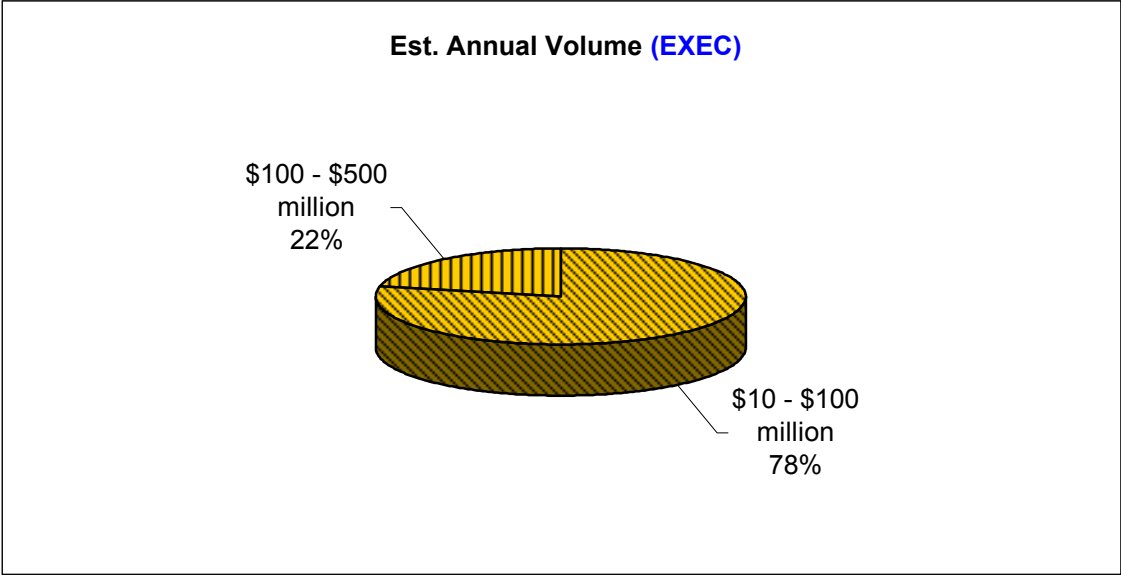
Yrs Working in the Industry (EXEC)		
	# of Responses	Response
4%	1	less than 2
4%	1	2 to 10
39%	9	10 to 20
52%	12	more than 20
100%	23	Total Responses
100%		



# ESTIMATED ANNUAL VOLUME

#	Co.	(EXEC)
[1]	E	\$10 - \$100 million
[2]	B	\$10 - \$100 million
[3]	F	\$10 - \$100 million
[4]	G	\$10 - \$100 million
[5]	C	\$10 - \$100 million
[6]	D	\$100 - \$500 million
[7]	A	\$10 - \$100 million
[8]	B	\$10 - \$100 million
[9]	A	\$10 - \$100 million
[10]	H	\$10 - \$100 million
[11]	I	\$100 - \$500 million
[12]	J	\$100 - \$500 million
[13]	K	\$100 - \$500 million
[14]	L	\$10 - \$100 million
[15]	M	\$10 - \$100 million
[16]	L	\$10 - \$100 million
[17]	C	\$10 - \$100 million
[18]	N	\$10 - \$100 million
[19]	O	\$10 - \$100 million
[20]	P	\$10 - \$100 million
[21]	Q	\$100 - \$500 million
[22]	R	\$10 - \$100 million
[23]	B	\$10 - \$100 million

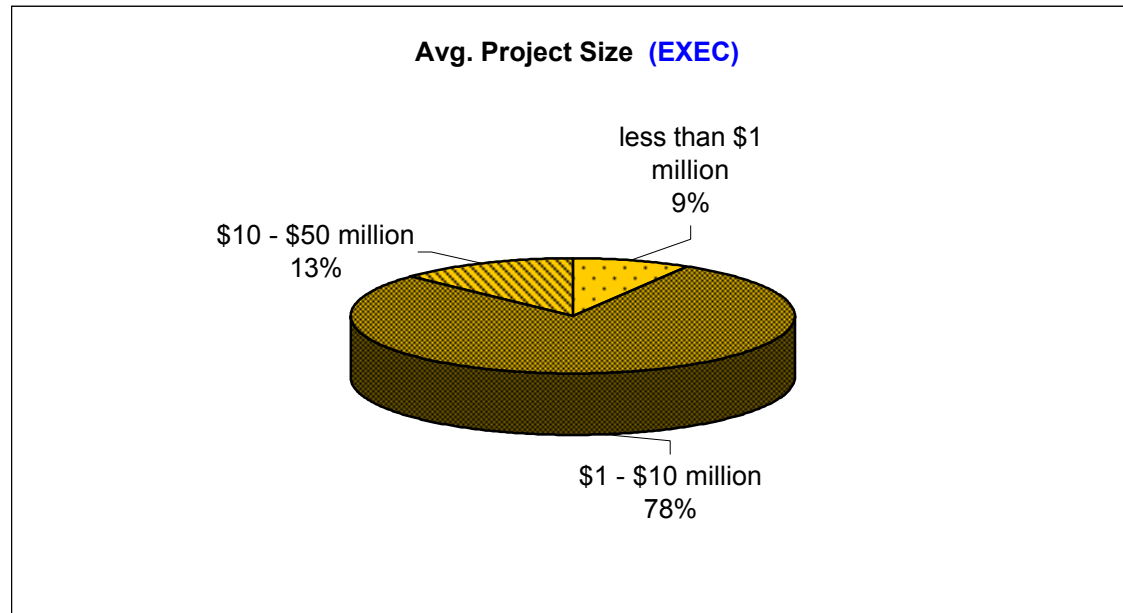
Est. Annual Volume (EXEC)		
	# of Responses	Response
0%	0	less than \$1 million
0%	0	\$1 - \$10 million
78%	18	\$10 - \$100 million
22%	5	\$100 - \$500 million
0%	0	\$500 million - \$1 billion
0%	0	more than \$1 billion
100%	23	<b>Total Responses</b>
100%		



## AVERAGE PROJECT SIZE

#	Co.	(EXEC)
[1]	E	\$1 - \$10 million
[2]	B	\$1 - \$10 million
[3]	F	\$1 - \$10 million
[4]	G	\$1 - \$10 million
[5]	C	\$1 - \$10 million
[6]	D	\$10 - \$50 million
[7]	A	\$1 - \$10 million
[8]	B	\$1 - \$10 million
[9]	A	\$1 - \$10 million
[10]	H	less than \$1 million
[11]	I	\$10 - \$50 million
[12]	J	\$10 - \$50 million
[13]	K	\$1 - \$10 million
[14]	L	\$1 - \$10 million
[15]	M	\$1 - \$10 million
[16]	L	\$1 - \$10 million
[17]	C	\$1 - \$10 million
[18]	N	\$1 - \$10 million
[19]	O	\$1 - \$10 million
[20]	P	\$1 - \$10 million
[21]	Q	\$1 - \$10 million
[22]	R	less than \$1 million
[23]	B	\$1 - \$10 million

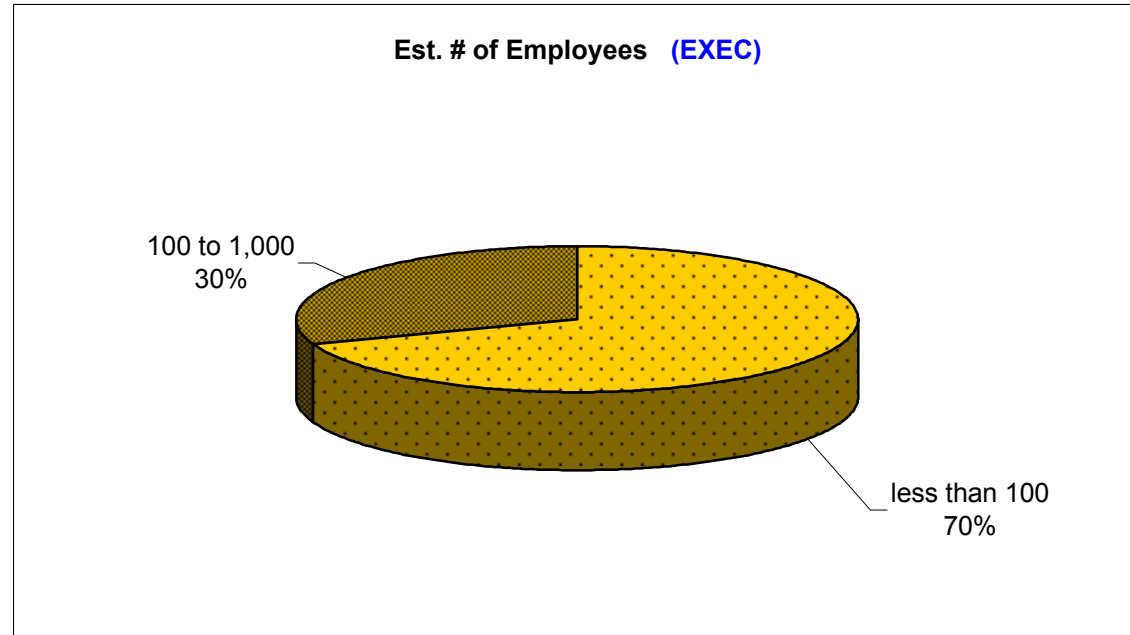
Avg. Project Size (EXEC)		
	# of Responses	Response
9%	2	less than \$1 million
78%	18	\$1 - \$10 million
13%	3	\$10 - \$50 million
0%	0	\$50 - \$100 million
0%	0	more than \$100 million
100%	23	<b>Total Responses</b>
100%		



## ESTIMATED # OF EMPLOYEES

#	Co.	(EXEC)
[1]	E	100 to 1,000
[2]	B	less than 100
[3]	F	less than 100
[4]	G	less than 100
[5]	C	less than 100
[6]	D	100 to 1,000
[7]	A	less than 100
[8]	B	less than 100
[9]	A	less than 100
[10]	H	less than 100
[11]	I	100 to 1,000
[12]	J	100 to 1,000
[13]	K	100 to 1,000
[14]	L	less than 100
[15]	M	less than 100
[16]	L	100 to 1,000
[17]	C	less than 100
[18]	N	less than 100
[19]	O	less than 100
[20]	P	less than 100
[21]	Q	100 to 1,000
[22]	R	less than 100
[23]	B	less than 100

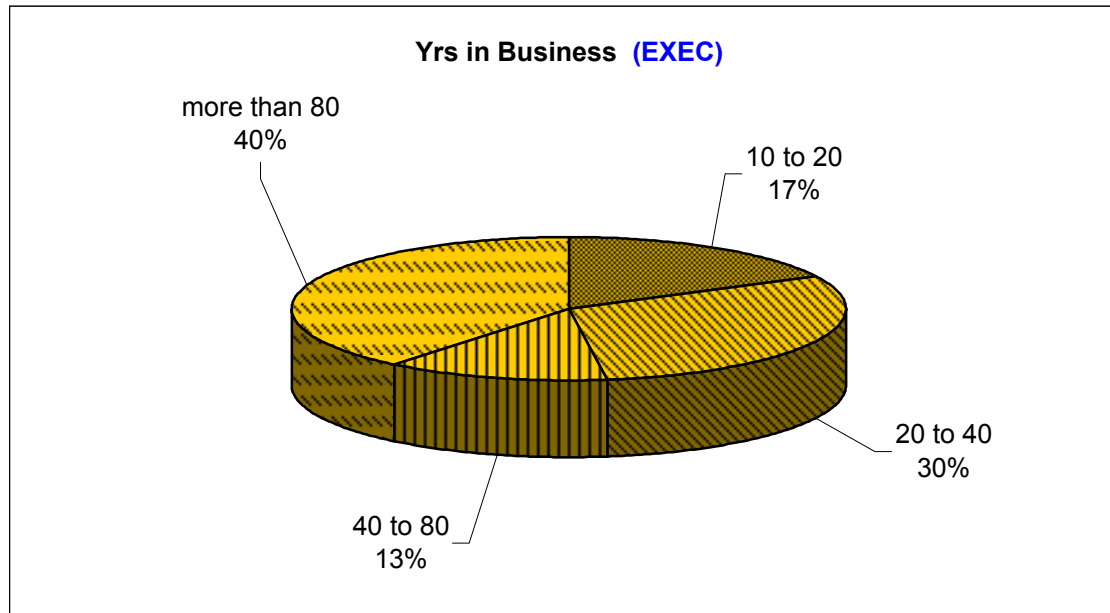
Est. # of Employees (EXEC)		
	# of Responses	Response
70%	16	less than 100
30%	7	100 to 1,000
0%	0	1,000 to 10,000
0%	0	more than 10,000
100%	23	<b>Total Responses</b>
100%		



## YEARS IN BUSINESS

#	Co.	(EXEC)
[1]	E	more than 80
[2]	B	20 to 40
[3]	F	more than 80
[4]	G	more than 80
[5]	C	more than 80
[6]	D	more than 80
[7]	A	more than 80
[8]	B	20 to 40
[9]	A	more than 80
[10]	H	20 to 40
[11]	I	10 to 20
[12]	J	more than 80
[13]	K	40 to 80
[14]	L	10 to 20
[15]	M	20 to 40
[16]	L	more than 80
[17]	C	40 to 80
[18]	N	10 to 20
[19]	O	10 to 20
[20]	P	20 to 40
[21]	Q	20 to 40
[22]	R	40 to 80
[23]	B	20 to 40

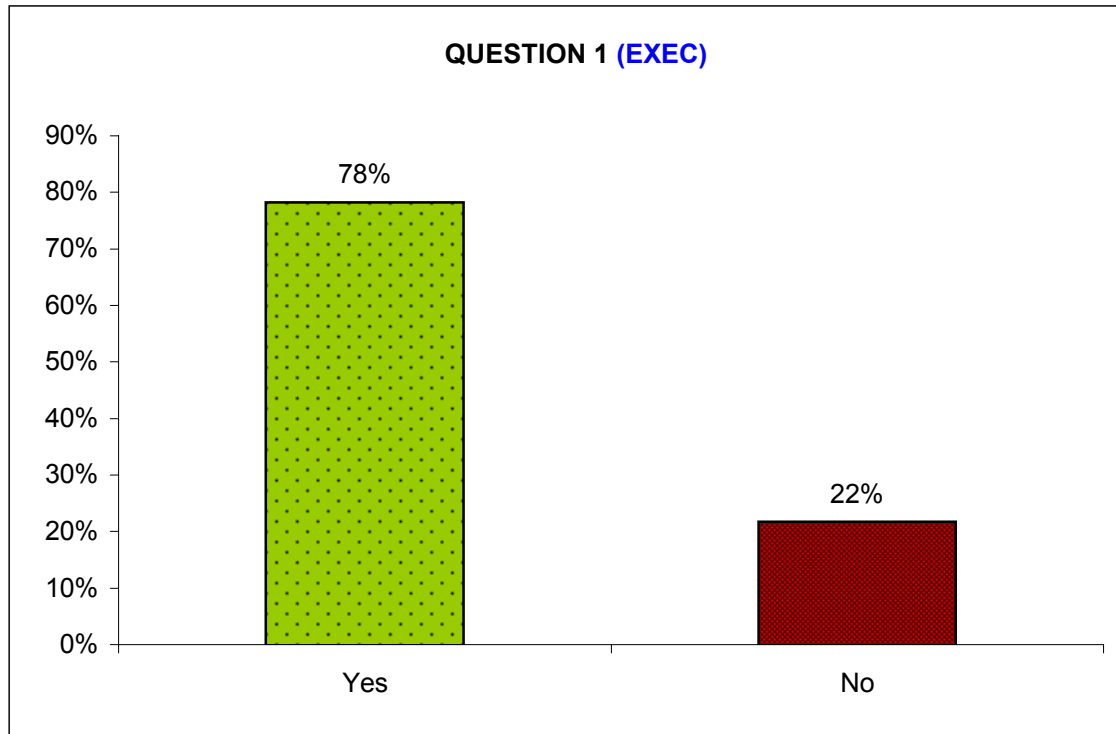
Yrs in Business (EXEC)		
	# of Responses	Response
0%	0	less than 10
17%	4	10 to 20
30%	7	20 to 40
13%	3	40 to 80
39%	9	more than 80
100%	23	<b>Total Responses</b>
100%		



1) Is there a formal training program being implemented in your company?

#	Co.	(EXEC)
[1]	E	No
[2]	B	Yes
[3]	F	Yes
[4]	G	Yes
[5]	C	Yes
[6]	D	Yes
[7]	A	Yes
[8]	B	Yes
[9]	A	No
[10]	H	Yes
[11]	I	No
[12]	J	Yes
[13]	K	Yes
[14]	L	Yes
[15]	M	Yes
[16]	L	Yes
[17]	C	Yes
[18]	N	Yes
[19]	O	No
[20]	P	No
[21]	Q	Yes
[22]	R	Yes
[23]	B	Yes

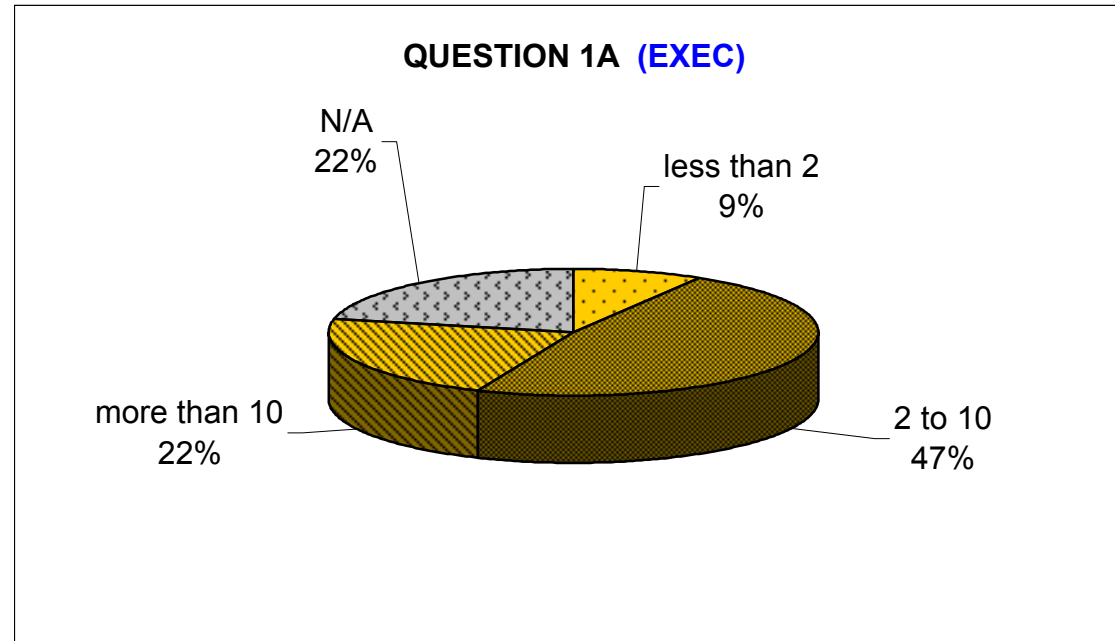
QUESTION 1 (EXEC)		
	# of Responses	Response
78%	18	Yes
22%	5	No
100%	23	Total Responses
100%		



1a) For how long has the program been in place?

#	Co.	(EXEC)
[1]	E	n/a
[2]	B	2 to 10
[3]	F	2 to 10
[4]	G	2 to 10
[5]	C	less than 2
[6]	D	more than 10
[7]	A	more than 10
[8]	B	2 to 10
[9]	A	n/a
[10]	H	2 to 10
[11]	I	n/a
[12]	J	2 to 10
[13]	K	2 to 10
[14]	L	more than 10
[15]	M	2 to 10
[16]	L	2 to 10
[17]	C	2 to 10
[18]	N	2 to 10
[19]	O	n/a
[20]	P	n/a
[21]	Q	more than 10
[22]	R	more than 10
[23]	B	less than 2

QUESTION 1A (EXEC)		
	# of Responses	Response
9%	2	less than 2
48%	11	2 to 10
22%	5	more than 10
22%	5	N/A
100%	23	<b>Total Responses</b>
100%		

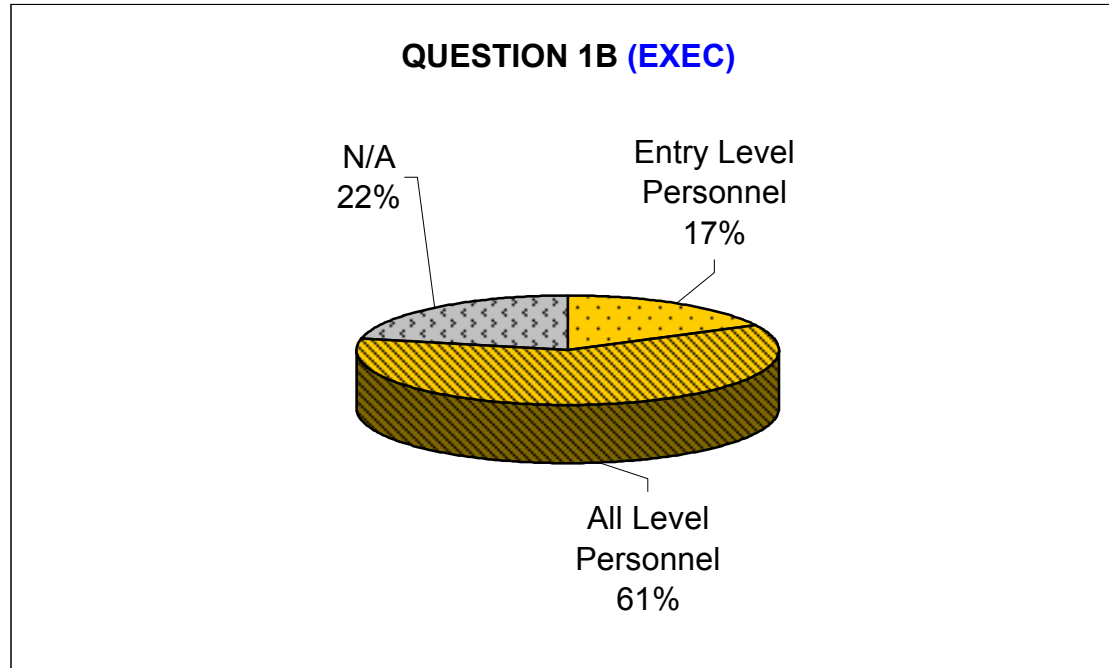




1b) Who receives the training?

#	Co.	(EXEC)
[1]	E	n/a
[2]	B	All Level Personnel
[3]	F	All Level Personnel
[4]	G	All Level Personnel
[5]	C	All Level Personnel
[6]	D	All Level Personnel
[7]	A	All Level Personnel
[8]	B	All Level Personnel
[9]	A	n/a
[10]	H	All Level Personnel
[11]	I	n/a
[12]	J	Entry Level Personnel
[13]	K	All Level Personnel
[14]	L	All Level Personnel
[15]	M	Entry Level Personnel
[16]	L	All Level Personnel
[17]	C	All Level Personnel
[18]	N	All Level Personnel
[19]	O	n/a
[20]	P	n/a
[21]	Q	Entry Level Personnel
[22]	R	Entry Level Personnel
[23]	B	All Level Personnel

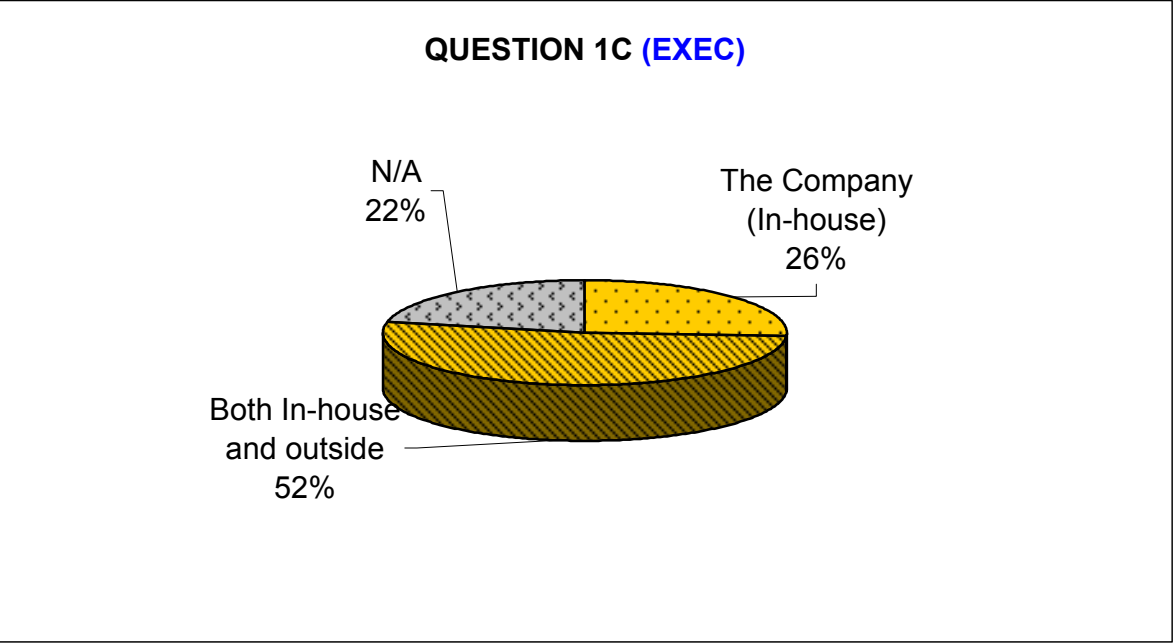
QUESTION 1B (EXEC)		
	# of Responses	Response
17%	4	Entry Level Personnel
0%	0	High Level Personnel
61%	14	All Level Personnel
22%	5	N/A
100%	23	Total Responses
100%		



1c) Who performs the training?

#	Co.	(EXEC)
[1]	E	n/a
[2]	B	Both In-house and outside
[3]	F	The Company (In-house)
[4]	G	The Company (In-house)
[5]	C	Both In-house and outside
[6]	D	Both In-house and outside
[7]	A	The Company (In-house)
[8]	B	Both In-house and outside
[9]	A	n/a
[10]	H	Both In-house and outside
[11]	I	n/a
[12]	J	The Company (In-house)
[13]	K	Both In-house and outside
[14]	L	Both In-house and outside
[15]	M	The Company (In-house)
[16]	L	Both In-house and outside
[17]	C	Both In-house and outside
[18]	N	Both In-house and outside
[19]	O	n/a
[20]	P	n/a
[21]	Q	Both In-house and outside
[22]	R	The Company (In-house)
[23]	B	Both In-house and outside

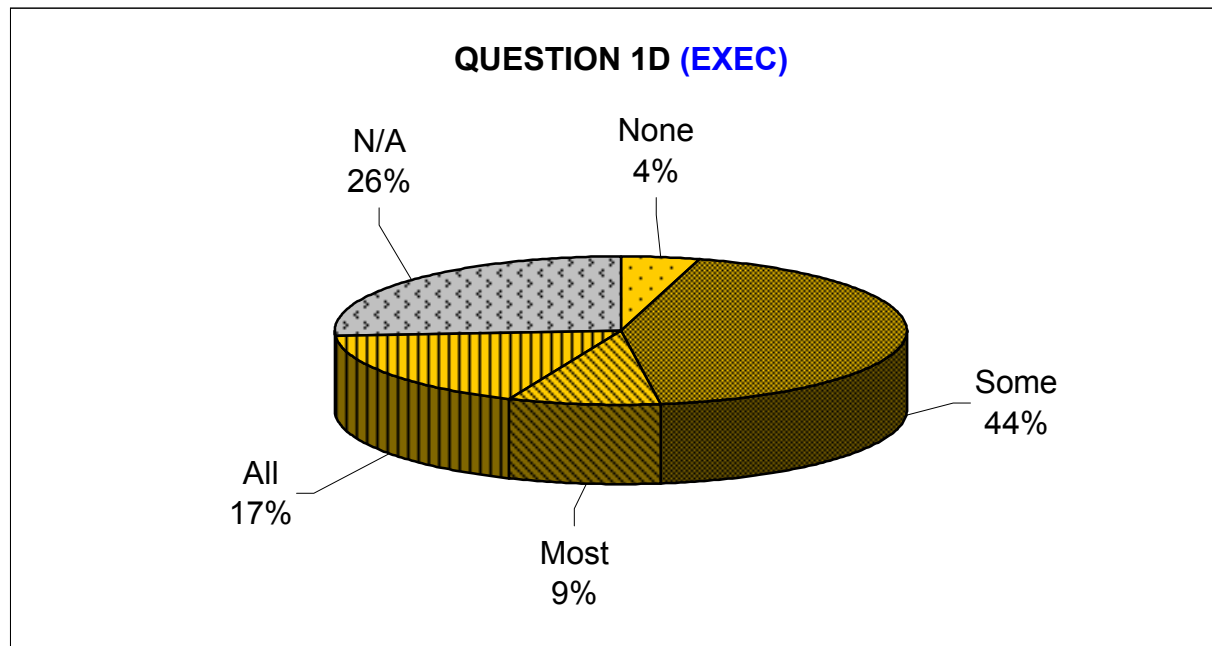
QUESTION 1C (EXEC)		
	# of Responses	Response
26%	6	The Company (In-house)
0%	0	Outside Organization (Person)
52%	12	Both In-house and outside
22%	5	N/A
100%	23	Total Responses
100%		



1d) How much training is mandatory?

#	Co.	(EXEC)
[1]	E	n/a
[2]	B	All
[3]	F	All
[4]	G	Some
[5]	C	Some
[6]	D	Most
[7]	A	Some
[8]	B	Most
[9]	A	n/a
[10]	H	All
[11]	I	n/a
[12]	J	None
[13]	K	Some
[14]	L	Some
[15]	M	Some
[16]	L	Some
[17]	C	Some
[18]	N	All
[19]	O	n/a
[20]	P	n/a
[21]	Q	Some
[22]	R	Some
[23]	B	n/a

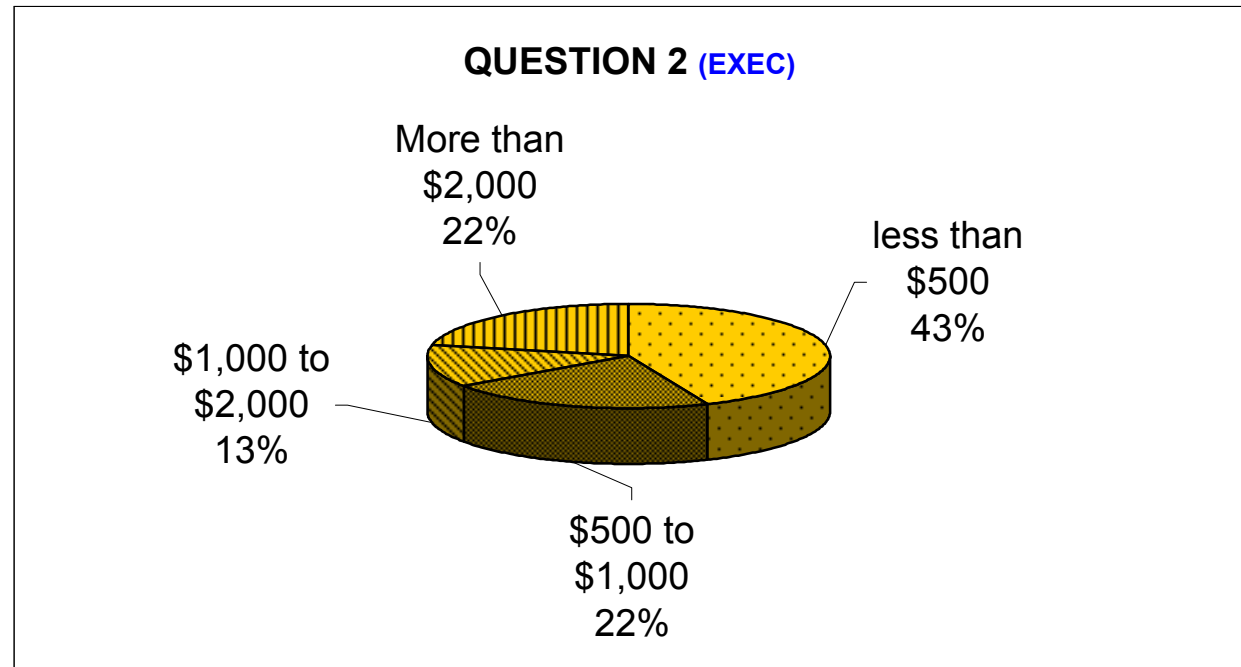
QUESTION 1D (EXEC)		
	# of Responses	Response
4%	1	None
43%	10	Some
9%	2	Most
17%	4	All
26%	6	N/A
100%	23	Total Responses
100%		



2) What is the estimated dollar amount spent on training for each individual per year?

#	Co.	(EXEC)
[1]	E	\$1000 to \$2000
[2]	B	\$1000 to \$2000
[3]	F	\$500 to \$1000
[4]	G	less than \$500
[5]	C	less than \$500
[6]	D	more than \$2000
[7]	A	less than \$500
[8]	B	\$500 to \$1000
[9]	A	less than \$500
[10]	H	more than \$2000
[11]	I	less than \$500
[12]	J	less than \$500
[13]	K	more than \$2000
[14]	L	less than \$500
[15]	M	more than \$2000
[16]	L	\$500 to \$1000
[17]	C	more than \$2000
[18]	N	\$1000 to \$2000
[19]	O	less than \$500
[20]	P	less than \$500
[21]	Q	less than \$500
[22]	R	\$500 to \$1000
[23]	B	\$500 to \$1000

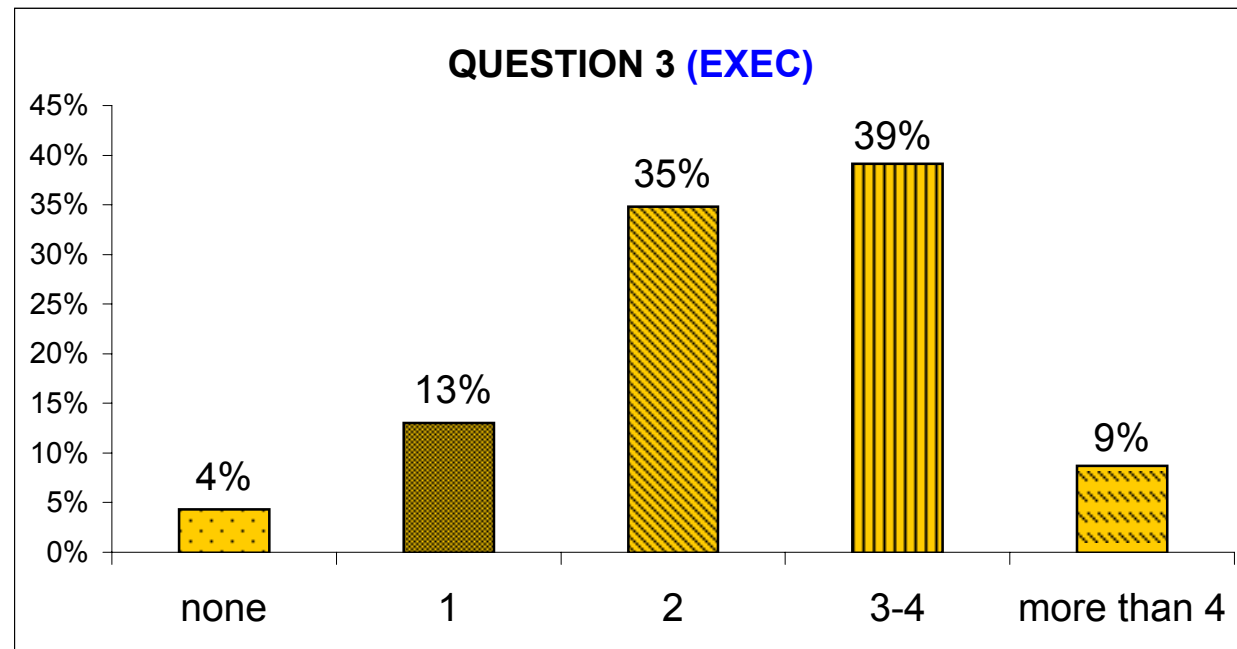
QUESTION 2 (EXEC)		
	# of Responses	Response
43%	10	less than \$500
22%	5	\$500 to \$1,000
13%	3	\$1,000 to \$2,000
22%	5	More than \$2,000
100%	23	Total Responses
100%		



3) On average, how many training/educational seminars per year are offered to job-site-level personnel?

#	Co.	(EXEC)
[1]	E	3-4
[2]	B	3-4
[3]	F	3-4
[4]	G	1
[5]	C	3-4
[6]	D	more than 4
[7]	A	2
[8]	B	2
[9]	A	2
[10]	H	1
[11]	I	none
[12]	J	2
[13]	K	2
[14]	L	more than 4
[15]	M	2
[16]	L	2
[17]	C	3-4
[18]	N	3-4
[19]	O	2
[20]	P	3-4
[21]	Q	3-4
[22]	R	1
[23]	B	3-4

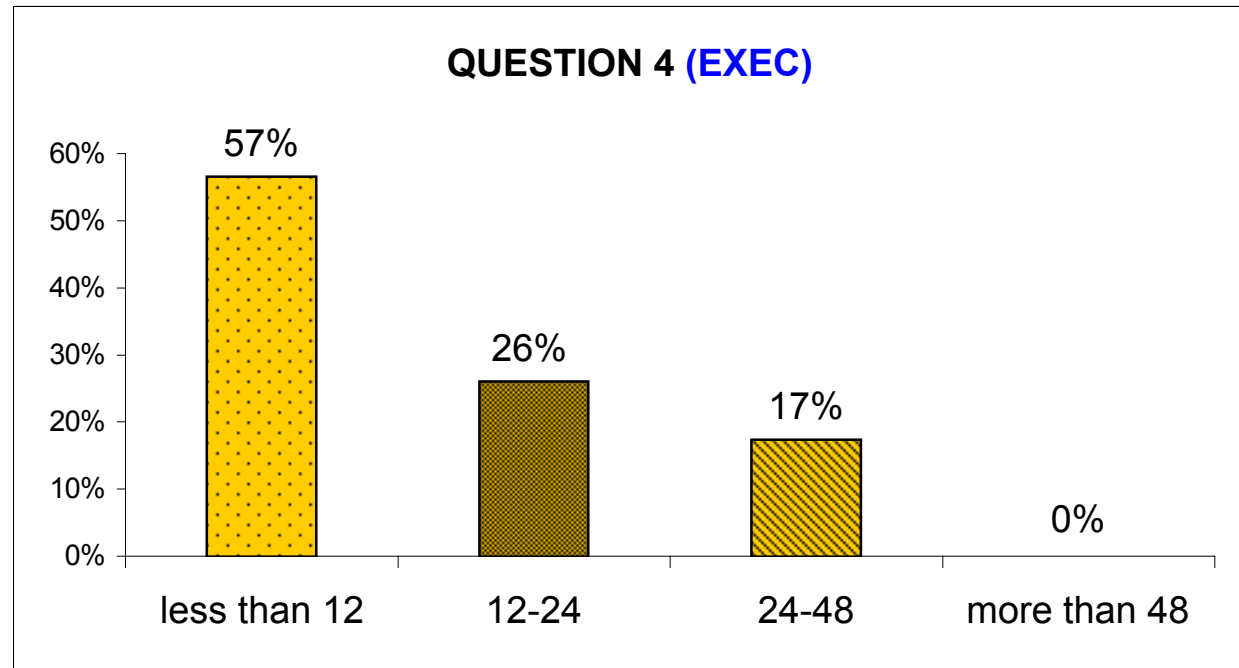
QUESTION 3 (EXEC)		
	# of Responses	Response
4%	1	none
13%	3	1
35%	8	2
39%	9	3-4
9%	2	more than 4
100%	23	<b>Total Responses</b>
100%		



4) What are the minimum hours of training per job-site-level employee per year?

#	Co.	(EXEC)
[1]	E	less than 12
[2]	B	12-24
[3]	F	less than 12
[4]	G	less than 12
[5]	C	less than 12
[6]	D	24-48
[7]	A	12-24
[8]	B	12-24
[9]	A	less than 12
[10]	H	less than 12
[11]	I	less than 12
[12]	J	12-24
[13]	K	24-48
[14]	L	less than 12
[15]	M	less than 12
[16]	L	24-48
[17]	C	12-24
[18]	N	less than 12
[19]	O	less than 12
[20]	P	less than 12
[21]	Q	24-48
[22]	R	less than 12
[23]	B	12-24

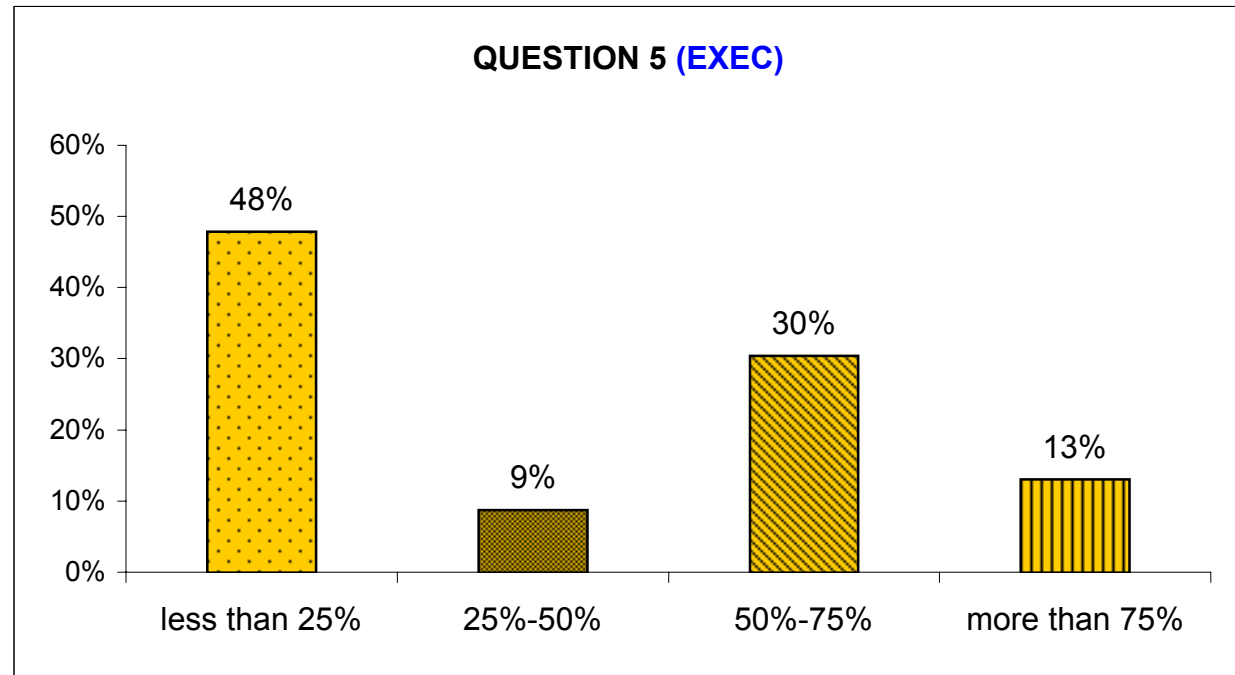
QUESTION 4 (EXEC)		
	# of Responses	Response
57%	13	less than 12
26%	6	12-24
17%	4	24-48
0%	0	more than 48
100%	23	Total Responses
100%		



5) What percent of the workforce takes advantage of training/educational seminars?

#	Co.	(EXEC)
[1]	E	less than 25%
[2]	B	50%-75%
[3]	F	25%-50%
[4]	G	less than 25%
[5]	C	less than 25%
[6]	D	50%-75%
[7]	A	50%-75%
[8]	B	25%-50%
[9]	A	less than 25%
[10]	H	less than 25%
[11]	I	less than 25%
[12]	J	less than 25%
[13]	K	50%-75%
[14]	L	more than 75%
[15]	M	less than 25%
[16]	L	50%-75%
[17]	C	more than 75%
[18]	N	more than 75%
[19]	O	50%-75%
[20]	P	less than 25%
[21]	Q	less than 25%
[22]	R	less than 25%
[23]	B	50%-75%

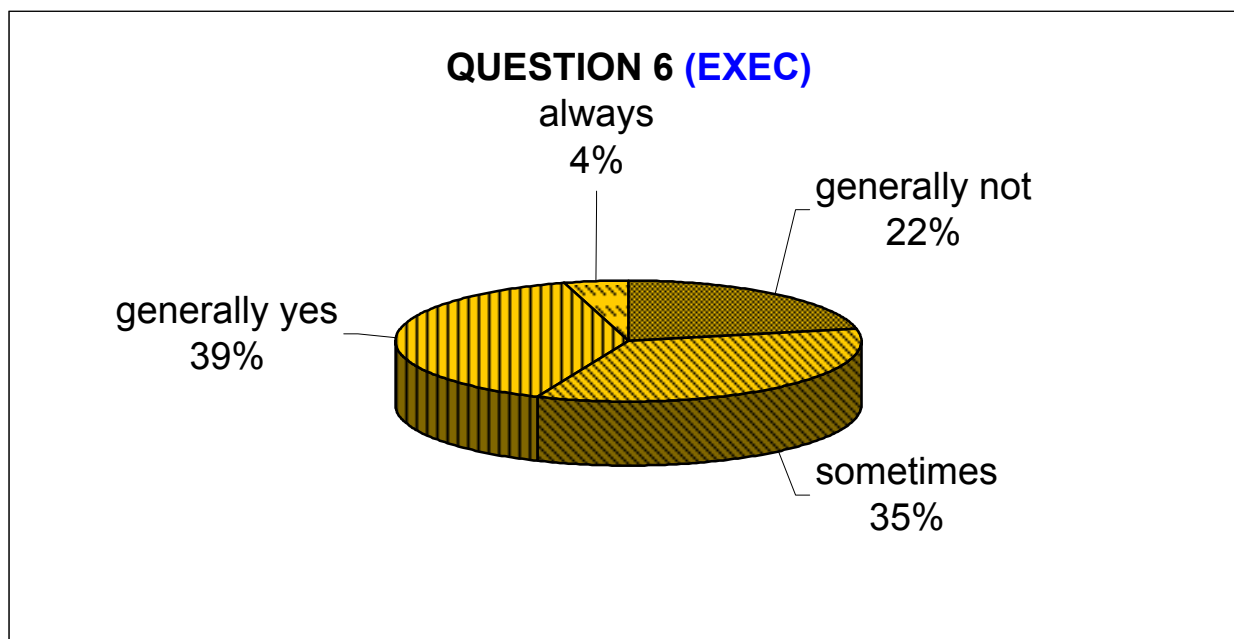
QUESTION 5 (EXEC)		
	# of Responses	Response
48%	11	less than 25%
9%	2	25%-50%
30%	7	50%-75%
13%	3	more than 75%
100%	23	Total Responses
100%		



6) Is a mentor assigned to a newly hired individual?

#	Co.	(EXEC)
[1]	E	sometimes
[2]	B	sometimes
[3]	F	generally yes
[4]	G	generally yes
[5]	C	sometimes
[6]	D	generally yes
[7]	A	sometimes
[8]	B	generally yes
[9]	A	generally not
[10]	H	generally yes
[11]	I	sometimes
[12]	J	sometimes
[13]	K	generally yes
[14]	L	generally not
[15]	M	sometimes
[16]	L	generally not
[17]	C	generally yes
[18]	N	always
[19]	O	generally yes
[20]	P	generally yes
[21]	Q	sometimes
[22]	R	generally not
[23]	B	generally not

QUESTION 6 (EXEC)		
	# of Responses	Response
0%	0	never
22%	5	generally not
35%	8	sometimes
39%	9	generally yes
4%	1	always
100%	23	<b>Total Responses</b>
100%		

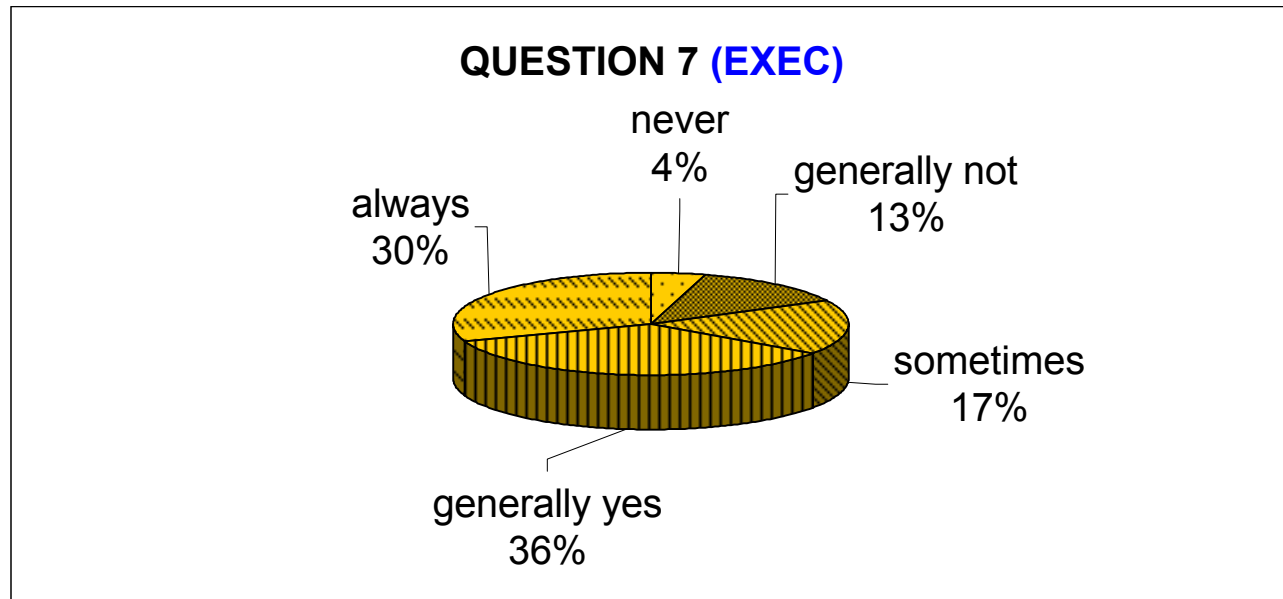




7) Does your company offer employee continuing-education program benefits such as a tuition reimbursement program?

#	Co.	(EXEC)
[1]	E	always
[2]	B	generally yes
[3]	F	always
[4]	G	generally yes
[5]	C	generally yes
[6]	D	always
[7]	A	sometimes
[8]	B	sometimes
[9]	A	never
[10]	H	generally not
[11]	I	always
[12]	J	always
[13]	K	generally not
[14]	L	generally yes
[15]	M	always
[16]	L	generally yes
[17]	C	generally yes
[18]	N	generally not
[19]	O	sometimes
[20]	P	always
[21]	Q	generally yes
[22]	R	sometimes
[23]	B	generally yes

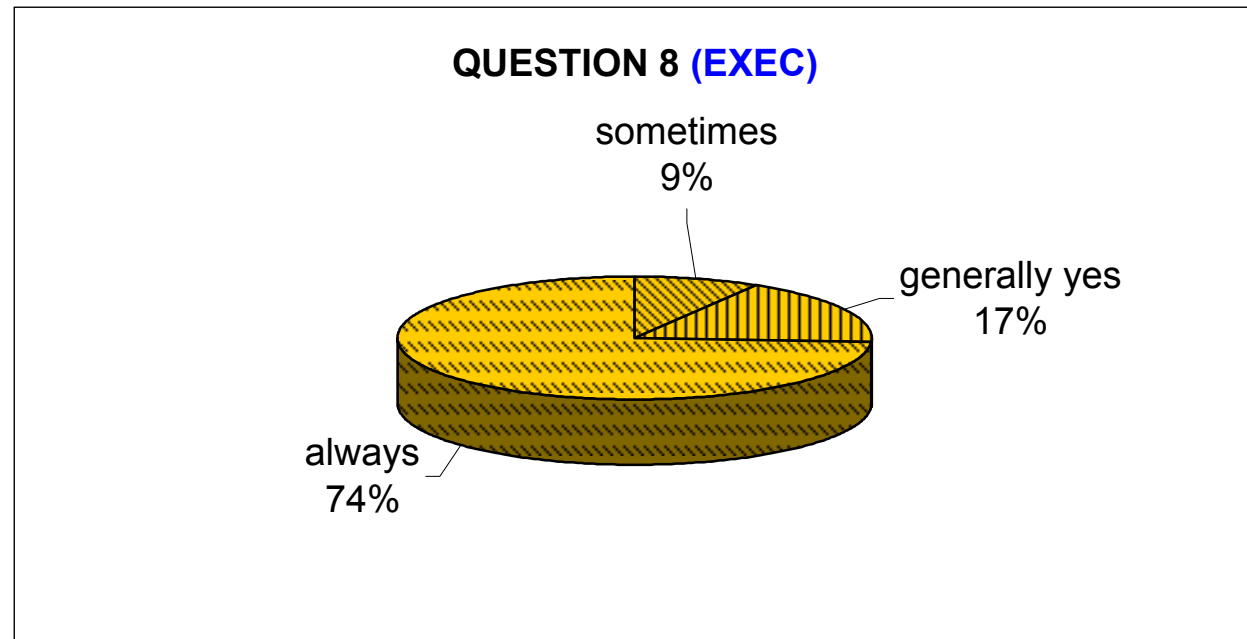
QUESTION 7 (EXEC)		
	# of Responses	Response
4%	1	never
13%	3	generally not
17%	4	sometimes
35%	8	generally yes
30%	7	always
100%	23	Total Responses
100%		



8) How often does your company hold formal employee performance reviews?

#	Co.	(EXEC)
[1]	E	always
[2]	B	generally yes
[3]	F	always
[4]	G	always
[5]	C	always
[6]	D	always
[7]	A	always
[8]	B	always
[9]	A	always
[10]	H	always
[11]	I	sometimes
[12]	J	always
[13]	K	generally yes
[14]	L	always
[15]	M	always
[16]	L	always
[17]	C	always
[18]	N	always
[19]	O	always
[20]	P	generally yes
[21]	Q	always
[22]	R	generally yes
[23]	B	sometimes

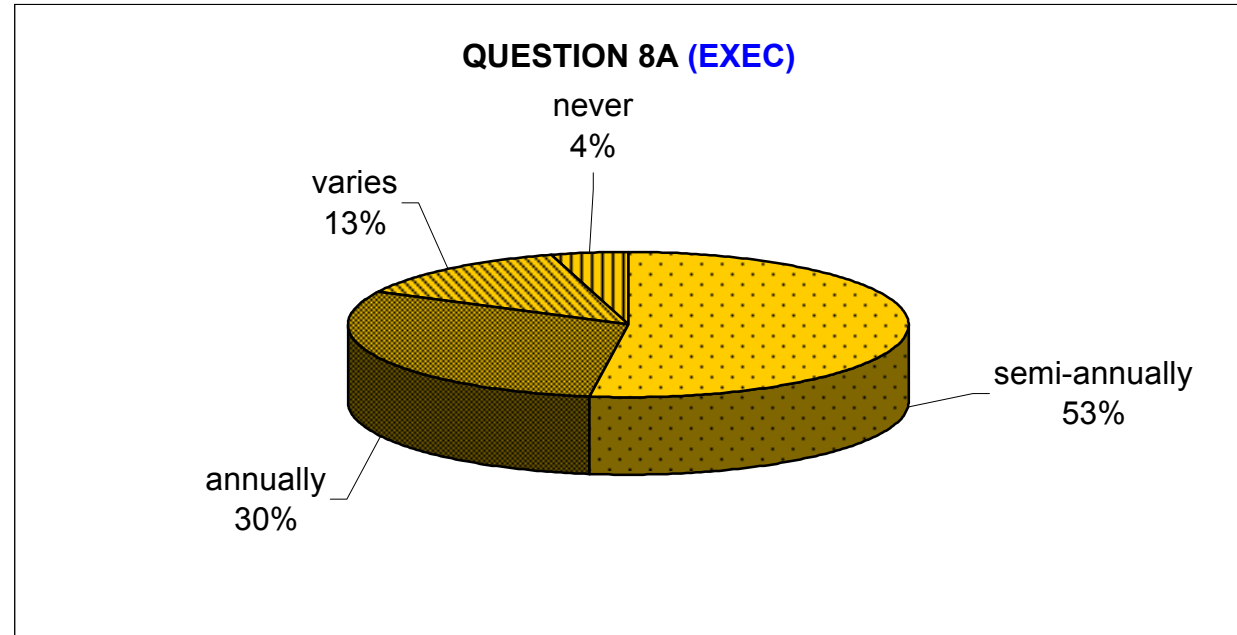
QUESTION 8 (EXEC)		
	# of Responses	Response
0%	0	never
0%	0	generally not
9%	2	sometimes
17%	4	generally yes
74%	17	always
100%	23	<b>Total Responses</b>
100%		



8a) How often does your company hold formal employee performance reviews for new hires (less than 1yr)?

#	Co.	(EXEC)
[1]	E	varies
[2]	B	varies
[3]	F	annually
[4]	G	annually
[5]	C	semi-annually
[6]	D	semi-annually
[7]	A	annually
[8]	B	semi-annually
[9]	A	semi-annually
[10]	H	varies
[11]	I	semi-annually
[12]	J	semi-annually
[13]	K	annually
[14]	L	annually
[15]	M	annually
[16]	L	semi-annually
[17]	C	semi-annually
[18]	N	semi-annually
[19]	O	never
[20]	P	semi-annually
[21]	Q	annually
[22]	R	semi-annually
[23]	B	semi-annually

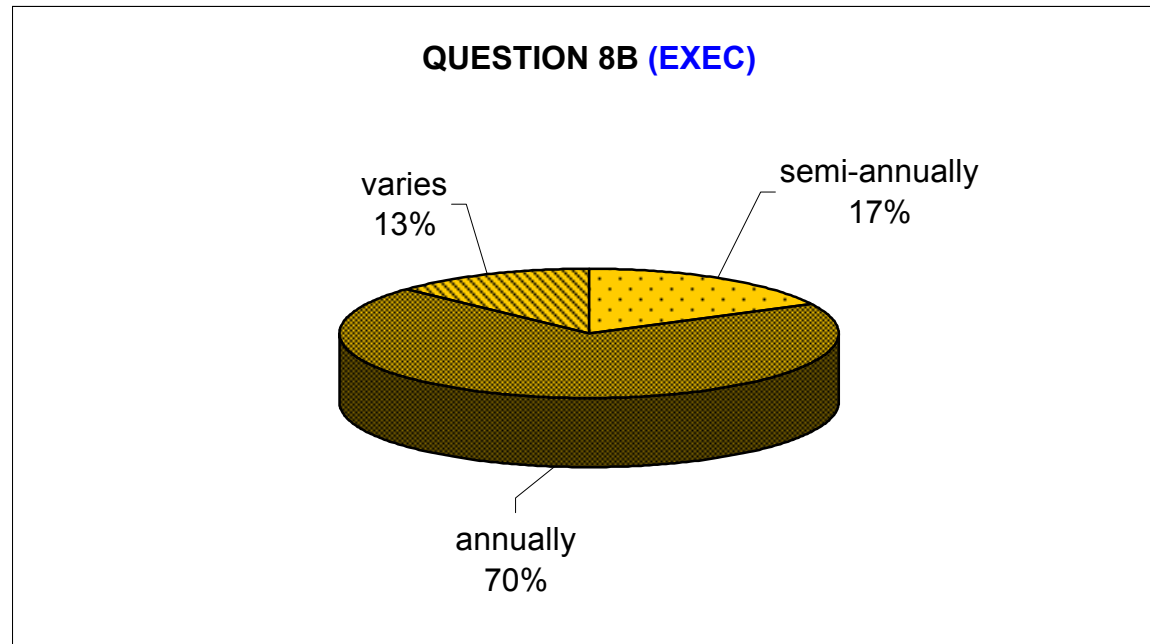
QUESTION 8A (EXEC)		
	# of Responses	Response
52%	12	semi-annually
30%	7	annually
13%	3	varies
4%	1	never
100%	23	Total Responses
100%		



8b) How often does your company hold formal employee performance reviews for all other personnel?

#	Co.	(EXEC)
[1]	E	annually
[2]	B	annually
[3]	F	annually
[4]	G	annually
[5]	C	semi-annually
[6]	D	annually
[7]	A	annually
[8]	B	annually
[9]	A	semi-annually
[10]	H	varies
[11]	I	annually
[12]	J	annually
[13]	K	varies
[14]	L	annually
[15]	M	annually
[16]	L	annually
[17]	C	semi-annually
[18]	N	semi-annually
[19]	O	annually
[20]	P	annually
[21]	Q	annually
[22]	R	annually
[23]	B	varies

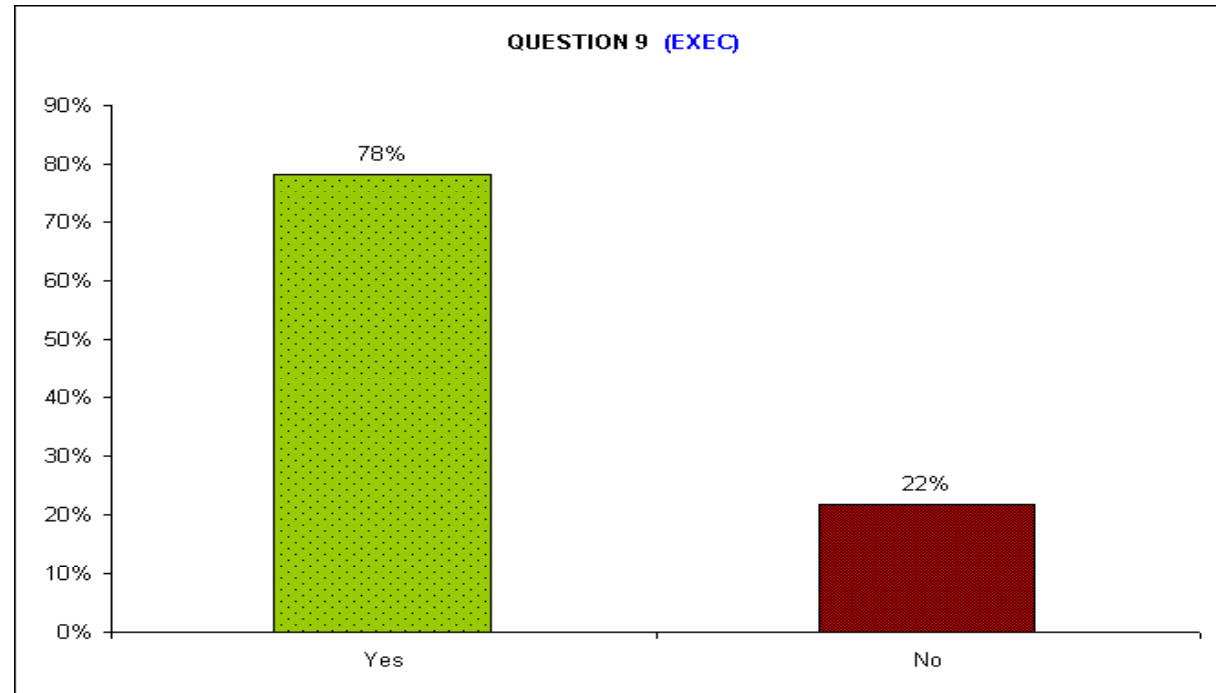
QUESTION 8B (EXEC)		
	# of Responses	Response
17%	4	semi-annually
70%	16	annually
13%	3	varies
0%	0	never
100%	23	<b>Total Responses</b>
100%		



9) Does your company have established formal events were employees are recognized and rewarded for their contributions?

#	Co.	(EXEC)
[1]	E	Yes
[2]	B	Yes
[3]	F	No
[4]	G	No
[5]	C	Yes
[6]	D	Yes
[7]	A	Yes
[8]	B	No
[9]	A	Yes
[10]	H	No
[11]	I	Yes
[12]	J	No
[13]	K	Yes
[14]	L	Yes
[15]	M	Yes
[16]	L	Yes
[17]	C	Yes
[18]	N	Yes
[19]	O	Yes
[20]	P	Yes
[21]	Q	Yes
[22]	R	Yes
[23]	B	Yes

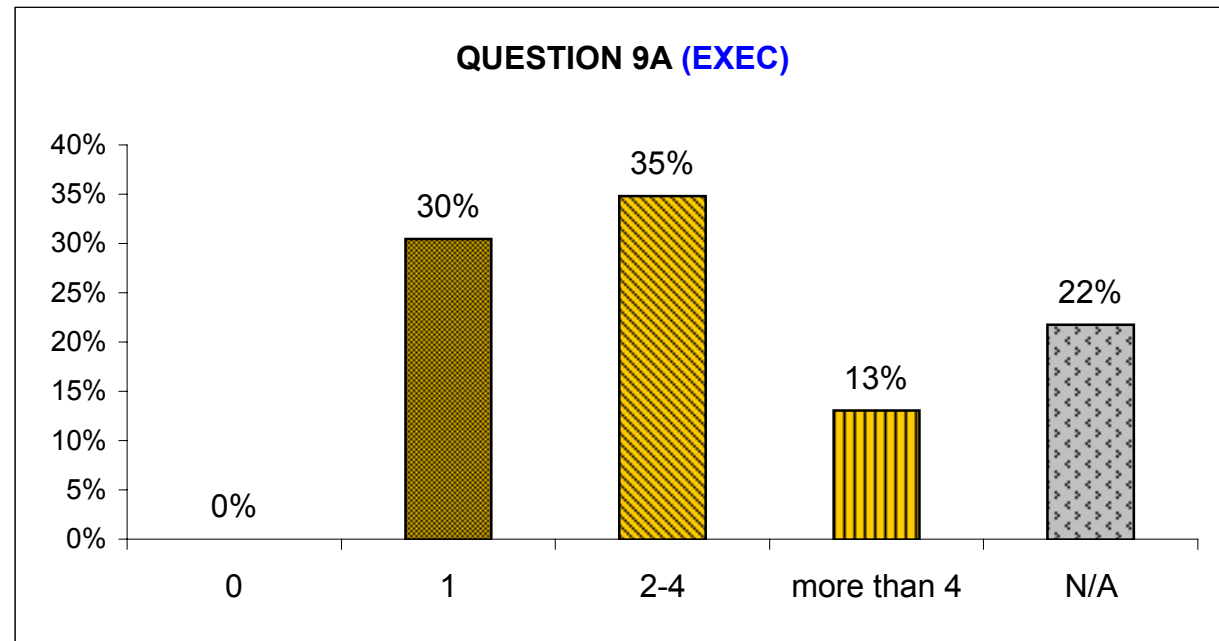
QUESTION 9 (EXEC)		
	# of Responses	Response
78%	18	Yes
22%	5	No
100%	23	Total Responses
100%		



9a) If so, approximately how many of these type of (employee recognition) events are held annually?

#	Co.	(EXEC)
[1]	E	2-4
[2]	B	2-4
[3]	F	n/a
[4]	G	n/a
[5]	C	2-4
[6]	D	2-4
[7]	A	2-4
[8]	B	n/a
[9]	A	2-4
[10]	H	n/a
[11]	I	1
[12]	J	n/a
[13]	K	1
[14]	L	2-4
[15]	M	1
[16]	L	more than 4
[17]	C	2-4
[18]	N	1
[19]	O	1
[20]	P	1
[21]	Q	more than 4
[22]	R	1
[23]	B	more than 4

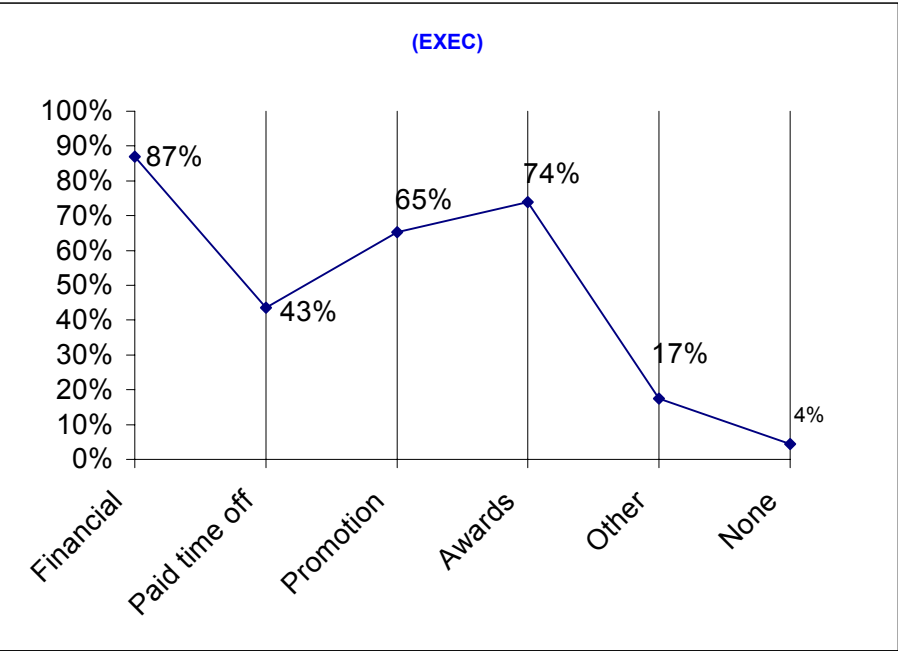
QUESTION 9A (EXEC)		
	# of Responses	Response
0%	0	0
30%	7	1
35%	8	2-4
13%	3	more than 4
22%	5	N/A
100%	23	Total Responses
100%		



10) What types of performance incentives does your company use?

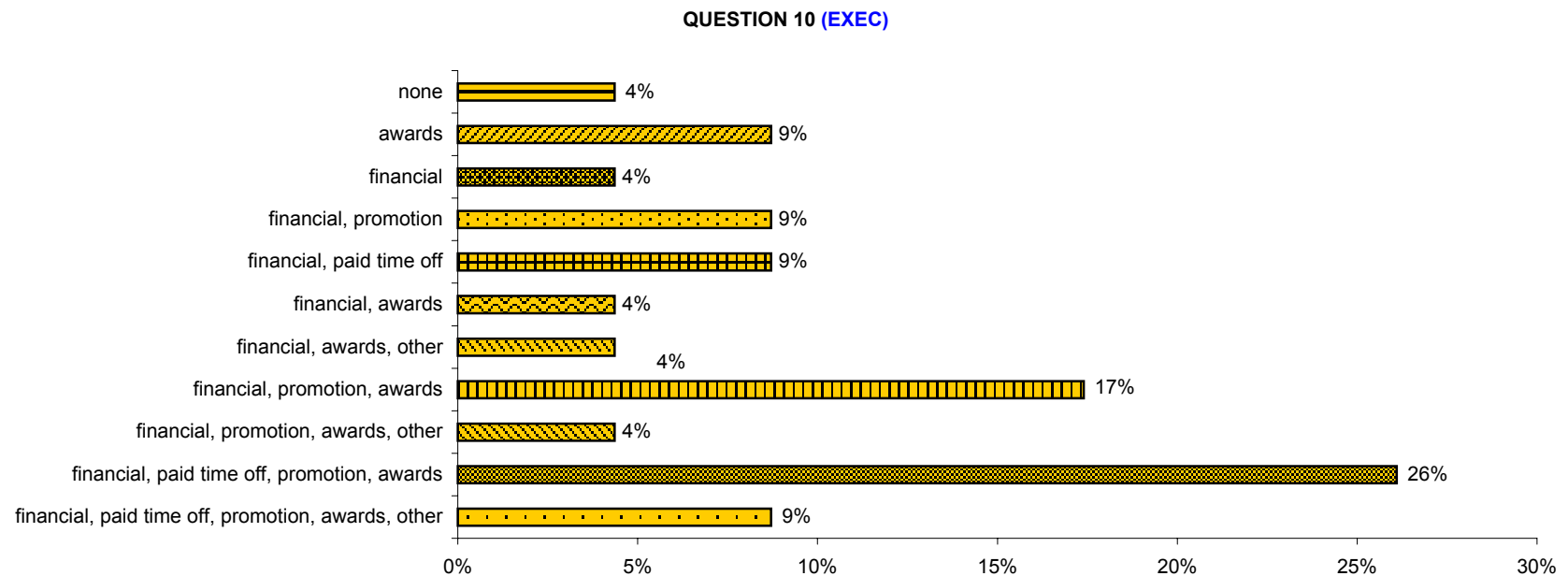
#	Co.	(EXEC)
[1]	E	awards
[2]	B	financial, paid time off, promotion, awards, other
[3]	F	financial, awards, other
[4]	G	financial, promotion, awards
[5]	C	none
[6]	D	financial, paid time off, promotion, awards
[7]	A	financial, paid time off, promotion, awards
[8]	B	financial, paid time off, promotion, awards
[9]	A	financial, paid time off, promotion, awards
[10]	H	financial, paid time off
[11]	I	financial, promotion, awards
[12]	J	financial, promotion
[13]	K	financial, paid time off, promotion, awards
[14]	L	financial, promotion, awards, other
[15]	M	financial, promotion, awards
[16]	L	financial, paid time off, promotion, awards, other
[17]	C	financial, promotion, awards
[18]	N	financial, paid time off, promotion, awards
[19]	O	financial, promotion
[20]	P	financial, paid time off
[21]	Q	financial, awards
[22]	R	financial
[23]	B	awards

QUESTION 10 (EXEC)		
	# of Responses	Response
87%	20	Financial
43%	10	Paid time off
65%	15	Promotion
74%	17	Awards
17%	4	Other
4%	1	None
100%	67	Total Responses
291%		



# 10) What types of performance incentives does your company use?

QUESTION 10 (EXEC)		
	# of Responses	Response
9%	2	financial, paid time off, promotion, awards, other
26%	6	financial, paid time off, promotion, awards
4%	1	financial, promotion, awards, other
17%	4	financial, promotion, awards
4%	1	financial, awards, other
4%	1	financial, awards
9%	2	financial, paid time off
9%	2	financial, promotion
4%	1	financial
9%	2	awards
4%	1	none
100%	23	Total Responses
100%		

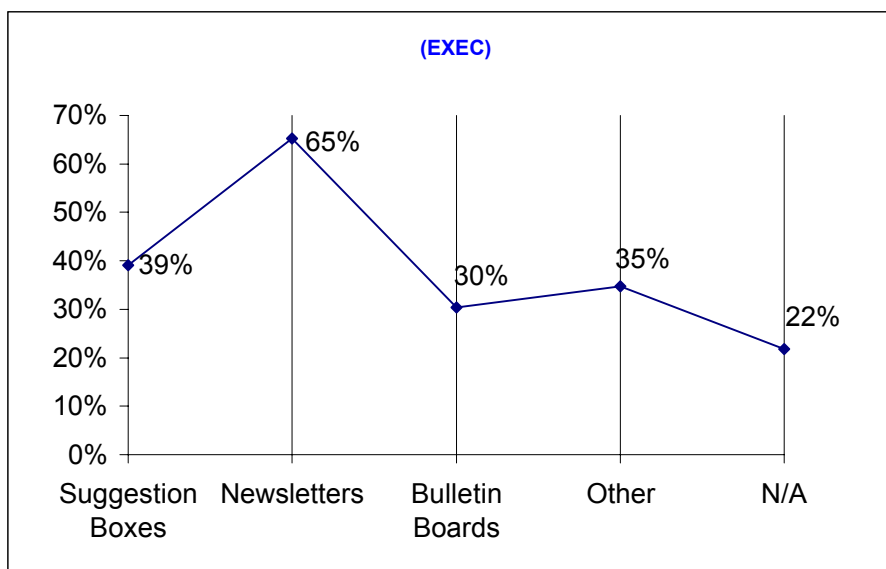




11) To promote open communication, our company provides:

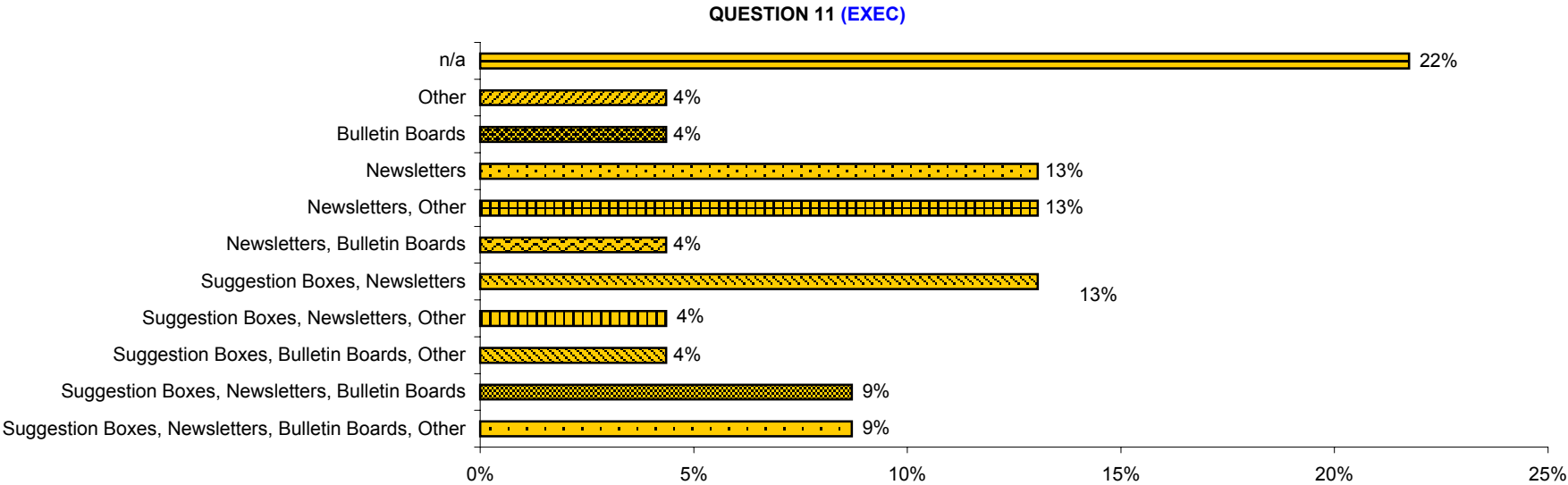
#	Co.	(EXEC)
[1]	E	Suggestion Boxes, Newsletters, Other
[2]	B	Newsletters, Other
[3]	F	Newsletters
[4]	G	Suggestion Boxes, Newsletters
[5]	C	n/a
[6]	D	Suggestion Boxes, Newsletters, Bulletin Boards
[7]	A	Suggestion Boxes, Newsletters, Bulletin Boards
[8]	B	Newsletters, Other
[9]	A	Suggestion Boxes, Bulletin Boards, Other
[10]	H	Suggestion Boxes, Newsletters, Bulletin Boards, Other
[11]	I	Other
[12]	J	Newsletters
[13]	K	Newsletters, Bulletin Boards
[14]	L	Newsletters, Other
[15]	M	Newsletters
[16]	L	Suggestion Boxes, Newsletters
[17]	C	Suggestion Boxes, Newsletters
[18]	N	Suggestion Boxes, Newsletters, Bulletin Boards, Other
[19]	O	n/a
[20]	P	Bulletin Boards
[21]	Q	n/a
[22]	R	n/a
[23]	B	n/a

QUESTION 11 (EXEC)		
	# of Responses	Response
39%	9	Suggestion Boxes
65%	15	Newsletters
30%	7	Bulletin Boards
35%	8	Other
22%	5	N/A
100%	44	Total Responses
191%		



11) To promote open communication, our company provides:

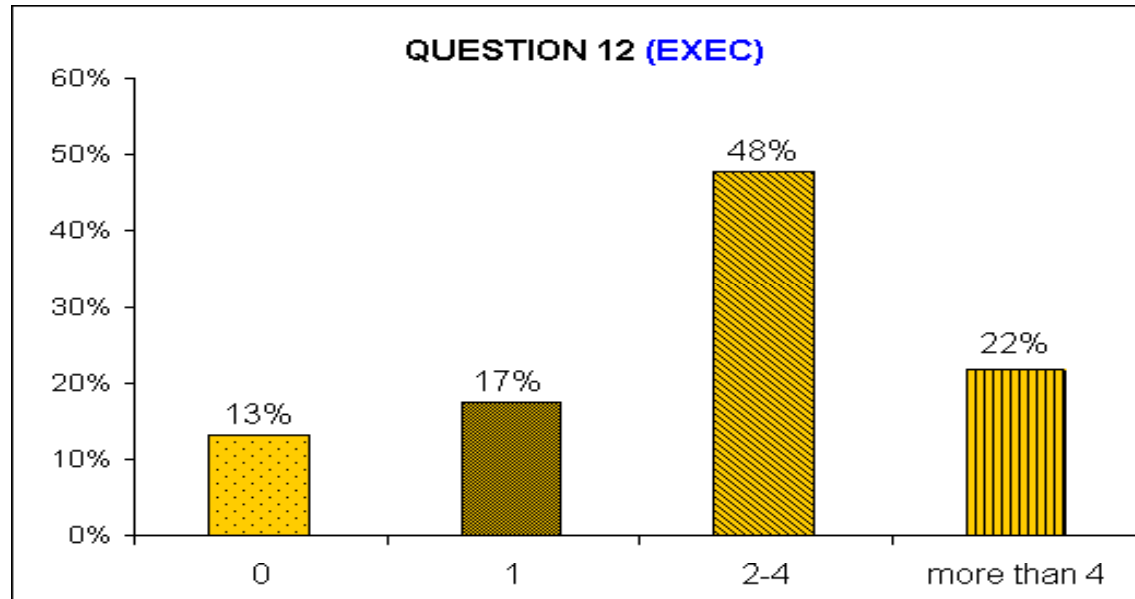
QUESTION 11 (EXEC)		
	# of Responses	Response
9%	2	Suggestion Boxes, Newsletters, Bulletin Boards, Other
9%	2	Suggestion Boxes, Newsletters, Bulletin Boards
4%	1	Suggestion Boxes, Bulletin Boards, Other
4%	1	Suggestion Boxes, Newsletters, Other
13%	3	Suggestion Boxes, Newsletters
4%	1	Newsletters, Bulletin Boards
13%	3	Newsletters, Other
13%	3	Newsletters
4%	1	Bulletin Boards
4%	1	Other
22%	5	n/a
100%	23	Total Responses
100%		



12) On average, how many social activities does your company sponsor for its employees per year?

#	Co.	(EXEC)
[1]	E	0
[2]	B	more than 4
[3]	F	0
[4]	G	0
[5]	C	more than 4
[6]	D	more than 4
[7]	A	2-4
[8]	B	2-4
[9]	A	more than 4
[10]	H	1
[11]	I	2-4
[12]	J	2-4
[13]	K	2-4
[14]	L	more than 4
[15]	M	2-4
[16]	L	2-4
[17]	C	2-4
[18]	N	2-4
[19]	O	2-4
[20]	P	1
[21]	Q	2-4
[22]	R	1
[23]	B	1

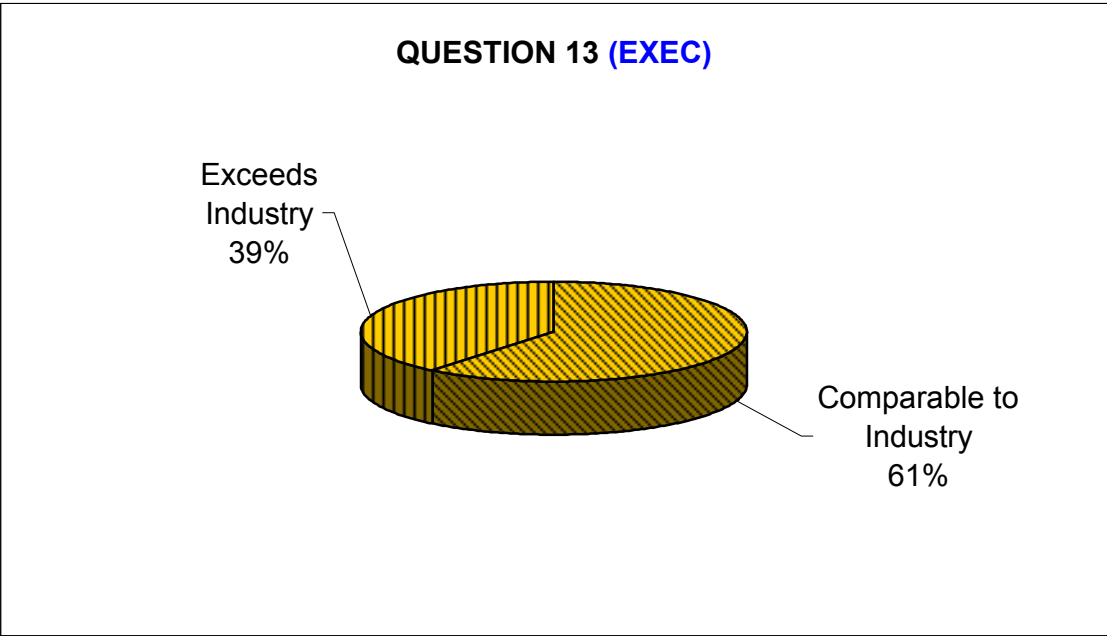
QUESTION 12 (EXEC)		
	# of Responses	Response
13%	3	0
17%	4	1
48%	11	2-4
22%	5	more than 4
100%	23	Total Responses
100%		



13) Does your company offer competitive employee benefits?

#	Co.	(EXEC)
[1]	E	Exceeds Industry
[2]	B	Comparable to Industry
[3]	F	Exceeds Industry
[4]	G	Comparable to Industry
[5]	C	Exceeds Industry
[6]	D	Exceeds Industry
[7]	A	Comparable to Industry
[8]	B	Comparable to Industry
[9]	A	Comparable to Industry
[10]	H	Exceeds Industry
[11]	I	Comparable to Industry
[12]	J	Exceeds Industry
[13]	K	Comparable to Industry
[14]	L	Comparable to Industry
[15]	M	Comparable to Industry
[16]	L	Comparable to Industry
[17]	C	Exceeds Industry
[18]	N	Exceeds Industry
[19]	O	Comparable to Industry
[20]	P	Comparable to Industry
[21]	Q	Comparable to Industry
[22]	R	Exceeds Industry
[23]	B	Comparable to Industry

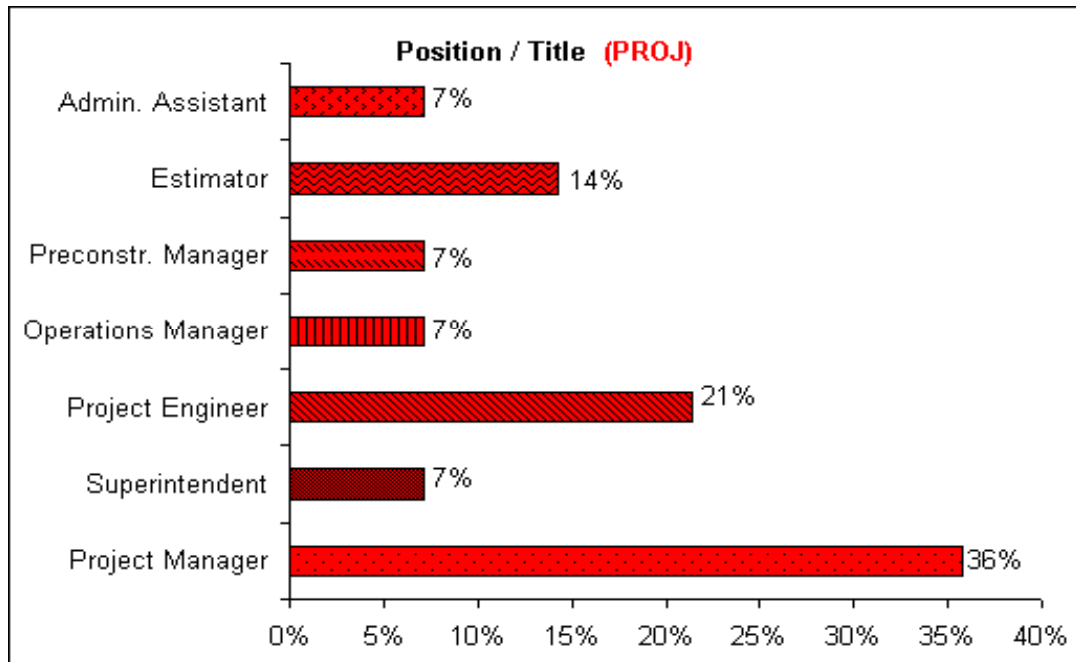
QUESTION 13 (EXEC)		
	# of Responses	Response
0%	0	None
0%	0	Minimum Required
61%	14	Comparable to Industry
39%	9	Exceeds Industry
100%	23	Total Responses
100%		



# POSITION / TITLE

#	Co.	(PROJ)
[1]	S	Administrative Assistant
[2]	T	Project Engineer
[3]	A	Estimator - Project Manager
[4]	D	Engineer
[5]	B	Project Manager
[6]	C	Superintendent
[7]	U	Senior Preconstruction Manager
[8]	T	Project Engineer
[9]	C	Senior Estimator
[10]	V	Project Manager
[11]	W	Operations Manager
[12]	A	Estimator
[13]	X	Project Manager
[14]	B	Project Manager

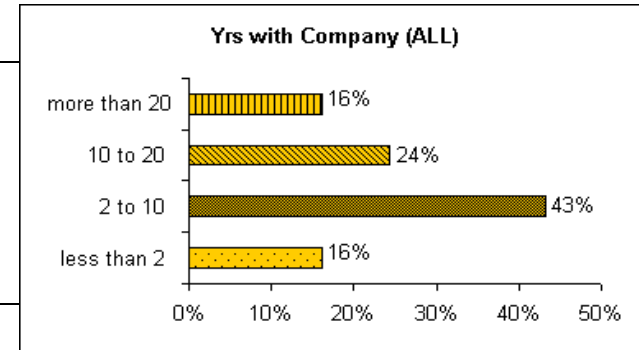
Position / Title (PROJ)		
# of Responses	Response	
36%	5	Project Manager
7%	1	Superintendent
21%	3	Project Engineer
7%	1	Operations Manager
7%	1	Preconstr. Manager
14%	2	Estimator
7%	1	Admin. Assistant
100%	14	<b>Total Responses</b>
100%		



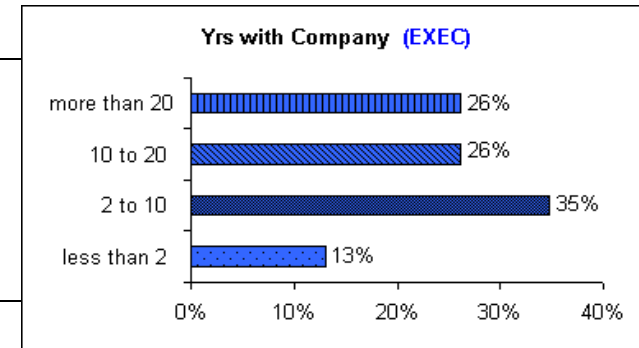
## YEARS WITH COMPANY

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	more than 20	S	2 to 10
[2]	B	more than 20	T	less than 2
[3]	F	more than 20	A	less than 2
[4]	G	10 to 20	D	2 to 10
[5]	C	more than 20	B	2 to 10
[6]	D	less than 2	C	2 to 10
[7]	A	2 to 10	U	2 to 10
[8]	B	2 to 10	T	less than 2
[9]	A	less than 2	C	2 to 10
[10]	H	2 to 10	V	10 to 20
[11]	I	2 to 10	W	10 to 20
[12]	J	10 to 20	A	10 to 20
[13]	K	2 to 10	X	2 to 10
[14]	L	less than 2	B	2 to 10
[15]	M	10 to 20		
[16]	L	10 to 20		
[17]	C	10 to 20		
[18]	N	2 to 10		
[19]	O	10 to 20		
[20]	P	more than 20		
[21]	Q	2 to 10		
[22]	R	2 to 10		
[23]	B	more than 20		

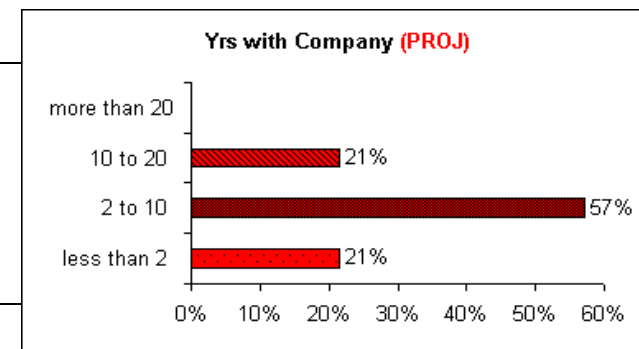
Yrs with Company (ALL)		
	# of Responses	Response
16%	6	less than 2
43%	16	2 to 10
24%	9	10 to 20
16%	6	more than 20
100%	37	Total Responses



Yrs with Company (EXEC)		
	# of Responses	Response
13%	3	less than 2
35%	8	2 to 10
26%	6	10 to 20
26%	6	more than 20
100%	23	Total Responses



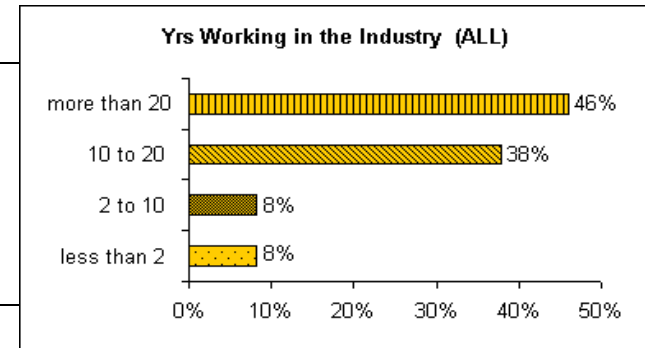
Yrs with Company (PROJ)		
	# of Responses	Response
21%	3	less than 2
57%	8	2 to 10
21%	3	10 to 20
0%	0	more than 20
100%	14	Total Responses



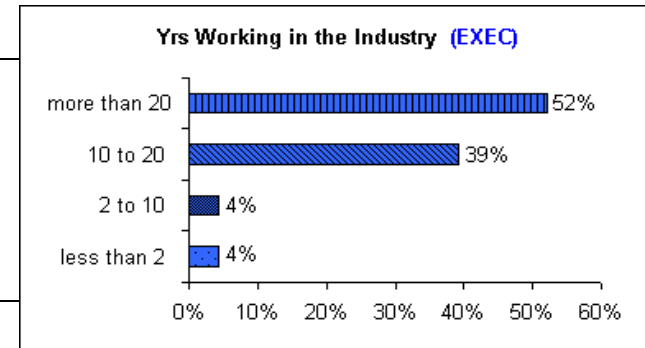
## YEARS WORKING IN THE INDUSTRY

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	more than 20	S	10 to 20
[2]	B	more than 20	T	less than 2
[3]	F	more than 20	A	10 to 20
[4]	G	more than 20	D	2 to 10
[5]	C	more than 20	B	more than 20
[6]	D	more than 20	C	more than 20
[7]	A	more than 20	U	10 to 20
[8]	B	10 to 20	T	less than 2
[9]	A	10 to 20	C	more than 20
[10]	H	2 to 10	V	10 to 20
[11]	I	10 to 20	W	10 to 20
[12]	J	10 to 20	A	more than 20
[13]	K	more than 20	X	2 to 10
[14]	L	less than 2	B	more than 20
[15]	M	10 to 20		
[16]	L	10 to 20		
[17]	C	10 to 20		
[18]	N	more than 20		
[19]	O	more than 20		
[20]	P	more than 20		
[21]	Q	10 to 20		
[22]	R	10 to 20		
[23]	B	more than 20		

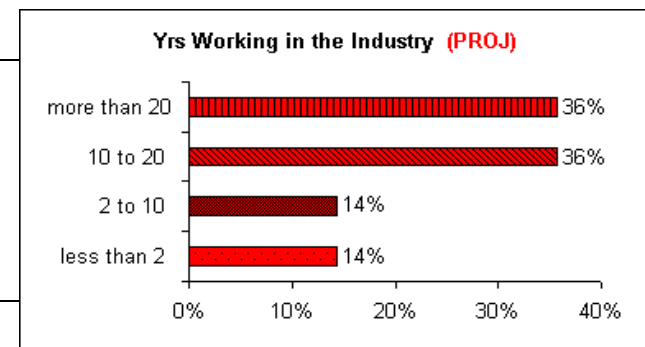
Yrs Working in the Industry (ALL)		
# of Responses	Response	
8%	3	less than 2
8%	3	2 to 10
38%	14	10 to 20
46%	17	more than 20
100%	37	<b>Total Responses</b>
100%		



Yrs Working in the Industry (EXEC)		
# of Responses	Response	
4%	1	less than 2
4%	1	2 to 10
39%	9	10 to 20
52%	12	more than 20
100%	23	<b>Total Responses</b>
100%		



Yrs Working in the Industry (PROJ)		
# of Responses	Response	
14%	2	less than 2
14%	2	2 to 10
36%	5	10 to 20
36%	5	more than 20
100%	14	<b>Total Responses</b>
100%		

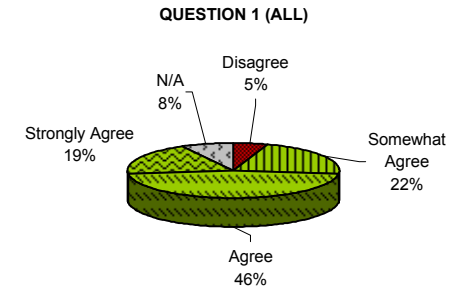


# QUALITY PERFORMANCE - Training

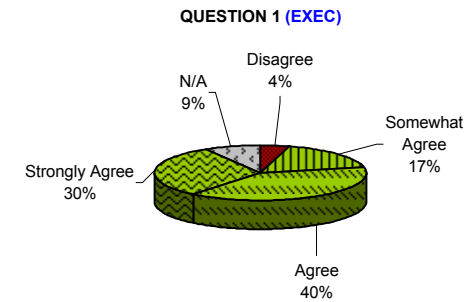
1) The company training programs are effective.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	n/a
[2]	B	Strongly Agree	T	Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Agree	D	Agree
[5]	C	Agree	B	Agree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Somewhat Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	n/a	C	Agree
[10]	H	Agree	V	Disagree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Agree	A	Somewhat Agree
[13]	K	Agree	X	Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Agree		
[16]	L	Agree		
[17]	C	Somewhat Agree		
[18]	N	Strongly Agree		
[19]	O	Disagree		
[20]	P	n/a		
[21]	Q	Somewhat Agree		
[22]	R	Somewhat Agree		
[23]	B	Strongly Agree		

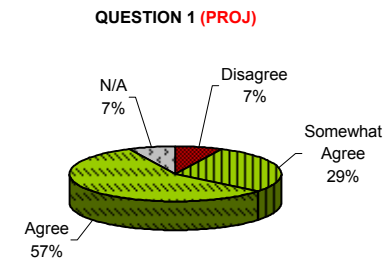
QUESTION 1 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
5%	2	Disagree
5%	0	Somewhat Disagree
22%	8	Somewhat Agree
46%	17	Agree
86%	19	Strongly Agree
8%	3	N/A
100%	37	Total Responses
100%		



QUESTION 1 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
4%	0	Somewhat Disagree
17%	4	Somewhat Agree
39%	9	Agree
87%	30	Strongly Agree
9%	2	N/A
100%	23	Total Responses
100%		



QUESTION 1 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
7%	1	Disagree
7%	0	Somewhat Disagree
29%	4	Somewhat Agree
57%	8	Agree
86%	0	Strongly Agree
7%	1	N/A
100%	14	Total Responses
100%		



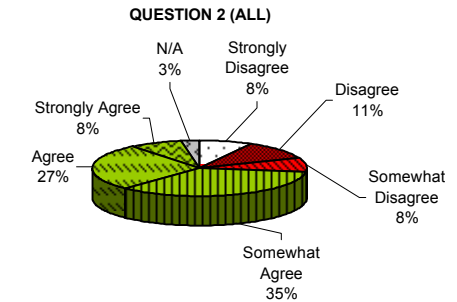


QUALITY PERFORMANCE - Training

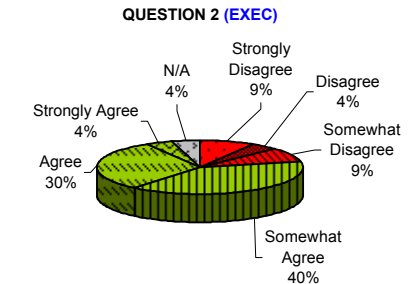
2) The company has a well-defined training program in place.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Strongly Disagree
[2]	B	Agree	T	Agree
[3]	F	Agree	A	Somewhat Agree
[4]	G	Somewhat Disagree	D	Strongly Agree
[5]	C	Somewhat Disagree	B	Disagree
[6]	D	Agree	C	Somewhat Agree
[7]	A	Somewhat Agree	U	Somewhat Disagree
[8]	B	Agree	T	Agree
[9]	A	Strongly Disagree	C	Agree
[10]	H	Agree	V	Disagree
[11]	I	Strongly Disagree	W	Strongly Agree
[12]	J	Somewhat Agree	A	Somewhat Agree
[13]	K	Somewhat Agree	X	Disagree
[14]	L	Strongly Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Somewhat Agree		
[17]	C	Somewhat Agree		
[18]	N	Agree		
[19]	O	Disagree		
[20]	P	n/a		
[21]	Q	Agree		
[22]	R	Somewhat Agree		
[23]	B	Somewhat Agree		

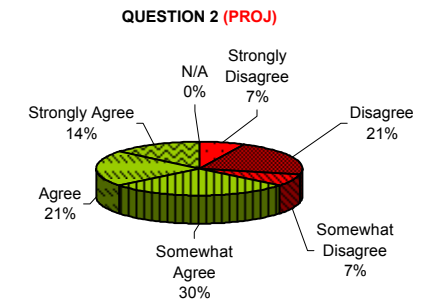
QUESTION 2 (ALL)		
	# of Responses	Response
8%	3	Strongly Disagree
11%	4	Disagree
27%	8	Somewhat Disagree
35%	13	Somewhat Agree
27%	10	Agree
70%	8	Strongly Agree
3%	1	N/A
100%	37	Total Responses
100%		



QUESTION 2 (EXEC)		
	# of Responses	Response
9%	2	Strongly Disagree
4%	1	Disagree
22%	2	Somewhat Disagree
39%	9	Somewhat Agree
30%	7	Agree
74%	4	Strongly Agree
4%	1	N/A
100%	23	Total Responses
100%		



QUESTION 2 (PROJ)		
	# of Responses	Response
7%	1	Strongly Disagree
21%	3	Disagree
36%	7	Somewhat Disagree
29%	4	Somewhat Agree
21%	3	Agree
64%	14	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

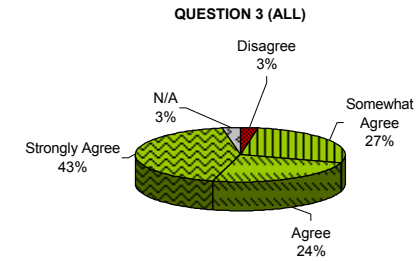


QUALITY PERFORMANCE - Training

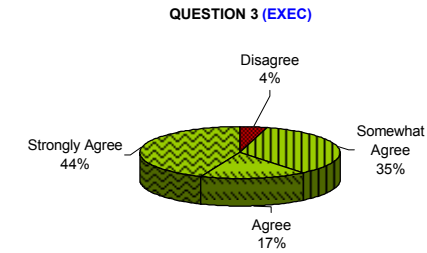
3) The company encourages training.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Agree
[2]	B	Strongly Agree	T	Agree
[3]	F	Strongly Agree	A	n/a
[4]	G	Somewhat Agree	D	Strongly Agree
[5]	C	Somewhat Agree	B	Strongly Agree
[6]	D	Strongly Agree	C	Agree
[7]	A	Somewhat Agree	U	Agree
[8]	B	Strongly Agree	T	Strongly Agree
[9]	A	Disagree	C	Strongly Agree
[10]	H	Somewhat Agree	V	Somewhat Agree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Somewhat Agree	A	Strongly Agree
[13]	K	Strongly Agree	X	Somewhat Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Somewhat Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Agree		
[19]	O	Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Somewhat Agree		
[23]	B	Agree		

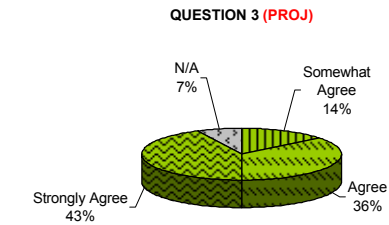
QUESTION 3 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
3%	1	Disagree
3%	0	Somewhat Disagree
27%	10	Somewhat Agree
24%	9	Agree
95%	43	Strongly Agree
3%	1	N/A
100%	37	Total Responses
100%		



QUESTION 3 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
4%	0	Somewhat Disagree
35%	8	Somewhat Agree
17%	4	Agree
96%	10	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 3 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
14%	2	Somewhat Agree
36%	5	Agree
93%	6	Strongly Agree
7%	1	N/A
100%	14	Total Responses
100%		

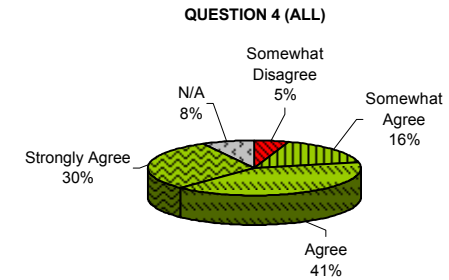


QUALITY PERFORMANCE - Training

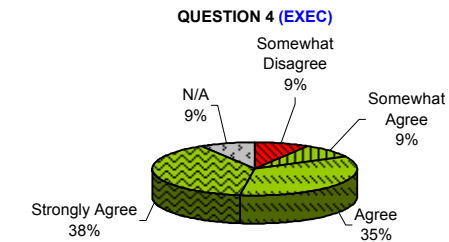
4) The training provided by the company has been beneficial.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Agree
[5]	C	Somewhat Agree	B	Agree
[6]	D	Strongly Agree	C	Agree
[7]	A	Agree	U	Somewhat Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	n/a	C	Strongly Agree
[10]	H	Agree	V	Somewhat Agree
[11]	I	Agree	W	Agree
[12]	J	Strongly Agree	A	Agree
[13]	K	Strongly Agree	X	n/a
[14]	L	Strongly Agree	B	Agree
[15]	M	Agree		
[16]	L	Strongly Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Somewhat Agree		
[20]	P	n/a		
[21]	Q	Somewhat Disagree		
[22]	R	Somewhat Disagree		
[23]	B	Agree		

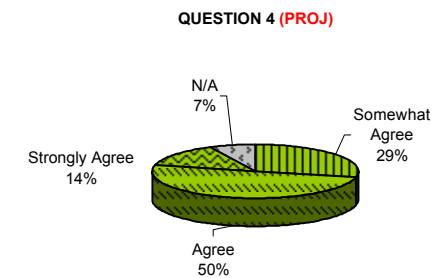
QUESTION 4 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
5%	2	Somewhat Disagree
16%	6	Somewhat Agree
41%	15	Agree
86%	30	Strongly Agree
8%	3	N/A
100%	37	<b>Total Responses</b>
100%		



QUESTION 4 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
9%	2	Somewhat Disagree
9%	2	Somewhat Agree
35%	8	Agree
83%	9	Strongly Agree
9%	2	N/A
100%	23	<b>Total Responses</b>
100%		



QUESTION 4 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
29%	4	Somewhat Agree
50%	7	Agree
93%	2	Strongly Agree
7%	1	N/A
100%	14	<b>Total Responses</b>
100%		

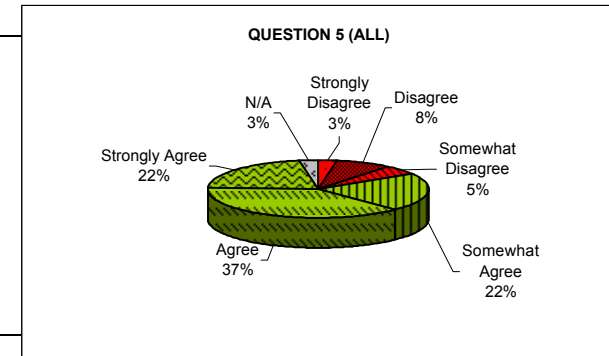


QUALITY PERFORMANCE - Training

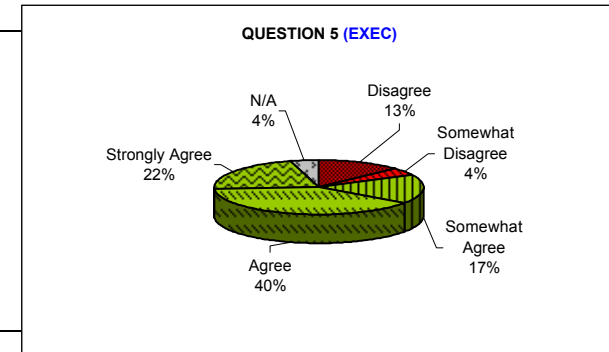
5) The company has improved my quality performance.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Disagree
[2]	B	Strongly Agree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Somewhat Agree	D	Agree
[5]	C	Agree	B	Agree
[6]	D	Agree	C	Strongly Agree
[7]	A	Somewhat Agree	U	Agree
[8]	B	Agree	T	Somewhat Disagree
[9]	A	Disagree	C	Strongly Agree
[10]	H	Agree	V	Somewhat Agree
[11]	I	Disagree	W	Agree
[12]	J	Agree	A	Somewhat Agree
[13]	K	Strongly Agree	X	Strongly Agree
[14]	L	Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Disagree		
[20]	P	n/a		
[21]	Q	Somewhat Disagree		
[22]	R	Agree		
[23]	B	Agree		

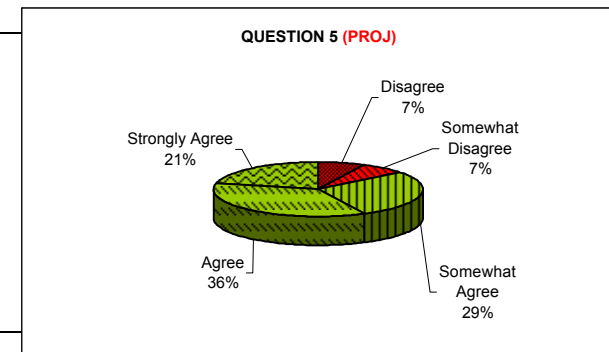
QUESTION 5 (ALL)		
	# of Responses	Response
	3%	1 Strongly Disagree
	8%	3 Disagree
16%	5%	2 Somewhat Disagree
	22%	8 Somewhat Agree
	38%	14 Agree
81%	22%	8 Strongly Agree
	3%	1 N/A
	100%	37 Total Responses
	100%	



QUESTION 5 (EXEC)		
	# of Responses	Response
	0%	0 Strongly Disagree
	13%	3 Disagree
17%	4%	1 Somewhat Disagree
	17%	4 Somewhat Agree
	39%	9 Agree
78%	22%	5 Strongly Agree
	4%	1 N/A
	100%	23 Total Responses
	100%	



QUESTION 5 (PROJ)		
	# of Responses	Response
	0%	0 Strongly Disagree
	7%	1 Disagree
14%	7%	1 Somewhat Disagree
	29%	4 Somewhat Agree
	36%	5 Agree
86%	21%	3 Strongly Agree
	0%	0 N/A
	100%	14 Total Responses
	100%	

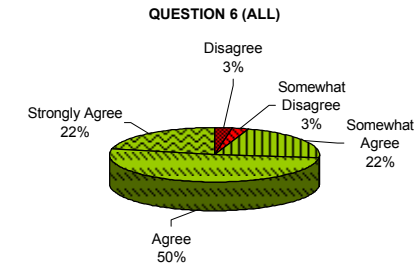


QUALITY PERFORMANCE - Training

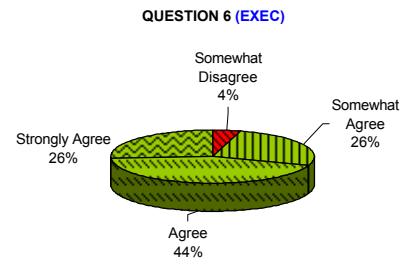
6) Employees regard company-sponsored training as important.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Somewhat Agree
[2]	B	Somewhat Agree	T	Agree
[3]	F	Agree	A	Agree
[4]	G	Somewhat Disagree	D	Agree
[5]	C	Agree	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Strongly Agree
[8]	B	Strongly Agree	T	Disagree
[9]	A	Agree	C	Agree
[10]	H	Somewhat Agree	V	Strongly Agree
[11]	I	Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Somewhat Agree		
[16]	L	Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Somewhat Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Somewhat Agree		
[23]	B	Agree		

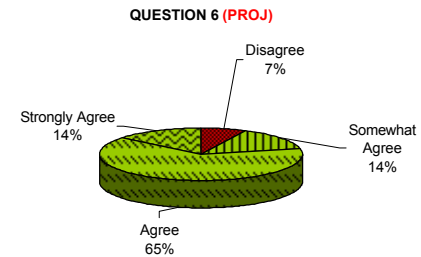
QUESTION 6 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
3%	1	Disagree
5%	1	Somewhat Disagree
22%	8	Somewhat Agree
51%	19	Agree
95%	22	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 6 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
4%	1	Somewhat Disagree
26%	6	Somewhat Agree
43%	10	Agree
96%	6	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 6 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
7%	1	Disagree
7%	0	Somewhat Disagree
14%	2	Somewhat Agree
64%	9	Agree
93%	2	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

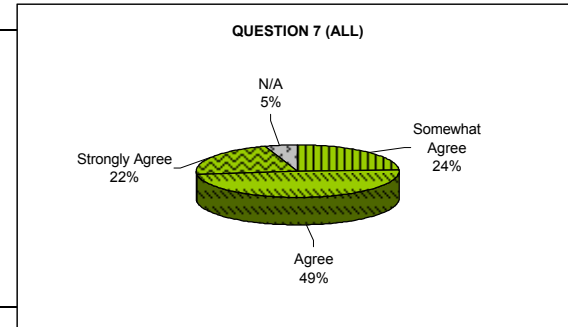


QUALITY PERFORMANCE - Training

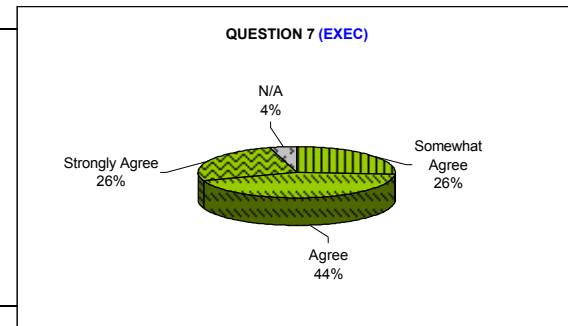
7) Company training improved overall workforce quality awareness.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	n/a
[2]	B	Strongly Agree	T	Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Somewhat Agree	D	Agree
[5]	C	Agree	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Agree
[8]	B	Agree	T	Somewhat Agree
[9]	A	n/a	C	Strongly Agree
[10]	H	Somewhat Agree	V	Strongly Agree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Agree		
[16]	L	Agree		
[17]	C	Somewhat Agree		
[18]	N	Strongly Agree		
[19]	O	Somewhat Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Agree		
[23]	B	Agree		

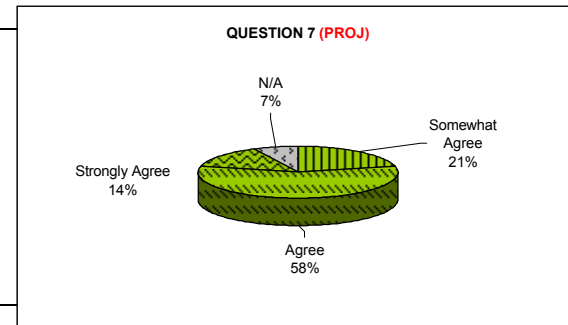
QUESTION 7 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	9	Somewhat Agree
24%	18	Agree
49%	22	Strongly Agree
95%	2	N/A
100%	37	Total Responses
100%		



QUESTION 7 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	6	Somewhat Agree
26%	10	Agree
43%	6	Strongly Agree
96%	1	N/A
100%	23	Total Responses
100%		



QUESTION 7 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
21%	3	Somewhat Agree
57%	8	Agree
93%	2	Strongly Agree
14%	1	N/A
7%		
100%	14	Total Responses
100%		

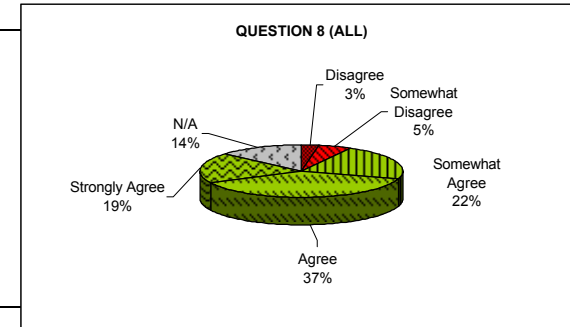


QUALITY PERFORMANCE - Training

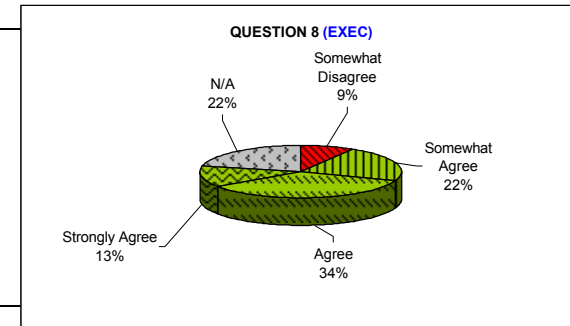
8) Company training keeps me up to speed with new methods and innovations.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Somewhat Agree
[2]	B	Agree	T	Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Somewhat Disagree	D	Disagree
[5]	C	n/a	B	Agree
[6]	D	Agree	C	Strongly Agree
[7]	A	Agree	U	Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	n/a	C	Strongly Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	n/a	W	Strongly Agree
[12]	J	Somewhat Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Agree		
[17]	C	Agree		
[18]	N	Agree		
[19]	O	n/a		
[20]	P	n/a		
[21]	Q	Somewhat Agree		
[22]	R	Somewhat Disagree		
[23]	B	Somewhat Agree		

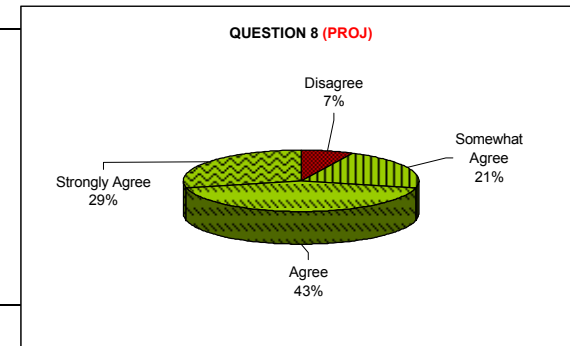
QUESTION 8 (ALL)		
	# of Responses	Response
	0%	0 Strongly Disagree
	3%	1 Disagree
8%	5%	2 Somewhat Disagree
	22%	8 Somewhat Agree
	38%	14 Agree
78%	19%	7 Strongly Agree
	14%	5 N/A
	100%	37 Total Responses
	100%	



QUESTION 8 (EXEC)		
	# of Responses	Response
	0%	0 Strongly Disagree
	0%	0 Disagree
9%	9%	2 Somewhat Disagree
	22%	5 Somewhat Agree
	35%	8 Agree
70%	13%	3 Strongly Agree
	22%	5 N/A
	100%	23 Total Responses
	100%	



QUESTION 8 (PROJ)		
	# of Responses	Response
	0%	0 Strongly Disagree
	7%	1 Disagree
7%	0%	0 Somewhat Disagree
	21%	3 Somewhat Agree
	43%	6 Agree
93%	29%	4 Strongly Agree
	0%	0 N/A
	100%	14 Total Responses
	100%	

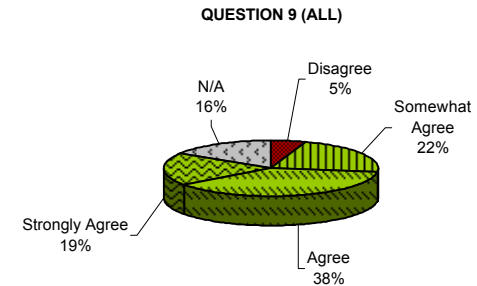


QUALITY PERFORMANCE - Training

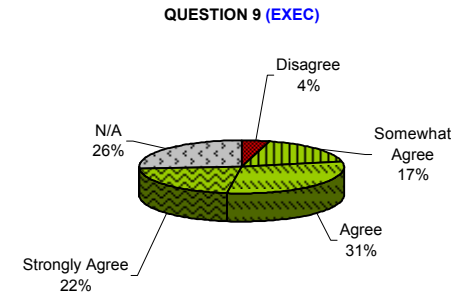
9) Training has made me more efficient at completing my tasks.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Somewhat Agree
[2]	B	Strongly Agree	T	Somewhat Agree
[3]	F	Agree	A	Agree
[4]	G	Agree	D	Agree
[5]	C	n/a	B	Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Somewhat Agree
[8]	B	Strongly Agree	T	Disagree
[9]	A	n/a	C	Strongly Agree
[10]	H	Agree	V	Agree
[11]	I	n/a	W	Strongly Agree
[12]	J	n/a	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Strongly Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Agree		
[17]	C	Strongly Agree		
[18]	N	Agree		
[19]	O	n/a		
[20]	P	n/a		
[21]	Q	Disagree		
[22]	R	Somewhat Agree		
[23]	B	Somewhat Agree		

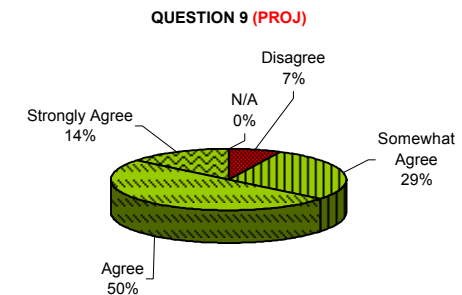
QUESTION 9 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
5%	2	Disagree
5%	0	Somewhat Disagree
22%	8	Somewhat Agree
38%	14	Agree
78%	19	Strongly Agree
16%	6	N/A
100%	37	Total Responses
100%		



QUESTION 9 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
4%	0	Somewhat Disagree
17%	4	Somewhat Agree
30%	7	Agree
70%	22	Strongly Agree
26%	6	N/A
100%	23	Total Responses
100%		



QUESTION 9 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
7%	1	Disagree
7%	0	Somewhat Disagree
29%	4	Somewhat Agree
50%	7	Agree
93%	14	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		





QUALITY PERFORMANCE - Training

10) Training has increased my commitment to producing quality work.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Somewhat Disagree
[2]	B	Strongly Agree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Agree
[5]	C	n/a	B	Somewhat Agree
[6]	D	Strongly Agree	C	Agree
[7]	A	Agree	U	Agree
[8]	B	Agree	T	Somewhat Agree
[9]	A	n/a	C	Strongly Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	n/a	W	Agree
[12]	J	n/a	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	n/a		
[20]	P	n/a		
[21]	Q	Disagree		
[22]	R	Agree		
[23]	B	Agree		

(EXEC)

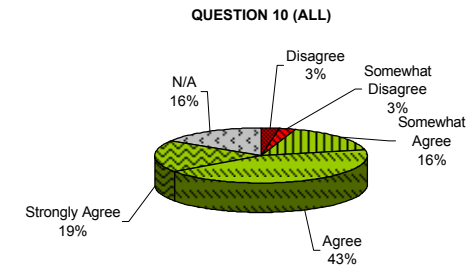
70% Agreement (Exec)  
4% Disagreement (Exec)  
26% Not Applicable (Exec)

(PROJ)

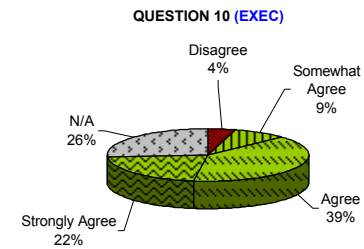
93% Agreement (Proj)  
7% Disagreement (Proj)  
0% Not Applicable (Proj)

62% 23 EXEC  
38% 14 PROJ  
100% 37 ALL

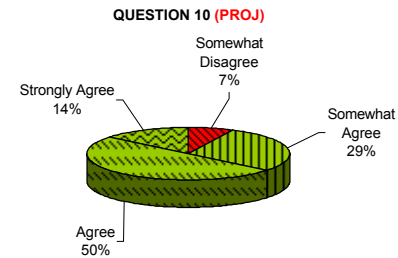
QUESTION 10 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
3%	1	Disagree
5%	1	Somewhat Disagree
16%	6	Somewhat Agree
43%	16	Agree
78%	19	Strongly Agree
16%	6	N/A
100%	37	Total Responses
100%		



QUESTION 10 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
4%	0	Somewhat Disagree
9%	2	Somewhat Agree
39%	9	Agree
70%	22	Strongly Agree
26%	6	N/A
100%	23	Total Responses
100%		



QUESTION 10 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
7%	1	Somewhat Disagree
29%	4	Somewhat Agree
50%	7	Agree
93%	14	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

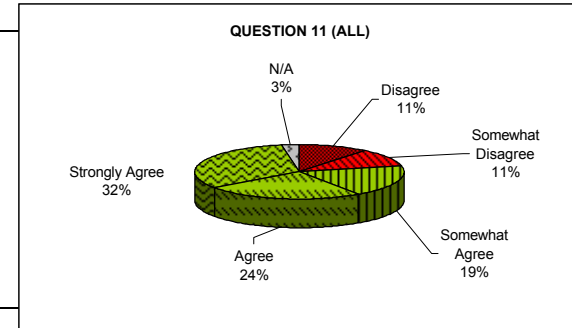


QUALITY PERFORMANCE - Training

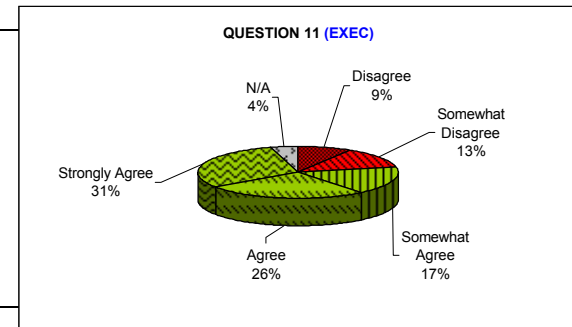
11) More company sponsored training opportunities are needed.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Strongly Agree
[2]	B	Somewhat Disagree	T	Agree
[3]	F	Disagree	A	Somewhat Agree
[4]	G	Disagree	D	Agree
[5]	C	Somewhat Agree	B	Somewhat Disagree
[6]	D	Somewhat Disagree	C	Strongly Agree
[7]	A	Agree	U	Strongly Agree
[8]	B	Somewhat Disagree	T	Disagree
[9]	A	Strongly Agree	C	Somewhat Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Strongly Agree	W	Disagree
[12]	J	Strongly Agree	A	Strongly Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Somewhat Agree	B	Somewhat Agree
[15]	M	Agree		
[16]	L	Agree		
[17]	C	Somewhat Agree		
[18]	N	Somewhat Agree		
[19]	O	Agree		
[20]	P	n/a		
[21]	Q	Strongly Agree		
[22]	R	Agree		
[23]	B	Strongly Agree		

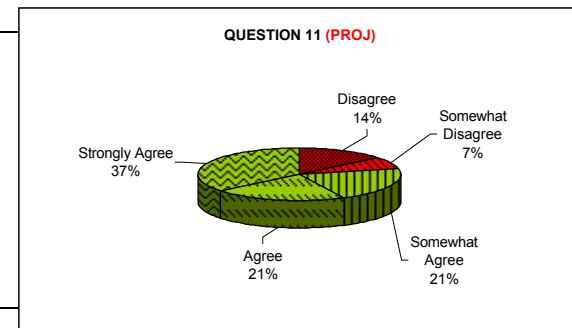
QUESTION 11 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
11%	4	Disagree
22%	4	Somewhat Disagree
11%	7	Somewhat Agree
19%	9	Agree
24%	12	Strongly Agree
76%	3	N/A
3%	1	N/A
100%	37	Total Responses
100%		



QUESTION 11 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
9%	2	Disagree
22%	3	Somewhat Disagree
13%	4	Somewhat Agree
17%	6	Agree
26%	7	Strongly Agree
74%	1	N/A
30%		Total Responses
4%		
100%	23	
100%		



QUESTION 11 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
14%	2	Disagree
21%	1	Somewhat Disagree
7%	3	Somewhat Agree
21%	3	Agree
21%	5	Strongly Agree
36%	0	N/A
0%	0	N/A
100%	14	Total Responses
100%		

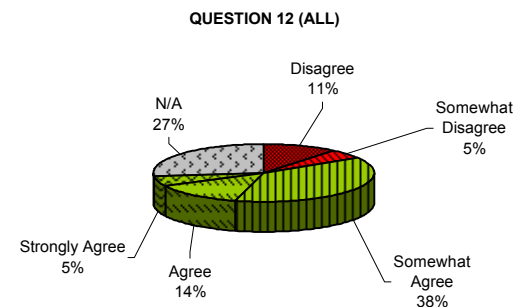


QUALITY PERFORMANCE - Training

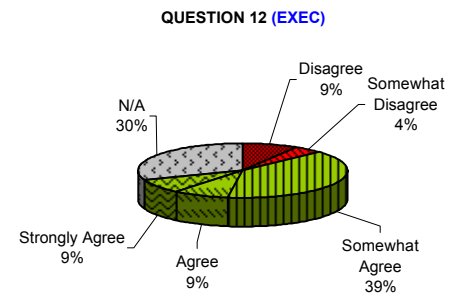
12) Since introducing quality training, the number of punch-list items has been reduced.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Disagree
[2]	B	Somewhat Disagree	T	n/a
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Disagree	D	Somewhat Agree
[5]	C	n/a	B	Somewhat Agree
[6]	D	Somewhat Agree	C	Agree
[7]	A	Agree	U	n/a
[8]	B	Agree	T	Somewhat Disagree
[9]	A	n/a	C	Agree
[10]	H	Somewhat Agree	V	Disagree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Somewhat Agree	A	n/a
[13]	K	Somewhat Agree	X	Somewhat Agree
[14]	L	n/a	B	Somewhat Agree
[15]	M	Disagree		
[16]	L	n/a		
[17]	C	Somewhat Agree		
[18]	N	Strongly Agree		
[19]	O	n/a		
[20]	P	n/a		
[21]	Q	n/a		
[22]	R	Somewhat Agree		
[23]	B	Somewhat Agree		

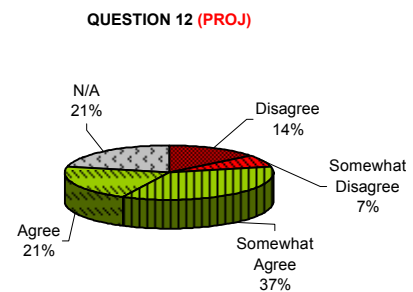
QUESTION 12 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
11%	4	Disagree
16%	5%	Somewhat Disagree
38%	14	Somewhat Agree
14%	5	Agree
57%	5%	Strongly Agree
27%	10	N/A
100%	37	Total Responses
100%		



QUESTION 12 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
9%	2	Disagree
13%	4%	Somewhat Disagree
39%	9	Somewhat Agree
9%	2	Agree
57%	9%	Strongly Agree
30%	7	N/A
100%	23	Total Responses
100%		



QUESTION 12 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
14%	2	Disagree
21%	7%	Somewhat Disagree
36%	5	Somewhat Agree
21%	3	Agree
57%	0%	Strongly Agree
21%	3	N/A
100%	14	Total Responses
100%		

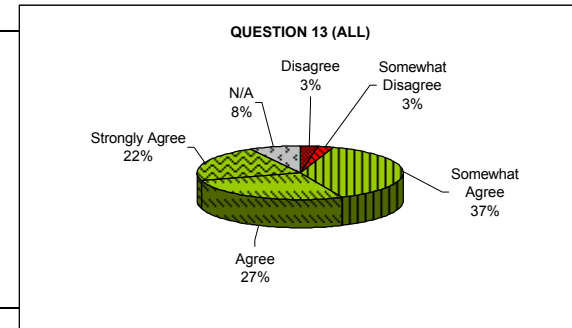


QUALITY PERFORMANCE - Training

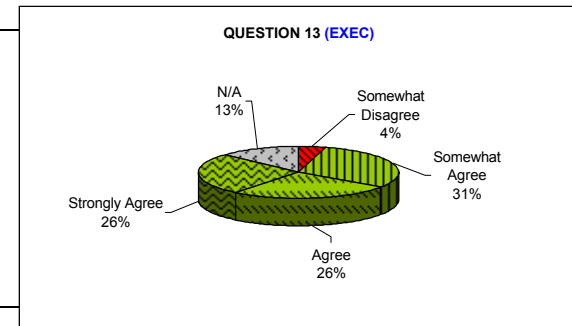
13) Training programs have improved teamwork.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Disagree
[2]	B	Strongly Agree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Strongly Agree
[5]	C	Strongly Agree	B	Somewhat Agree
[6]	D	Agree	C	Somewhat Agree
[7]	A	Agree	U	Somewhat Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	n/a	C	Agree
[10]	H	Somewhat Agree	V	Somewhat Agree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Somewhat Agree	A	Agree
[13]	K	Agree	X	Somewhat Agree
[14]	L	Somewhat Agree	B	Strongly Agree
[15]	M	Somewhat Agree		
[16]	L	n/a		
[17]	C	Strongly Agree		
[18]	N	Agree		
[19]	O	n/a		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Disagree		
[22]	R	Somewhat Agree		
[23]	B	Agree		

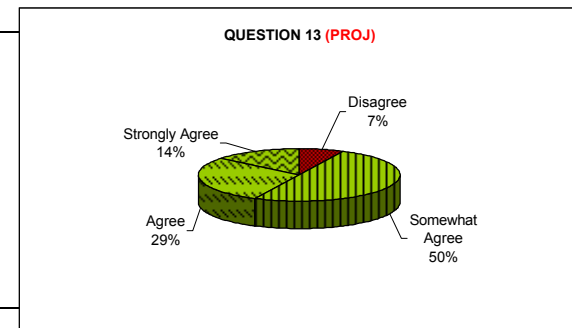
QUESTION 13 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
3%	1	Disagree
5%	1	Somewhat Disagree
38%	14	Somewhat Agree
27%	10	Agree
86%	8	Strongly Agree
8%	3	N/A
100%	37	Total Responses
100%		



QUESTION 13 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
4%	1	Somewhat Disagree
30%	7	Somewhat Agree
26%	6	Agree
83%	6	Strongly Agree
13%	3	N/A
100%	23	Total Responses
100%		



QUESTION 13 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
7%	1	Disagree
7%	0	Somewhat Disagree
50%	7	Somewhat Agree
29%	4	Agree
93%	2	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

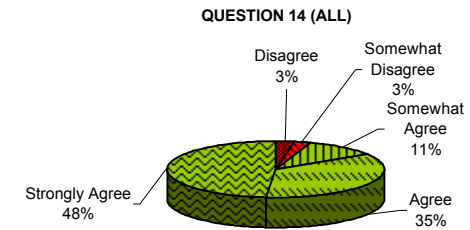


QUALITY PERFORMANCE - Training

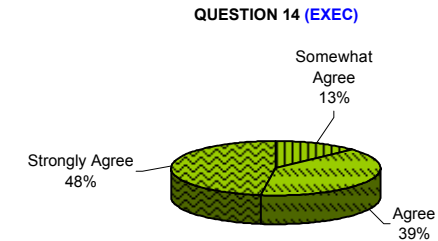
14) The company feels that training is an important part of employee development.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Somewhat Disagree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Strongly Agree
[4]	G	Agree	D	Strongly Agree
[5]	C	Agree	B	Agree
[6]	D	Strongly Agree	C	Agree
[7]	A	Agree	U	Agree
[8]	B	Strongly Agree	T	Agree
[9]	A	Agree	C	Strongly Agree
[10]	H	Agree	V	Disagree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Agree	A	Strongly Agree
[13]	K	Agree	X	Somewhat Agree
[14]	L	Strongly Agree	B	Strongly Agree
[15]	M	Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Somewhat Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Somewhat Agree		
[23]	B	Agree		

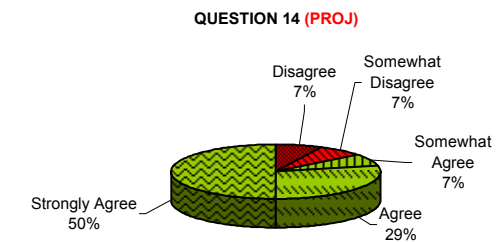
QUESTION 14 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
3%	1	Disagree
5%	3	Somewhat Disagree
11%	4	Somewhat Agree
35%	13	Agree
95%	49	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 14 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
13%	3	Somewhat Agree
39%	9	Agree
100%	48	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 14 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
7%	1	Disagree
14%	1	Somewhat Disagree
7%	1	Somewhat Agree
29%	4	Agree
86%	7	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

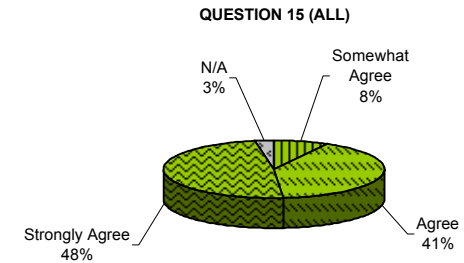


QUALITY PERFORMANCE - Training

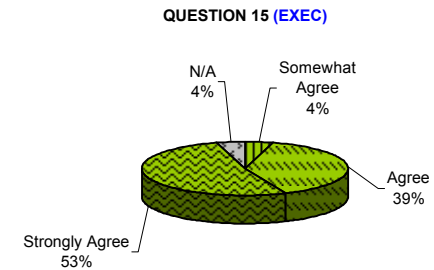
15) The company thinks that training employees is beneficial to company quality performance.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Strongly Agree
[5]	C	Agree	B	Agree
[6]	D	Strongly Agree	C	Agree
[7]	A	Agree	U	Agree
[8]	B	Strongly Agree	T	Agree
[9]	A	Agree	C	Strongly Agree
[10]	H	Agree	V	Somewhat Agree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Agree	A	Strongly Agree
[13]	K	Agree	X	Somewhat Agree
[14]	L	Strongly Agree	B	Strongly Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	n/a		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Agree		
[23]	B	Agree		

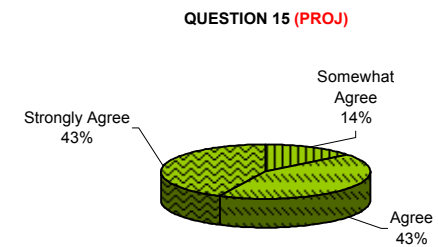
QUESTION 15 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
8%	3	Somewhat Agree
41%	15	Agree
97%	49%	18 Strongly Agree
3%	1	N/A
100%	37	<b>Total Responses</b>
100%		



QUESTION 15 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
4%	1	Somewhat Agree
39%	9	Agree
96%	52%	12 Strongly Agree
4%	1	N/A
100%	23	<b>Total Responses</b>
100%		



QUESTION 15 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
14%	2	Somewhat Agree
43%	6	Agree
100%	43%	6 Strongly Agree
0%	0	N/A
100%	14	<b>Total Responses</b>
100%		

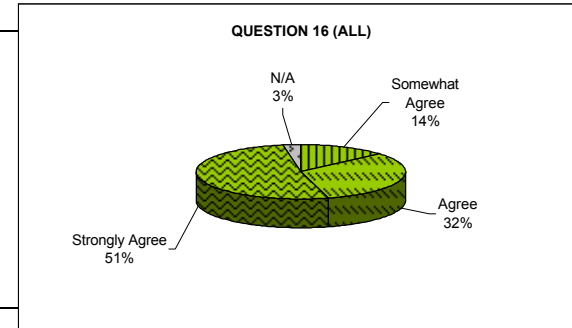


QUALITY PERFORMANCE - Training

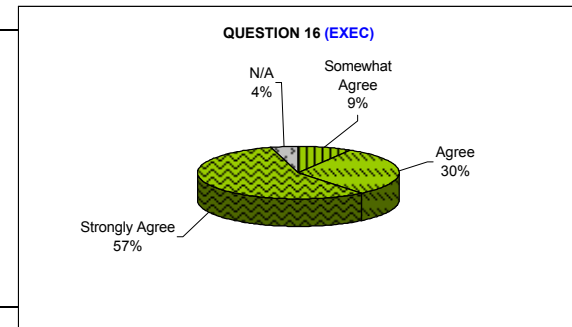
16) The company values the benefits of training.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Somewhat Agree
[2]	B	Strongly Agree	T	Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Strongly Agree	D	Strongly Agree
[5]	C	Agree	B	Agree
[6]	D	Strongly Agree	C	Strongly Agree
[7]	A	Agree	U	Agree
[8]	B	Strongly Agree	T	Agree
[9]	A	n/a	C	Strongly Agree
[10]	H	Agree	V	Somewhat Agree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Agree	A	Strongly Agree
[13]	K	Agree	X	Somewhat Agree
[14]	L	Strongly Agree	B	Strongly Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Somewhat Agree		
[23]	B	Agree		

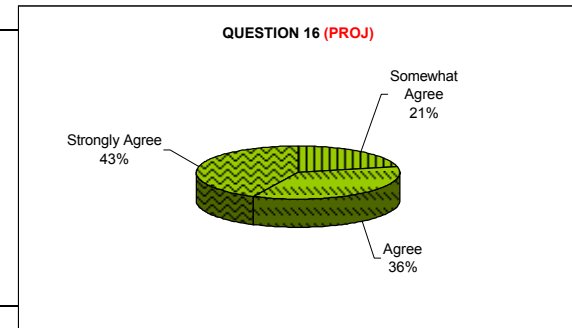
QUESTION 16 (ALL)			
	# of Responses	Response	
0%	0	Strongly Disagree	
0%	0	Disagree	
0%	0	Somewhat Disagree	
0%	5	Somewhat Agree	
32%	12	Agree	
51%	19	Strongly Agree	
3%	1	N/A	
100%	37	Total Responses	
100%			



QUESTION 16 (EXEC)			
	# of Responses	Response	
0%	0	Strongly Disagree	
0%	0	Disagree	
0%	0	Somewhat Disagree	
9%	2	Somewhat Agree	
30%	7	Agree	
57%	13	Strongly Agree	
4%	1	N/A	
100%	23	Total Responses	
100%			



QUESTION 16 (PROJ)			
	# of Responses	Response	
0%	0	Strongly Disagree	
0%	0	Disagree	
0%	0	Somewhat Disagree	
21%	3	Somewhat Agree	
36%	5	Agree	
43%	6	Strongly Agree	
0%	0	N/A	
100%	14	Total Responses	
100%			

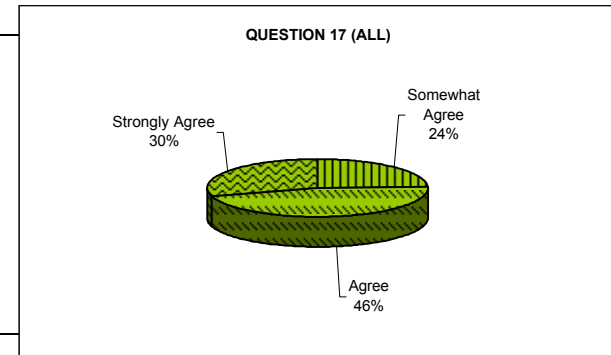


QUALITY PERFORMANCE - Training

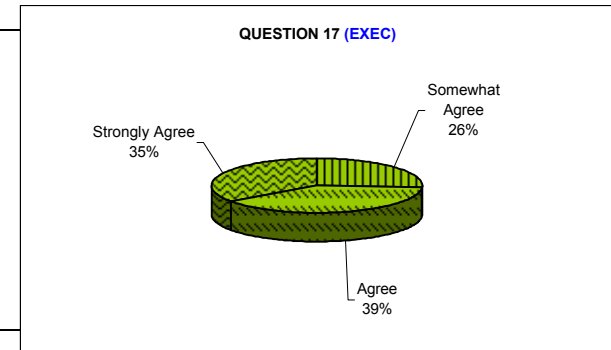
17) The company's investment in training leads to increased time and money savings.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Somewhat Agree
[2]	B	Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Agree
[5]	C	Somewhat Agree	B	Agree
[6]	D	Strongly Agree	C	Strongly Agree
[7]	A	Agree	U	Agree
[8]	B	Somewhat Agree	T	Somewhat Agree
[9]	A	n/a	C	Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Somewhat Agree
[14]	L	Agree	B	Agree
[15]	M	Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Somewhat Agree		
[23]	B	Somewhat Agree		

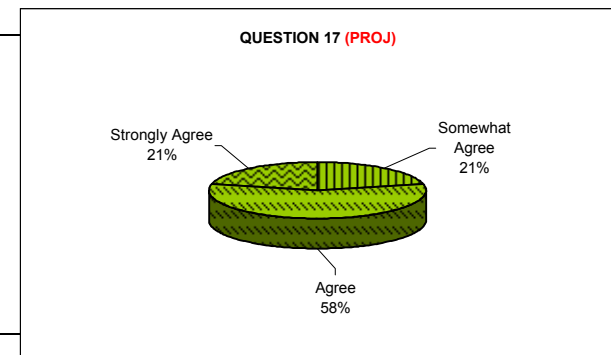
QUESTION 17 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
24%	9	Somewhat Agree
46%	17	Agree
100%	30	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 17 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
26%	6	Somewhat Agree
39%	9	Agree
100%	35	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 17 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
21%	3	Somewhat Agree
57%	8	Agree
100%	21	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		



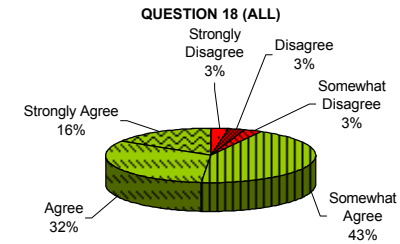


PRODUCTIVITY PERFORMANCE - Motivation

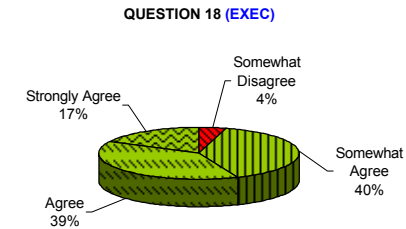
1) Our company promotes a sufficiently motivating environment.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Disagree
[2]	B	Somewhat Agree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Agree	D	Somewhat Agree
[5]	C	Somewhat Agree	B	Somewhat Agree
[6]	D	Agree	C	Somewhat Agree
[7]	A	Agree	U	Strongly Agree
[8]	B	Strongly Agree	T	Agree
[9]	A	Somewhat Agree	C	Somewhat Agree
[10]	H	Agree	V	Strongly Disagree
[11]	I	Strongly Agree	W	Agree
[12]	J	Somewhat Agree	A	Agree
[13]	K	Agree	X	Strongly Agree
[14]	L	Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Somewhat Agree		
[17]	C	Agree		
[18]	N	Agree		
[19]	O	Somewhat Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Somewhat Disagree		
[23]	B	Agree		

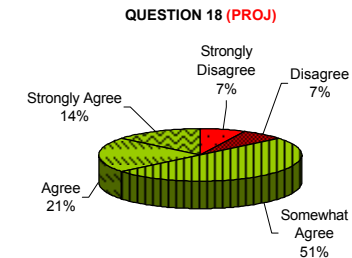
QUESTION 18 (ALL)		
	# of Responses	Response
	3%	1 Strongly Disagree
	3%	1 Disagree
8%	3%	1 Somewhat Disagree
	43%	16 Somewhat Agree
	32%	12 Agree
92%	16%	6 Strongly Agree
	0%	0 N/A
100%	37	Total Responses
100%		



QUESTION 18 (EXEC)		
	# of Responses	Response
	0%	0 Strongly Disagree
	0%	0 Disagree
4%	4%	1 Somewhat Disagree
	39%	9 Somewhat Agree
	39%	9 Agree
96%	17%	4 Strongly Agree
	0%	0 N/A
100%	23	Total Responses
100%		



QUESTION 18 (PROJ)		
	# of Responses	Response
	7%	1 Strongly Disagree
	7%	1 Disagree
14%	0%	0 Somewhat Disagree
	50%	7 Somewhat Agree
	21%	3 Agree
86%	14%	2 Strongly Agree
	0%	0 N/A
100%	14	Total Responses
100%		

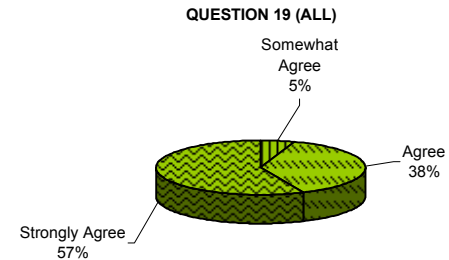


PRODUCTIVITY PERFORMANCE - Motivation

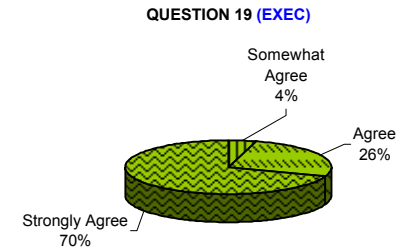
2) Company motivation is beneficial to job performance.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Strongly Agree	D	Strongly Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Agree
[8]	B	Strongly Agree	T	Strongly Agree
[9]	A	Strongly Agree	C	Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Strongly Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Strongly Agree	B	Strongly Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Agree		
[18]	N	Agree		
[19]	O	Strongly Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

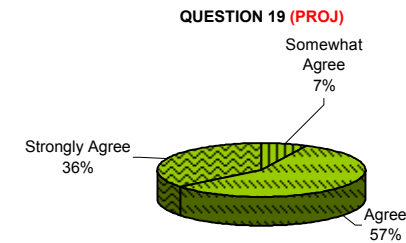
QUESTION 19 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
5%	2	Somewhat Agree
38%	14	Agree
100%	57	Strongly Agree
0%	0	N/A
100%	37	<b>Total Responses</b>
100%		



QUESTION 19 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
4%	1	Somewhat Agree
26%	6	Agree
100%	70	Strongly Agree
0%	0	N/A
100%	23	<b>Total Responses</b>
100%		



QUESTION 19 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
7%	1	Somewhat Agree
57%	8	Agree
100%	36	Strongly Agree
0%	0	N/A
100%	14	<b>Total Responses</b>
100%		

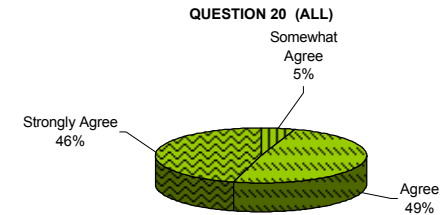


PRODUCTIVITY PERFORMANCE - Motivation

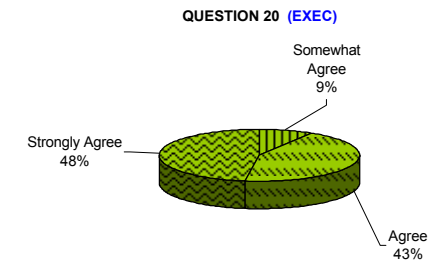
3) Company motivation encourages more productive work.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Agree
[2]	B	Somewhat Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Strongly Agree	D	Strongly Agree
[5]	C	Agree	B	Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Agree
[8]	B	Strongly Agree	T	Strongly Agree
[9]	A	Strongly Agree	C	Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Strongly Agree
[14]	L	Agree	B	Strongly Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Agree		
[18]	N	Agree		
[19]	O	Strongly Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

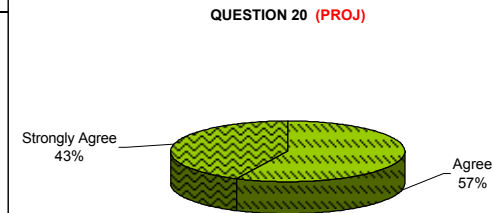
QUESTION 20 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	2	Somewhat Agree
5%	18	Agree
49%	17	Strongly Agree
100%	0	N/A
100%	37	Total Responses



QUESTION 20 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	2	Somewhat Agree
9%	10	Agree
43%	11	Strongly Agree
100%	0	N/A
100%	23	Total Responses



QUESTION 20 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	0	Somewhat Agree
57%	8	Agree
43%	6	Strongly Agree
100%	0	N/A
100%	14	Total Responses

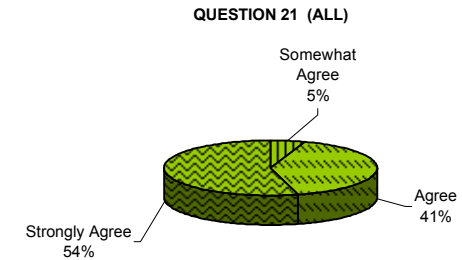


PRODUCTIVITY PERFORMANCE - Motivation

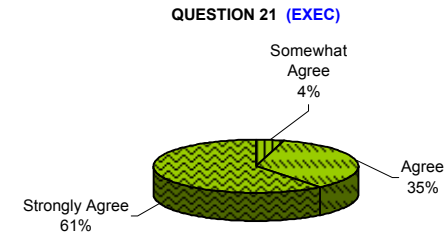
4) Motivation affects task efficiency.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Strongly Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Agree	D	Agree
[5]	C	Somewhat Agree	B	Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Agree
[8]	B	Strongly Agree	T	Strongly Agree
[9]	A	Strongly Agree	C	Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Strongly Agree
[14]	L	Strongly Agree	B	Strongly Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Strongly Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

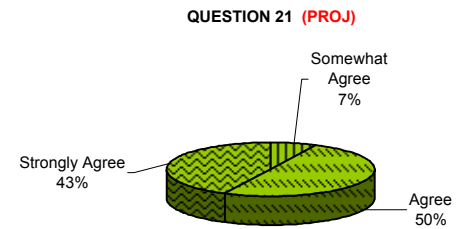
QUESTION 21 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
5%	2	Somewhat Agree
41%	15	Agree
100%	54%	20 Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 21 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
4%	1	Somewhat Agree
35%	8	Agree
100%	61%	14 Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 21 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
7%	1	Somewhat Agree
50%	7	Agree
100%	43%	6 Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

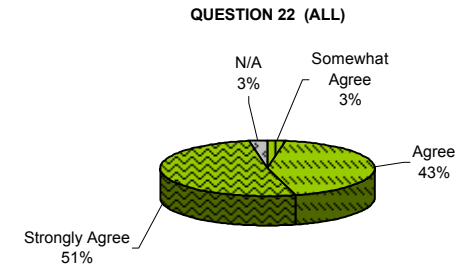


PRODUCTIVITY PERFORMANCE - Motivation

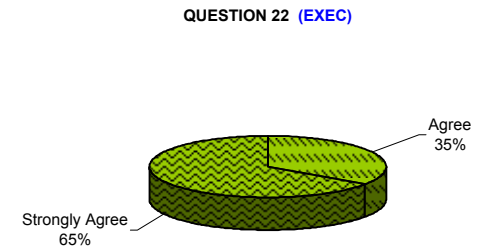
5) Maximum productivity potential is best achieved within a motivating environment.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Agree
[5]	C	Agree	B	Agree
[6]	D	Agree	C	Somewhat Agree
[7]	A	Agree	U	n/a
[8]	B	Strongly Agree	T	Strongly Agree
[9]	A	Strongly Agree	C	Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Strongly Agree	B	Strongly Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Strongly Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

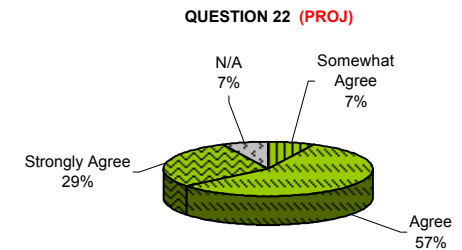
QUESTION 22 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
3%	1	Somewhat Agree
43%	16	Agree
97%	19	Strongly Agree
3%	1	N/A
100%	37	<b>Total Responses</b>
100%		



QUESTION 22 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	0	Somewhat Agree
35%	8	Agree
100%	15	Strongly Agree
0%	0	N/A
100%	23	<b>Total Responses</b>
100%		



QUESTION 22 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
7%	1	Somewhat Agree
57%	8	Agree
93%	4	Strongly Agree
7%	1	N/A
100%	14	<b>Total Responses</b>
100%		

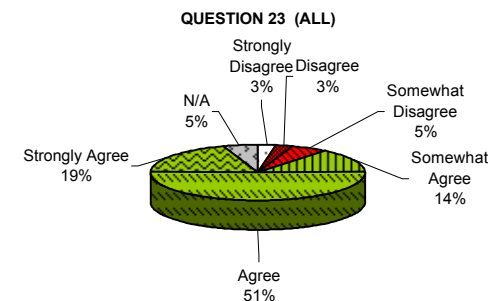


PRODUCTIVITY PERFORMANCE - Motivation

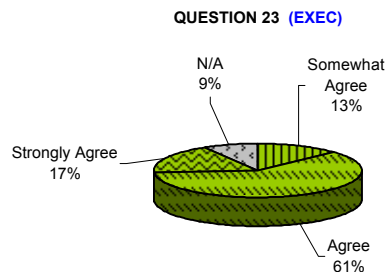
6) I am currently motivated to perform up to my maximum potential.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Agree	T	Somewhat Disagree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Somewhat Agree
[5]	C	n/a	B	Agree
[6]	D	Agree	C	Strongly Agree
[7]	A	Agree	U	Agree
[8]	B	Strongly Agree	T	Disagree
[9]	A	Strongly Agree	C	Somewhat Disagree
[10]	H	Agree	V	Strongly Disagree
[11]	I	Agree	W	Strongly Agree
[12]	J	Agree	A	Strongly Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Agree
[15]	M	Somewhat Agree		
[16]	L	Agree		
[17]	C	Somewhat Agree		
[18]	N	Agree		
[19]	O	Agree		
[20]	P	n/a		
[21]	Q	Somewhat Agree		
[22]	R	Agree		
[23]	B	Agree		

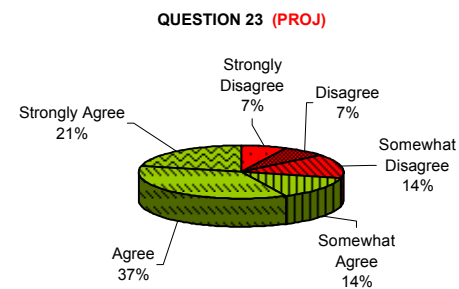
QUESTION 23 (ALL)		
	# of Responses	Response
3%	1	Strongly Disagree
3%	1	Disagree
11%	5	Somewhat Disagree
14%	5	Somewhat Agree
51%	19	Agree
84%	19	Strongly Agree
5%	2	N/A
100%	37	Total Responses
100%		



QUESTION 23 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
13%	3	Somewhat Agree
61%	14	Agree
91%	17	Strongly Agree
9%	2	N/A
100%	23	Total Responses
100%		



QUESTION 23 (PROJ)		
	# of Responses	Response
7%	1	Strongly Disagree
7%	1	Disagree
29%	2	Somewhat Disagree
14%	2	Somewhat Agree
36%	5	Agree
71%	3	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

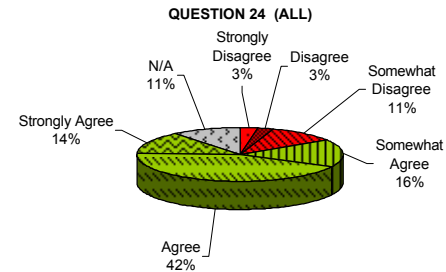


PRODUCTIVITY PERFORMANCE - Motivation

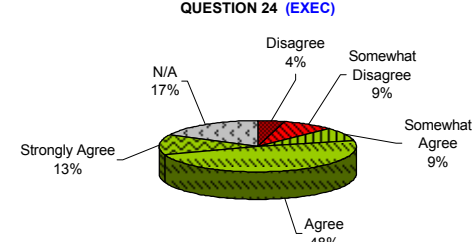
7) The company recognizes my performance appropriately.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	n/a	S	Agree
[2]	B	Somewhat Disagree	T	Somewhat Disagree
[3]	F	Agree	A	Somewhat Agree
[4]	G	Agree	D	Somewhat Agree
[5]	C	n/a	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	n/a	C	Somewhat Disagree
[10]	H	Agree	V	Strongly Disagree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Somewhat Agree	A	Strongly Agree
[13]	K	Strongly Agree	X	Strongly Agree
[14]	L	Agree	B	Agree
[15]	M	Agree		
[16]	L	Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Disagree		
[20]	P	n/a		
[21]	Q	Somewhat Disagree		
[22]	R	Agree		
[23]	B	Agree		

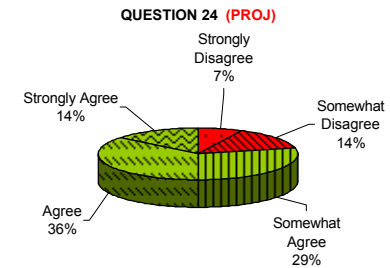
QUESTION 24 (ALL)		
	# of Responses	Response
3%	1	Strongly Disagree
3%	1	Disagree
16%	4	Somewhat Disagree
16%	6	Somewhat Agree
43%	16	Agree
73%	14	Strongly Agree
11%	4	N/A
100%	37	Total Responses
100%		



QUESTION 24 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
13%	2	Somewhat Disagree
9%	2	Somewhat Agree
48%	11	Agree
70%	13	Strongly Agree
17%	4	N/A
100%	23	Total Responses
100%		



QUESTION 24 (PROJ)		
	# of Responses	Response
7%	1	Strongly Disagree
0%	0	Disagree
21%	2	Somewhat Disagree
29%	4	Somewhat Agree
36%	5	Agree
79%	14	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

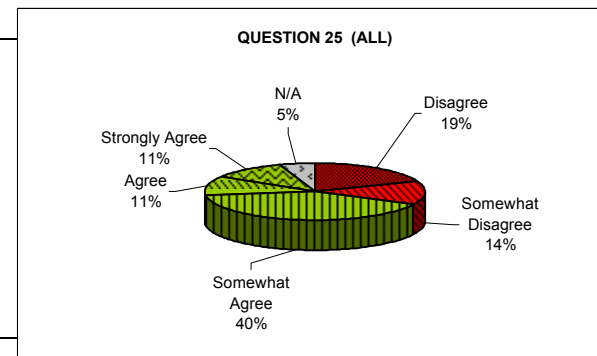


PRODUCTIVITY PERFORMANCE - Motivation

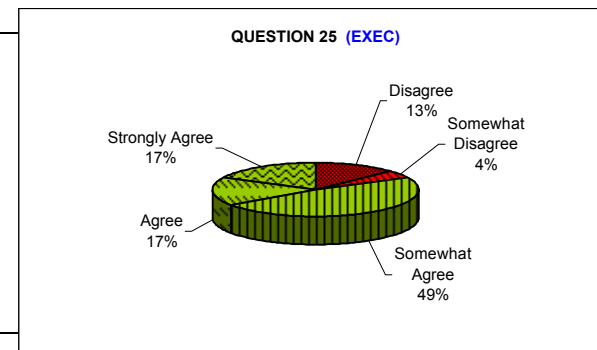
8) People are more productive at or around the time of performance/salary reviews.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Disagree
[2]	B	Strongly Agree	T	Somewhat Disagree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Disagree	D	Disagree
[5]	C	Somewhat Disagree	B	Somewhat Disagree
[6]	D	Somewhat Agree	C	Somewhat Disagree
[7]	A	Agree	U	Disagree
[8]	B	Somewhat Agree	T	Disagree
[9]	A	Somewhat Agree	C	n/a
[10]	H	Strongly Agree	V	Somewhat Agree
[11]	I	Somewhat Agree	W	n/a
[12]	J	Disagree	A	Disagree
[13]	K	Somewhat Agree	X	Somewhat Agree
[14]	L	Somewhat Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Disagree		
[17]	C	Somewhat Agree		
[18]	N	Agree		
[19]	O	Somewhat Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Agree		
[23]	B	Somewhat Agree		

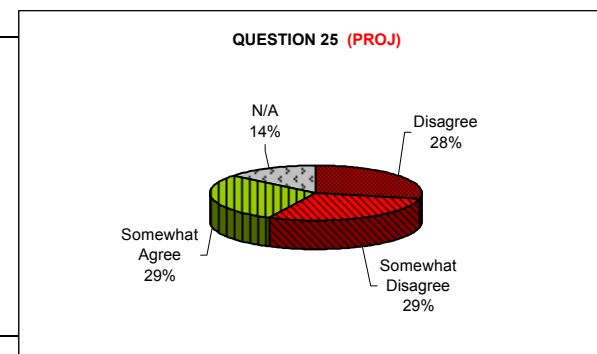
QUESTION 25 (ALL)		
	# of Responses	Response
	0%	0
	19%	7
32%	14%	5
	41%	15
	11%	4
62%	11%	4
	5%	2
100%	37	N/A
		Total Responses
100%		



QUESTION 25 (EXEC)		
	# of Responses	Response
	0%	0
	13%	3
17%	4%	1
	48%	11
	17%	4
83%	17%	4
	0%	0
100%	23	N/A
		Total Responses
100%		



QUESTION 25 (PROJ)		
	# of Responses	Response
	0%	0
	29%	4
57%	29%	4
	29%	4
	0%	0
	0%	0
29%	0%	0
	14%	2
	100%	14
		N/A
		Total Responses
100%		

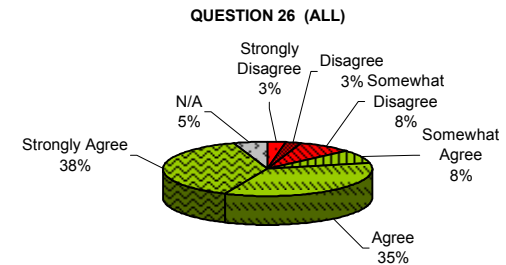




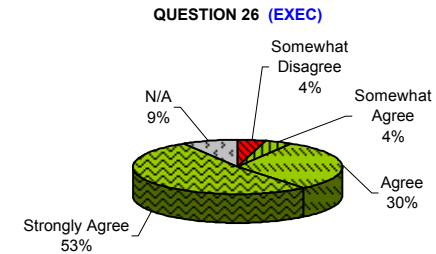
PRODUCTIVITY PERFORMANCE - Motivation  
9) I feel the company values my opinion.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	n/a	S	Somewhat Disagree
[2]	B	Somewhat Disagree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Strongly Agree	D	Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Agree	C	Somewhat Agree
[7]	A	Strongly Agree	U	Agree
[8]	B	Strongly Agree	T	Somewhat Disagree
[9]	A	Strongly Agree	C	Disagree
[10]	H	Agree	V	Strongly Disagree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Strongly Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Agree		
[20]	P	n/a		
[21]	Q	Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

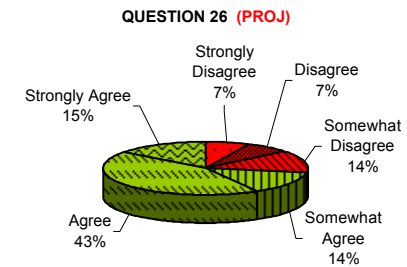
QUESTION 26 (ALL)		
	# of Responses	Response
	3%	1 Strongly Disagree
	3%	1 Disagree
14%	8%	3 Somewhat Disagree
	8%	3 Somewhat Agree
	35%	13 Agree
81%	38%	14 Strongly Agree
	5%	2 N/A
100%	37	Total Responses
100%		



QUESTION 26 (EXEC)		
	# of Responses	Response
	0%	0 Strongly Disagree
	0%	0 Disagree
4%	4%	1 Somewhat Disagree
	4%	1 Somewhat Agree
	30%	7 Agree
87%	52%	12 Strongly Agree
	9%	2 N/A
100%	23	Total Responses
100%		



QUESTION 26 (PROJ)		
	# of Responses	Response
	7%	1 Strongly Disagree
	7%	1 Disagree
28%	14%	2 Somewhat Disagree
	14%	2 Somewhat Agree
	44%	6 Agree
73%	15%	2 Strongly Agree
	0%	0 N/A
100%	14	Total Responses
100%		

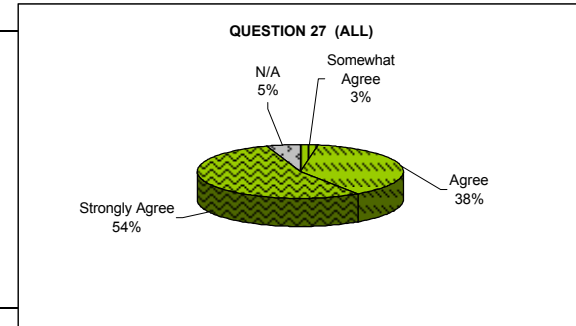


PRODUCTIVITY PERFORMANCE - Motivation

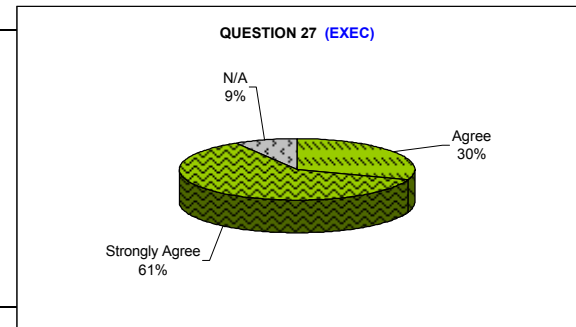
10) Feeling valued and appreciated by the company motivates me.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	n/a	S	Strongly Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Agree	A	Agree
[4]	G	Agree	D	Strongly Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Strongly Agree	C	Strongly Agree
[7]	A	Strongly Agree	U	Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	Strongly Agree	C	Strongly Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Somewhat Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Strongly Agree		
[20]	P	n/a		
[21]	Q	Strongly Agree		
[22]	R	Strongly Agree		
[23]	B	Strongly Agree		

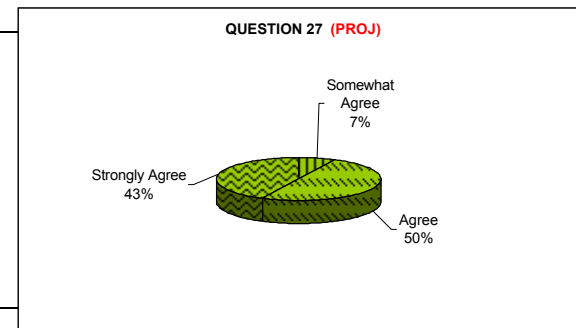
QUESTION 27 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	1	Somewhat Agree
38%	14	Agree
95%	20	Strongly Agree
5%	2	N/A
100%	37	Total Responses
100%		



QUESTION 27 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	0	Somewhat Agree
30%	7	Agree
91%	14	Strongly Agree
9%	2	N/A
100%	23	Total Responses
100%		



QUESTION 27 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
7%	1	Somewhat Agree
50%	7	Agree
100%	6	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

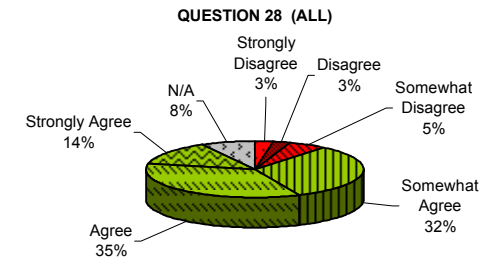


PRODUCTIVITY PERFORMANCE - Motivation

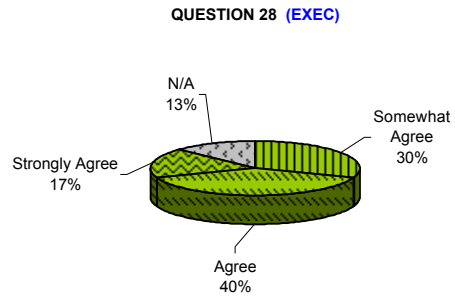
11) Our company incentives motivate me to be more productive.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Strongly Disagree
[2]	B	Strongly Agree	T	Somewhat Disagree
[3]	F	Agree	A	Somewhat Agree
[4]	G	Agree	D	Somewhat Disagree
[5]	C	Agree	B	Agree
[6]	D	Agree	C	Somewhat Agree
[7]	A	Agree	U	Agree
[8]	B	Somewhat Agree	T	Somewhat Agree
[9]	A	n/a	C	Somewhat Agree
[10]	H	Agree	V	Disagree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Somewhat Agree	A	Somewhat Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Somewhat Agree	B	Agree
[15]	M	Somewhat Agree		
[16]	L	Somewhat Agree		
[17]	C	Agree		
[18]	N	Agree		
[19]	O	Strongly Agree		
[20]	P	n/a		
[21]	Q	n/a		
[22]	R	Agree		
[23]	B	Strongly Agree		

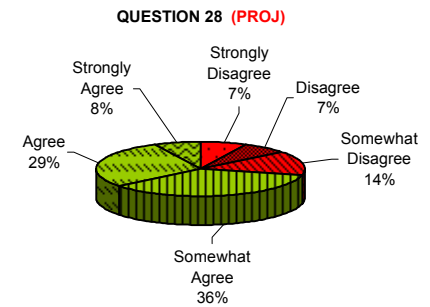
QUESTION 28 (ALL)		
	# of Responses	Response
	3%	1 Strongly Disagree
	3%	1 Disagree
11%	5%	2 Somewhat Disagree
	32%	12 Somewhat Agree
	35%	13 Agree
81%	14%	5 Strongly Agree
	8%	3 N/A
100%	37	Total Responses
100%		



QUESTION 28 (EXEC)		
	# of Responses	Response
	0%	0 Strongly Disagree
	0%	0 Disagree
0%	0%	0 Somewhat Disagree
	30%	7 Somewhat Agree
	39%	9 Agree
87%	17%	4 Strongly Agree
	13%	3 N/A
100%	23	Total Responses
100%		



QUESTION 28 (PROJ)		
	# of Responses	Response
	7%	1 Strongly Disagree
	7%	1 Disagree
29%	14%	2 Somewhat Disagree
	36%	5 Somewhat Agree
	29%	4 Agree
71%	7%	1 Strongly Agree
	0%	0 N/A
100%	14	Total Responses
100%		

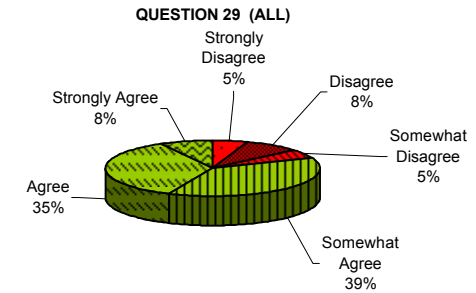


PRODUCTIVITY PERFORMANCE - Motivation

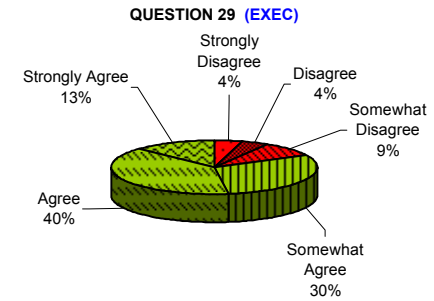
12) Management is doing a good job at keeping its workforce motivated.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Somewhat Agree	S	Disagree
[2]	B	Agree	T	Disagree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Agree	D	Somewhat Agree
[5]	C	Agree	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Somewhat Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	Somewhat Disagree	C	Somewhat Agree
[10]	H	Somewhat Agree	V	Strongly Disagree
[11]	I	Agree	W	Agree
[12]	J	Somewhat Agree	A	Agree
[13]	K	Agree	X	Agree
[14]	L	Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Somewhat Agree		
[17]	C	Somewhat Agree		
[18]	N	Strongly Agree		
[19]	O	Disagree		
[20]	P	Agree		
[21]	Q	Strongly Disagree		
[22]	R	Somewhat Disagree		
[23]	B	Somewhat Agree		

QUESTION 29 (ALL)		
	# of Responses	Response
5%	2	Strongly Disagree
8%	3	Disagree
19%	5	Somewhat Disagree
38%	14	Somewhat Agree
35%	13	Agree
81%	8	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 29 (EXEC)		
	# of Responses	Response
4%	1	Strongly Disagree
4%	1	Disagree
17%	2	Somewhat Disagree
30%	7	Somewhat Agree
39%	9	Agree
83%	13	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 29 (PROJ)		
	# of Responses	Response
7%	1	Strongly Disagree
14%	2	Disagree
21%	0	Somewhat Disagree
50%	7	Somewhat Agree
29%	4	Agree
79%	0	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

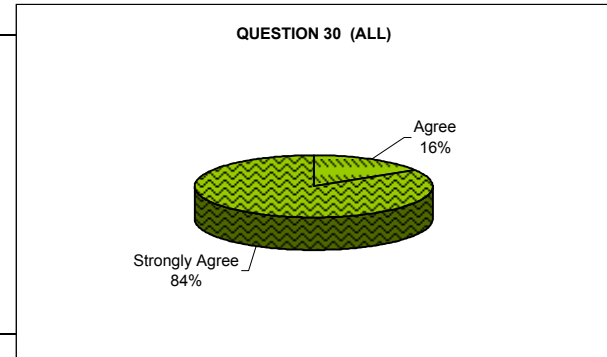


PRODUCTIVITY PERFORMANCE - Motivation

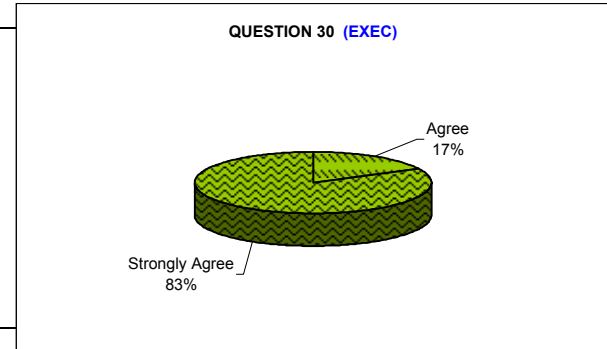
13) A motivated workforce significantly influences the success of a project.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Strongly Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Strongly Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Strongly Agree	C	Strongly Agree
[7]	A	Agree	U	Strongly Agree
[8]	B	Strongly Agree	T	Strongly Agree
[9]	A	Strongly Agree	C	Strongly Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Agree	W	Strongly Agree
[12]	J	Strongly Agree	A	Strongly Agree
[13]	K	Strongly Agree	X	Strongly Agree
[14]	L	Strongly Agree	B	Strongly Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Strongly Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Strongly Agree		
[23]	B	Strongly Agree		

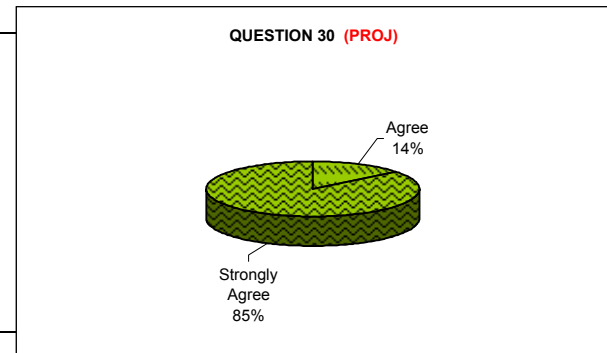
QUESTION 30 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	0	Somewhat Agree
16%	6	Agree
100%	31	Strongly Agree
0%	0	N/A
100%	37	<b>Total Responses</b>
100%		



QUESTION 30 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	0	Somewhat Agree
17%	4	Agree
100%	19	Strongly Agree
0%	0	N/A
100%	23	<b>Total Responses</b>
100%		



QUESTION 30 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	0	Somewhat Agree
14%	2	Agree
100%	12	Strongly Agree
0%	0	N/A
100%	14	<b>Total Responses</b>
100%		

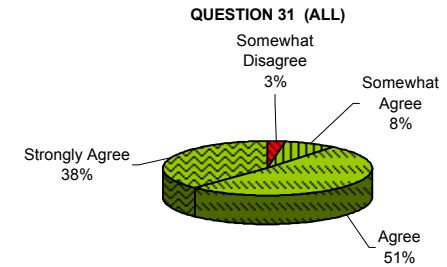


PRODUCTIVITY PERFORMANCE - Motivation

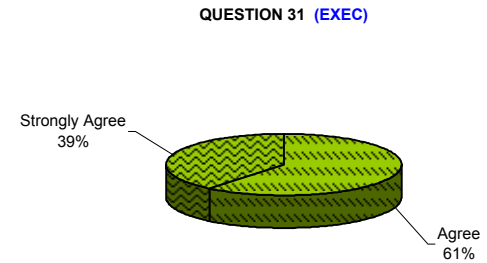
14) Our company provides appropriate working conditions.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Disagree
[2]	B	Agree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Strongly Agree	D	Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Agree	C	Strongly Agree
[7]	A	Agree	U	Strongly Agree
[8]	B	Strongly Agree	T	Agree
[9]	A	Agree	C	Somewhat Agree
[10]	H	Strongly Agree	V	Somewhat Agree
[11]	I	Strongly Agree	W	Strongly Agree
[12]	J	Agree	A	Strongly Agree
[13]	K	Agree	X	Strongly Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Agree		
[16]	L	Agree		
[17]	C	Strongly Agree		
[18]	N	Agree		
[19]	O	Agree		
[20]	P	Agree		
[21]	Q	Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

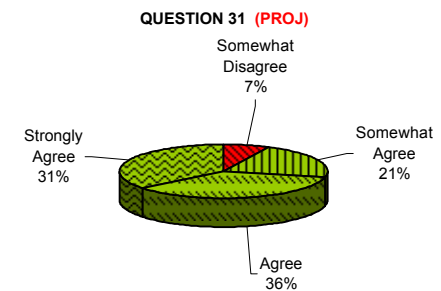
QUESTION 31 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
3%	1	Somewhat Disagree
8%	3	Somewhat Agree
51%	19	Agree
97%	14	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 31 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	0	Somewhat Agree
61%	14	Agree
100%	9	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 31 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
7%	1	Somewhat Disagree
21%	3	Somewhat Agree
36%	5	Agree
93%	5	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

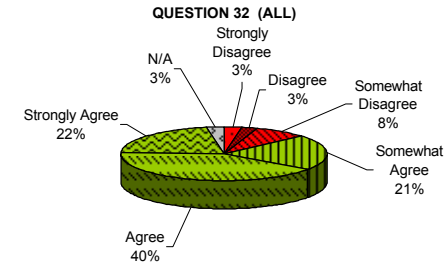


PRODUCTIVITY PERFORMANCE - Motivation

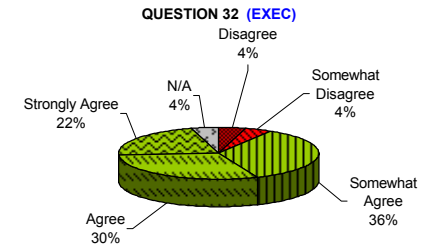
15) The company sponsors social activities that increase the morale among workers.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Disagree
[2]	B	Strongly Agree	T	Agree
[3]	F	n/a	A	Agree
[4]	G	Disagree	D	Agree
[5]	C	Strongly Agree	B	Somewhat Disagree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Strongly Agree
[8]	B	Somewhat Agree	T	Agree
[9]	A	Somewhat Agree	C	Agree
[10]	H	Somewhat Agree	V	Strongly Disagree
[11]	I	Strongly Agree	W	Strongly Agree
[12]	J	Somewhat Disagree	A	Agree
[13]	K	Somewhat Agree	X	Strongly Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Agree		
[17]	C	Agree		
[18]	N	Somewhat Agree		
[19]	O	Somewhat Agree		
[20]	P	Agree		
[21]	Q	Somewhat Agree		
[22]	R	Agree		
[23]	B	Somewhat Agree		

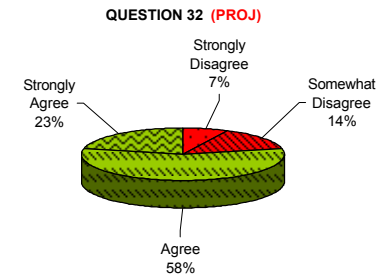
QUESTION 32 (ALL)		
	# of Responses	Response
3%	1	Strongly Disagree
3%	1	Disagree
14%	3	Somewhat Disagree
22%	8	Somewhat Agree
41%	15	Agree
22%	8	Strongly Agree
3%	1	N/A
100%	37	Total Responses
100%		



QUESTION 32 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
9%	1	Somewhat Disagree
35%	8	Somewhat Agree
30%	7	Agree
87%	5	Strongly Agree
4%	1	N/A
100%	23	Total Responses
100%		



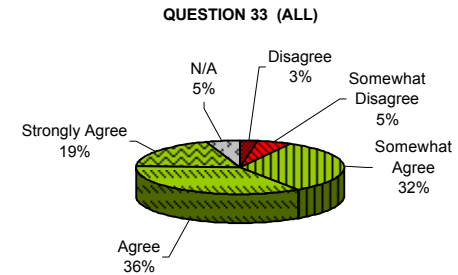
QUESTION 32 (PROJ)		
	# of Responses	Response
7%	1	Strongly Disagree
0%	0	Disagree
21%	2	Somewhat Disagree
0%	0	Somewhat Agree
57%	8	Agree
79%	3	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		



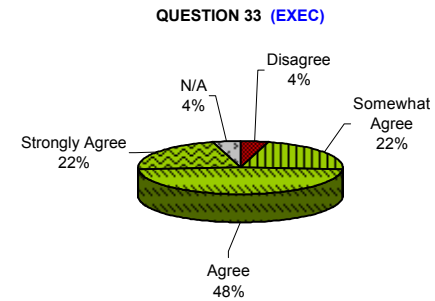
PRODUCTIVITY PERFORMANCE - Motivation  
16) The company offers valuable incentives.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Disagree
[2]	B	Somewhat Agree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Somewhat Agree	D	Somewhat Agree
[5]	C	Somewhat Agree	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Somewhat Agree
[8]	B	Agree	T	Somewhat Agree
[9]	A	n/a	C	n/a
[10]	H	Somewhat Agree	V	Somewhat Disagree
[11]	I	Strongly Agree	W	Strongly Agree
[12]	J	Agree	A	Somewhat Agree
[13]	K	Agree	X	Strongly Agree
[14]	L	Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Somewhat Agree		
[20]	P	Agree		
[21]	Q	Disagree		
[22]	R	Agree		
[23]	B	Agree		

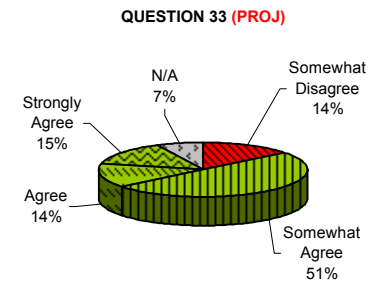
QUESTION 33 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
3%	1	Disagree
8%	5	Somewhat Disagree
32%	12	Somewhat Agree
35%	13	Agree
86%	19	Strongly Agree
5%	2	N/A
100%	37	Total Responses
100%		



QUESTION 33 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
4%	0	Somewhat Disagree
22%	5	Somewhat Agree
48%	11	Agree
91%	22	Strongly Agree
4%	1	N/A
100%	23	Total Responses
100%		



QUESTION 33 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
14%	2	Somewhat Disagree
50%	7	Somewhat Agree
14%	2	Agree
79%	14	Strongly Agree
7%	1	N/A
100%	14	Total Responses
100%		

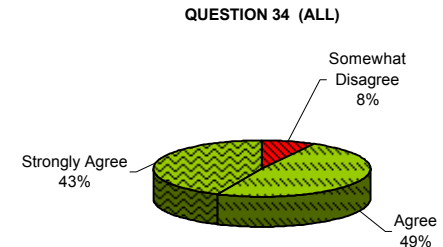




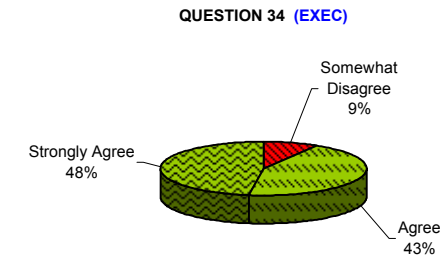
PRODUCTIVITY PERFORMANCE - Motivation  
17) The company offers competitive benefits.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Disagree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Strongly Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Strongly Agree	C	Strongly Agree
[7]	A	Agree	U	Agree
[8]	B	Agree	T	Agree
[9]	A	Somewhat Disagree	C	Agree
[10]	H	Strongly Agree	V	Agree
[11]	I	Strongly Agree	W	Strongly Agree
[12]	J	Agree	A	Strongly Agree
[13]	K	Agree	X	Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Agree		
[20]	P	Agree		
[21]	Q	Somewhat Disagree		
[22]	R	Strongly Agree		
[23]	B	Agree		

QUESTION 34 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
8%	3	Somewhat Disagree
0%	0	Somewhat Agree
49%	18	Agree
92%	16	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 34 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
9%	2	Somewhat Disagree
0%	0	Somewhat Agree
43%	10	Agree
91%	11	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 34 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
7%	1	Somewhat Disagree
0%	0	Somewhat Agree
57%	8	Agree
93%	5	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

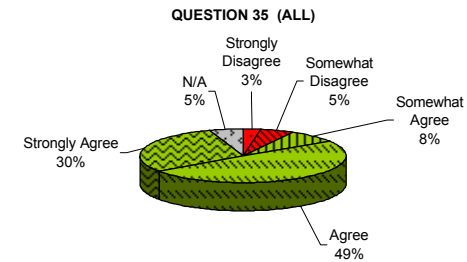


PRODUCTIVITY PERFORMANCE - Motivation

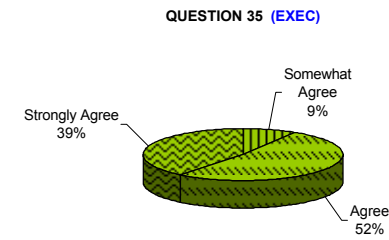
18) The company feels that motivation is a vital part of a productivity-driven company.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Disagree
[2]	B	Strongly Agree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	n/a
[5]	C	Agree	B	Agree
[6]	D	Strongly Agree	C	Agree
[7]	A	Agree	U	n/a
[8]	B	Strongly Agree	T	Somewhat Disagree
[9]	A	Somewhat Agree	C	Strongly Agree
[10]	H	Agree	V	Strongly Disagree
[11]	I	Agree	W	Strongly Agree
[12]	J	Agree	A	Agree
[13]	K	Agree	X	Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Somewhat Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Agree		
[23]	B	Agree		

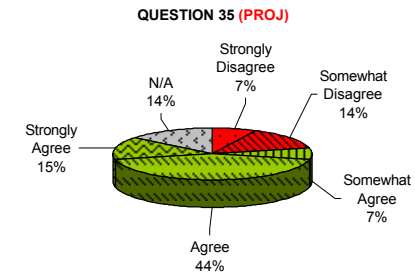
QUESTION 35 (ALL)		
	# of Responses	Response
3%	1	Strongly Disagree
0%	0	Disagree
8%	2	Somewhat Disagree
8%	3	Somewhat Agree
49%	18	Agree
86%	30	Strongly Agree
5%	2	N/A
100%	37	Total Responses
100%		



QUESTION 35 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
9%	2	Somewhat Agree
52%	12	Agree
100%	39	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 35 (PROJ)		
	# of Responses	Response
7%	1	Strongly Disagree
0%	0	Disagree
21%	2	Somewhat Disagree
7%	1	Somewhat Agree
43%	6	Agree
64%	2	Strongly Agree
14%	2	N/A
100%	14	Total Responses
100%		

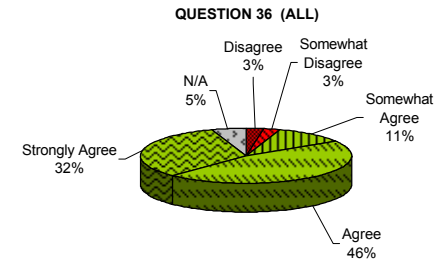


PRODUCTIVITY PERFORMANCE - Motivation

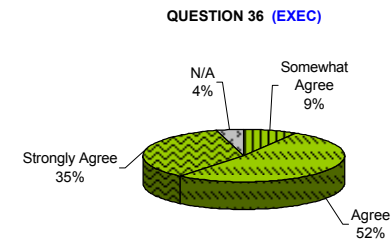
19) The company feels that motivating employees is beneficial to productivity performance.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	n/a	S	Somewhat Disagree
[2]	B	Strongly Agree	T	Somewhat Agree
[3]	F	Agree	A	Somewhat Agree
[4]	G	Agree	D	n/a
[5]	C	Agree	B	Agree
[6]	D	Strongly Agree	C	Strongly Agree
[7]	A	Agree	U	Strongly Agree
[8]	B	Agree	T	Agree
[9]	A	Somewhat Agree	C	Strongly Agree
[10]	H	Agree	V	Disagree
[11]	I	Agree	W	Strongly Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Somewhat Agree		
[20]	P	Strongly Agree		
[21]	Q	Strongly Agree		
[22]	R	Agree		
[23]	B	Agree		

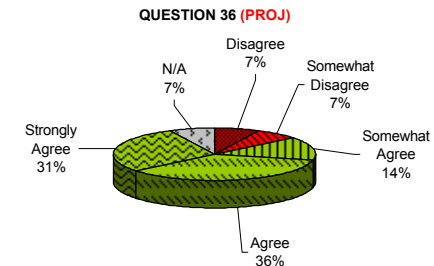
QUESTION 36 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
3%	1	Disagree
5%	1	Somewhat Disagree
11%	4	Somewhat Agree
46%	17	Agree
89%	32	Strongly Agree
5%	2	N/A
100%	37	Total Responses
100%		



QUESTION 36 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
9%	2	Somewhat Agree
52%	12	Agree
96%	35	Strongly Agree
4%	1	N/A
100%	23	Total Responses
100%		



QUESTION 36 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
7%	1	Disagree
14%	1	Somewhat Disagree
14%	2	Somewhat Agree
36%	5	Agree
79%	4	Strongly Agree
7%	1	N/A
100%	14	Total Responses
100%		

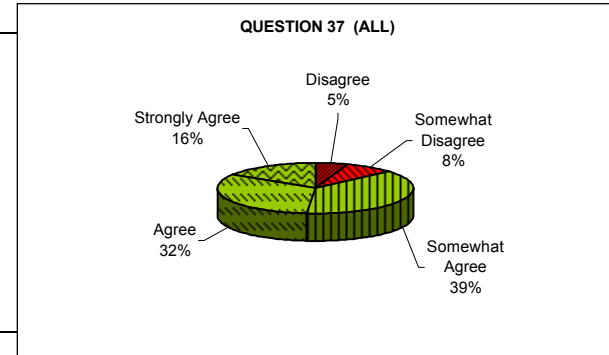


# EMPLOYEE TURNOVER - Training & Motivation

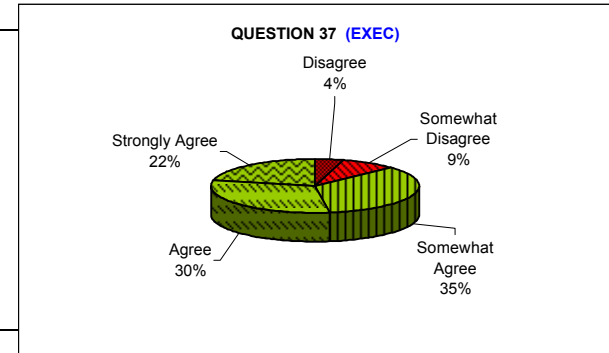
## 1) Effective training minimizes employee turnover.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Disagree
[2]	B	Agree	T	Somewhat Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Somewhat Agree	D	Agree
[5]	C	Strongly Agree	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Agree	T	Somewhat Agree
[9]	A	Strongly Agree	C	Somewhat Agree
[10]	H	Agree	V	Agree
[11]	I	Agree	W	Agree
[12]	J	Somewhat Agree	A	Disagree
[13]	K	Strongly Agree	X	Agree
[14]	L	Somewhat Disagree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Somewhat Agree		
[17]	C	Agree		
[18]	N	Disagree		
[19]	O	Somewhat Agree		
[20]	P	Somewhat Agree		
[21]	Q	Somewhat Agree		
[22]	R	Somewhat Disagree		
[23]	B	Somewhat Agree		

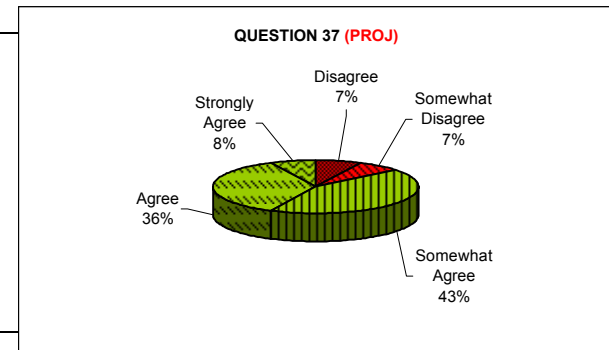
QUESTION 37 (ALL)		
	<u># of Responses</u>	<u>Response</u>
	0	Strongly Disagree
	5	Disagree
14%	8	Somewhat Disagree
	38	Somewhat Agree
	32	Agree
86%	16	Strongly Agree
	0	N/A
100%	37	<b>Total Responses</b>
100%		



QUESTION 37 (EXEC)		
	<u># of Responses</u>	<u>Response</u>
	0	Strongly Disagree
	4	Disagree
13%	2	Somewhat Disagree
	8	Somewhat Agree
	7	Agree
87%	5	Strongly Agree
	0	N/A
100%	23	<b>Total Responses</b>
100%		



QUESTION 37 (PROJ)		
	<u># of Responses</u>	<u>Response</u>
	0	Strongly Disagree
	7	Disagree
14%	1	Somewhat Disagree
	6	Somewhat Agree
	5	Agree
86%	1	Strongly Agree
	0	N/A
100%	14	Total Responses
100%		

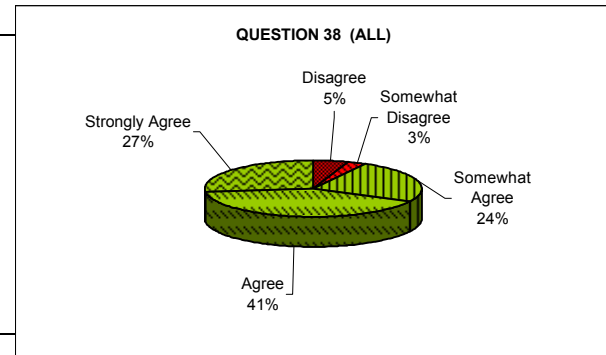


# EMPLOYEE TURNOVER - Training & Motivation

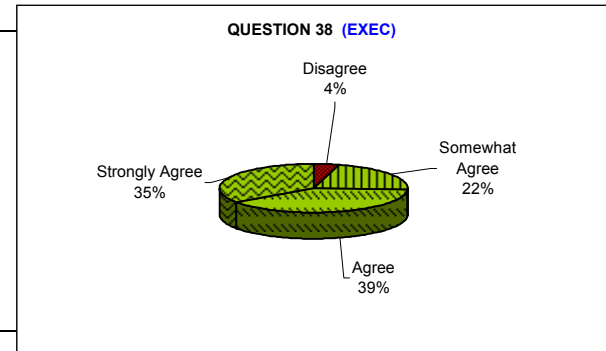
2) Employees are less likely to leave a company that invests in their career.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Strongly Agree	T	Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Somewhat Agree	D	Strongly Agree
[5]	C	Strongly Agree	B	Somewhat Disagree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Agree	T	Agree
[9]	A	Somewhat Agree	C	Somewhat Agree
[10]	H	Strongly Agree	V	Somewhat Agree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Agree	A	Disagree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Somewhat Agree
[15]	M	Agree		
[16]	L	Somewhat Agree		
[17]	C	Agree		
[18]	N	Disagree		
[19]	O	Strongly Agree		
[20]	P	Strongly Agree		
[21]	Q	Agree		
[22]	R	Somewhat Agree		
[23]	B	Agree		

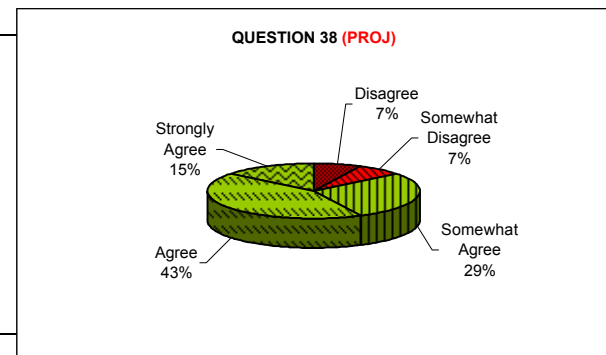
QUESTION 38 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
5%	2	Disagree
8%	3	Somewhat Disagree
24%	9	Somewhat Agree
41%	15	Agree
92%	27	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 38 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
4%	0	Somewhat Disagree
22%	5	Somewhat Agree
39%	9	Agree
96%	35	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 38 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
7%	1	Disagree
14%	1	Somewhat Disagree
29%	4	Somewhat Agree
43%	6	Agree
86%	14	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

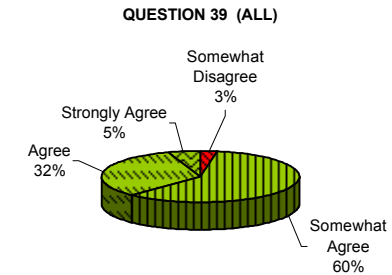


# EMPLOYEE TURNOVER - Training & Motivation

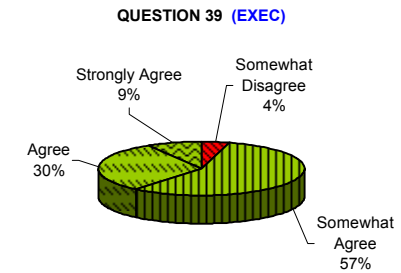
## 3) Availability of training programs attracts more qualified candidates.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Agree	T	Agree
[3]	F	Somewhat Agree	A	Somewhat Agree
[4]	G	Somewhat Disagree	D	Somewhat Agree
[5]	C	Somewhat Agree	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Agree	U	Somewhat Agree
[8]	B	Somewhat Agree	T	Somewhat Agree
[9]	A	Somewhat Agree	C	Somewhat Agree
[10]	H	Somewhat Agree	V	Somewhat Agree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Somewhat Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Somewhat Agree	B	Somewhat Agree
[15]	M	Somewhat Agree		
[16]	L	Somewhat Agree		
[17]	C	Agree		
[18]	N	Somewhat Agree		
[19]	O	Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Agree		
[23]	B	Somewhat Agree		

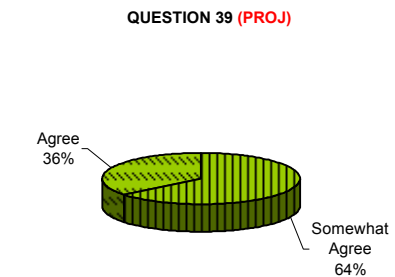
QUESTION 39 (ALL)			
	# of Responses	Response	
0%	0	Strongly Disagree	
0%	0	Disagree	
3%	3	Somewhat Disagree	
59%	22	Somewhat Agree	
32%	12	Agree	
97%	5	Strongly Agree	
0%	0	N/A	
100%	37	Total Responses	
100%			



QUESTION 39 (EXEC)			
	# of Responses	Response	
0%	0	Strongly Disagree	
0%	0	Disagree	
4%	1	Somewhat Disagree	
57%	13	Somewhat Agree	
30%	7	Agree	
96%	2	Strongly Agree	
0%	0	N/A	
100%	23	Total Responses	
100%			



QUESTION 39 (PROJ)			
	# of Responses	Response	
0%	0	Strongly Disagree	
0%	0	Disagree	
0%	0	Somewhat Disagree	
64%	9	Somewhat Agree	
36%	5	Agree	
100%	0	Strongly Agree	
0%	0	N/A	
100%	14	Total Responses	
100%			

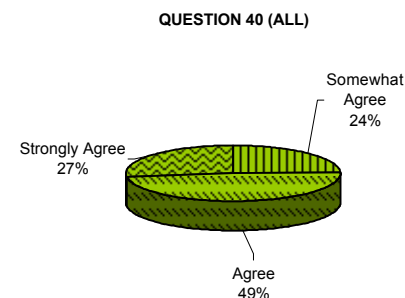


# EMPLOYEE TURNOVER - Training & Motivation

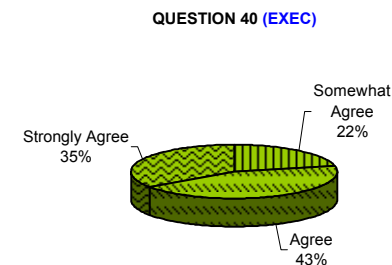
## 4) Employee turnover declines with the length of employment.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Agree	D	Agree
[5]	C	Strongly Agree	B	Somewhat Agree
[6]	D	Strongly Agree	C	Somewhat Agree
[7]	A	Strongly Agree	U	Agree
[8]	B	Agree	T	Agree
[9]	A	Somewhat Agree	C	Agree
[10]	H	Strongly Agree	V	Agree
[11]	I	Agree	W	Strongly Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Somewhat Agree
[15]	M	Agree		
[16]	L	Somewhat Agree		
[17]	C	Agree		
[18]	N	Somewhat Agree		
[19]	O	Somewhat Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Agree		
[23]	B	Agree		

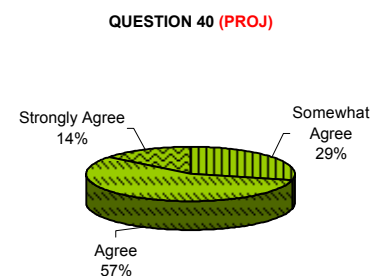
QUESTION 40 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
24%	9	Somewhat Agree
49%	18	Agree
100%	27	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 40 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
22%	5	Somewhat Agree
43%	10	Agree
100%	35	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



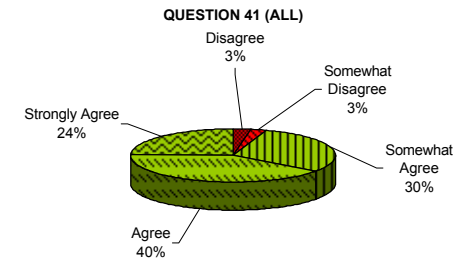
QUESTION 40 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
29%	4	Somewhat Agree
57%	8	Agree
100%	14	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		



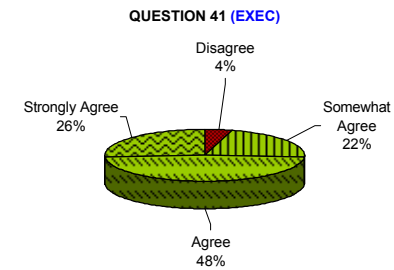
EMPLOYEE TURNOVER - Training & Motivation  
5) Effective motivation minimizes employee turnover.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Agree	T	Agree
[3]	F	Agree	A	Somewhat Disagree
[4]	G	Somewhat Agree	D	Somewhat Agree
[5]	C	Somewhat Agree	B	Somewhat Agree
[6]	D	Strongly Agree	C	Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	Agree	C	Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Agree	A	Somewhat Agree
[13]	K	Strongly Agree	X	Somewhat Agree
[14]	L	Agree	B	Strongly Agree
[15]	M	Agree		
[16]	L	Strongly Agree		
[17]	C	Somewhat Agree		
[18]	N	Disagree		
[19]	O	Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Agree		
[23]	B	Agree		

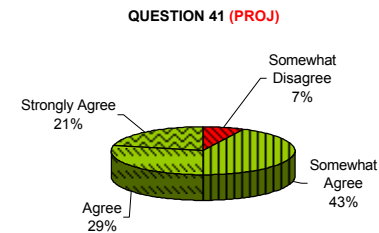
QUESTION 41 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
3%	1	Disagree
5%	3%	Somewhat Disagree
30%	11	Somewhat Agree
41%	15	Agree
95%	24%	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 41 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
4%	1	Disagree
4%	0%	Somewhat Disagree
22%	5	Somewhat Agree
48%	11	Agree
96%	26%	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 41 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
7%	1	Somewhat Disagree
43%	6	Somewhat Agree
29%	4	Agree
93%	21%	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		



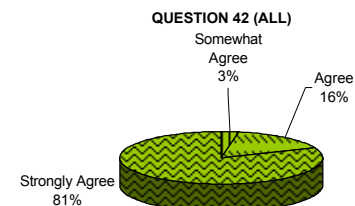


# EMPLOYEE TURNOVER - Training & Motivation

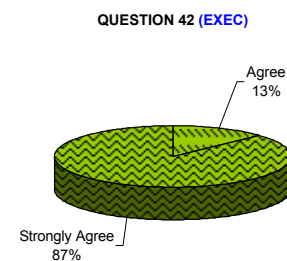
6) Worker turnover and absenteeism can have a major impact on total project productivity.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Strongly Agree
[2]	B	Strongly Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Strongly Agree	D	Strongly Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Strongly Agree	C	Strongly Agree
[7]	A	Strongly Agree	U	Agree
[8]	B	Strongly Agree	T	Strongly Agree
[9]	A	Strongly Agree	C	Strongly Agree
[10]	H	Strongly Agree	V	Strongly Agree
[11]	I	Strongly Agree	W	Strongly Agree
[12]	J	Strongly Agree	A	Agree
[13]	K	Strongly Agree	X	Strongly Agree
[14]	L	Strongly Agree	B	Strongly Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Strongly Agree		
[20]	P	Strongly Agree		
[21]	Q	Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

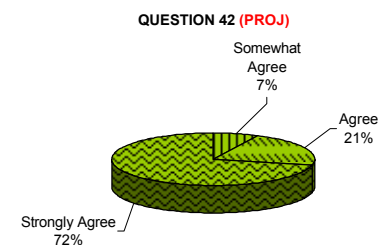
QUESTION 42 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	1	Somewhat Agree
16%	6	Agree
81%	30	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 42 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	0	Somewhat Agree
13%	3	Agree
87%	20	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 42 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
7%	1	Somewhat Agree
21%	3	Agree
71%	10	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

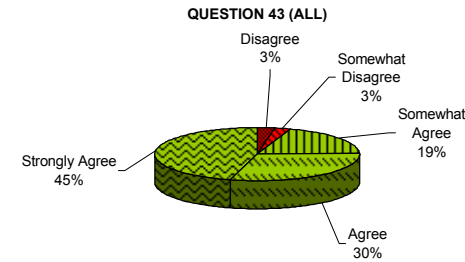


# EMPLOYEE TURNOVER - Training & Motivation

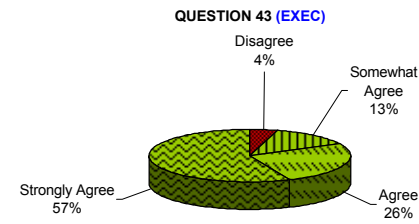
7) Workers are likely to leave a company in which they are not motivated to work.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Strongly Agree	S	Strongly Agree
[2]	B	Strongly Agree	T	Agree
[3]	F	Agree	A	Somewhat Agree
[4]	G	Somewhat Agree	D	Somewhat Agree
[5]	C	Agree	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	Strongly Agree	C	Agree
[10]	H	Strongly Agree	V	Strongly Agree
[11]	I	Agree	W	Strongly Agree
[12]	J	Somewhat Agree	A	Agree
[13]	K	Agree	X	Agree
[14]	L	Strongly Agree	B	Somewhat Disagree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Disagree		
[19]	O	Strongly Agree		
[20]	P	Strongly Agree		
[21]	Q	Somewhat Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

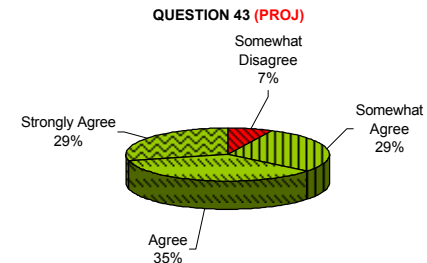
QUESTION 43 (ALL)		
	# of Responses	Response
	0%	0 Strongly Disagree
	3%	1 Disagree
5%	3%	1 Somewhat Disagree
	19%	7 Somewhat Agree
	30%	11 Agree
95%	46%	17 Strongly Agree
	0%	0 N/A
	100%	37 Total Responses
	100%	



QUESTION 43 (EXEC)		
	# of Responses	Response
	0%	0 Strongly Disagree
	4%	1 Disagree
4%	0%	0 Somewhat Disagree
	13%	3 Somewhat Agree
	26%	6 Agree
96%	57%	13 Strongly Agree
	0%	0 N/A
	100%	23 Total Responses
	100%	



QUESTION 43 (PROJ)		
	# of Responses	Response
	0%	0 Strongly Disagree
	0%	0 Disagree
7%	7%	1 Somewhat Disagree
	29%	4 Somewhat Agree
	36%	5 Agree
93%	29%	4 Strongly Agree
	0%	0 N/A
	100%	14 Total Responses
	100%	

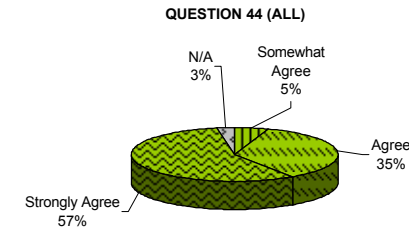


SATISFACTION - Training & Motivation

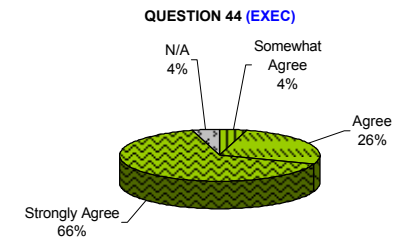
1) Training sponsored by the company increases my potential and helps my career.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Strongly Agree
[2]	B	Agree	T	Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Strongly Agree	D	Agree
[5]	C	Agree	B	Agree
[6]	D	Strongly Agree	C	Strongly Agree
[7]	A	Strongly Agree	U	Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	Strongly Agree	C	Strongly Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Strongly Agree	A	Agree
[13]	K	Strongly Agree	X	Strongly Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Strongly Agree		
[20]	P	n/a		
[21]	Q	Strongly Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

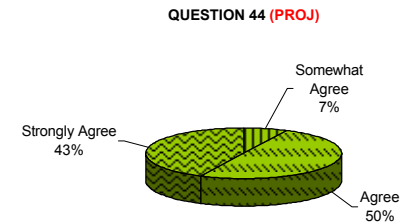
QUESTION 44 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	2	Somewhat Agree
35%	13	Agree
97%	21	Strongly Agree
3%	1	N/A
100%	37	Total Responses
100%		



QUESTION 44 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	1	Somewhat Agree
4%	6	Agree
96%	15	Strongly Agree
4%	1	N/A
100%	23	Total Responses
100%		



QUESTION 44 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	1	Somewhat Agree
7%	7	Agree
100%	6	Strongly Agree
43%	0	N/A
100%	14	Total Responses
100%		

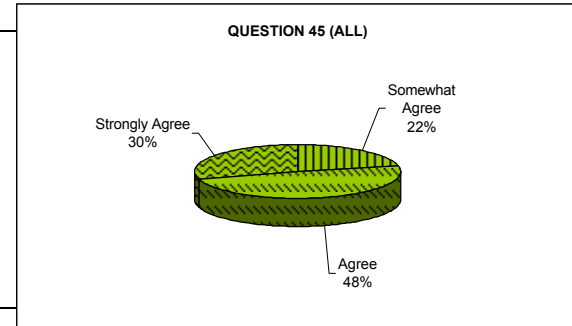


SATISFACTION - Training & Motivation

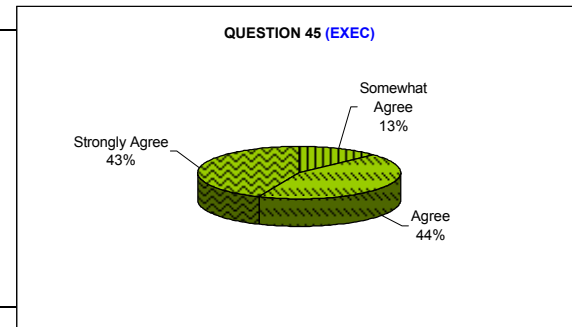
2) Company training promotes job satisfaction.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Agree	T	Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Strongly Agree	D	Somewhat Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Agree
[8]	B	Strongly Agree	T	Somewhat Agree
[9]	A	Strongly Agree	C	Somewhat Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Somewhat Agree	W	Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Agree
[15]	M	Somewhat Agree		
[16]	L	Agree		
[17]	C	Agree		
[18]	N	Strongly Agree		
[19]	O	Agree		
[20]	P	Agree		
[21]	Q	Strongly Agree		
[22]	R	Strongly Agree		
[23]	B	Somewhat Agree		

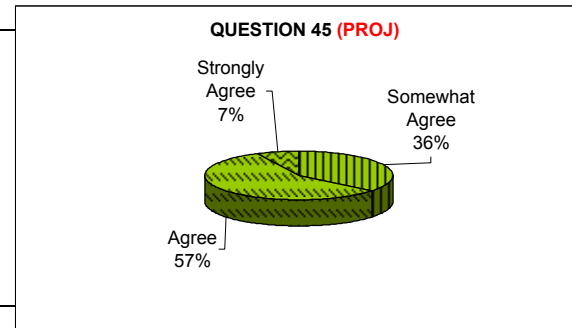
QUESTION 45 (ALL)		
	# of Responses	Response
	0%	0 Strongly Disagree
	0%	0 Disagree
0%	0%	0 Somewhat Disagree
	22%	8 Somewhat Agree
	49%	18 Agree
100%	30%	11 Strongly Agree
	0%	0 N/A
100%	37	Total Responses
100%		



QUESTION 45 (EXEC)		
	# of Responses	Response
	0%	0 Strongly Disagree
	0%	0 Disagree
0%	0%	0 Somewhat Disagree
	13%	3 Somewhat Agree
	43%	10 Agree
100%	43%	10 Strongly Agree
	0%	0 N/A
100%	23	Total Responses
100%		



QUESTION 45 (PROJ)		
	# of Responses	Response
	0%	0 Strongly Disagree
	0%	0 Disagree
0%	0%	0 Somewhat Disagree
	36%	5 Somewhat Agree
	57%	8 Agree
100%	7%	1 Strongly Agree
	0%	0 N/A
100%	14	Total Responses
100%		

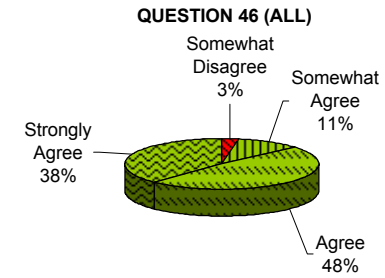


SATISFACTION - Training & Motivation

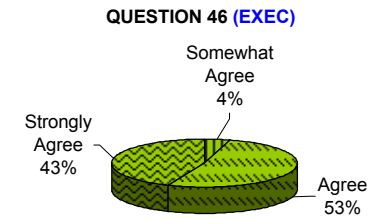
3) Training encourages new hires to quickly develop into informed, contributing employees.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Strongly Agree	T	Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Agree	D	Strongly Agree
[5]	C	Agree	B	Agree
[6]	D	Strongly Agree	C	Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Agree	T	Somewhat Disagree
[9]	A	Strongly Agree	C	Somewhat Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Agree	W	Strongly Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Agree		
[17]	C	Strongly Agree		
[18]	N	Strongly Agree		
[19]	O	Agree		
[20]	P	Agree		
[21]	Q	Strongly Agree		
[22]	R	Agree		
[23]	B	Somewhat Agree		

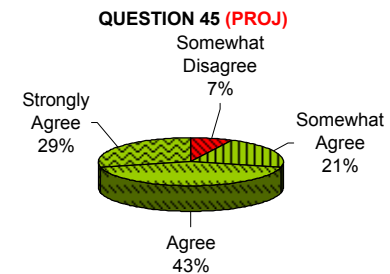
QUESTION 46 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
3%	1	Somewhat Disagree
11%	4	Somewhat Agree
49%	18	Agree
97%	38	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 46 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
4%	1	Somewhat Agree
52%	12	Agree
100%	43	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 46 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
7%	1	Somewhat Disagree
21%	3	Somewhat Agree
43%	6	Agree
93%	4	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

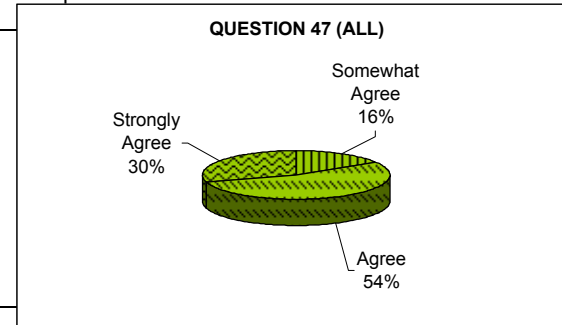


SATISFACTION - Training & Motivation

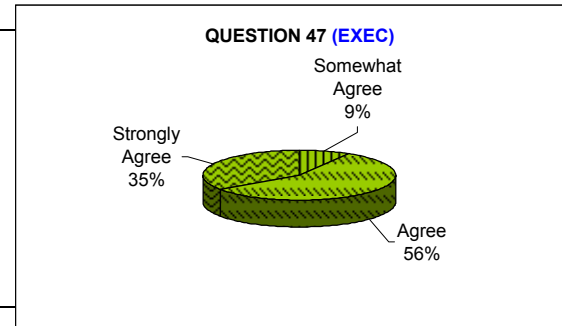
4) Training fosters a sense of belonging to the company, increases employee satisfaction and accelerates performance.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Agree	T	Agree
[3]	F	Strongly Agree	A	Agree
[4]	G	Strongly Agree	D	Agree
[5]	C	Agree	B	Agree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Agree	T	Somewhat Agree
[9]	A	Strongly Agree	C	Somewhat Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Agree	A	Somewhat Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Agree		
[17]	C	Strongly Agree		
[18]	N	Somewhat Agree		
[19]	O	Agree		
[20]	P	Agree		
[21]	Q	Strongly Agree		
[22]	R	Agree		
[23]	B	Agree		

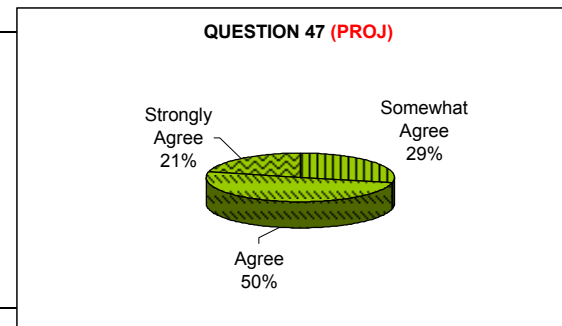
QUESTION 47 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	6	Somewhat Agree
16%	20	Agree
54%	30	Strongly Agree
100%	11	N/A
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 47 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	2	Somewhat Agree
9%	13	Agree
57%	8	Strongly Agree
35%	0	N/A
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 47 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
29%	4	Somewhat Agree
50%	7	Agree
100%	3	Strongly Agree
21%	0	N/A
0%	0	N/A
100%	14	Total Responses
100%		

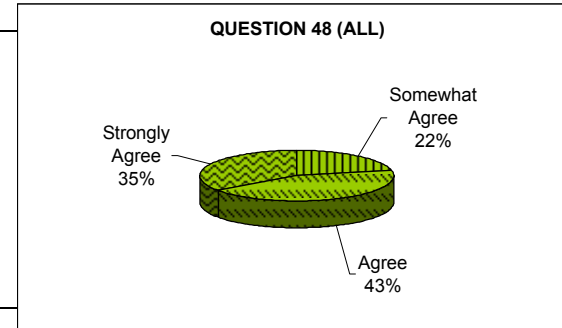


SATISFACTION - Training & Motivation

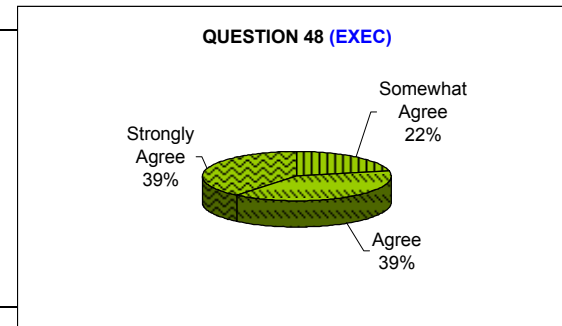
5) Effective company organization increases morale among workers.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Somewhat Agree
[2]	B	Somewhat Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Somewhat Agree	D	Agree
[5]	C	Strongly Agree	B	Somewhat Agree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Agree	T	Agree
[9]	A	Strongly Agree	C	Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Somewhat Agree	W	Strongly Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Agree
[15]	M	Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Somewhat Agree		
[19]	O	Strongly Agree		
[20]	P	Agree		
[21]	Q	Agree		
[22]	R	Strongly Agree		
[23]	B	Somewhat Agree		

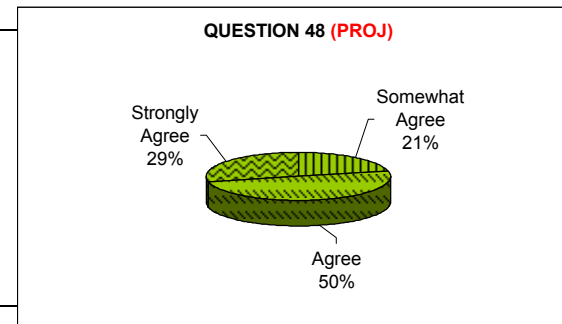
QUESTION 48 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	8	Somewhat Agree
43%	16	Agree
100%	35	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 48 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
0%	5	Somewhat Agree
39%	9	Agree
100%	39	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 48 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
21%	3	Somewhat Agree
50%	7	Agree
100%	29	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		

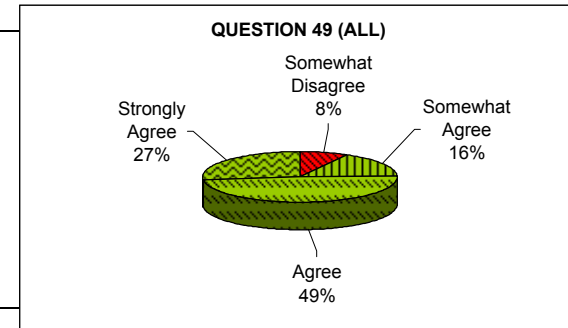


SATISFACTION - Training & Motivation

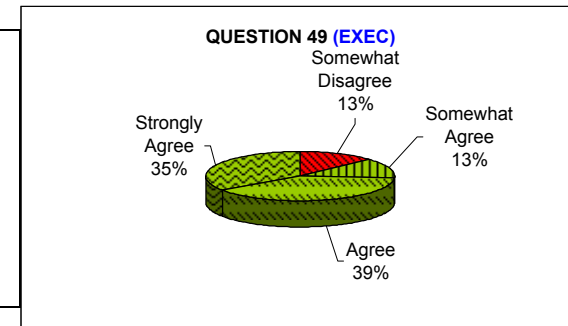
6) Social activities among employees increase morale among workers.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Agree
[2]	B	Strongly Agree	T	Agree
[3]	F	Somewhat Disagree	A	Somewhat Agree
[4]	G	Somewhat Disagree	D	Agree
[5]	C	Strongly Agree	B	Agree
[6]	D	Agree	C	Somewhat Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Agree	T	Agree
[9]	A	Strongly Agree	C	Agree
[10]	H	Somewhat Agree	V	Strongly Agree
[11]	I	Strongly Agree	W	Agree
[12]	J	Agree	A	Somewhat Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Somewhat Agree		
[17]	C	Strongly Agree		
[18]	N	Somewhat Disagree		
[19]	O	Agree		
[20]	P	Agree		
[21]	Q	Somewhat Agree		
[22]	R	Agree		
[23]	B	Agree		

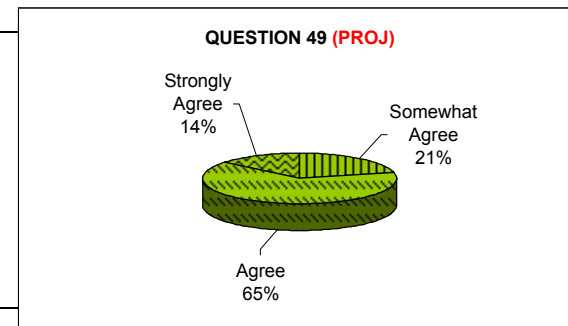
QUESTION 49 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
8%	3	Somewhat Disagree
16%	6	Somewhat Agree
49%	18	Agree
92%	27	Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 49 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
13%	3	Somewhat Disagree
13%	3	Somewhat Agree
39%	9	Agree
87%	35	Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 49 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
21%	3	Somewhat Agree
64%	9	Agree
100%	14	Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		



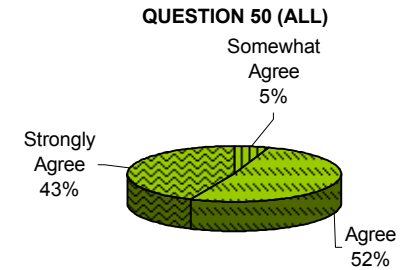


SATISFACTION - Training & Motivation

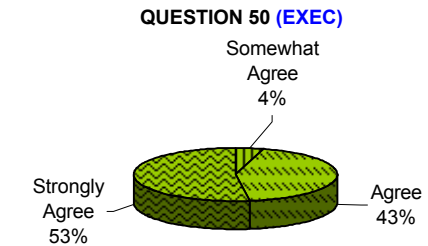
7) A motivating working environment is conducive of employee satisfaction.

#	Co.	(EXEC)	Co.	(PROJ)
[1]	E	Agree	S	Agree
[2]	B	Somewhat Agree	T	Strongly Agree
[3]	F	Strongly Agree	A	Somewhat Agree
[4]	G	Strongly Agree	D	Agree
[5]	C	Agree	B	Agree
[6]	D	Agree	C	Agree
[7]	A	Strongly Agree	U	Strongly Agree
[8]	B	Strongly Agree	T	Agree
[9]	A	Strongly Agree	C	Agree
[10]	H	Agree	V	Strongly Agree
[11]	I	Agree	W	Strongly Agree
[12]	J	Agree	A	Agree
[13]	K	Strongly Agree	X	Agree
[14]	L	Strongly Agree	B	Agree
[15]	M	Strongly Agree		
[16]	L	Strongly Agree		
[17]	C	Strongly Agree		
[18]	N	Agree		
[19]	O	Strongly Agree		
[20]	P	Agree		
[21]	Q	Agree		
[22]	R	Strongly Agree		
[23]	B	Agree		

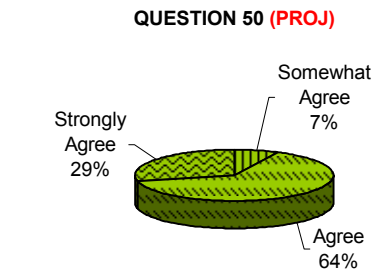
QUESTION 50 (ALL)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
5%	2	Somewhat Agree
51%	19	Agree
100%	43%	16 Strongly Agree
0%	0	N/A
100%	37	Total Responses
100%		



QUESTION 50 (EXEC)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
4%	1	Somewhat Agree
43%	10	Agree
100%	52%	12 Strongly Agree
0%	0	N/A
100%	23	Total Responses
100%		



QUESTION 50 (PROJ)		
	# of Responses	Response
0%	0	Strongly Disagree
0%	0	Disagree
0%	0	Somewhat Disagree
7%	1	Somewhat Agree
64%	9	Agree
100%	29%	4 Strongly Agree
0%	0	N/A
100%	14	Total Responses
100%		



APPENDIX F  
SURVEY RESULTS SPREADSHEETS

**(EXEC)**

#	ID S1	ID S2	Company	Position	YearsCompany	YearsIndustry
[1]	7	11	E	President	more than 20	more than 20
[2]	9	15	B	President	more than 20	more than 20
[3]	10	17	F	CEO	more than 20	more than 20
[4]	12	18	G	V.P. - Operations	10 to 20	more than 20
[5]	14	19	C	President	more than 20	more than 20
[6]	15	22	D	VP	less than 2	more than 20
[7]	16	26	A	Exec. VP/Co-Owner	2 to 10	more than 20
[8]	17	27	B	Director of Operations	2 to 10	10 to 20
[9]	18	30	A	Vice President Business Development	less than 2	10 to 20
[10]	19	32	H	HR Manager, Division Manager	2 to 10	2 to 10
[11]	20	34	I	CFO	2 to 10	10 to 20
[12]	22	35	J	Vice President	10 to 20	10 to 20
[13]	23	36	K	Vice President, Design Build	2 to 10	more than 20
[14]	24	37	L	Human Resources Manager	less than 2	less than 2
[15]	25	38	M	Vice President	10 to 20	10 to 20
[16]	26	39	L	Vice President/ Director of Business Development	10 to 20	10 to 20
[17]	29	41	C	Vice President/Owner	10 to 20	10 to 20
[18]	30	42	N	Chief Estimator	2 to 10	more than 20
[19]	31	43	O	Vice-President	10 to 20	more than 20
[20]	33	46	P	President	more than 20	more than 20
[21]	34	47	Q	Vice President	2 to 10	10 to 20
[22]	35	49	R	Marketing Director	2 to 10	10 to 20
[23]	36	50	B	CEO	more than 20	more than 20

#	AnnualVolume	ProjectSize	Employees	YearsInBusiness	1
[1]	\$10 - \$100 million	\$1 - \$10 million	100 to 1,000	more than 80	No
[2]	\$10 - \$100 million	\$1 - \$10 million	less than 100	20 to 40	Yes
[3]	\$10 - \$100 million	\$1 - \$10 million	less than 100	more than 80	Yes
[4]	\$10 - \$100 million	\$1 - \$10 million	less than 100	more than 80	Yes
[5]	\$10 - \$100 million	\$1 - \$10 million	less than 100	more than 80	Yes
[6]	\$100 - \$500 million	\$10 - \$50 million	100 to 1,000	more than 80	Yes
[7]	\$10 - \$100 million	\$1 - \$10 million	less than 100	more than 80	Yes
[8]	\$10 - \$100 million	\$1 - \$10 million	less than 100	20 to 40	Yes
[9]	\$10 - \$100 million	\$1 - \$10 million	less than 100	more than 80	No
[10]	\$10 - \$100 million	less than \$1 million	less than 100	20 to 40	Yes
[11]	\$100 - \$500 million	\$10 - \$50 million	100 to 1,000	10 to 20	No
[12]	\$100 - \$500 million	\$10 - \$50 million	100 to 1,000	more than 80	Yes
[13]	\$100 - \$500 million	\$1 - \$10 million	100 to 1,000	40 to 80	Yes
[14]	\$10 - \$100 million	\$1 - \$10 million	less than 100	10 to 20	Yes
[15]	\$10 - \$100 million	\$1 - \$10 million	less than 100	20 to 40	Yes
[16]	\$10 - \$100 million	\$1 - \$10 million	100 to 1,000	more than 80	Yes
[17]	\$10 - \$100 million	\$1 - \$10 million	less than 100	40 to 80	Yes
[18]	\$10 - \$100 million	\$1 - \$10 million	less than 100	10 to 20	Yes
[19]	\$10 - \$100 million	\$1 - \$10 million	less than 100	10 to 20	No
[20]	\$10 - \$100 million	\$1 - \$10 million	less than 100	20 to 40	No
[21]	\$100 - \$500 million	\$1 - \$10 million	100 to 1,000	20 to 40	Yes
[22]	\$10 - \$100 million	less than \$1 million	less than 100	40 to 80	Yes
[23]	\$10 - \$100 million	\$1 - \$10 million	less than 100	20 to 40	Yes

#	1a	1b	1c	1d	2
[1]	n/a	n/a	n/a	n/a	\$1000 to \$2000
[2]	2 to 10	All Level Personnel	Both In-house and outside	All	\$1000 to \$2000
[3]	2 to 10	All Level Personnel	The Company (In-house)	All	\$500 to \$1000
[4]	2 to 10	All Level Personnel	The Company (In-house)	Some	less than \$500
[5]	less than 2	All Level Personnel	Both In-house and outside	Some	less than \$500
[6]	more than 10	All Level Personnel	Both In-house and outside	Most	more than \$2000
[7]	more than 10	All Level Personnel	The Company (In-house)	Some	less than \$500
[8]	2 to 10	All Level Personnel	Both In-house and outside	Most	\$500 to \$1000
[9]	n/a	n/a	n/a	n/a	less than \$500
[10]	2 to 10	All Level Personnel	Both In-house and outside	All	more than \$2000
[11]	n/a	n/a	n/a	n/a	less than \$500
[12]	2 to 10	Entry Level Personnel	The Company (In-house)	None	less than \$500
[13]	2 to 10	All Level Personnel	Both In-house and outside	Some	more than \$2000
[14]	more than 10	All Level Personnel	Both In-house and outside	Some	less than \$500
[15]	2 to 10	Entry Level Personnel	The Company (In-house)	Some	more than \$2000
[16]	2 to 10	All Level Personnel	Both In-house and outside	Some	\$500 to \$1000
[17]	2 to 10	All Level Personnel	Both In-house and outside	Some	more than \$2000
[18]	2 to 10	All Level Personnel	Both In-house and outside	All	\$1000 to \$2000
[19]	n/a	n/a	n/a	n/a	less than \$500
[20]	n/a	n/a	n/a	n/a	less than \$500
[21]	more than 10	Entry Level Personnel	Both In-house and outside	Some	less than \$500
[22]	more than 10	Entry Level Personnel	The Company (In-house)	Some	\$500 to \$1000
[23]	less than 2	All Level Personnel	Both In-house and outside	n/a	\$500 to \$1000

#	3	4	5	6	7	8	8a
[1]	3-4	less than 12	less than 25%	sometimes	always	always	varies
[2]	3-4	12-24	50%-75%	sometimes	generally yes	generally yes	varies
[3]	3-4	less than 12	25%-50%	generally yes	always	always	annually
[4]	1	less than 12	less than 25%	generally yes	generally yes	always	annually
[5]	3-4	less than 12	less than 25%	sometimes	generally yes	always	semi-annually
[6]	more than 4	24-48	50%-75%	generally yes	always	always	semi-annually
[7]	2	12-24	50%-75%	sometimes	sometimes	always	annually
[8]	2	12-24	25%-50%	generally yes	sometimes	always	semi-annually
[9]	2	less than 12	less than 25%	generally not	never	always	semi-annually
[10]	1	less than 12	less than 25%	generally yes	generally not	always	varies
[11]	none	less than 12	less than 25%	sometimes	always	sometimes	semi-annually
[12]	2	12-24	less than 25%	sometimes	always	always	semi-annually
[13]	2	24-48	50%-75%	generally yes	generally not	generally yes	annually
[14]	more than 4	less than 12	more than 75%	generally not	generally yes	always	annually
[15]	2	less than 12	less than 25%	sometimes	always	always	annually
[16]	2	24-48	50%-75%	generally not	generally yes	always	semi-annually
[17]	3-4	12-24	more than 75%	generally yes	generally yes	always	semi-annually
[18]	3-4	less than 12	more than 75%	always	generally not	always	semi-annually
[19]	2	less than 12	50%-75%	generally yes	sometimes	always	never
[20]	3-4	less than 12	less than 25%	generally yes	always	generally yes	semi-annually
[21]	3-4	24-48	less than 25%	sometimes	generally yes	always	annually
[22]	1	less than 12	less than 25%	generally not	sometimes	generally yes	semi-annually
[23]	3-4	12-24	50%-75%	generally not	generally yes	sometimes	semi-annually

#	8b	9	9a	10
[1]	annually	Yes	2-4	awards
[2]	annually	Yes	2-4	financial, paid time off, promotion, awards, other
[3]	annually	No	n/a	financial, awards, other
[4]	annually	No	n/a	financial, promotion, awards
[5]	semi-annually	Yes	2-4	none
[6]	annually	Yes	2-4	financial, paid time off, promotion, awards
[7]	annually	Yes	2-4	financial, paid time off, promotion, awards
[8]	annually	No	n/a	financial, paid time off, promotion, awards
[9]	semi-annually	Yes	2-4	financial, paid time off, promotion, awards
[10]	varies	No	n/a	financial, paid time off
[11]	annually	Yes	1	financial, promotion, awards
[12]	annually	No	n/a	financial, promotion
[13]	varies	Yes	1	financial, paid time off, promotion, awards
[14]	annually	Yes	2-4	financial, promotion, awards, other
[15]	annually	Yes	1	financial, promotion, awards
[16]	annually	Yes	more than 4	financial, paid time off, promotion, awards, other
[17]	semi-annually	Yes	2-4	financial, promotion, awards
[18]	semi-annually	Yes	1	financial, paid time off, promotion, awards
[19]	annually	Yes	1	financial, promotion
[20]	annually	Yes	1	financial, paid time off
[21]	annually	Yes	more than 4	financial, awards
[22]	annually	Yes	1	financial
[23]	varies	Yes	more than 4	awards

#	11	12	13	date
[1]	Suggestion Boxes, Newsletters, Other	0	Exceeds Industry	10/20/02
[2]	Newsletters, Other	more than 4	Comparable to Industry	10/21/02
[3]	Newsletters	0	Exceeds Industry	10/21/02
[4]	Suggestion Boxes, Newsletters	0	Comparable to Industry	10/21/02
[5]	n/a	more than 4	Exceeds Industry	10/21/02
[6]	Suggestion Boxes, Newsletters, Bulletin Boards	more than 4	Exceeds Industry	10/21/02
[7]	Suggestion Boxes, Newsletters, Bulletin Boards	2-4	Comparable to Industry	10/22/02
[8]	Newsletters, Other	2-4	Comparable to Industry	10/22/02
[9]	Suggestion Boxes, Bulletin Boards, Other	more than 4	Comparable to Industry	10/23/02
[10]	Suggestion Boxes, Newsletters, Bulletin Boards, Other	1	Exceeds Industry	10/24/02
[11]	Other	2-4	Comparable to Industry	10/24/02
[12]	Newsletters	2-4	Exceeds Industry	10/24/02
[13]	Newsletters, Bulletin Boards	2-4	Comparable to Industry	10/24/02
[14]	Newsletters, Other	more than 4	Comparable to Industry	10/24/02
[15]	Newsletters	2-4	Comparable to Industry	10/24/02
[16]	Suggestion Boxes, Newsletters	2-4	Comparable to Industry	10/24/02
[17]	Suggestion Boxes, Newsletters	2-4	Exceeds Industry	10/24/02
[18]	Suggestion Boxes, Newsletters, Bulletin Boards, Other	2-4	Exceeds Industry	10/24/02
[19]	n/a	2-4	Comparable to Industry	10/24/02
[20]	Bulletin Boards	1	Comparable to Industry	10/25/02
[21]	n/a	2-4	Comparable to Industry	10/25/02
[22]	n/a	1	Exceeds Industry	10/28/02
[23]	n/a	1	Comparable to Industry	10/28/02



**(PROJ)**

#	ID S2	Company	Position	YearsCompany	YearsIndustry	1
[1]	12	S	Administrative Assistant	2 to 10	10 to 20	n/a
[2]	14	T	Project Engineer	less than 2	less than 2	Agree
[3]	16	A	Estimator - Project Manager	less than 2	10 to 20	Somewhat Agree
[4]	20	D	Engineer	2 to 10	2 to 10	Agree
[5]	21	B	Project Manager	2 to 10	more than 20	Agree
[6]	23	C	Superintendent	2 to 10	more than 20	Agree
[7]	24	U	Senior Preconstruction Manager	2 to 10	10 to 20	Somewhat Agree
[8]	25	T	Project Engineer	less than 2	less than 2	Somewhat Agree
[9]	31	C	Senior Estimator	2 to 10	more than 20	Agree
[10]	33	V	Project Manager	10 to 20	10 to 20	Disagree
[11]	40	W	Operations Manager	10 to 20	10 to 20	Agree
[12]	44	A	Estimator	10 to 20	more than 20	Somewhat Agree
[13]	45	X	Project Manager	2 to 10	2 to 10	Agree
[14]	51	B	Project Manager	2 to 10	more than 20	Agree

#	2	3	4	5	6
[1]	Strongly Disagree	Agree	Somewhat Agree	Disagree	Somewhat Agree
[2]	Agree	Agree	Strongly Agree	Somewhat Agree	Agree
[3]	Somewhat Agree	n/a	Agree	Agree	Agree
[4]	Strongly Agree	Strongly Agree	Agree	Agree	Agree
[5]	Disagree	Strongly Agree	Agree	Agree	Somewhat Agree
[6]	Somewhat Agree	Agree	Agree	Strongly Agree	Agree
[7]	Somewhat Disagree	Agree	Somewhat Agree	Agree	Strongly Agree
[8]	Agree	Strongly Agree	Somewhat Agree	Somewhat Disagree	Disagree
[9]	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree
[10]	Disagree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Strongly Agree
[11]	Strongly Agree	Strongly Agree	Agree	Agree	Agree
[12]	Somewhat Agree	Strongly Agree	Agree	Somewhat Agree	Agree
[13]	Disagree	Somewhat Agree	n/a	Strongly Agree	Agree
[14]	Somewhat Agree	Agree	Agree	Somewhat Agree	Agree

#	7	8	9	10	11
[1]	n/a	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Strongly Agree
[2]	Agree	Agree	Somewhat Agree	Somewhat Agree	Agree
[3]	Somewhat Agree	Agree	Agree	Agree	Somewhat Agree
[4]	Agree	Disagree	Agree	Agree	Agree
[5]	Somewhat Agree	Agree	Agree	Somewhat Agree	Somewhat Disagree
[6]	Agree	Strongly Agree	Agree	Agree	Strongly Agree
[7]	Agree	Agree	Somewhat Agree	Agree	Strongly Agree
[8]	Somewhat Agree	Somewhat Agree	Disagree	Somewhat Agree	Disagree
[9]	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Somewhat Agree
[10]	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree
[11]	Agree	Strongly Agree	Strongly Agree	Agree	Disagree
[12]	Agree	Agree	Agree	Agree	Strongly Agree
[13]	Agree	Agree	Agree	Agree	Agree
[14]	Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree

#	12	13	14	15	16
[1]	Disagree	Disagree	Somewhat Disagree	Agree	Somewhat Agree
[2]	n/a	Somewhat Agree	Strongly Agree	Strongly Agree	Agree
[3]	Somewhat Agree	Agree	Strongly Agree	Agree	Agree
[4]	Somewhat Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
[5]	Somewhat Agree	Somewhat Agree	Agree	Agree	Agree
[6]	Agree	Somewhat Agree	Agree	Agree	Strongly Agree
[7]	n/a	Somewhat Agree	Agree	Agree	Agree
[8]	Somewhat Disagree	Somewhat Agree	Agree	Agree	Agree
[9]	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree
[10]	Disagree	Somewhat Agree	Disagree	Somewhat Agree	Somewhat Agree
[11]	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree
[12]	n/a	Agree	Strongly Agree	Strongly Agree	Strongly Agree
[13]	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree
[14]	Somewhat Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree

#	17	18	19	20	21	22
[1]	Somewhat Agree	Disagree	Agree	Agree	Strongly Agree	Agree
[2]	Strongly Agree	Somewhat Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
[3]	Agree	Somewhat Agree	Somewhat Agree	Agree	Somewhat Agree	Agree
[4]	Agree	Somewhat Agree	Strongly Agree	Strongly Agree	Agree	Agree
[5]	Agree	Somewhat Agree	Agree	Agree	Agree	Agree
[6]	Strongly Agree	Somewhat Agree	Agree	Agree	Agree	Somewhat Agree
[7]	Agree	Strongly Agree	Agree	Agree	Agree	n/a
[8]	Somewhat Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
[9]	Agree	Somewhat Agree	Agree	Agree	Agree	Agree
[10]	Strongly Agree	Strongly Disagree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
[11]	Agree	Agree	Agree	Agree	Agree	Agree
[12]	Agree	Agree	Agree	Agree	Agree	Agree
[13]	Somewhat Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Agree
[14]	Agree	Somewhat Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree

#	23	24	25	26	27
[1]	Somewhat Agree	Agree	Somewhat Disagree	Somewhat Disagree	Strongly Agree
[2]	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
[3]	Agree	Somewhat Agree	Somewhat Agree	Agree	Agree
[4]	Somewhat Agree	Somewhat Agree	Disagree	Agree	Strongly Agree
[5]	Agree	Somewhat Agree	Somewhat Disagree	Agree	Agree
[6]	Strongly Agree	Agree	Somewhat Disagree	Somewhat Agree	Strongly Agree
[7]	Agree	Agree	Disagree	Agree	Agree
[8]	Disagree	Somewhat Agree	Disagree	Somewhat Disagree	Somewhat Agree
[9]	Somewhat Disagree	Somewhat Disagree	n/a	Disagree	Strongly Agree
[10]	Strongly Disagree	Strongly Disagree	Somewhat Agree	Strongly Disagree	Strongly Agree
[11]	Strongly Agree	Agree	n/a	Strongly Agree	Agree
[12]	Strongly Agree	Strongly Agree	Disagree	Agree	Agree
[13]	Agree	Strongly Agree	Somewhat Agree	Strongly Agree	Agree
[14]	Agree	Agree	Somewhat Agree	Agree	Agree

#	28	29	30	31	32
[1]	Strongly Disagree	Disagree	Strongly Agree	Somewhat Disagree	Somewhat Disagree
[2]	Somewhat Disagree	Disagree	Strongly Agree	Somewhat Agree	Agree
[3]	Somewhat Agree	Somewhat Agree	Agree	Agree	Agree
[4]	Somewhat Disagree	Somewhat Agree	Strongly Agree	Agree	Agree
[5]	Agree	Somewhat Agree	Agree	Agree	Somewhat Disagree
[6]	Somewhat Agree	Agree	Strongly Agree	Strongly Agree	Agree
[7]	Agree	Somewhat Agree	Strongly Agree	Strongly Agree	Strongly Agree
[8]	Somewhat Agree	Somewhat Agree	Strongly Agree	Agree	Agree
[9]	Somewhat Agree	Somewhat Agree	Strongly Agree	Somewhat Agree	Agree
[10]	Disagree	Strongly Disagree	Strongly Agree	Somewhat Agree	Strongly Disagree
[11]	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree
[12]	Somewhat Agree	Agree	Strongly Agree	Strongly Agree	Agree
[13]	Agree	Agree	Strongly Agree	Strongly Agree	Strongly Agree
[14]	Agree	Somewhat Agree	Strongly Agree	Agree	Agree

#	33	34	35	36	37
[1]	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree	Somewhat Disagree
[2]	Somewhat Agree	Strongly Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree
[3]	Somewhat Agree	Agree	Agree	Somewhat Agree	Somewhat Agree
[4]	Somewhat Agree	Strongly Agree	n/a	n/a	Agree
[5]	Somewhat Agree	Agree	Agree	Agree	Somewhat Agree
[6]	Agree	Strongly Agree	Agree	Strongly Agree	Agree
[7]	Somewhat Agree	Agree	n/a	Strongly Agree	Strongly Agree
[8]	Somewhat Agree	Agree	Somewhat Disagree	Agree	Somewhat Agree
[9]	n/a	Agree	Strongly Agree	Strongly Agree	Somewhat Agree
[10]	Somewhat Disagree	Agree	Strongly Disagree	Disagree	Agree
[11]	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Agree
[12]	Somewhat Agree	Strongly Agree	Agree	Agree	Disagree
[13]	Strongly Agree	Agree	Agree	Agree	Agree
[14]	Agree	Agree	Agree	Agree	Somewhat Agree



#	38	39	40	41	42
[1]	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Strongly Agree
[2]	Agree	Agree	Strongly Agree	Agree	Strongly Agree
[3]	Agree	Somewhat Agree	Agree	Somewhat Disagree	Somewhat Agree
[4]	Strongly Agree	Somewhat Agree	Agree	Somewhat Agree	Strongly Agree
[5]	Somewhat Disagree	Somewhat Agree	Somewhat Agree	Somewhat Agree	Agree
[6]	Agree	Agree	Somewhat Agree	Agree	Strongly Agree
[7]	Strongly Agree	Somewhat Agree	Agree	Strongly Agree	Agree
[8]	Agree	Somewhat Agree	Agree	Somewhat Agree	Strongly Agree
[9]	Somewhat Agree	Somewhat Agree	Agree	Agree	Strongly Agree
[10]	Somewhat Agree	Somewhat Agree	Agree	Strongly Agree	Strongly Agree
[11]	Agree	Agree	Strongly Agree	Agree	Strongly Agree
[12]	Disagree	Agree	Agree	Somewhat Agree	Agree
[13]	Agree	Agree	Agree	Somewhat Agree	Strongly Agree
[14]	Somewhat Agree	Somewhat Agree	Somewhat Agree	Strongly Agree	Strongly Agree

#	43	44	45	46	47
[1]	Strongly Agree	Strongly Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree
[2]	Agree	Agree	Agree	Agree	Agree
[3]	Somewhat Agree	Agree	Somewhat Agree	Somewhat Agree	Agree
[4]	Somewhat Agree	Agree	Somewhat Agree	Strongly Agree	Agree
[5]	Somewhat Agree	Agree	Agree	Agree	Agree
[6]	Agree	Strongly Agree	Agree	Agree	Agree
[7]	Strongly Agree	Agree	Agree	Strongly Agree	Strongly Agree
[8]	Somewhat Agree	Somewhat Agree	Somewhat Agree	Somewhat Disagree	Somewhat Agree
[9]	Agree	Strongly Agree	Somewhat Agree	Somewhat Agree	Somewhat Agree
[10]	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree	Strongly Agree
[11]	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree
[12]	Agree	Agree	Agree	Agree	Somewhat Agree
[13]	Agree	Strongly Agree	Agree	Agree	Agree
[14]	Somewhat Disagree	Agree	Agree	Agree	Agree

APPENDIX G  
RECOMMENDED SURVEY FOR FUTURE RESEARCH



[Use "Forms" toolbar in Microsoft Word to unlock check boxes and drop-down lists. View -> Toolbars ->Forms]

Company: \_\_\_\_\_ Position: \_\_\_\_\_

Years with the Company: ☐ < 2 ☐ 2 – 10 ☐ 10 - 20 ☐ > 20

Years of Working in the Industry: ☐ < 2 ☐ 2 – 10 ☐ 10 - 20 ☐ > 20

Estimated Annual Volume: ☐ \$1 - \$50 Million ☐ \$50 Million - \$100 Million ☐ > \$100 Million

Average Project Size: ☐ \$1 - \$10 Million ☐ \$10 Million - \$50 Million ☐ > \$50 Million

Estimated # of Employees: ☐ < 20 ☐ 20 – 50 ☐ 50 – 100 ☐ > 100

Years in Business: ☐ < 5 ☐ 5 – 10 ☐ 10 – 20 ☐ 20 – 40 ☐ >40

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Is there a formal training program being implemented in the company? ☐ Yes ☐ No

a. For how long has the program been in place? ☐ < 2 ☐ 2 – 10 ☐ > 10

b. Who receives the training? ☐ Entry-level personnel only

☐ High-level personnel only

☐ All levels personnel

---

Please indicate your level of agreement to the statements on the 7-point Likert Scale provided [Drop-down list].

\* Strongly Disagree \* Disagree \* Somewhat Disagree \* Somewhat Agree \* Agree \* Strongly Agree \* N/A

QUALITY PERFORMANCE - Training		
1)	The company training programs are effective.	PLEASE SELECT
2)	The training provided by the company has been beneficial.	PLEASE SELECT
3)	The company has a well-defined training program in place.	PLEASE SELECT
4)	The company has improved my quality performance.	PLEASE SELECT
5)	Company training improved overall workforce quality awareness.	PLEASE SELECT
6)	Company training keeps me up to speed with new methods and innovations.	PLEASE SELECT
7)	Training has made me more efficient at completing my tasks.	PLEASE SELECT
8)	Training programs have improved teamwork.	PLEASE SELECT
PRODUCTIVITY PERFORMANCE - Motivation		
7)	Our company promotes a sufficiently motivating environment.	PLEASE SELECT
8)	I am currently motivated to perform at my maximum potential.	PLEASE SELECT
9)	Management is doing a good job at keeping its workforce motivated.	PLEASE SELECT
10)	The company recognizes my performance appropriately.	PLEASE SELECT
11)	I feel the company values my opinion.	PLEASE SELECT
12)	The company offers valuable incentives.	PLEASE SELECT
13)	The company offers competitive benefits.	PLEASE SELECT
15)	The company feels that motivating employees is beneficial to productivity performance.	PLEASE SELECT
16)	Our company incentives motivate me to be more productive.	PLEASE SELECT

**\*\* THANK YOU – END OF SURVEY \*\***

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## BIOGRAPHICAL SKETCH

Luis M. Caicedo was born in Cali, Colombia on August 4, 1979. He was a student at the Colombo-Britanico School in Cali until his departure to the United States in 1994. He attended Cardinal Gibbons High School in Fort Lauderdale, Florida from 1993 through 1997. In 2001, he was awarded a Bachelor of Design degree in architecture with a minor in business administration (from the University of Florida). He then accepted an internship with James A. Cummings General Contractors Inc., a prominent South-Florida-based general construction contracting company. After his internship he enrolled in the M.E. Rinker School of Building Construction graduate program at the University of Florida. He is currently a Project Engineer with Centex Rooney Construction Company Inc. (a nationally recognized construction company) as he completes his thesis studies for the degree of Master of Science in Building Construction at the University of Florida.