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ANALYSIS OF ORGANIZATIONAL READINESS FOR

IMPLEMENTING PARTICIPATORY MANAGEMENT

PROGRAMS IN THE AVIATION INDUSTRY

By

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Thesis

Submitted to the Department of Interdisciplinary Technology,

Eastern Michigan University

in partial fulfillment of the requirements

for the degree of

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In

Technology Management

Ypsilanti, Michigan

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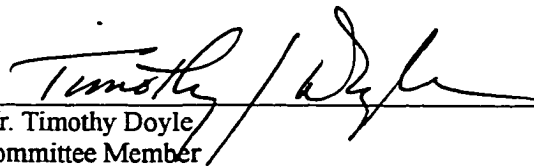
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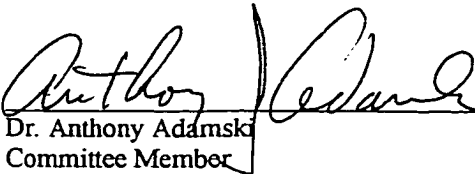
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DEDICATION

This work is dedicated to my wife Carol, whose support and understanding during the long months of work made it possible for me to excel. And to my children Kathryn and Michael who allowed me to work and were there when I needed a boost.

I'd also like to acknowledge Dr. Bellamy for his encouragement and assistance in helping me develop a project that has the potential of changing the way we perceive our work environment. And to the personnel who took the time to respond to my survey many thanks.

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Abstract

This study was conducted to explore a potential method of determining the readiness of an air carrier's work force in the implementation of a participatory or total quality management program. The study was conducted at a major airline's hub operation. A random sample was taken from the hub operations' line maintenance organization consisting of aircraft mechanics and maintenance managers.

Two questionnaires were developed to measure the perceptions and commitments of both labor and management. The results of the respondents' data analysis shows that an assessment tool is useful for determining work force readiness as well as identifying the impediments to a proposed change process.

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INTRODUCTION

Participatory management and its impact on work structure is increasingly coming into focus within the aviation environment as a critical factor for accomplishing strategic and operational objectives. Participatory and Total Quality management approaches must shape all parts of the management system, structure and style, not just some pieces, in some ways. (Creech, 1994, p. 5)

In order for participatory or total quality management to be successful it must have total and complete cooperation from all levels of the business structure. The most noted failure was Eastman Kodak, which was the result of implementing total quality management without changing the existing structure of the business organization. (Juran, 1988) Another failure was People Express Airlines. The empowerment of the people was in line with the concepts of participatory and total quality management. However, the people did not share a common vision or "mental models" about the business reality, and therefore organizational stress increased as well as the burden of management to maintain coherence and direction. People Express failed under the lack of focus on the business reality in which they operated. (Senge, 1990, p. 9)

There is not a guaranteed method of determining what will or will not succeed. However, if a starting point is identified, the chances for success are better. Companies have used market research to determine whether or not to develop a new product. When approaching changes to their structure, they fail to explore the potential impact on the work force.

The position of this paper is that the limitations of participatory management schemes are more related to the implementation methodology than characteristics that are generic to

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the philosophies of participatory or total quality management theory. An important process that appears to be absent in many programs is the systematic analysis of how specific organizational and individual factors will interface with these practices prior to development and execution.

STATEMENT OF PROBLEM

There is an absence of systematic analysis on how specific organizational and individual factors will interface with changes in organizational structure and technology. The recognition of the human factor in any change has not been analyzed for its impact on the success of change. More specifically, there appears to be a real need for assessing the readiness of participatory management intervention by examining worker perceptions of various organizational and managerial practices and processes. This study is about the utility of this type of information and its uses by management in the construction and implementation of the tools of participatory and total quality management. The study is an analysis of management and labor's perceptions about each other and the idea of participatory management. This study will present the results of my readiness study, by exploring perceptions held by the work force about themselves, management, their department and their company. The findings may serve as a guideline for developing methods of substantiating the readiness of a work force to accept and nurture a participatory or total quality work environment, in particular, where they align themselves with regards to change. This study focuses on the airline industry in particular.

BACKGROUND INFORMATION ON PARTICIPATORY MANAGEMENT

Henry Ford's vision and leadership created the automobile mass market. With others competing for their share of the market an awareness of customer satisfaction grew. The

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Japanese' meteoric rise from the ashes of defeat during WWII to an economic challenger in the global market can be credited to the management philosophies of Deming and Juran and Japan's willingness to integrate them. (Walton, 1991, p. 12) They embraced the ideas of participatory and total quality management, and developed the concepts of team work and group cooperation. In today's global economy, the need to remain competitive is the driving force that has many companies turning towards the conventions that Deming and Juran laid down nearly fifty years ago.

The quality movement has been around since the fifties and more recently in the eighties and nineties. This movement has come to wide spread attention in the private as well as the public sector. Many companies have adopted these principles under the banners of Participatory and Total Quality Management. Companies like Motorola, Florida Power and Light, Hospital Corporation of America and Bridgestone (USA) to mention a few have experienced success with the adaptation of these principles. But many others have failed. Each of these successes had been a result of the positive perceptions that their employees had about change, and was supported by their leadership. The chairman of the board and CEO of Florida Power and Light, Mr. Hudiburg, was the catalyst in pushing the company to compete for the vaunted Japanese Deming Prize, the highest quality award in Japan. There was a consistent effort to change the attitudes of the skeptics. There was the recognition that certain people needed to be won over in order for the program to succeed. (Walton, 1991, p. 33, 34)

Numerous books and literature have been written on the implementation of participatory and total quality management. The mechanics of these management theories have been repeated in various forms, all focusing on the "how to's." Participatory

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management stems from the idea of involving employees in the decision making process. The basic idea has been around for a long time, but it has had its ups and downs in terms of popularity. One of the big problems is that hardly anybody understood what it really meant.

In the fifties, managers thought it meant being friendly to employees. In the sixties, they thought it meant being sensitive to the needs and motivations of people. In the seventies, managers thought it meant asking employees for help. And in the eighties, it meant have lots of group meetings. (Byham, 1992, pp. 36,37) But these perceptions failed to realize the true meaning of participatory and total quality management. The need to satisfy the customer by creating constancy of purpose for improvement of product or service, by removal of barriers to pride of workmanship, and ending the practice of rewarding business on the price tag alone.

Deming and Juran approached the idea of process improvement as a systems approach to improving quality. This concept has been the cornerstone of their method of implementation from the beginning. Its roots have been in the manufacturing environment, but what about a service industry, such as an air carrier? The books that have been written concentrated on the implementation but failed to look at the most important piece of a successful program, the employees.

BACKGROUND INFORMATION ON AN AIR CARRIER STRUCTURE

In looking at how people are an integral part of any change one can look at the airline industry. In a traditional airline structure the organization tended to "stovepipe" along turf lines. A typical structure is hierarchical with a top down system working along functional lines. (Figure 1)
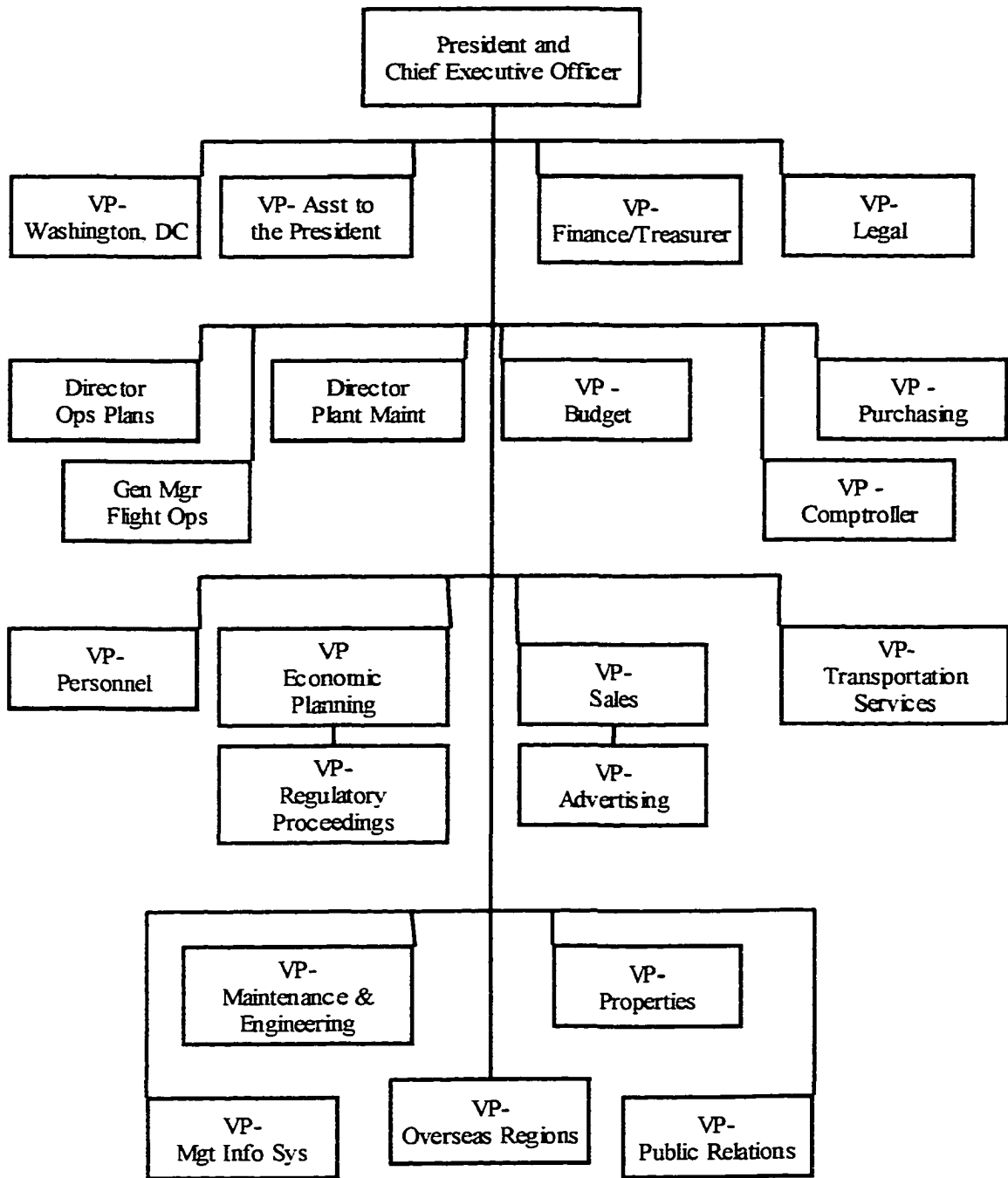
Figure 1: Typical Airline Management Structure. Extracted from Subject Airline's Administrative Volume A.

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The traditional structure has its background based along the lines of the maritime conventions and the military hierarchy. Many airlines were started by ex-military pilots who brought with them a structure that was comfortable for them and imposed a regiment of chains of command, systems of order, and more importantly, uniforms to distinguish job functions. Couple these facts with the tradition of hiring military trained personnel and it can be seen how an airline has arrived at its highly fragmented, centralized, and regimented structure.

The structure of an air carrier operation can be broken down into three distinct functions:

1. Maintenance.

2. Operations.

3. Support.

In viewing the operation, these three segments or functions can be looked at as the three legs of a milk stool. This is the "Three Legged Milk Stool" principle. (Figure 2) Each function or "leg" supports the key element of the air carrier operation or the "seat." Using the "Three Legged Milk Stool" principle, it can be seen that the milk stool is only as strong as its weakest leg. Introducing participatory or total quality management principles to the "milk stool" strengthens the overall operation by linking each of the legs. Communication and cooperation as well as process improvement are all part of the formula that improves the overall operation. Roger Smith, Former GM chairman stated: "I wish I'd done a better job of communicating with my people. If people understand the why, they will work for it." (AFH 37-137, 1994; 227) Implementation of cross-functional teams enhance communication and creates the cross-braces in the "milk stool" that will strengthen it. (Figure 3)

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Passenger/Cargo Movement

Operations

Support

Maintenance
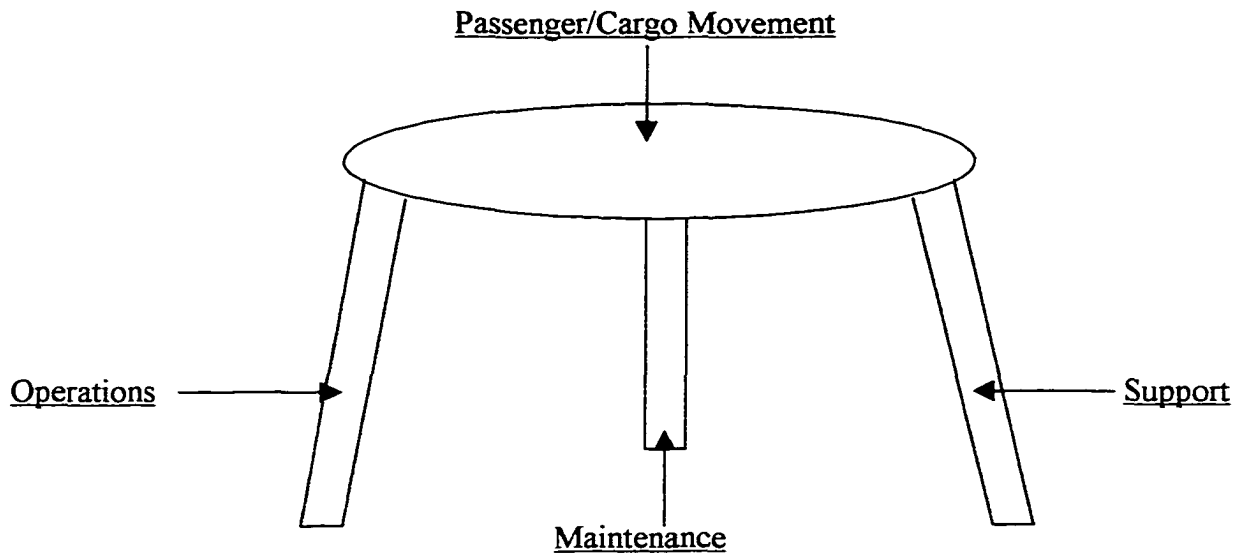
Figure 2: Three Legged Milk Stool Principle. (Torssell, 1998)

Passenger/Cargo Movement

Operations

Support

Maintenance

Communication
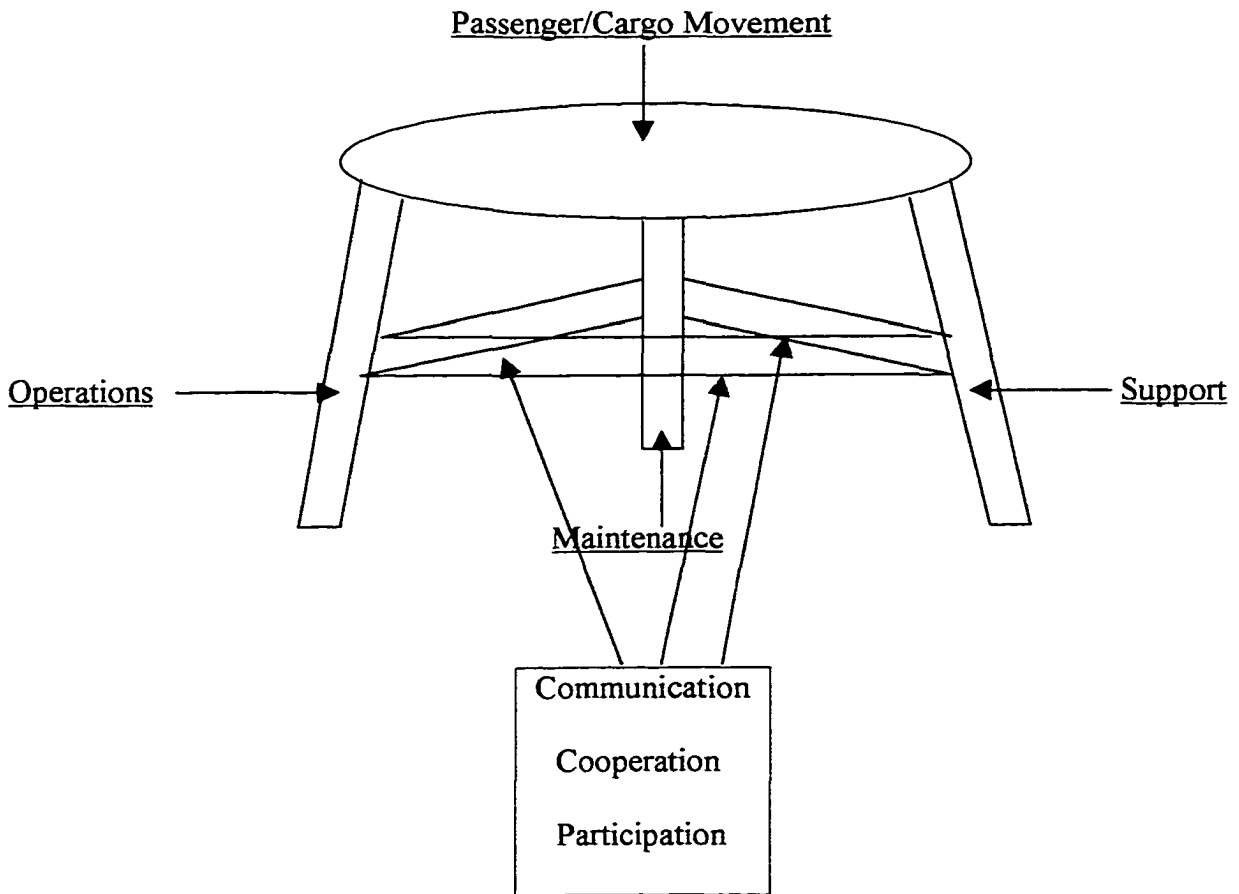
Cooperation

Participation

Figure 3: Three Legged Milk Stool with a Participatory or TQM Management link. (Torssell, 1998)

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The reason for change is to remain competitive in a deregulated market. Airlines are trying to maneuver themselves to capture market shares. Low costs are a factor to be considered, but the true test, is if it is valued added to the customer, regardless of the cost. This is where the concepts of participatory and total quality management can help an airline be more customer focused. In looking at a typical airline structure and change potential, this study analyzed the line maintenance function of the subject airline.

The line maintenance function analyzed was part of the subject airline's hub system. The maintenance was structured with a director of line maintenance operations, three primary managers, line managers who reported to the primary managers, lead mechanics, aircraft mechanics and radio and electrical technicians. The line operation handled live flights and the hangar operation dealt with aircraft that were out of service for an extended period of time.

THE NEED FOR ASSESSMENT

Most books written on participatory and total quality management cover the implementation, focusing on the formats, and the tools necessary to carry out a successful program. The literature ignores employees' wants and needs. They fail to recognize the importance of employee readiness to embrace the change and make it work, and fail to look at the perceptions held by management of employees and employees of management prior to implementation.

Deming, Juran, and organized labor only brushed the surface of worker readiness. There was an assumption that labor and management will readily embrace change. The Macolm Baldrige National Quality Award Criteria addressed the issue as Human Resource Development and Management. It looked at employee related data that might include

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employee satisfaction, turnovers, absenteeism, safety, grievances, involvement, recognition, training and employee exit survey information. (Macolm Baldrige, 1995) But when a company is looking at competing for the Macolm Baldrige Award, they have already implemented the change process. The emphasis on employee related data should have come prior to even taking the major steps toward participatory or total quality management schemes.

There is usually an inherent mistrust between management and the work force. This mistrust has developed over time and any move for change is greeted with skepticism and an attitude of "it's just another passing fad." Mistrust has existed because of faulty rules and well-intentioned programs that complicated communications and created resistance to any type of change. The mistrust has been the cause of failures in rules, changes in management techniques and the introduction of new technology.

One can look at mistrust as the corrosion of working relations. Using an analogy of rust on steel, where rust is the mistrust and the steel is the working relations between management and labor, one can see the deeper the rust, the more difficult the repair. Changes in management style and structure such as participatory or total quality management are repairs that can only be successful if the mistrust or "rust" is removed. To gauge how deep the mistrust is an assessment tool is needed. Company employee satisfaction surveys administered by Human Resources cannot properly gauge employee perceptions. If obstacles are in place, gauging the readiness for change becomes more difficult. This is where the need for analysis of the perceptions that are held by management and employees is critical.

Change is difficult in anybody's life, whether its family or work related, because it places people outside of their comfort zone. Just as a blind person establishes their home so

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that they can navigate without difficulty, human nature establishes patterns that are comfortable. Change hurts, making people insecure, confused, and angry. People want things to be the same as they've always been, because that makes life easier. (Marcinko, 1997, p. 75) Change a blind person's home without their input, and they experience discomfort and anxiety. The same is true with a work force; change the way of doing business and the discomfort levels increase and resistance sets in. By assessing a work force, the company can prepare themselves and the work force for the change by identification of the issues and concerns that will degrade the effectiveness of the change.

Participatory and total quality management creates responsibility and accountability at the lowest level possible. Placing these two principles on the shoulders of the work force and management, creates considerable anxiety. The idea that the responsibility to deliver a quality product rests at the lowest level has inherent problems. In the traditional environment, a person was able to complain that the product or service they were involved in wasn't exactly what should be produced. They could place the blame for the poor performance on somebody else. Participatory and total quality management foster a reality that the work force now has ownership of the process and the ability to recommend change. This added responsibility, however, can increase worker anxiety, which in turn can undermine the effectiveness of participatory management. Assessment of organizational readiness for this type of intervention can help to mitigate some of these potential negative side effects of radical change.

Creation of responsibility and accountability cannot just happen; a company has to be able to know where to start. A tactical plan has to be laid out, stating where they are and where they want to be. Assessing work force readiness aids in the plan development.

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Determination of perceptions of the company, management and the work force would

hypothetically facilitate planning for a participatory or total quality management program.

Analysis allows for the foundations for change to be laid out.

BARRIERS TO PARTICIPATORY MANAGEMENT

Airlines have to meet standards established by the Department of Transportation and

the Federal Aviation Administration. Those that impact the competitive environment are on-

time performance, consumer complaints, and mishandled luggage. These standards keep the

business honest, but if improperly managed, finger pointing rises and the customer loses.

John F. Kennedy stated "Our tasks is not to fix the blame for the past, but to fix the course

for the future." (Gore, 1993) This echoes the concepts of participatory and total quality

management. In order to improve, blame cannot be fixed on one department or person. Too

much time is being spent on blaming rather then improving.

Frederick Taylor set forth his scientific management thesis "All possible brain work

should be removed from the shop floor." (Creech, 1994, p. 258) There is a perception at the

subject airline that this concept has crept into the aviation environment. On-time

performance standards have created deferral procedures that allow non-safety of flight

discrepancies to be put off till a later time. This does satisfy the customers' need for on-time

departure, but it does impact how others within the airline's organization view maintenance.

It was also observed that other departments perceived mechanics spending most of their time

sitting around, while the baggage handlers, and ticket agents did the brunt of the work. This

creates tensions between maintenance and other departments, ultimately eroding customer

satisfaction with the airline. This tension creates rules for each department that further

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impact customer relation. The tendency is to place blame on employees but blame can be placed on the employer and the establishment of bad rules. (Brodsky, 1997, p. 35)

Behind every rule there is almost always a good reason, or at least a good intention. At the time it is established it makes all the sense in the world. And yet, if it is not carefully thought out, it can hurt the business. It takes away the employee's ability to use common sense in responding to the reasonable requests of the customer. Rules are made when a problem is being avoided, not attacked. (Brodsky, 1997, p. 37) In making the rules we further alienate the work force from involvement in process improvement. Rules become barriers to satisfying customer needs and allowing employees the opportunity to provide effective service. Business fails to intimately involve the work force in process improvement. Process improvement must come from all levels of the company, not just management.

Too many times when immediate improvement is not seen, changes are made. This creates an air of mistrust between management and labor. Management perceives the lack of immediate improvement as unwillingness to change on labor's part. And labor sees management's quickness to change as a lack of confidence in the original scheme to begin with. While it may be painful, it is critical to stay the course that is charted. (Stack, 1997, p. 12) Be wary when one of your people tell you that a change you've instituted "isn't working." In reality it may be working fine-but simply causing pain. (Marcincko, 1997, p. 75).

Too often, business is willing to take the path of least resistance. Short-term gains from this path may seem prudent, but what impact does it have on the future? Deming put it succinctly when he stated, "What value is a 25% increase in a quarterly dividend, if a

company isn't around five years from now?" (Grant, Shani, & Krishnan, 1994, p. 31).

Seemingly profitable companies that run on "auto-pilot" with management making decisions and labor doing their own thing are doomed to failure. Sooner or later management edicts, and labor perceptions are going to conflict, resulting in degradation to customer service and satisfaction, ultimately resulting in customer exodus. The basis of this conflict results from the economic model, whose roots are in profit maximization. Management is tied to the economic model, whereas labor has a deep need to feel satisfaction in job accomplishment. Participatory and total quality management work to enhance both ends of the spectrum. Neither management nor labor can reject customer satisfaction or profit maximization. Participatory and total quality management views profit as an outcome versus the driving force and recognize the human need to create. (Grant, Shani, & Krishnan, 1994, p. 31)

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REVIEW OF RELATED LITERATURE AND RESEARCH

Current literature on the subjects of Participatory and Total Quality management theory and implementation provided excellent information on the mechanics of the processes of change but barely recognizes the critical human factor. There tends to be an overwhelming inclination to assume that the work force will accept change readily without resistance. The literature reviewed for this paper supports the idea that there is a need for assessing the perceptions of a working group or an organization's labor force prior to implementing a dynamic change to the organizational structure and culture.

Judith Yates Borger (1989) identified a form of participatory management, where success in a task may be dependent upon the cooperation of people from many different divisions of a company. This recognition of process improvement through work teams is part of participatory or total quality management. It is a challenge to get large and diverse groups of people together. Borger recognized the fact that this challenge is particularly difficult if people don't report to you or are not even physically located in the same building, much less the same city. She cited John P. Kotter, Chairman of Organizational Behavior and Human Resources at the Harvard Business School. He recognized the need to invert the chain of command and that management's job is really a position of dependency. (Borger, 1989) This position of dependency can be seen as the support the labor force gives to its leadership. There was recognition that communication is critical with subordinates, as it instilled the desire to want to help. For any form of process improvement to work effectively, communication must be effective. The article also recognized the fact the an individual must have creditability in order for people to want to be willing to work for them. Manipulation and deception will only work once. People are not going to cooperate with

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another person just because that person is the boss. (Borger, 1989) This is true when it comes to implementing any type of organizational change. The catalyst for a success is the willingness of the people to follow their leader. In order for change to be creditable the leaders have to empower others to makes decisions. And most importantly, the leader has to think of a dynamic, caring human system. Without that ingredient, the change won't happen. Therefore, the need exists to understand where the work force has grounded itself and its perception of management.

All systems require information feedback concerning the function of the processes. The simplest type of informational input found in all systems is negative feedback. This negative feedback enables the system to correct its deviations from course. Katz and Kahn recognized Miller's (1955, p. 26) work emphasizing the critical nature of negative feedback from his propositions: "When a system's negative feedback discontinues, its steady state vanishes, and at the same time its boundary disappears and the system terminates." The recognition of organizational dependence on inputs from their environment, whether internal or external is critical to the survival of the organization. Research on organizational readiness can be used as a feedback mechanism for an organization's internal functioning. However, feedback can be perceived as negative entropy.

The entropic process asserts itself in all biological systems as well as in closed physical systems. Entropy is the progression of any organism through its stages of life from inception to death. The energy replenishment of the biological organism cannot maintain indefinitely, but social systems are not anchored in the same physical consistencies as biological organisms and are capable of almost indefinite arresting of the entropic process. (Katz, Kahn, et al, p. 25) Recognition of this fact can help in implementing changes to the

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organizational structure. Organizational behaviors, both formal and informal have developed protective devices to maintain stability and are notoriously difficult to change or reform. (Katz, Kahn, et al, p. 27) But that is the key to helping an organization flourish during the dynamic change cycle. Preassessment of organizational readiness for change can therefore be conceptualized as a negative entropic mechanism for organizations.

Norman Maier, (1967) recognizes that many solutions depend upon the support of others to be effective. Group problem solving permits participation, and more individuals accept solutions when a group solves the problem than when one person solves it. If the leader can contribute the integrative requirements, group problem solving may emerge as a unique type of group function. This concept of group problem solving or teamwork was in its infancy in the late sixties. The role of the leader/manager was changing. No longer were managers problem solvers, but now they were facilitators. The job was to concentrate on the group process, listen in order to understand, rather then appraise or refute, assume responsibility for accurate communication, be sensitive to unexpressed feelings, protect minority viewpoints, keep discussion moving, and develop skills in summarizing.

Gary M. Galles' (1996) The Detroit News article opened up issues of concern from the union's perspective on participatory management. There was recognition by both workers and management that worker-management cooperation is clearly efficient. But there was a reluctance to having such cooperation being channeled through the unions. Worker-management cooperation had allowed valuable information that only workers have, to be put in its most productive use. The traditional top-down organizations wasted much of this information because the incentives or mechanisms to convey it to the decision-makers were not in place.

The growth of cooperative teams in the past decade and a half reflect the immense value of "bottom-up" communication. But the unions argued that this cooperation infringed upon their "turf." Unfortunately for their argument, these efficiencies often would disappear or erode under union auspices. The sharing of information and concerns is indexed under union control primarily because unions rely on strike threats for their power. By using the unions for the transfer of information up and down, it often destroyed timeliness and value. Further, it discouraged candor. Recognition by unions of problems at a certain plant could be used to launch a strike or a work slowdown. Unions were openly hostile to any productivity enhancements that might involve layoff possibilities.

The useful sharing of work knowledge was hindered by the often rigid and complex explicit contracts adopted through union negotiations. Employers particularly valued more effective workplace cooperation and flexibility, while employees valued their ability to contribute useful input and the flexibility to put it to use, which may have added to their productivity and thus to their wages.

The Midwest Center for Labor Research published a review on the subject of participating in management.(1989) The unions have recognized the potential of participatory management, but argue that cloaked in the rhetoric of "labor-management cooperation" and geared to extracting the shop floor knowledge and insight of the workers, the management-initiated programs pose a threat to workers' rights and union power. (Banks, & Metzgar, 1989) The Eastern Machinists' "Efficiency Credit Team" (ECT) was recognized by outsiders as a "cooperative period." The authors argued that to the IAM it was a union negotiated change in the power relations between labor and management. There is a perception that managers are reluctant to recognize the full potential of worker participation

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because it undermines their self-esteem and threatens their control. Attitudes like this also threaten any form of change to a process improvement type of environment. The unions feels threatened, and the perception is that management is threatened also. The unions have developed a suspicion about management's motives and are reluctant to invest any real trust. Historically, management and labor have had an adversarial stance when it comes to any type of change within the structure of the formal work patterns.

There is always resistance when change takes place. And there is also the potential for fallout from change. Both labor and management should recognize that participatory and total quality management aren't leverage tools to be used against each other, but tools that will keep a company viable into the future.

Koopman and Nichols (1997) recognized the work force's contribution to the success of the quality management system. The work force decided what was needed to meet performance requirements, documented the systems, changed what did not work, and evaluated the suitability and effectiveness of the system. This recognition within a body of work showed that the need for cooperation is part of the critical path for a system to be successful.

John Kotter (1995) recognized the fact that workers are an integral part of any change process and many executives underestimated how hard it could be to drive people out of their comfort zones. This can have an adverse affect on the successful implementation of any type of change within an organization.

Gogan, Handle, Schuck, and Zubuff (1994) recognized that work perception of radical changes such as worker participation or total quality management is critical. At Motorola, some operators were not enthusiastic about teamwork. One said, "With all these

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meetings, some people hardly spend any time putting out product. Too many people think they're the bosses." While the results of Motorola's change in management style was successful, at the time this article was written there were still pockets of resistance and perceptions among the work force that the change was taking away from peoples' performance.

When a company applies to be recognized and compete for the Macolm, Baldrige Award, one area of concern is Human Resource Development and Management. The award criteria looks at how the company translates overall requirements from strategic business plans to specific human resource plans, looking specifically at changes in work design to improve flexibility, innovation, and rapid response. They are also interested in High Performance work systems, looking at how the company's work and job design promote high performance, create opportunities for initiatives and self-directed responsibility. It also looks at effective communications across functions or units that need to work together to meet customer and/or operational requirements. The Macolm Baldrige Quality Award: 1993 Award Criteria looks at employee well-being and satisfaction. It grades how the company maintains a safe and healthy work environment, by looking at what services, facilities, activities, and opportunities are offered to employees to support their overall well-being and satisfaction. It also looks at how the company determines employee satisfaction, well being, and motivation.

G. M. Hostage (1975) noted that Marriot Corporation is very interested in quality control in their business. They are keenly aware of the importance of employee input and attitudes. There is a recognition that the annual surveys of rank and file are their first line of

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defense against the buildup of unfavorable attitudes. This recognition by Marriot has helped them provide excellent customer satisfaction.

James Balasco and Ralph Stayer (1994) recognized that people really want to be great performers. They asserted that this desire comes from deep inside each and everyone of us. The leader's job is to create the environment that surfaces this deep desire and gives it the opportunity to flower. While most of us are drawn to the mind-set obstacles of motivation, communication, and teamwork issues, the biggest obstacles are organizational obstacles, like the systems and structures, which dramatically affect the mind-sets of everyone else. People slip back into old patterns because the ownership for the new way rests with someone else, usually the boss. They delude themselves into not seeing the need to be different and then revert back as soon as pressure is decreased. The heart of the change is people taking self-directed actions that either deliver great performance for their customers or remove obstacles to taking the right actions. Each person must be doing the work at which they are best. Therefore management and the work force must learn how to get the right people to do the right work.

H. William Dettmer (1995) stated that, total quality management focuses on improving processes, it doesn't address how to manage the system as a whole. The closest TQM has come to systemic guidance is the concept of concurrent engineering, which requires the cooperation of marketing, engineering, and production in product development. W. Edward Deming understood the need to maintain a systemic approach to continuous improvement. One of his four requirements for profound knowledge is appreciation of a system. Systems thinking is based on three principles.

1. The performance of an entire system is affected by each of its components.

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2. The parts of the system are interdependent.

3. If parts of a system are grouped together is any way; they form subgroups that are subject to the first two principles.

But there exists within the systems principles the Theory of Constraints. (Dettmer, 1995) It maintains that if the performance of each part is individually maximized, the system as a whole will not behave as well as it could. Conversely, if a system is performing as well as it can, no more than one of its parts will be. Looking at today's business world in this view, one can see that much effort and expense is devoted to maximizing efficiency at every level and in every sector of a company, without regard to the effect on the company's overall performance. The Theory of Constraints treats a system as a grid of interlinked chains. The weaker link ultimately limits what the system can do. Any effort to strengthen links other than the weakest one will do nothing to improve the chain's overall performance. It also treats improvement as an ongoing process. But instead of focusing on localized improvement in all areas, it attacks on constraint that limits overall systems performance. By never losing sight of the system's performance, Theory of Constraints maintains a systems, rather than an analytical approach.

But if it is easy to recognize systems constraints, why are policy constraints so much more insidious than physical constraints? Besides being less visible, policies set rules for how things must be done. In so doing, they foreclose many lines of inquiry on possible solutions. Most policies were put in place to solve perceived problems. Contracts go to the lowest bidder because someone, at some time, saw a problem, such as: "We're paying too much for what we're getting." But the environment is continually changing, existing solutions are often not updated to keep pace, and few ongoing improvement processes are

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institutionalized to ensure that updates occur. Again the recognition is that of a system and it does recognize the importance of the subparts of the system. But it fails to meet the needs of what is required to insure that changes in structure and organization are recognized and accepted. The work force factor is neglected.

Robert H. Waterman Jr. (1990) recognized that people are the key to change. It is important to have all levels involved in making change. Top management support not only gives a project credibility it's also an important perk. Ad hoc work is difficult and stressful. It is highly unstructured—no matter how careful the planning. It takes people away from home and requires a mental shift. Unfortunately, most reward systems are typically tied to one's box in the bureaucracy. They don't usually compensate for the large hunks of time and extra effort that people must commit to projects outside established channels. People will not spend the time, take the work seriously, or feel good about what they're doing unless top executives are involved and perceived as sharing the sense that the project is a top priority.

Nothing destroys morale faster than managers setting up project teams and not giving them proper attention. Executives often do this to buy time on thorny problems. Also another problem in leadership today is a pushy, controlling, directive management style. This approach stifles lower level people in most bureaucracies and is a death sentence for change. The task force leader emphatically should not be the expert in the area being studied or a member of the top executive ranks. Groups tend to defer to the person with the expertise or power. This defeats any change attempt.

Internal people are the best champions for change. The problem is not consultants, per se, the problem is the handoff. People doing the work can't transfer their understanding or their zest for making something happen to others who haven't been involved. What's

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more, people are simply more responsive and practical when they know they are the ones who have to live with whatever they've recommended. The importance of integrity and trust seems so clear, yet for most employees these corporate traits are all too elusive. It is tough to maintain trust when things are constantly changing. How do you get the rank and file to swallow talk about trust if they don't see it at the top. As Americans, we are taught to distrust authority.

Mary Walton (1991) stated that in the American style of management, when something goes wrong, the response is to look around for someone to blame or punish, or to search for something to "fix" rather than to look to the system as a whole for improvement. The 85-15 rule holds that 85 percent of what goes wrong is the system and only 15 percent with the individual person or thing. In this connection we do well to remember that in any group of people not all, nor even the majority, can be above average, in fact, exactly half will be below average. (Walton, 1991, p.20)

American managers have prided themselves on hunches and intuition. When they have succeeded, they take credit, when they failed; they found someone to blame. A quality transformation rests on the set of assumptions that:

1. Decisions are based on facts.

2. The people who know the work best are the one who perform it.

3. Groups of people working in teams can have more success than individuals working alone.

4. Teams need to be trained in a structured problem-solving process, which includes knowledge of how to conduct a meeting.

5. It is helpful to display information graphically.

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Without the recognition that change was needed and without the administrator being visible, the change would not have been considered a high priority for the organization.

Richard Hackman and Ruth Wageman (1995) cite Deming, Juran, and Ishikawa's, view that an organization's primary purpose is to stay in business, so that it can promote the stability of the community, generate products and services that are useful to customers, and provide a setting for the satisfaction and growth of organization members. Ishikawa is cited as saying, "An organization whose members are not happy and cannot be happy does not deserve to exist." Deming and Ishikawa add that an organization must remove all organizational systems that create fear—such are punishment for poor performance, appraisal systems that involve the comparative evaluation of employees and merit pay. (Hackman & Wageman, 1995, p. 310)

The second challenge in research on TQM is to specify and collect data about those processes that would be expected to result from TQM and that should, all else being equal, contribute to organizational effectiveness. Considering group and organizational performance generally, without specific reference to TQM, three process criteria of unit effectiveness have been suggested:

1. The level of task-oriented effort exhibited by unit members.

2. The amounts of <u>knowledge and skill</u> members apply to their work.

3. The appropriateness of the <u>task performance strategies</u> members use in carrying out the work, to the extent that a work unit has a high standing on these process criteria, the likelihood increases that its final product, service or decision also will turn out well. (Hackman & Wageman, 1995, p. 321)

The extent that members exhibit insufficient effort, bring insufficient talent to bear on the work, or use task-inappropriate performance strategies, overall unit effectiveness is likely to suffer.

It appears the three process criteria--effort expended, knowledge and skill applied, and task performance strategies used--may be of use in assessing the impact of TQM on how, and how well, organization members work together. If TQM is working as intended, organizational units should exhibit a high standing on all three. Less then 15 percent of studies of TQM programs examined actually document behavioral changes that occur after TQM has been adopted. And those that did not address work behaviors rely on anecdotal descriptions of particular quality teams and their problem solving processes.

Total quality management practices create good learning environments both by minimizing fear in the organizational culture and by providing members with a rich and diverse set of learning tools. Moreover, TQM exposes workers to data about their work processes more or less continuously and encourages them to use scientific methods to analyze and improve those processes. Finally, members of TQM organizations are asked to re-examine their work processes repeatedly, and do so with no holds barred. "Ask not just why we do it that way and can we do it better, but also ask why we do it at all?" (Juran, 1969, p. 118)

There are two quite different varieties of human learning. These two opposing inclinations to stretch and grow, and to adapt and make do-are present in all of us. Schools and work organizations are among the most important settings in which these opposing varieties of learning are engaged and played out. Some commentators suggest that TQM achieves an appropriate balance between managerial control and employee participation. In

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contrast to devices such as quality circles, it is argued TQM institutionalizes meaningful

employee participation even as it retains top-down managerial control of the enterprise. (Hill

1991). Pseudo-participation is ill advised because people almost always are able to tell when

they are being manipulated. A far preferable stance is for managers to be unapologetic about

the fact that TQM neither espouses nor practices the engagement of all organization members

in reflective learning about collective purposes.

When members do discover that things are not working as well as they did formerly,

they commonly respond by executing their existing behavior routines more vigorously then

ever, rather then using the early signs of trouble as an occasion for reflection on the adequacy

of those routines. In 1980, Miller & Friesen and again in 1993 Jenson noted when a work

unit has invented its own performance strategy, members can become quite reluctant to

change it. Only when the situation gets so bad that it threatens the unit's very survival can

one count on a social system taking seriously the need to make significant change. (Hackman

& Wageman, 1995, p. 325)

Organizational change programs, including TQM, can go wrong for two reasons.

One, the changes may be so ambitious and involve such fundamental alterations of the social

system that, for all their potential merit, the organization cannot accommodate them.

Espoused changes may appear to fail when in fact they never got implemented. Two, the

changes may be more window-dressing than real, as in a program that exhorts people to alter

their behavior but that requires managers to do little other then issue the exhortation. In this

case, implementation is easy, but the old organizational structures and systems remain

untouched and continue to generate the same behavioral dynamics as before.

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Joan Feldman (1994) stated that in the airline industry there is an overriding agreement that industry managers ignore the end product. They generate data and fail to recognize that the flying public doesn't care about cents per Available Seat Mile, they are interested in the end product. Southwest Airlines success is anchored to CEO Herb Kelleher's skill with people, and the ability to listen, it sets the tone for the entire company and smoothes the path for bottom-line decisions. Start-ups like Kiwi and Frontier, also mimic this approach, they make recommendations to front-line people and seek feedback, make decisions within hours at times, and hire sharp people and let them do their thing. The recognition that management style has an impact on the motivation of the employees is critical for any change to be effective. This recognition leads to the conclusion that an assessment tool is needed to effect change. It becomes evident that the success of Southwest Airlines is based on the fact that the employees respect Mr. Kelleher's judgement. They may not agree with him on all counts but they are willing to support his decisions. This alone creates an atmosphere within that organization that is conducive to any type of change.

The United States Air Force Handbook The Quality Approach (1994) stated that front-line workers probably know better then anyone else what's required to satisfy the customer. (p. 15) However, they can't help meet goals if they don't understand the process. They must be taught the basics and be included in discussions that affect processes such as estimating capability and developing metrics. It's important to remember that process workers are essential in identifying key issues to successfully execute the strategic plan. Education and training are essential to implementing quality. This recognition of the front-line worker's importance as part of the customer satisfaction ingredient must also include understanding the worker's perceptions of their process, leaders and commitment. This is

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where an assessment tool is essential to any attempt at change. The Air Force's recognition of customer satisfaction is unique in the fact that they are a war-fighting entity, but they still have customers to satisfy. They are also in a unique position, in that they can train their "work force" from day one to be committed to customer satisfaction.

While they have this unique opportunity, business can learn from them. Assessing the readiness of a work force for change was done by the Air Force. After Desert Storm, the Air Force recognized that the success they saw was the result of total force involvement. They also recognized resource limitations. This led them to implement Total Quality Management as a guiding principle for the Air Force into the 21st century. The concepts of TQM were issued to each command, then each unit and the units were given the order to develop TQM to meet the needs of their mission. This edict allowed each unit to develop through its people and their talents a mission statement and got people involved at the ground level. The assessment of the work force started on day one.

Dr. Sheila A. Widnall, Secretary of the Air Force (1994) stated that, "Quality is not a static description, but a dynamic process for an attitude of continuous improvement within the constraints of available resources." (p. 1) Leaders set the vision, policies, priorities and strategies. Their responsibility is to foster an environment that inspires trust, teamwork, and pride. Leaders maintain a customer focus and a systems perspective. They must not lose sight of their overall responsibilities. These responsibilities cannot be delegated. Integrity first, is the foundation of trust, standing by your word and a commitment to honesty.

Staw, Sandelands, and Dutton (1981) noted that organizations attempt to cope with potential sources of adversity by adjusting their internal structures or by taking actions to enhance their positions in the environment. Many times this reaction is done without

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concern or input from their employees. This action causes many levels of reaction from internal and external sources, most notably from the organization's own people.

In Zajonc's 1966 study it was noted that when placed in a threat situation, an individual's most well learned or dominant response may be emitted. But this response may be grossly inappropriate if the task or learning environment has changed. (Staw, Sandelands, & Dutton, 1981, p. 502) this is where there is a need for assessing the readiness of the work force to accept change.

The need for free flow of information is critical to the posturing of the organization in its changed environment. The same is true of the work forces posturing in its environment. The general tendency for individuals, groups, and organizations is to behave rigidly when a threat situation arises. There are two effects: First, may be restriction of information processing, narrowing of the field of attention, information code simplification and reduction of channels used. The second is a constriction of control, narrower bands of power and influence, concentrated in higher levels of the hierarchy. (Staw, Sandelands, & Dutton, 1981, p. 502)

Such changes create an air of mistrust from the people within the organization. The individual reaction to threats usually deals with the effects of stress, anxiety, and arousal. Under these stress conditions, people have been found to be less flexible in their choices of solution methods. (Staw, Sandelands, & Dutton, 1981, p. 506) These conditions show a need for assessing work force readiness.

But there is also an interesting phenomenon best illustrated by Sherif's boys' camp studies. It showed that while threats increase intra-group cohesiveness, it also increased inter-group rivalry. (Staw, Sandelands, & Dutton, 1981, p. 507) Organizations exhibit this

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characteristic when there is a change in its organization. These changes create windows of opportunity to malign other parts of the organization or to create pockets of resistance to the change, regardless of the overall benefit to the whole organization. Again such reactions could be minimized with assessment of readiness.

Competition for limited resources may lead to increased cohesiveness while the actuality of such a loss may lead to dissension. External sources of threat increase leadership support and cohesiveness, as the group seeks consensus, which involves constriction of control. Dominant members will prevail with their influence becoming more centralized. (Staw, Sandelands, & Dutton, 1981, p. 514) Such centralization and restriction may be short lived if the members' perceptions are misread. Assessment is even more critical in times when crisis threatens organizational survival.

Often groups are convened to deal with crisis, but the decisions are still made by one or a select group. Members who tie their own personal welfare to that of an organization can therefore be expected to act for the organization in relatively the same way as they would for their own interests. (Staw, Sandelands, & Dutton. 1981, p. 518) This observation shows that assessing readiness for change can help the organization guide the changes and enhance employee involvement. On the one hand, if an organization fails to recognize the concerns of its work force about a proposed change, the change will fail. On the other hand doing nothing will also cause failure. Therefore the most prudent choice is assessing work force readiness and using that as the starting point for planning change.

Dr. Joseph M. Juran (1988) defined the "work force" as non-supervisory employees in nonprofessional work categories. He also noted that as in the case of the consumer, workers have knowledge in depth with respect to the need for quality. (Juran, 1988, p. 292)

This knowledge is critical to changes in the way an organization conducts itself in its environment. Any change that occurs must have input from the work force. The work forces' knowledge is derived from extensive "residence" in the work place and from repetitive performance of numerous cycles of processing that work place. Such expertise is a useful input to many planning projects. (Juran, 1988, p.54) This knowledge cannot be effectively used if the work force is unwilling or unready to adapt to change in its environment. The assessment tool helps in effectively developing work force participation. Juran noted that this expertise could be a valuable input for quality planning, but that special steps are needed to acquire such information from the work force. The biases that may be present and need to be overcome are: an atmosphere of blame, the supervisor-subordinate relationship, and conflicts of loyalties. His recognition of these problems show that assessing the overall attitudes of the work force is necessary. Failure to conduct assessments can result in cost overruns, projections running far short of their goals and the wholesale failure of any proposed change.

Some of the objections to "corporate interference" are in the nature of the "cultural resistance." Usually, these objections are based on the interaction of divisions, departments and individuals. Many times these have been built over the years within the organization, based on attitudes, beliefs, habits, practices, status symbols, rituals, and taboos. These patterned activities serve a useful purpose and many times are protected by the organization. (Juran, 1988, p. 268) But these also can prevent any changes from taking place. Strong organizational culture that interferes with change processes can be just as detrimental to an organization as doing nothing.

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Dr. Juran recognized that in order to change there has to be rules. He sites six basic rules of change, which are:

1. Provide participation.

2. Provide enough time.

3. Keep the proposals free of excess baggage.

4. Work with the recognized leadership of the culture.

5. Treat people with dignity.

6. Reserve the positions. (Juran, 1988, p. 269)

Each of the rules enhances the proposition of this paper. The first thing that analysis of work force readiness accomplishes is participation. If people are able to express their perceptions without fear, they feel that they have input. Time is another critical factor in assessment. If you try to change overnight, resistance will increase. The failure to realize that time is part of any change is an inherent trait of American culture. Americans as a group, want instant gratification, but at the same time are reluctant to change. Pushing people outside their comfort zones creates problems. Assessment will help keep excess baggage to a minimum. If you start small, people will see success and are more likely to continue with a plan rather than fight it. Dr. Juran talks about working with the recognized culture leadership. If the champion of change recognizes how the work force perceives the company, management, themselves, and change, they can work with the formal and informal leaders to make the change successful. The informal structure of an organization is as critical as the formal structure and can mean the difference between success and failure.

Finally, Dr. Juran's last two rules create the need for work force readiness assessment. If you treat people with dignity and put yourself in their position you stand a

better chance at success. People need to feel wanted, that their opinion is important. And if a person's perception of their own self within the structure of the company isn't where the company perceives them, the change will be harder.

Peter M. Senge (1990) recognized that we are taught to break things apart and make complex tasks and subjects more manageable. (Senge, 1990, p. 10) This recognition of compartmentalization by people of tasks and subjects show that there is a need for work force assessment when dealing with change. Too many people recognize their job only, failing to realize the impact that they have on the whole. There is a recognition that too many people take on the mentality that they are their position and this creates problems when change is necessary. Team learning really starts when there is "dialogue," the capacity of members of a team to suspend assumptions and to enter into genuine "thinking together." (Senge, 1990)

Can diverse segments of an organization come together and function as one? The answer is yes, but there has to be recognition by the organization as well as by the individuals that there are learning disabilities. These disabilities include the illusion that:

1. I am my position.

2. The enemy is out there.

3. I am in charge. (Peter Senge, 1990, pp. 18, 19, 20)

Assessment helps to address these disabilities by creating a starting point for change. Recognition that individuals in the work force tend to perceive themselves as their position and not as a part of the whole, can help management focus on the change by redirection of the parts to a whole. And if there is a perception that the enemy is everywhere, the energy for change will not be focused on change, but misdirected towards the perceived enemy. If a

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segment of the work force has an "in the trenches" mentality it will impact the other segments and their ability to focus on change.

Being proactive is not reactiveness in disguise; it comes from seeing how we contribute to our own problems. (Senge, 1990, p. 20) Assessing the overall atmosphere of an organization will help recognize how management and the work force contribute to problems. Without readiness for change and viewing where the various segments of the organization are positioned, any attempts to change will result in failure.

There needs to be a recognition that the primary threats to our survival, both in society and in organizations, comes not from sudden events but from slow gradual processes. By focusing on events the best we can do is predict an event before it happens. (Senge, 1990, p. 21) Work force assessment can help management become more proactive as opposed to reactive by helping them recognize gradual change. Peter Senge gives the apt parable of the "boiled frog." If you place a frog in a pot of boiling water, it will immediately try to scramble out. But if you place the frog in a pot of room temperature water and don't scare it, it will stay put. Now, if the pot sits on a heat source and you gradually turn on the heat, something very interesting happens. As the temperature rises from 70 to 80 degrees F, the frog will do nothing. In fact, he will show every sign of enjoying himself. As the temperature gradually increases, the frog will become groggier and groggier, until he is unable to climb out of the pot. Though there is nothing restraining him, the frog will sit there and boil. Why? Because the frog's internal apparatus for sensing threats to survival is geared to sudden changes in its environment, not to slow, gradual changes. Learning to see slow, gradual processes requires slowing down the frenetic pace and paying attention to the subtle as well as the dramatic. (Senge, 1990, p. 22)

The same is true of organizations and work forces when addressing the readiness to accept and implement change. Resistance is not always dramatic; it can be very subtle. But gauging the readiness helps reduce the potential of becoming a "boiled frog." Identification of resistance potentials can aid in educating those who resist change.

Herein lies the core learning dilemma that confronts organizations: we learn best from experience, but we never directly experience the consequences of many of our most important decisions. (Senge, 1990, p. 23) This is where analysis of work force readiness becomes a critical part of the change process. Because cycles are particularly hard to see and to learn from, there is a need for assessment. The longer the cycle, the more apt we are to ignore the warning signs that are generated during the initial phases of the change. The recognition of those issues that impact the positive potential of the change prior to implementation will aid in creating a positive change environment. Unfortunately, for many organizations, they attempt to understand the difficulty of coping with the impact from decisions by breaking themselves into components. They institute functional hierarchies that are easier for people to "get their hands around." But functional divisions grow into fiefdoms, and what was one a convenient division of labor mutates into the "stovepipes" that all but cut off communications between functions. (Senge, 1990, p. 23) These "stovepipes" also create the "us versus them" mentality that exists in some organizations. The need to assess the work force readiness becomes key to eliminating these "stovepipes" and changing the organizational structure.

Many times resistance to change is not only due to fear of the unknown, but from the lack of understanding on the part of those responsible for the change. Whether the resistance is to the change, or a reaction to the change, people find comfort in applying familiar

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solutions to problems, sticking to what is known best. Pushing harder and harder on familiar solutions, while fundamental problems persist or worsen, is a reliable indicator of nonsystematic thinking. (Senge, 1990, p. 88) Assessing the situation can lessen the trauma of change. If people do not share a common vision, and do not share common "mental models" about the business reality within which they operate, empowering people will only increase organizational stress and the burden of management to maintain coherence and direction. (Senge, 1990, p. 175)

Assessing work force readiness will help people understand the direction that is being taken and where the organization needs to start. It would be foolish and naïve to expect change without first understanding those that will be instrumental in achieving the goal. The truly creative person knows that all creativity is achieved through working with constraints. Without constraints, there would not be creativity. As children we learn what our limitations are, but too often this learning is generalized. We are constantly told we can't have or can't do certain things, and we may come to assume that we have an inability to have what we want. In the traditional authorization organization, the dogma has been managing, organizing, and controlling. The real challenge for any type of change is "enrolling" the work force in the change process. By assessing the work force, the organization not only is able to analyze where they are in terms of readiness, but if effectively administered, the assessment tool plants the seeds for aiding in the change. The work force will think about the questions even after the assessment is done. This helps the change process because they have involvement in the change. The enrollment of the work force has started with the analysis, because it is a free choice, and they are not being "sold."

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Total quality management must meet four criteria in order to succeed. First, it must

be based on a quality mindset and orientation in all activities, at all times, including every

process and product. Second, it must be strongly humanistic to bring quality to the way

employees are treated, included, and inspired. Third, it must be based on a decentralized

approach that provides empowerment at all levels, especially at the front lines, so that

enthusiastic involvement and common purpose are realities, not slogans. Fourth, TQM must

be applied holistically so that its principles, policies and practices reach every nook and

cranny of the organization. In short the TQM approach must shape all parts of the

management systems, structure, and style, not some pieces in some ways. (Creech, 1994, p.

5) Bill Creech emphasized the need to be humanistic. Assessing the readiness of the work

force for change is one way to approach any type of change. Approaches to change are

always difficult. There is resistance no matter what process is tried. It then becomes key to a

successful change to insure that any negative impact is minimized. Recognition of the

centralization, poor quality, and a lack of responsiveness to customers are all signs that there

is a need for change. The centralized approach works to separate the thinker and the doers.

Give more authority to the doers, linking responsibility with authority and push down to

lower organizational levels. (Creech, 1994, p. 150) But what if the lower organizational level

is not ready for this change? There is a challenge in proposing this type of dramatic change

in organizational structure. This is where work force assessment is critical to the success of a

change process. It is an observable phenomenon that when the relationship has deteriorated

to the point that the organization itself is struggling, the management will claim that the

workers are responsible and for the workers to contend the opposite. Such a thorough

rupture in relations might accurately be called the Eastern Airlines Syndrome. (Creech, 1994,

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p. 162) This type of behavior can be analyzed through an assessment tool. Where does management perceive the work force and visa versa? Once a disconnect is established, there is a place where groundwork for change can start. Recognition of the failures of both parties to perceive each other correctly can be critical to the success or failure of any change attempt. Beyond the recognition that there is a problem there has to be effective communication between the parties involved helping foster the change.

Employee perceptions about their job's impact on customers, communication within the company, the balance between praise and punishment, their perception about input in the decision making process, views of management, satisfaction with management, and willingness to participate in process improvement are key issues in any change. Assessing these perceptions will help in improving the readiness of the work force to implement change. But unless the employees perceive that productivity and quality improvements will benefit them, directly and tangibly, you can forget any improvement plan. It won't work because it lack the principle ingredient, people. (Creech, 1994, p. 447) This is where assessment will help. Recognition of the workers' needs go far beyond the financial, self-esteem and recognition for their work. Keys to successful changes involve the work force from the base level and throughout the change process.

RESEARCH QUESTIONS

Based upon the information summarized in the literature review, this study will focus on the following questions that pertain to organizational readiness:

1. How do the employees view the company's and department's communication processes?

2. To what extent is there a perception that employees are rewarded for positive performance in comparison to being punished for poor performance?

3. To what extent do employees feel that they have input to the decision making process?

4. To what extent do employees feel that they are asked for ideas?

5. To what extent do the employee feels that they are dictated to rather than asked to perform their job?

6. To what extent do the employees perceive that the company or management encourages them to think?

7. To what extent does management encourage the employee to make improvement suggestions?

8. To what extent does the employee feel it has ideas on how to improve operations?

9. To what extent does the company or management listen to ideas and use them?

10. To what extend does management use employee ideas and take credit for them?

11. To what extend does management use employee knowledge?

12. To what extent are the employees satisfied with their management or supervisors?

13. To what extent are the employees willing to participate in process improvement?

14. To what extent does the employee perceive process improvement as help for the company?

15. Does the employee perceive their own performance as better when they work alone or in a group setting?

16. To what extent does the employee believe that their department and the company are committed to excellent customer service?

METHODOLOGY

Questionnaire:

      A questionnaire was developed to measure employee perceptions of various aspects

of their job, company, management, and other work force members. Each item was

measured using a Likert type scale, consisting of five anchors and scale points ranging from

strongly disagree to strongly agree. A total of sixty-five questions were incorporated within

the questionnaire. Of these questions, items 1 through 57 were administered to both labor

and management. Appendix A shows the format of the questionnaire for these questions.

Questions 58 through 65 were added to the questionnaire that was administered to those

participants who held management positions. Appendix B shows those questions, which

however, are not utilized within this report. The topical areas and number of items for each

topic are as follows:

Table 1

Topical Areas of Questionnaire and Number of Items for Each Topic

Topical Area	Number of Items
Background Information	Six Items, Items1 through 6
Job Performance Impact	Five Items, Questions 1 through 5
Communication	Two Items, Questions 6 and 7
Positive Motivation	Four Items, Questions 8 through 11
Management	Thirteen Items, Questions, 12 through 17, 26 through 31, and 41
Willingness to Participate In Process Improvement	Five Items, Questions 18 through 22

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Job Satisfaction	Eleven Items, Questions 23 through 25, 32 through 38 and 57
External Factors	Four Items, Questions 39, 40, 48, and 49
Job Process	Four Items, Questions 42 through 45
Customer Service Commitment	Two Items, Questions 46 and 47
Co-worker Preference	Seven Items, Questions 50 through 57
Management's Perspective	Eight Items, Questions 58 through 65

Of the 65 questions incorporated into the questionnaire, none of the questions concerning management's perspective were analyzed in this research. Of the 57 questions that were administered to both labor and management, only 22 were analyzed. The reasoning behind this minimization was that, the questions selected provide the necessary information needed for this research. Analysis of the data collected in the future will allow more focused discussion and development of narrower areas of interest.

Sampling Procedure:

The subject airline's total employee population is 60,000 people. Instead of sampling from the whole population of the subject airline, a sub-populations from the line maintenance organization's work force at the hub where the survey was used. This sub-population consists of 450 mechanics and 20 managers. These personnel are distributed through three shifts of line maintenance and hangar maintenance positions.

The subjects of this sub-population selected for administration of the questionnaire were selected using the following method. The work force of 450 mechanics was put in alphabetical order and assigned a number from 1 through 450. Through the use of a table of

random numbers, 150 of the 450 mechanics were selected to receive the questionnaire. The twenty managers assigned to the subject airline's maintenance function were all administered the questionnaire that included questions 58 through 65.

Participants:

Of the 150 mechanics who were administered the assessment tool, 79 responded and 9 of the 20 managers responded. This equates to 51.76 percent of the people selected who responded. This random sampling technique produced a closely matched sample according

shift	Respondents	Percentage
First Shift	27	30.7
Second Shift	27	30.7
Third Shift	26	29.5
didn't provide	8	9.1
total	88	100
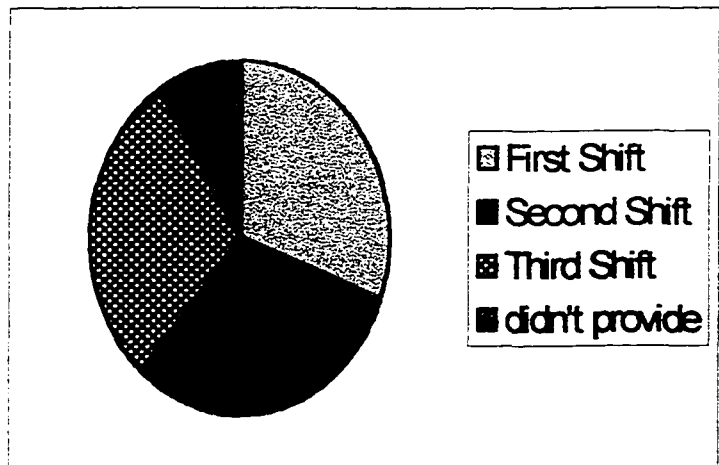
to shift. There were 27 from first shift, 27 from second shift, 26 from third shift and 8 who didn't provide shift information. (Chart 1)

Chart 1: Breakdown of Respondents by Shift. This chart shows the respondents' distribution by shift.

External factors may have an impact on the study. At the time of the survey's administration, the company and the union representing the work force had been negotiating for a new contract for well over a year, and there was an active drive by the mechanics to

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petition the National Mediation Board for representation by another union. Another

historical factor that may influence the survey results consists of the increased tension

between labor and management as the result of some individuals being fired from the

company. These factors are possible extraneous variables influencing the survey results.

DATA ANALYSIS AND RESULTS

Job Performance Impact

The first four questions of Part II of the survey deal with the individual's perceptions of the importance of their job and its impact on their customers. The questions detail their perceptions about job impact on the flying customer, employees, other departments and how other departments impact their job. Chart 2 (page 46) shows that the respondents view their jobs as being critical to the flying public. The chart illustrates that 25 percent agree that their job performance impacts the flying customer, while the remaining 75 percent of the respondents strongly agree. There were no respondents who didn't feel that they impacted the flying customer. Shift assignment has minimal impact on perceptions by the respondents.

Communication

Another key element in the development of change is communication. Questions 6 and 7 of the survey explore the perception of communications within the department and with other departments. Chart 3 (page 47) looks at the way the respondents perceive the intradepartmental communication. The perception that internal communication needs to be improved was held by 84.3 percent of the respondents with 48 percent of those respondents stating that they strongly agree with the need for change. Of that percentage of people that held the belief that communication needed improvement, 31.08 percent were from first shift, 32.43 percent were from second shift, and 27.03 percent were from third (the remaining 9.46 percent didn't provide shift information).

45

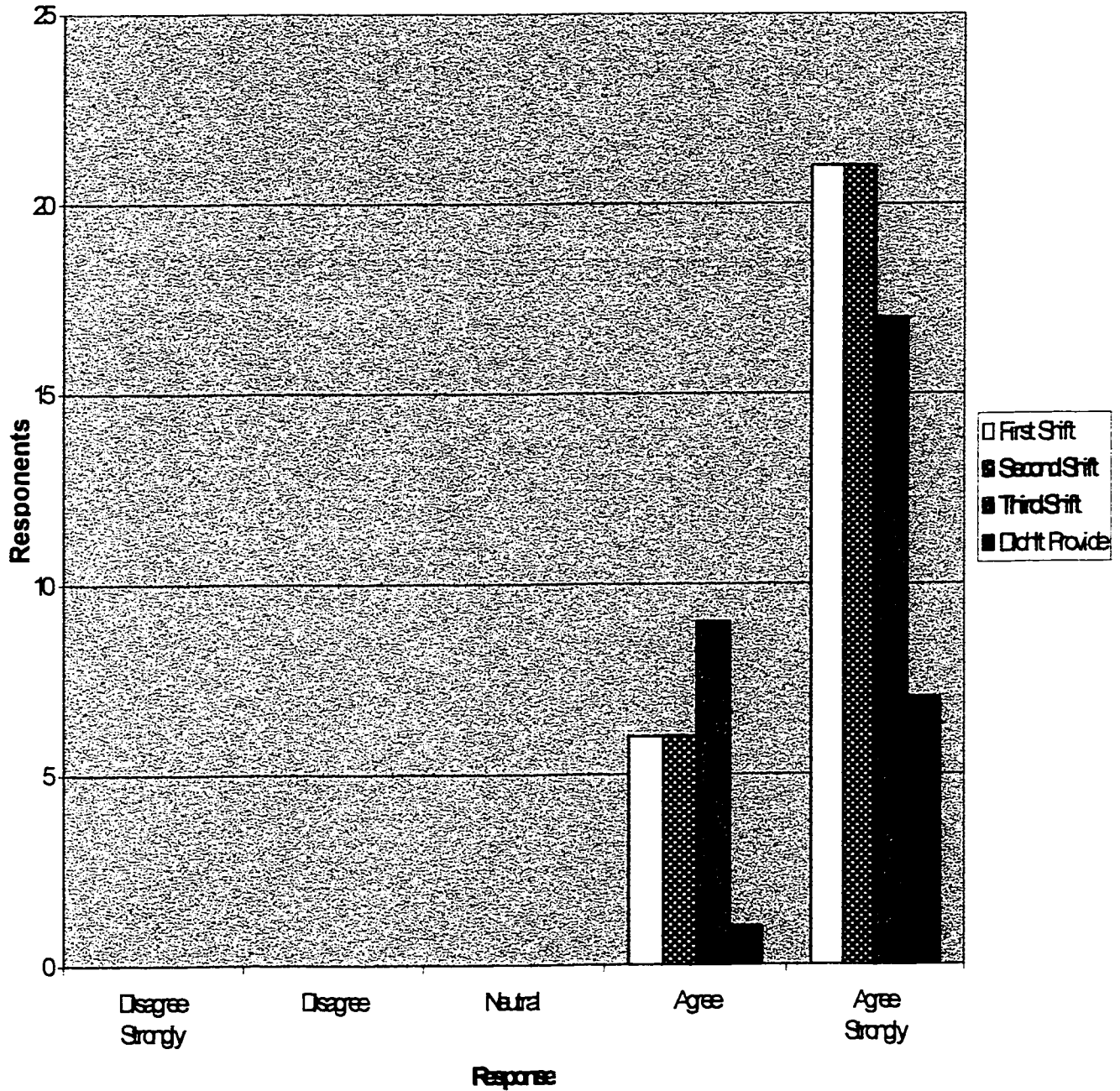Question 1: My Performance on My Job Impacts the Flying Customer.

Chart 2: Employee Perception of How Their Job Performance Impacts the Customers, Broken out by Shift.

46

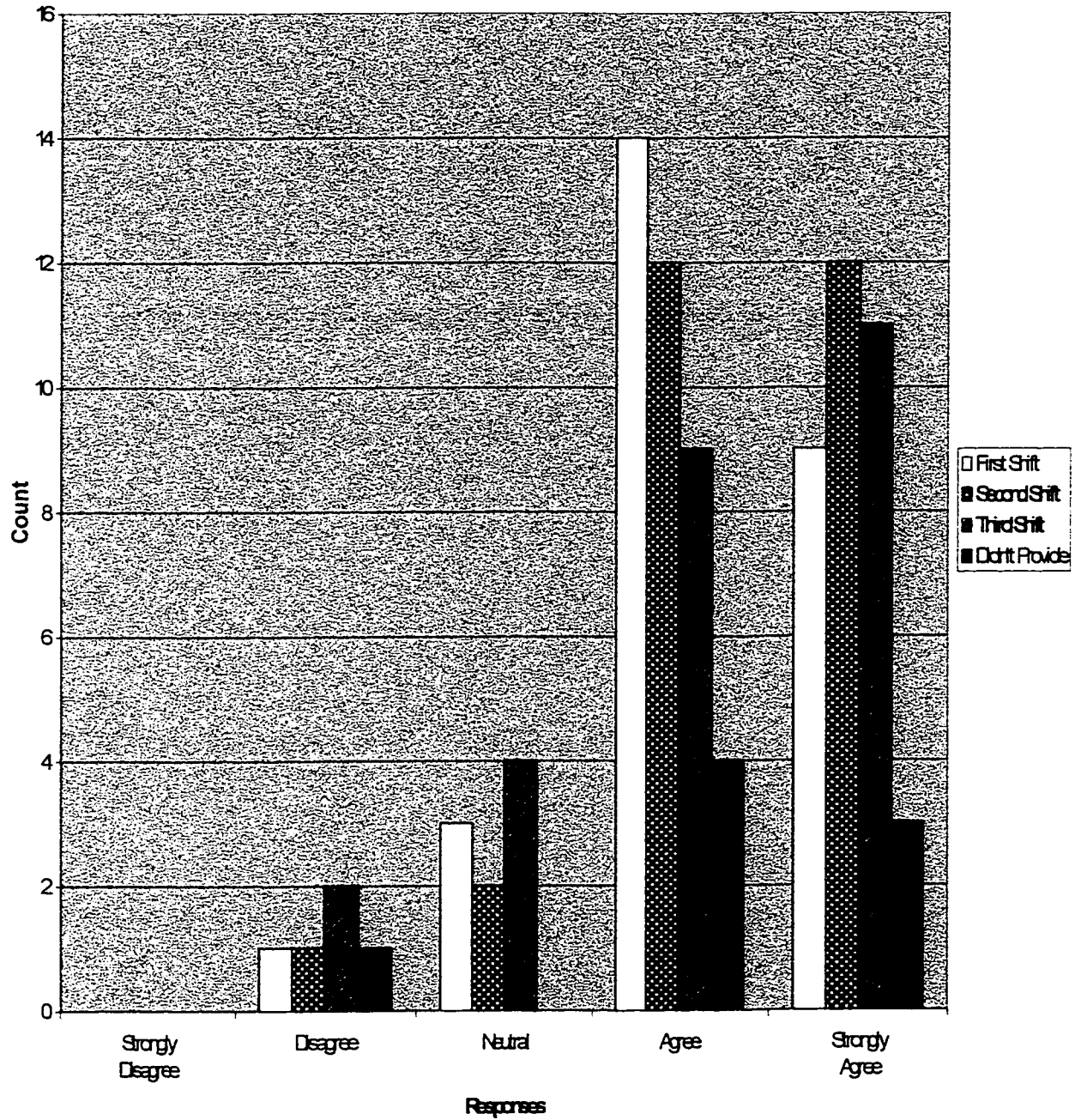Question 7: Communication Within My Department Needs to be Improved.

Chart 3: Employee Perception of Intradepartmental Communication Broken Out by Shift.

47

The general consensus is that communication within the department needs to be improved. The majority of the respondents either agreed or strongly agreed on this item. Communication is a key element in the functioning of any organization. The better the communication the better chance there is for implementing effective change. Intradepartmental communication is critical but so is interdepartmental communication. Chart 4 (page 49) looks at how the respondents view the communication between departments at the subject airline. Again there is strong indication that there needs to be improvement with interdepartmental communication at the subject airline. Of the 88 respondents, 97.73 percent agreed or strongly agreed that the communication between departments needed improvement. Over ninety-seven percent of the respondents felt that communication between departments needed improvement. This perception was fairly consistent regardless of the respondent's shift assignment. As key as communication is to any process improvement program the need for the work force to be confident of their management is also instrumental in any improvement process. There also has to be the feeling that there is a benefit to taking a risk.

Management

Chart 5 (page 51) explores the propensity of management not to recognize good performance. This perceived weakness on the part of the management team as seen by the work force may prevent workers from taking risks that may improve service to the customer. Question 27 delves into whether the work force perceives supervisors as giving recognition for good performance. Forty-eight percent of first shift respondents either disagreed or strongly disagreed with the statement.

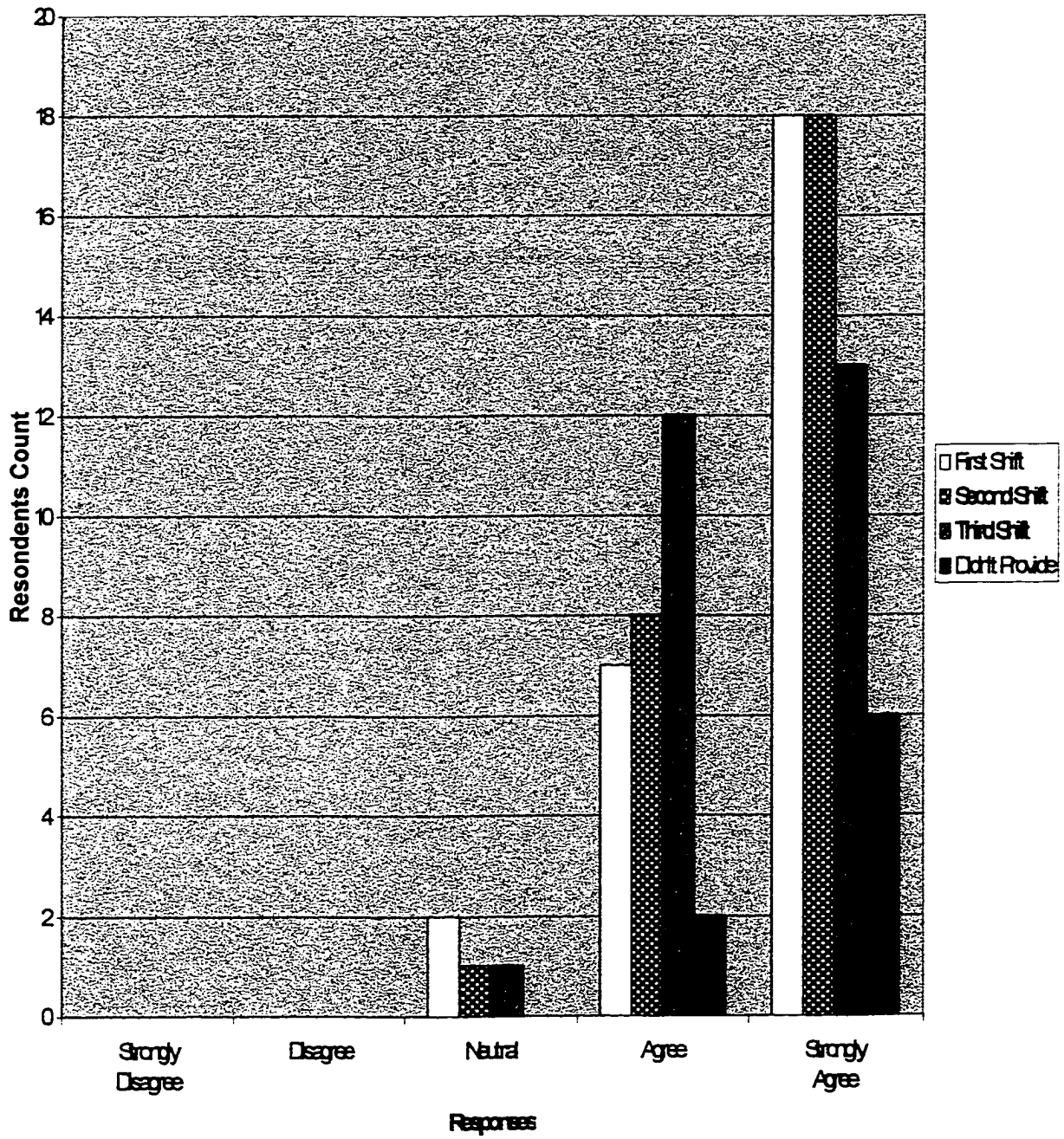Question 6: Communications between departments need to be improved.

Chart 4: Employee Perception of Interdepartmental Communication Broken Out by Shift.

49

Fifty-nine percent of second shift respondents fell into the same category. And forty-two percent of third shift respondents fell into the same category. What is interesting to note is that of the 88 respondents, 21.59 percent of them neither disagreed nor agreed with the statement. Chart 5 shows that the respondents' perception is that in the subject airline a person is more apt to get punished for doing wrong rather then get praised for doing something right. These questions play an integral part in determining whether or not the company being studied has the "beaten dog" syndrome prevalent. The "beaten dog syndrome" is the perception held that any time a manager asks to see an employee, the first reaction is "What did I do wrong?" Their reaction is similar to a dog that has been beaten into submission so that when his master calls it reacts by cowering in fear. An important aspect of looking at the issue of punishment versus praise is by shift. Questions 26 phrases the question in terms of aptness of punishment for errors versus praise for good performance.

Chart 6 (page 52) shows how managers are perceived when it comes to recognition of their work force for good performance. Fifty-one point one four percent of those who responded felt that their supervisor didn't recognize good performance. While only 27.27 percent perceived recognition for a good job. The remaining 21.59 percent were neutral. When coupled with the previous chart on praise versus punishment one can conclude that the subject airline's management reinforcement orientation may undermine employee's willingness to take risks to improve the present process.

Any change process that is effective requires that the employee or work force be an integral part of the decision making process. Questions 28, 29, and 30 investigate whether or not the subject airline's work force feels that they are involved in the change process.

Question 26: My Supervisor is More Apt to Punish You When You do Something Wrong

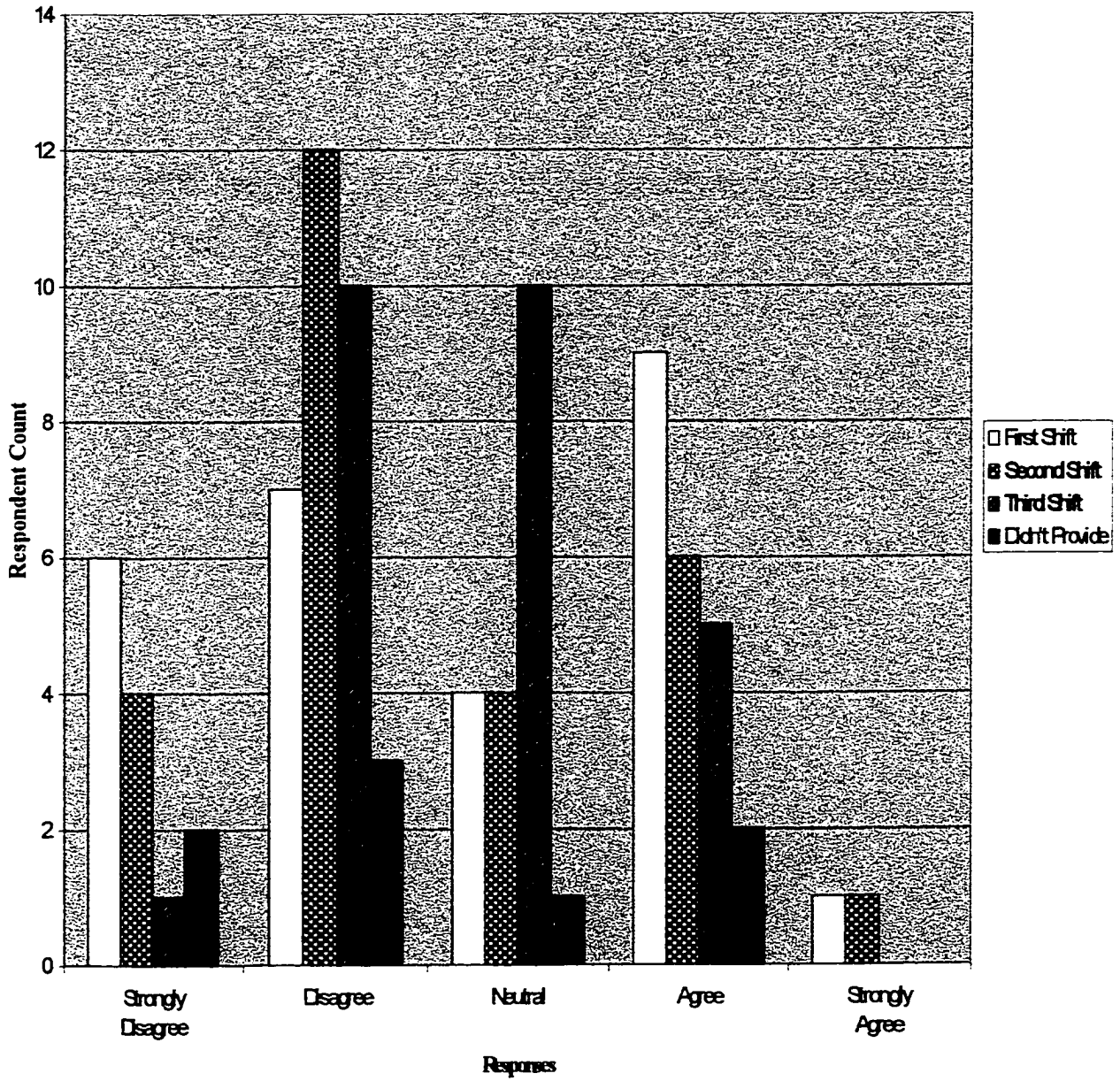Than Praise You When You've Done Something Right.

Chart 5: Employee Perception of Management's Platform on Punishment versus Praise,

Broken out by Shift.

Question 27: My supervisor will give you recognition for good performance.
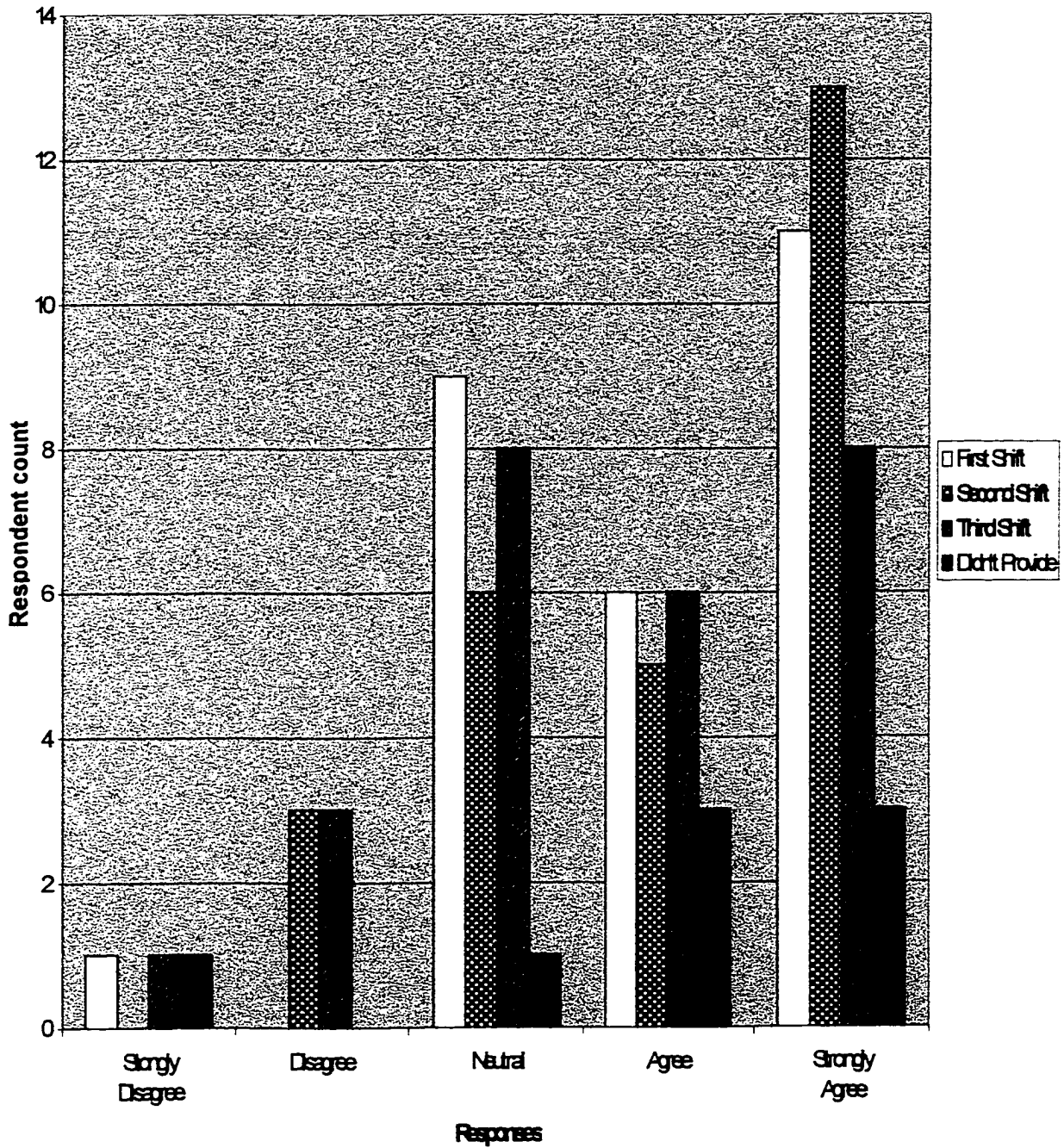
Chart 6: Employee Perception of Management's Recognition for Good Performance.

52

Question 28 is outlined on Chart 7 (page 54) and looks at whether or not the work force is even consulted when major changes that will impact the work units are suggested. Specifically, it asks if the supervisor consults with workers prior to making major decisions that will impact their work unit. Over 61 percent of the respondents felt that they were not consulted prior to implementation of changes that would impact their work unit. Only slightly less then 22 percent felt that their supervisor asks for their input prior to any change that would impact their work unit. This lack of communication may have an adverse impact on a participatory management program. This chart using data from question 28, shows that the majority of the work force feels that they have no input on changes that will have an impact on the way that they perform their job. This is a critical aspect to look at when attempting to change the way an organization conducts its business.

In looking at change with work force involvement one has to see if the management staff solicits ideas from labor. With that in mind, question 29 was used in the questionnaire. Sixty-three point six percent of the respondents felt that management didn't ask them for ideas on how to do things. It was evenly split between strongly disagree and disagree. Only 18 percent were neutral on this and the remaining 19.4 percent felt that they were asked to participate on how to make things work. Transformation to a participatory or total quality environment might take longer at the subject airline due to this disparity. Chart 8 (page 55) provides the graphics of this question. The majority of the respondents to question 29 felt that the management didn't ask for their ideas on how to make things work. The 63.6 percent can have a strong impact on the success or failure of any participatory or total quality management initiative. This is an area where teamwork and communication have to improve

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Question 28: My Supervisor Consults the Workers Before Making a Major Decision That
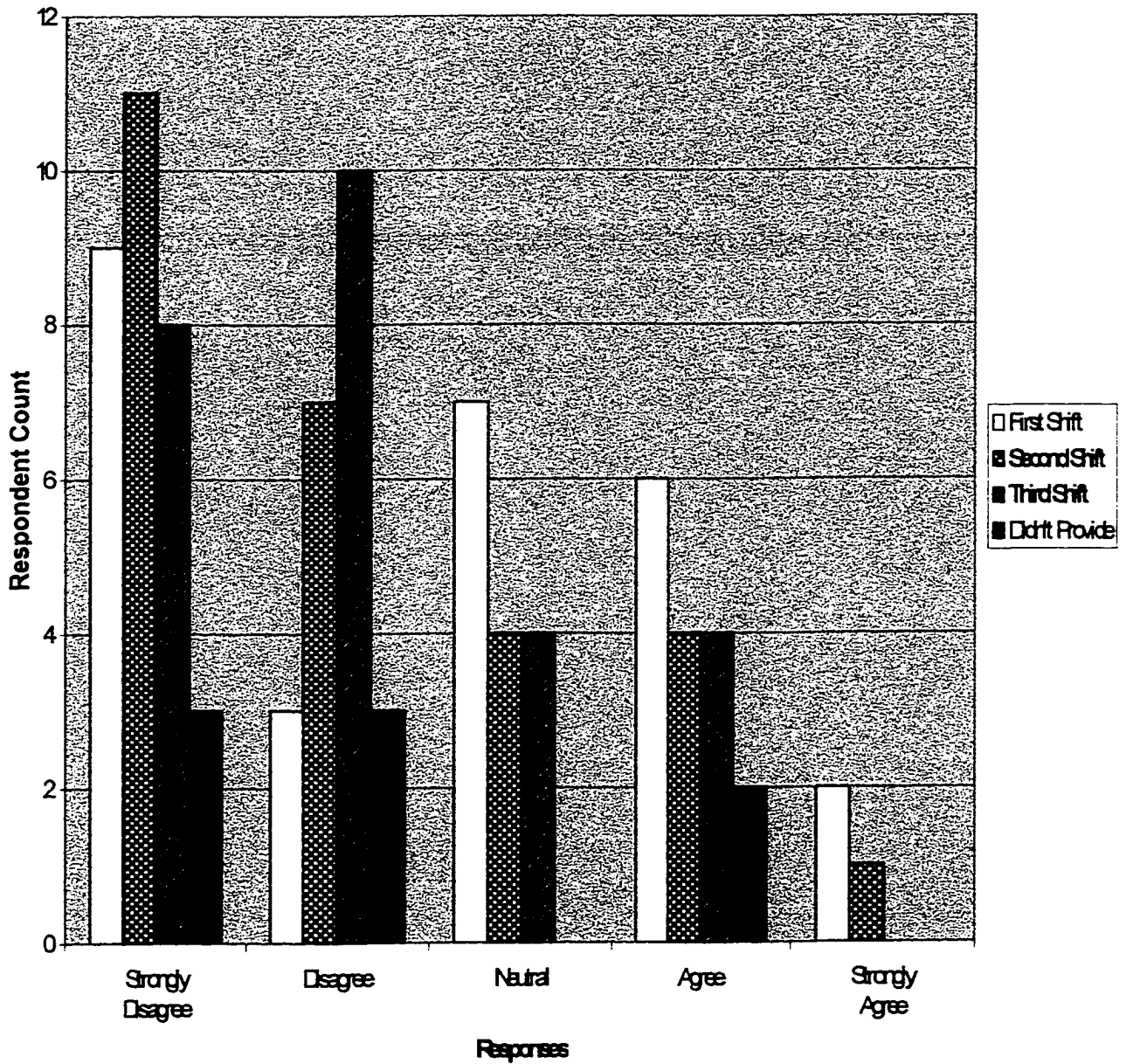Will Affect the Work Unit.

Chart 7: Employee Perception of Their Having Input on Major Decisions Impacting Work
Unit Broken Out by Shift.

54

Question 29: My Supervisor Asks for My Ideas on How to do Things Around Here.
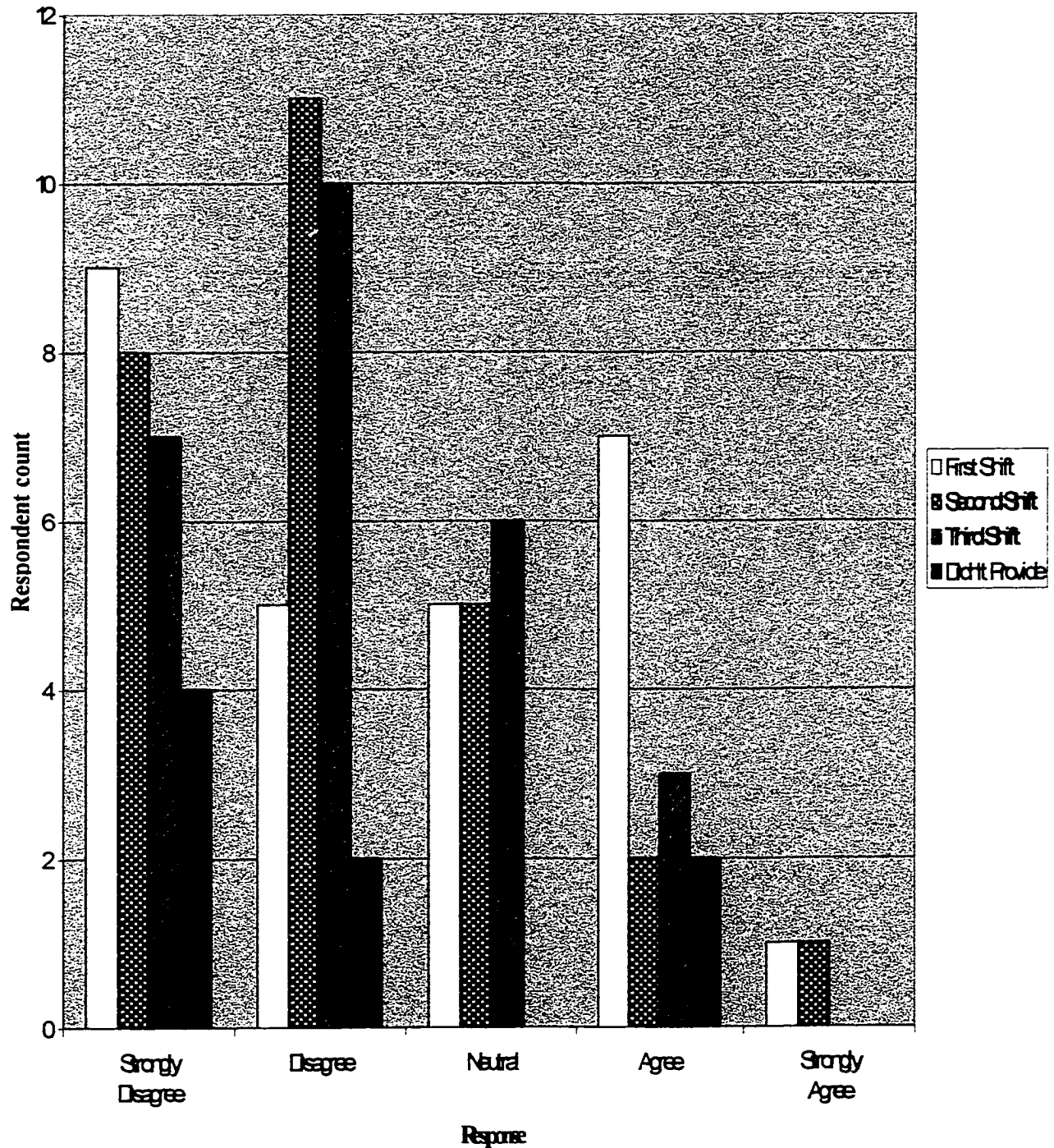
Chart 8: Employees Perception of Whether They are Asked for Ideas.

When asked how to make things work, the respondents perceived that management dictates to the work force rather then asks. Forty-six point six percent of the respondents felt that they were dictated to rather than asked. And 34.1 percent were neutral about this subject. The remaining 19.3 percent disagreed or strongly disagreed with the idea that management dictated to them rather then asked. Those respondents who agreed with the statement of question 30 were from all shifts, so it is implied that dictation of what is wanted is the norm at the subject airline. The lack of input into their work may create an attitude of "why should I care, they'll do what they want anyway." Barriers to communication such as this could have an adverse impact on management's ability to work effectively. The responses show that there is a feeling that the work force does not have input into how they are to perform their tasks. They perceive that the decisions and ways they have to perform are dictated to them without their input or opinion. The realization is that not every employee can be consulted about every change or work process, but if there were a process in place that did involve the employees, then the results of the survey might be different. The lack of employee interaction with management on how work is performed runs counter to any process improvement program. Such dictation of work methods may cause inefficiencies, redundancies, and resentment. The inefficiencies come from the inability of the manager to be all knowing and all seeing. The redundancies come from various work divisions not knowing what the others are doing and thus creating work that is already being covered by another function. And the resentment comes from the work force because they are intimately involved in the day-to-day work process and know, for the most part, the best way to accomplish a given task. When directions are given from an individual without letting the doer know what is needed, resentment can result, especially, if the doer has a

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better understanding of the end result. If people are involved with the work process, they are more apt to run with it, because they have ownership. And if one of their peers decides to go off and not participate, the work unit members are more apt to take on the attitude problem. Ownership and peer pressures are effective tools in participatory or total quality processes. Chart 9 (Page 58) shows the perception of dictated to rather than asked. The data extracted from question 30 indicates that the subject airline's management dictates work processes rather then asks for improvement or methods to accomplish task requirements.

Related to the perception that the work force is dictated to rather then asked for input is the concept that people are encouraged to think about improvements. Question 8, "People around here are encouraged to 'think' looks into the perceptions of the respondents on this subject. Fifty-eight percent of the respondents disagreed or strongly disagreed with the idea of being encouraged to think. Only 23.6 percent agreed that they were asked to think and none of the respondents strongly agreed. Chart 10 (page 59) shows the breakout of the responses.

Encouragement to make suggestions is needed for any program of participatory or total quality management to have effective change capability. With this in mind, questions 9 and 10 of the survey explore whether or not this concept was in place at the subject airline. The data shows that 62.9 percent of the respondents either strongly disagree or disagree with the idea that people are encouraged to make suggestions. Only 13.5 percent agreed that there was the necessary encouragement to make suggestions. This would indicate that there exists a positive re-enforcement mechanism for suggesting improvements and that management does encourage open exchanges of information on improvement.

Question 30: My Supervisor Often Tells People What to do Rather Then Ask Them Their

Opinion.
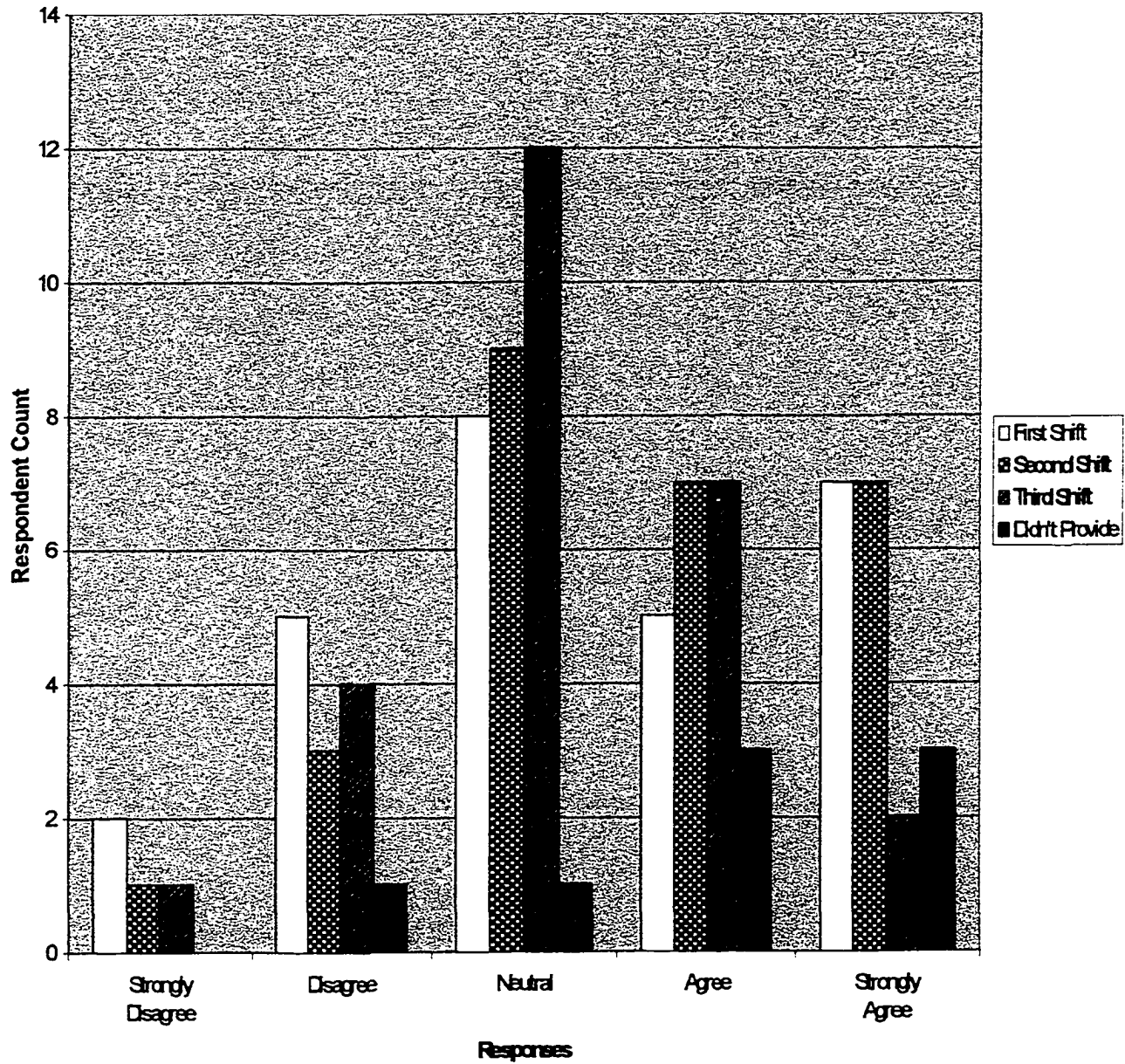
Chart 9: Employee Perceptions of Being Dictated to Rather Than Asked.

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Question 8: People Around Here are Encouraged to "Think."
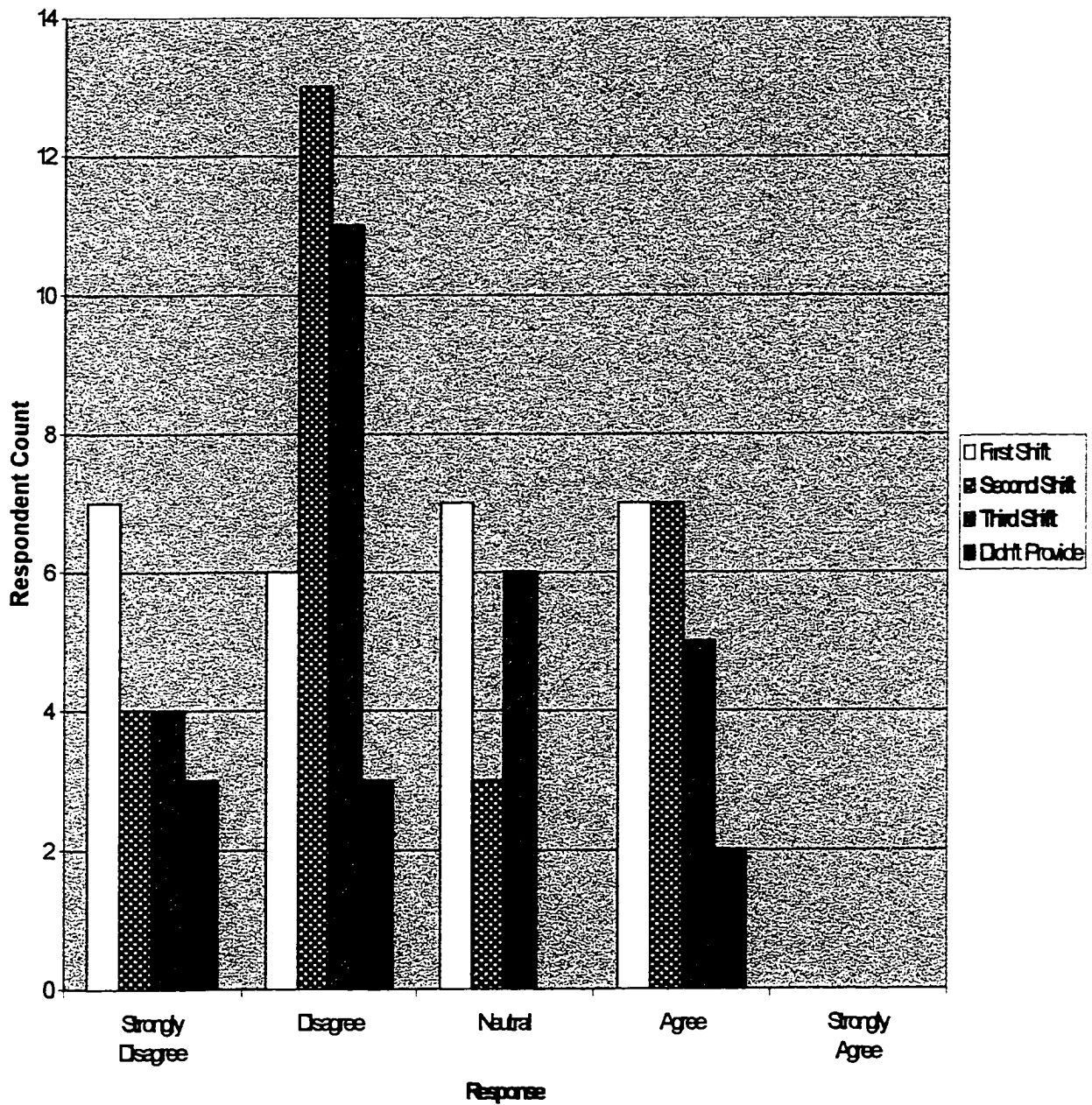
Chart 10: Employee Perception that They are Encouraged to "Think."

59

Chart 11 (page 61) shows the results of question 10. The majority of those who responded felt that there wasn't sufficient encouragement for them to make suggestions for improvement. The strong showing towards disagreement with the statement can seen.

Coupled with the encouragement to make suggestions has to be a reality that those who are encouraged actually have ideas on improvement, or at least their perception is that they have improvement ideas. Question 11 of the survey makes the statement that the individuals have ideas on how to make improvements. The results of the survey show that nearly three quarters of the respondents felt that they had ideas on how to improve things. This is where a company could establish a foundation for changing the organizational structure. Small incremental changes using those ideas brought forth by the work force creates ownership and therefore when larger changes are proposed, individuals won't be afraid to bring forth their suggestions on improvement and implementation. It therefore is important that the organization develop mechanisms for fostering employee ideas.

Chart 12 (page 62) explores whether the work force might be receptive to participation in a change process through the expression and use of their ideas. By identifying that the work force has ideas on improvement, their energies can be focused on change through implementation of their ideas that fall within the realm of what the company desires.

As important as encouragement and ideas are, the perceptions held by the work force about management are a critical part of the formula. The perceived willingness of management is another clue on how effective a change to a participatory or total quality management change process will work. Questions 12 through 15 look at these perceptions from the work force standpoint.

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Question 9: Management Encourages Employees to Make Suggestions About How to
Improve Work in This Department.
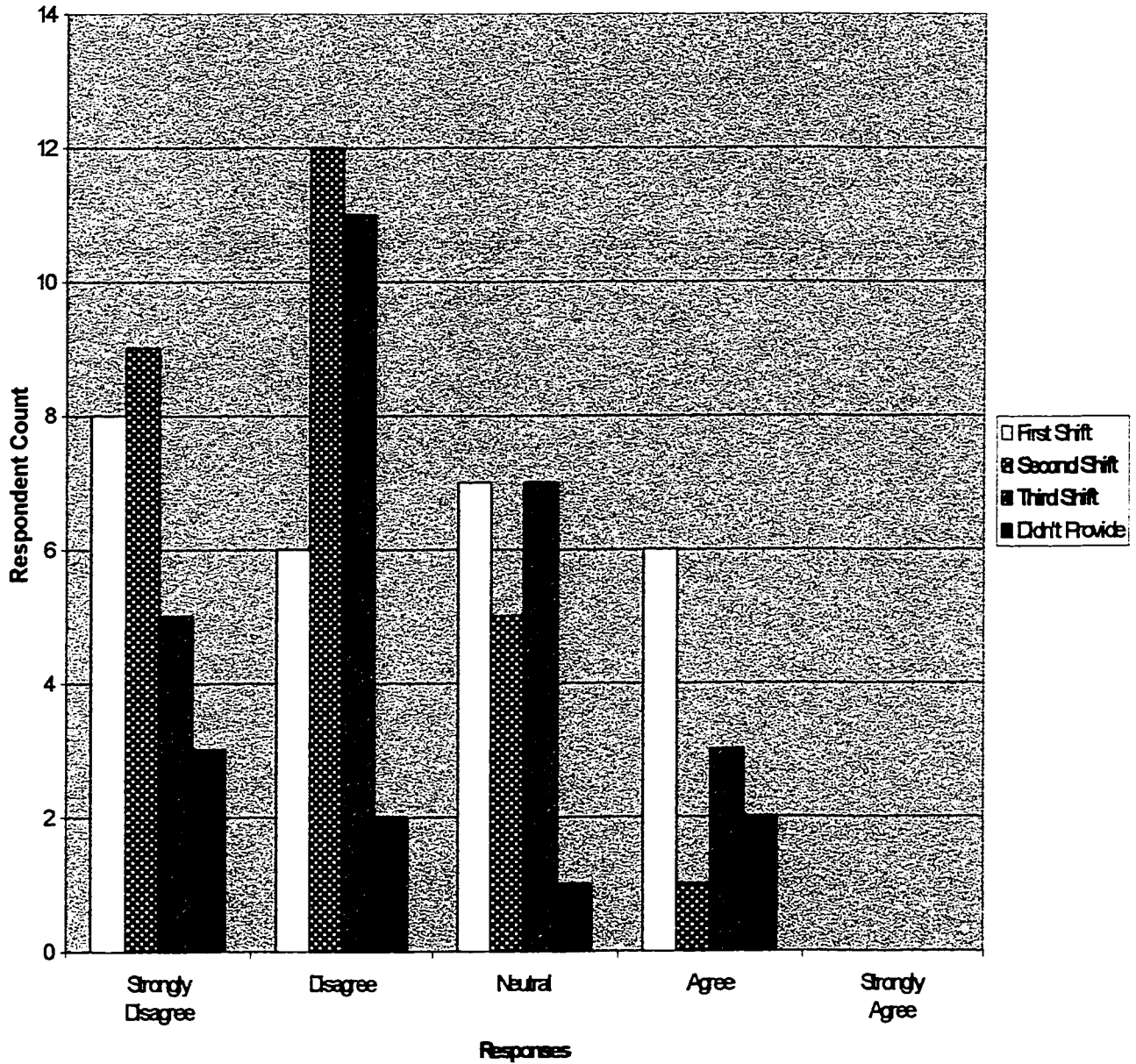
Chart 11: Employee Perceptions About People Being Encouraged to Make Suggestions.

61

Question 11: I Have a Lot of Ideas on How Things Could be Improved Around Here.
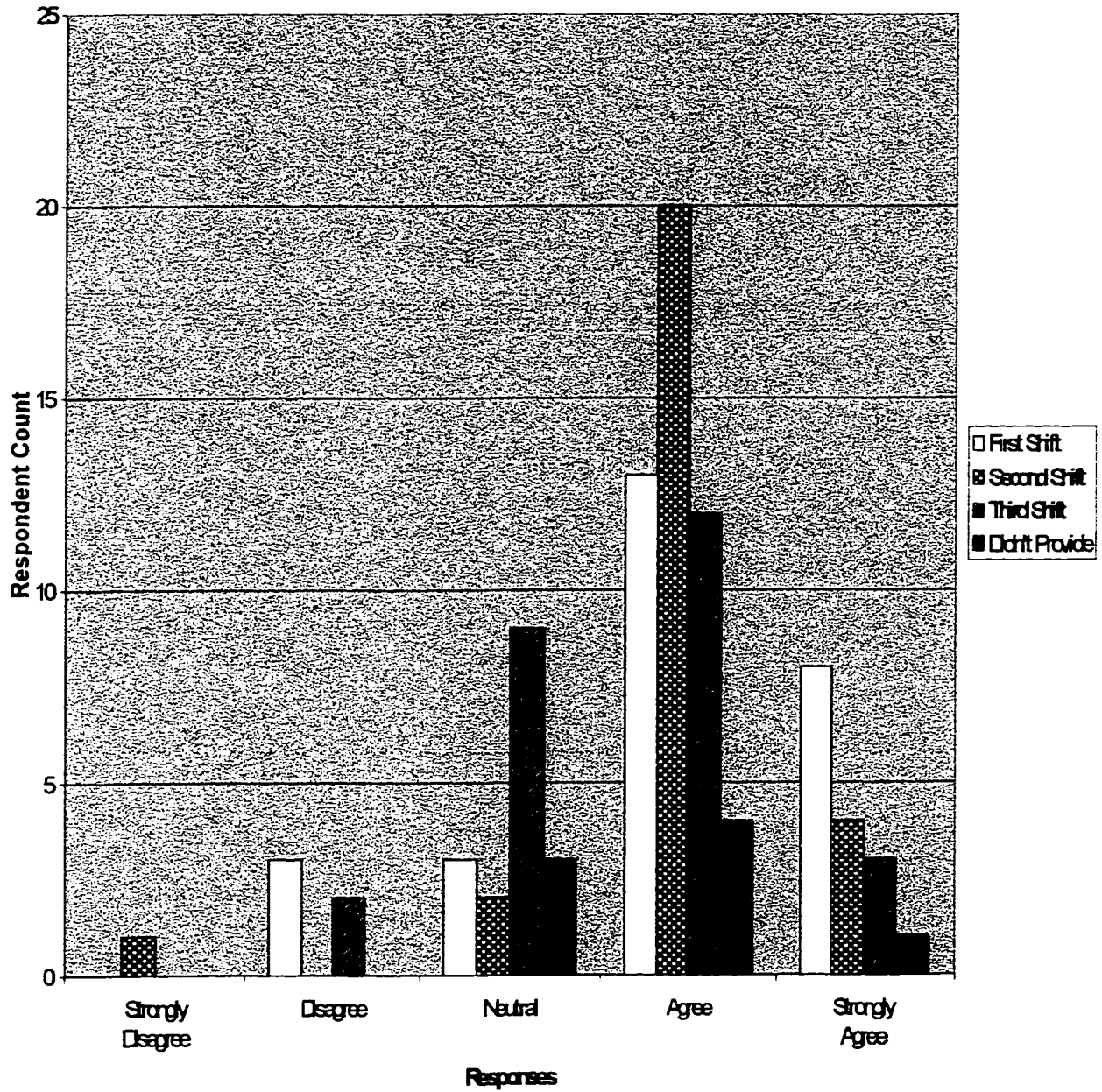
Chart 12: Employee Perceptions About Having Ideas on Improvement, Broken Out by Shift.

62

Chart 13 (page 64) looks whether or not management listens to ideas. It can be noted that 56.2 percent of those that responded felt that management didn't listen. This perception can have a detrimental effect on any process improvement attempt. The data extracted from the question 12 response shows a strong level of disagreement with the statement about management listening. This can create problems for any attempt at change.

Chart 14 (page 65) also looks at the perception that the work force has of the management. Specifically, it looks at whether management will consider and use good ideas. Fifty-seven percent of those who responded felt that management didn't use good ideas, 30.7 percent were neutral, while 13.5 percent felt that management did make use of good ideas. One can see from the charts that of those that disagreed, a higher percentage were from second shift. Further exploration of the shift make-up and management style would have to happen in order to determine whether this might have an impact on a proposed change.

The graph visually shows that a majority of those who responded felt that management didn't use good ideas presented. And of particular interest is the fact that a higher percentage of those who responded were from second shift. This would tend one to believe that the management style of second shift may stifle creativity.

Another area that needs to be explored is the willingness of management to use employee knowledge. If the perception is that management will not make use of employee expertise or even acknowledge the fact that employees may have the right answer, might minimize the chances of participatory or total quality management success. Chart 15 (page 67) graphically shows the perception is that management doesn't utilize employee knowledge.

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Question 12: Management Will Listen to Your Ideas.
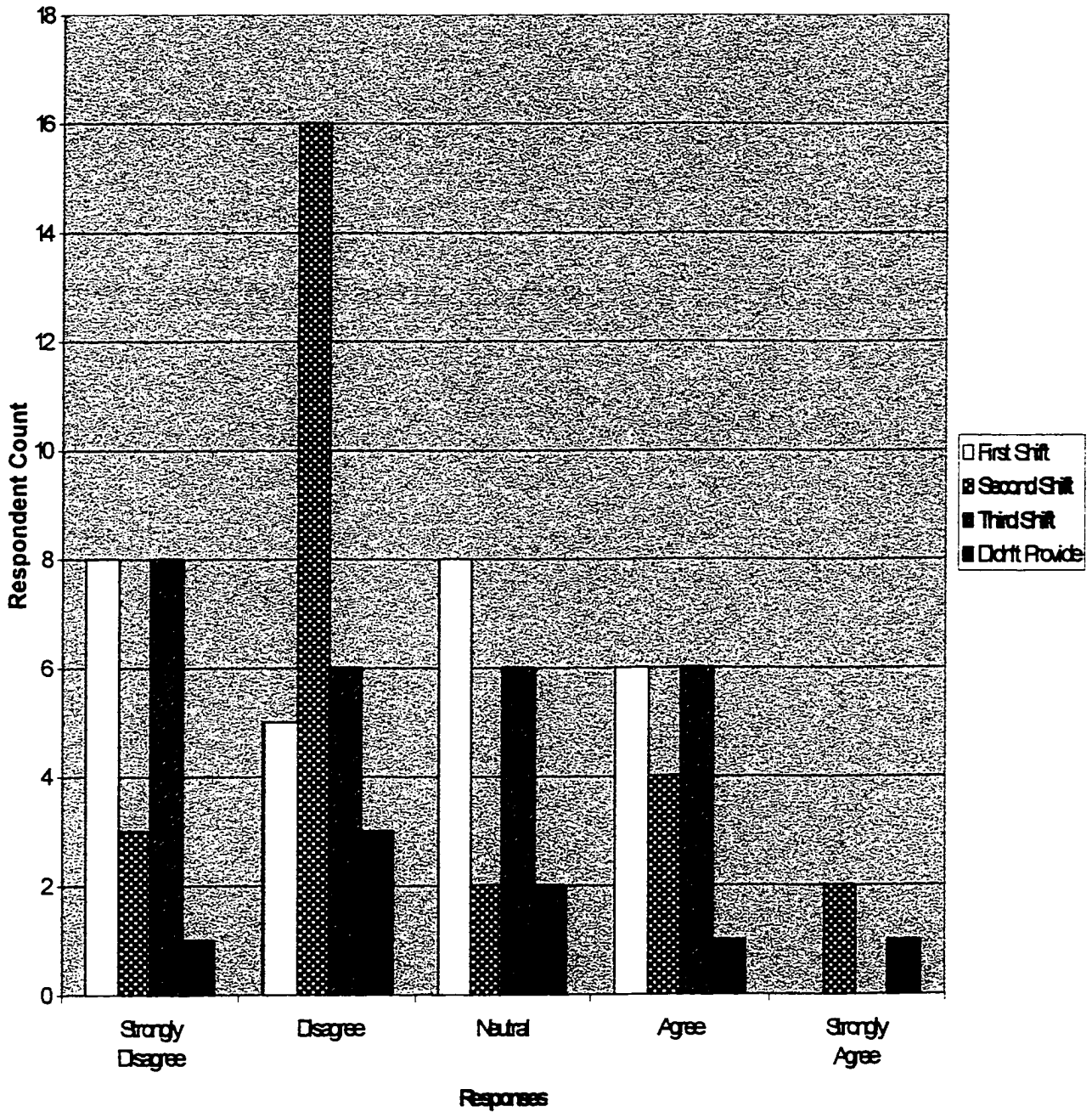
Chart 13: Employee Perceptions That Management Listens to Ideas.

Question 13: Management Will Put a Good Idea Offered by Workers into Use.
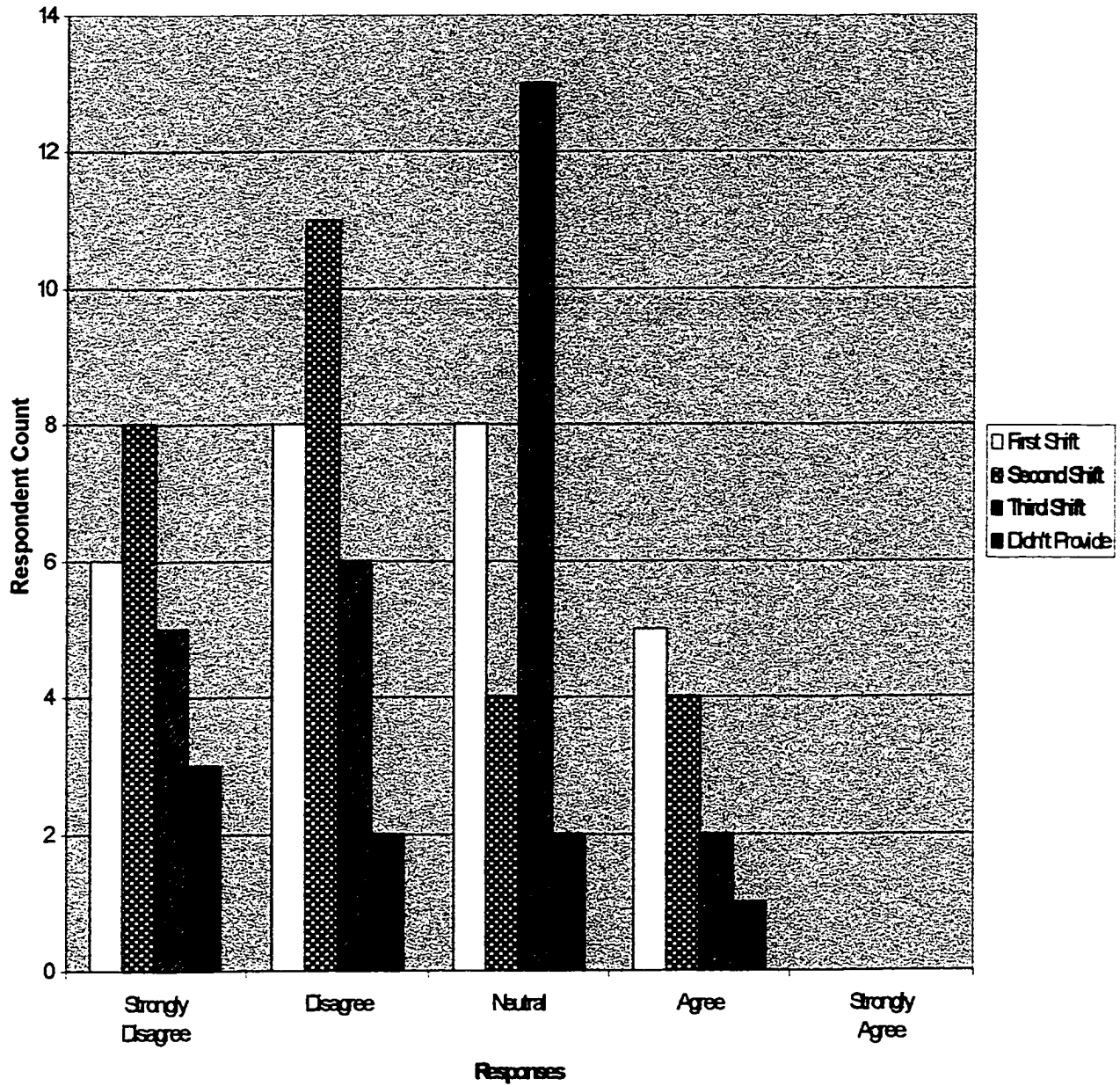
Chart 14: Employee Perception That Management will Use Good Ideas.

65

This data shows that 68.5 percent of the respondents didn't feel that management utilized employee knowledge. This information shows that a change process might have a difficult time succeeding because of the perceived lack of willingness on the part of management to use the resources available to them.

Even if management utilizes employee knowledge and ideas, there is a perception that recognition doesn't get to those most directly responsible for the idea. This perception is explored in question 14 of the questionnaire and graphically displayed in chart 16. At the subject airlines, 54. 5 percent of those who responded were neutral about the idea that management takes credit for employee ideas while only 29.4 percent felt that management took advantage of their ideas to better themselves. That perception could have an impact on the willingness of the work force to participate. It should be noted that over half of the respondents didn't feel that management was in one camp or the other. These respondents have the potential of being part of the change process because of their neutrality.

Chart 16 (page 68) shows that the majority was neutral on the subject. This can be used to generate more positive focus on change in an organization because the perception isn't negative. But if not properly managed, it might create negativism for any type of change because these respondents could go either way.

The previous charts have explored the respondents perceptions about how their job performance impacts the customer, how they perceive management's willingness to allow them to participate in process improvement and whether they feel they have ideas on how to improve the overall operation. But as critical as that is to success, so is question 35, which explores the respondents' satisfaction with their supervisor or manager.

Question 15: Management Fully Utilizes the Knowledge of Employees.
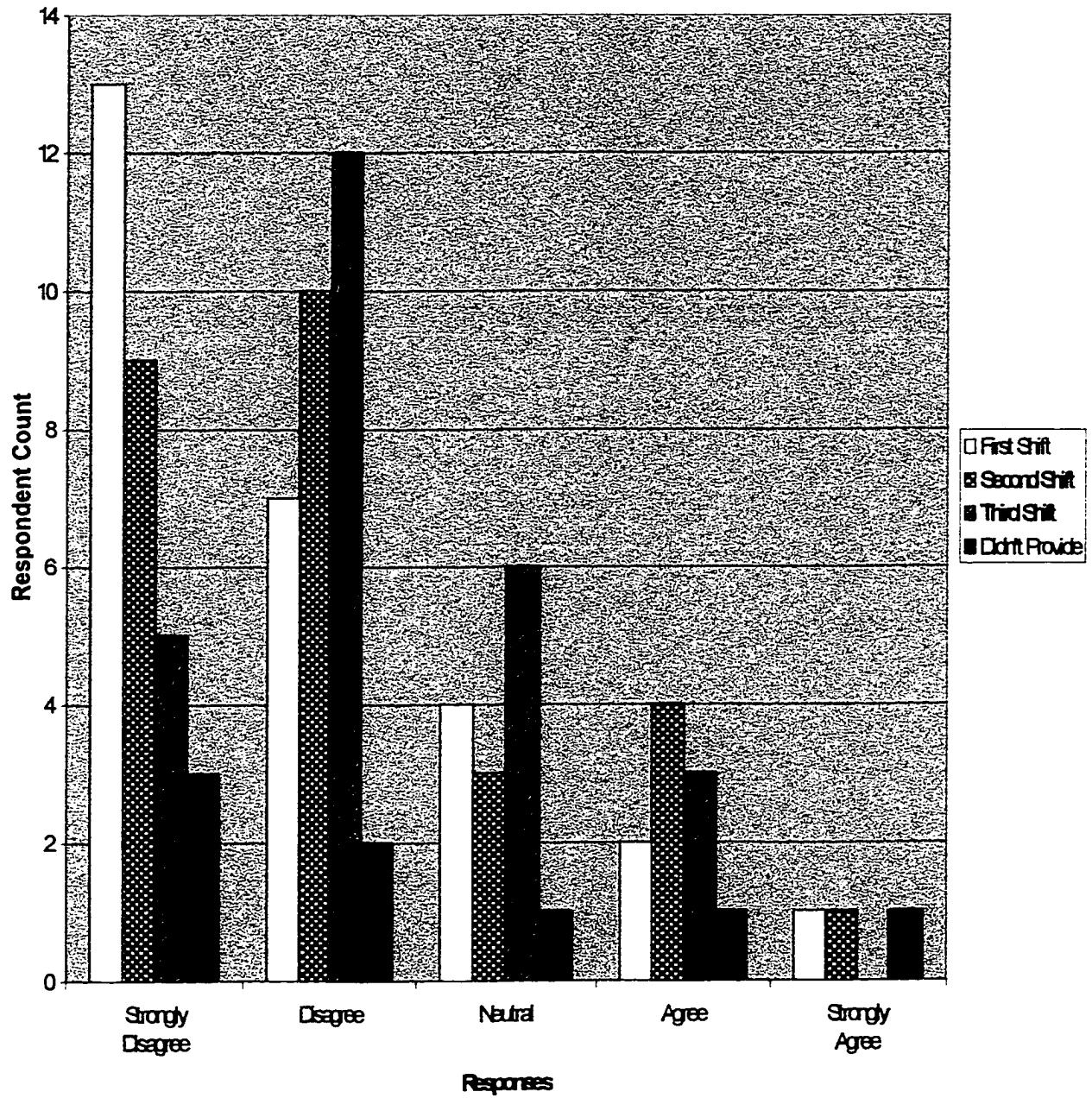
Chart 15: Perception of Employees That Management Utilizes Employee Knowledge.

67

Question 14: Management Takes Credit for Employee Ideas.
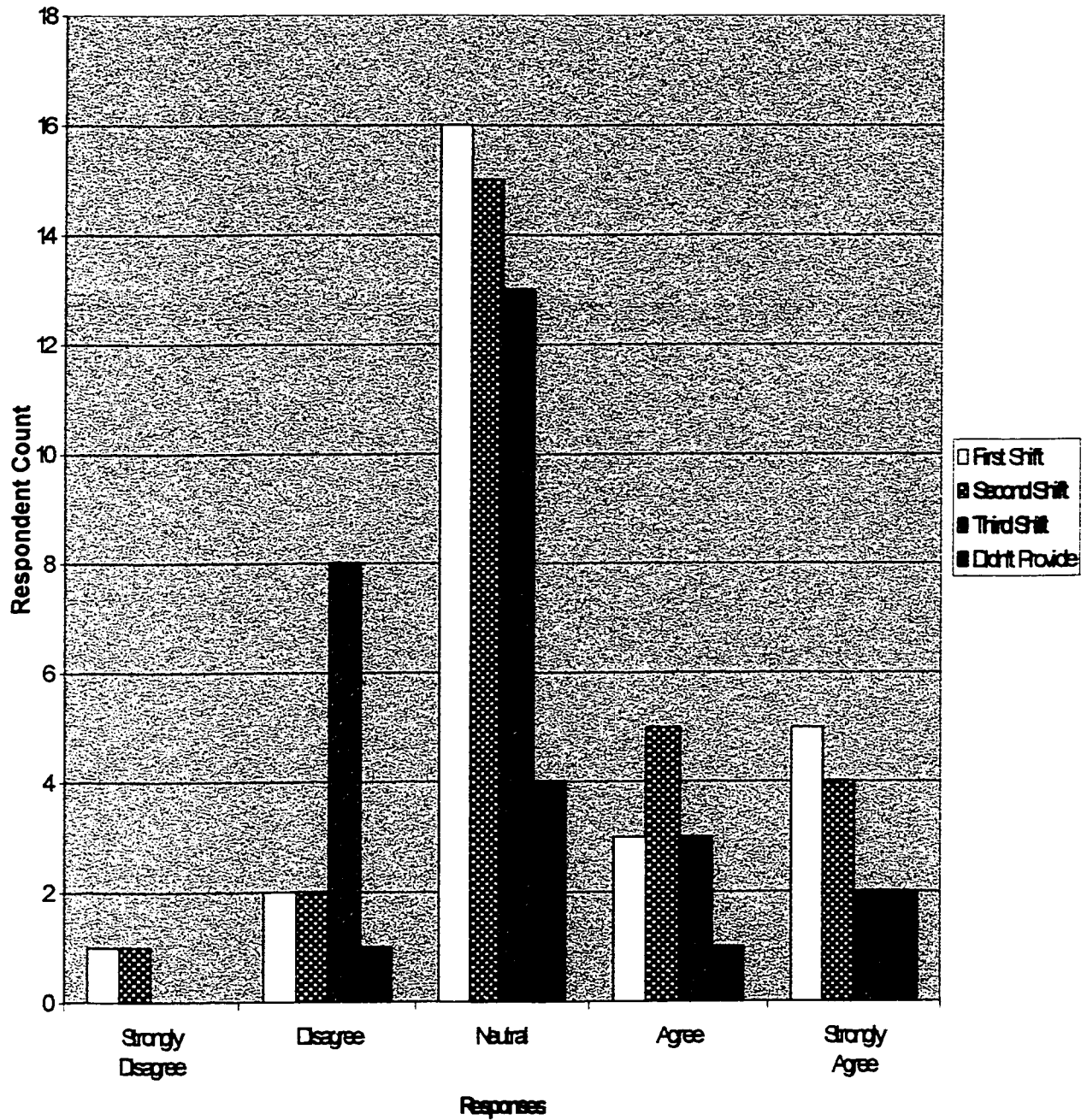
Chart 16: Employee Perception of Management Taking Credit for Employee's Ideas.

68

Chart 17 (page 70) graphically shows how the responses were over all three shifts. The two ends, which either strongly disagreed or strongly agreed, were major factors in the responses. The majority of the respondents were neutral. This could have a serious impact on any change process if the work force doesn't have a strong opinion about their management either way. The neutral responses of 37.5 percent of the respondents could have a serious impact on any change attempted. The reasoning is that these neutral respondents could fall to either side of the spectrum if a change is made and thus has a profound impact on the results of the change. Their neutrality is difficult to gage effectively and makes attempting to develop them more difficult.

Important to any change process attempt is the willingness of the work force to embrace the prospective change. It is easy to complain, but it is not as easy to get involved in the change process. Change is painful, and most people aren't willing to go through the pain. Questions 18, 19, 20, and 21 look at the perceptions of the work force on working in groups, versus working alone; willingness to participate in a process improvement group; and if they view that this would help. Fifty-eight percent of those who responded would be willing to participate in process improvement.

Participatory Management Perception

Chart 18 (page 71) details the data of question 18 of the survey. The more positive response to this question shows that the work force respondents are willing to explore the potential of process improvement and teamwork, and interacting closely with other departments to improve the operation.

Questions 19 and 20 support the previous data. These questions delve into whether the respondents work better in groups or alone.

Question 35: I am Satisfied with My Supervisor.
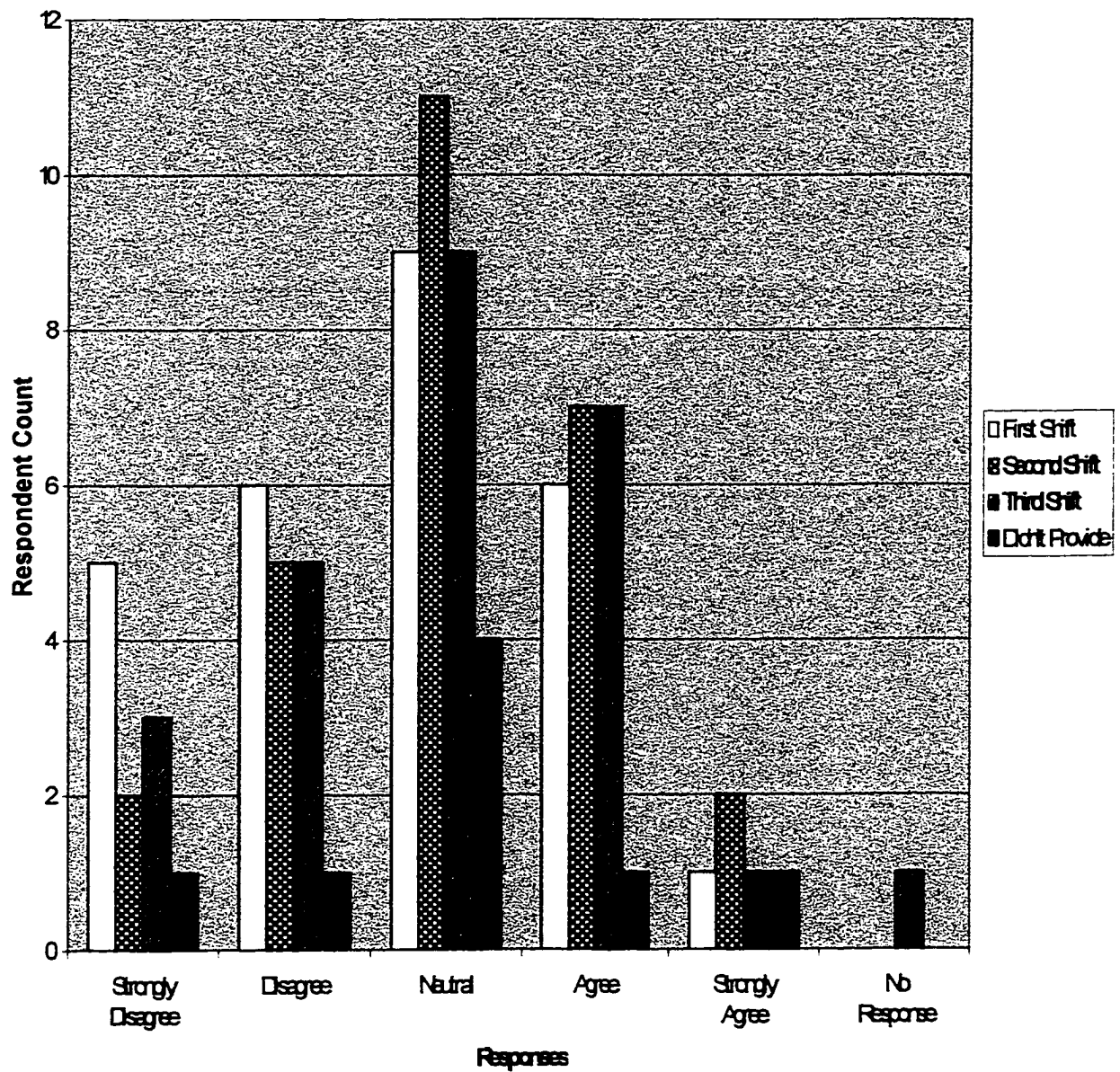
Chart 17: Employee Satisfaction with Supervisor/Manager.

70

<u>Question 18</u>: If Given the Opportunity, I Would Participate in a Process Improvement Group

for This Station, if Personnel from Other Departments were Included.
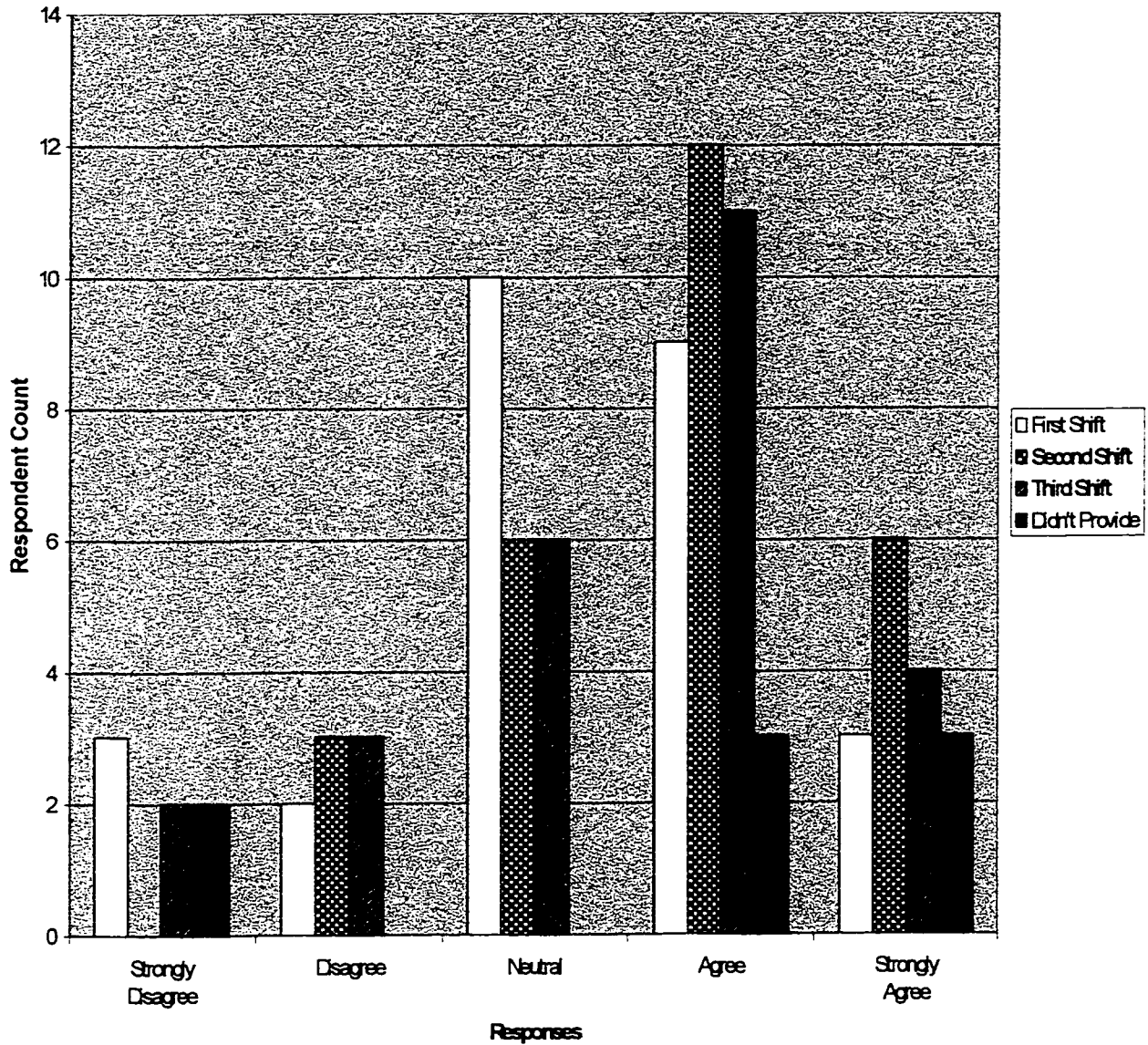
<u>Chart 18</u>: Employee Willingness to Participate in Process Improvement.

71

Chart 19 (page 73) lays out the data from question 19 that makes the statement, "I perform well in groups." As can be seen the majority, 71.6 percent were in agreement that they were better suited towards group activity. But interestingly, question 20, which states, "I perform better working alone then with a team of people," shows 44.3 percent having neutral feelings about this statement. Reasoning behind this can be drawn from the fact that the respondents were from one area of the subject airline's total operation and were concentrated in the maintenance arena. The very nature of aircraft maintenance requires a mix of solo and team effort; this logic could account for the high degree of neutrality in the responses to this question. The data above is compiled from question 19. It shows a strong willingness on the part of the respondents to participate with other segments of the subject airline's total work force population. They perceive themselves as good performers in a group environment, which is necessary for process improvement to be effective.

Chart 20 (page 74) displays the responses from question 20 about performance alone versus in a group. The fact that the respondents have a maintenance background weighs heavily on the strong neutral response. The very nature of aircraft maintenance requires working in groups as well as alone.

Question 21 looks at whether or not the members of the work force enjoy problem solving. Chart 21 (page 75) shows the results of the survey data and there is a strong inclination towards group problem solving. Again the fact that the respondents have a maintenance background does have a tendency to sway the results. The reasoning behind this assumption is that personnel assigned to perform maintenance are actively engaged in problem solving. To further expand upon this idea, many times when a problem occurs on an aircraft there will

be two or three maintenance personnel involved in trying to resolve the problem and through

Question 19: I Perform Well in Groups.
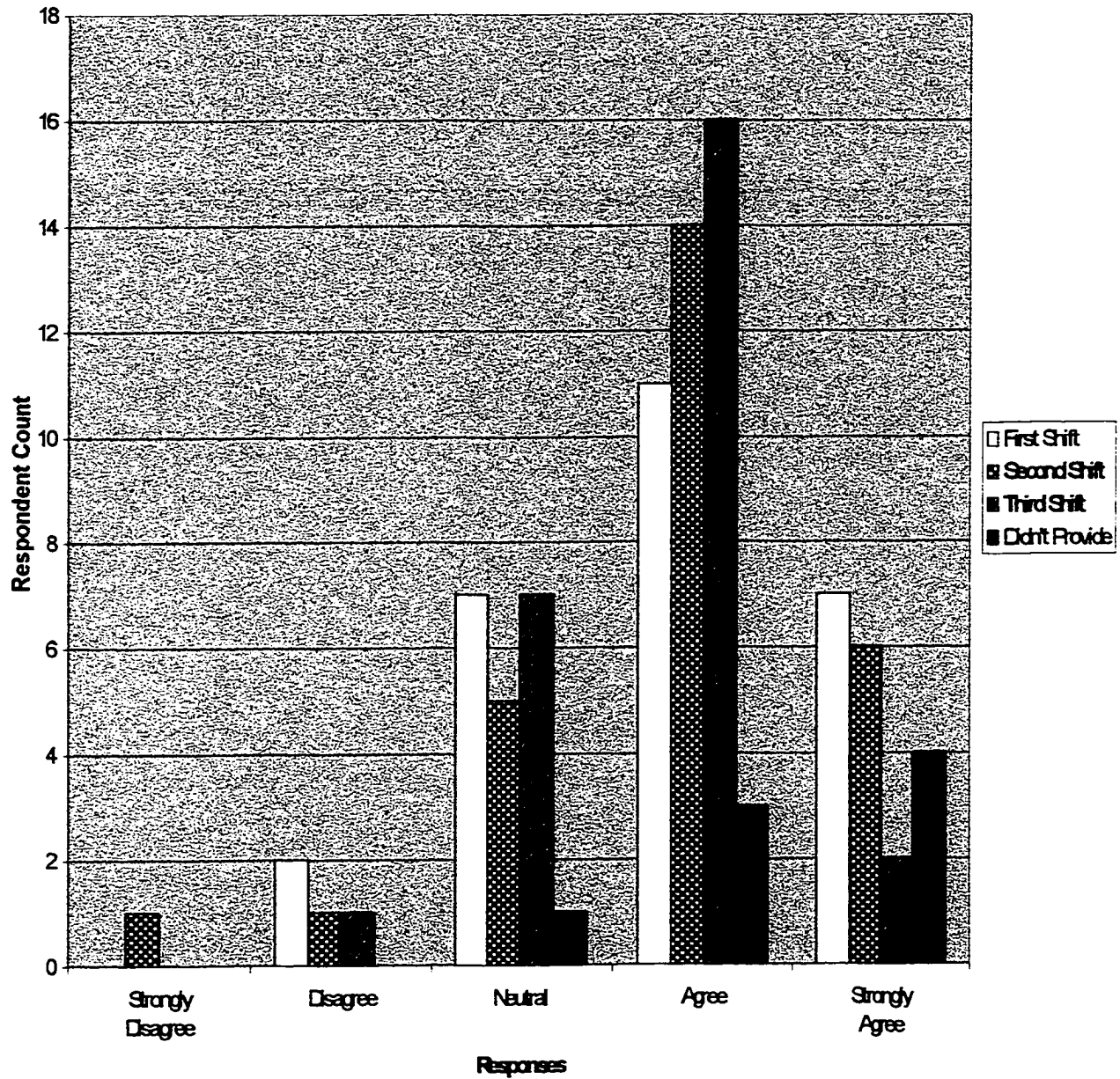
Chart 19: Employee Perception That They Perform Well in Groups.

73

Question 20: I Perform Better Working Alone Then with a Team of People
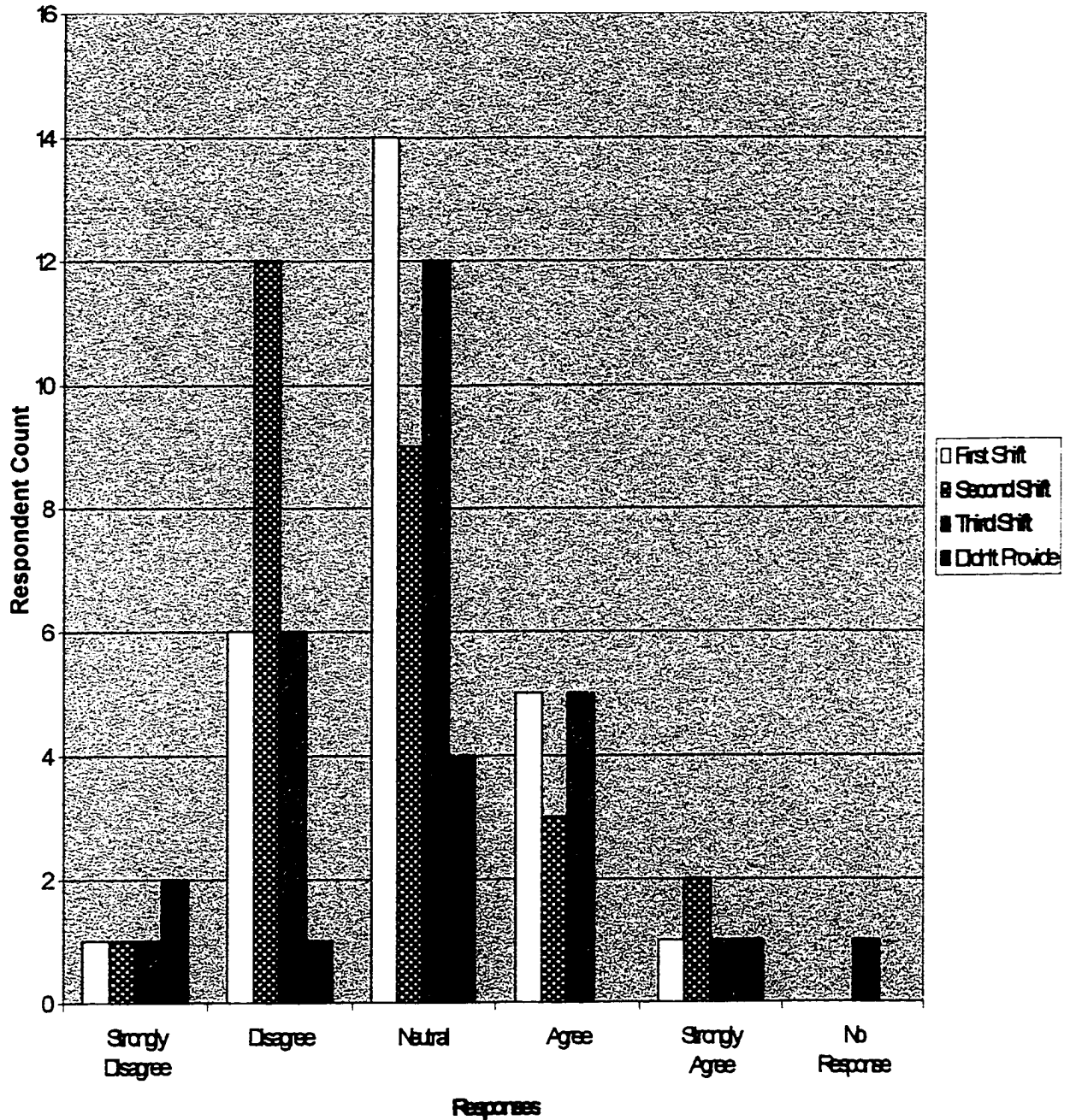
Chart 20: Perception of Employees That They Perform Better Working Alone.

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Question 21: I Enjoy work in Problem-Solving Groups.
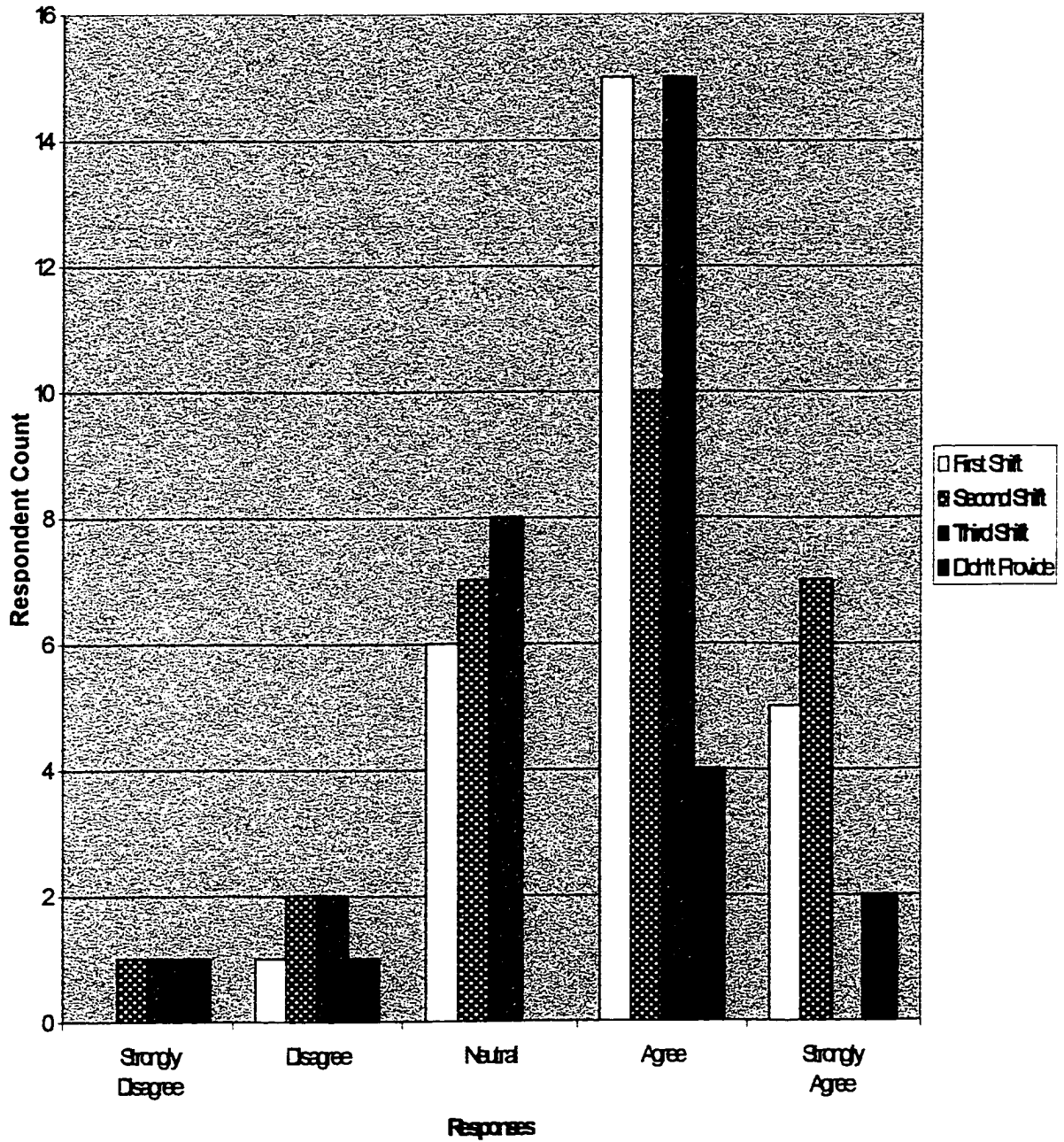
Chart 21: Enjoy Problem Solving Groups.

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a cooperative effort they work towards resolution. That fact alone helps account for the strong identification with group problem solving.

The data on this chart shows the responses to question 21. The fact that almost two thirds of the respondents agreed that they enjoyed group problem solving can be attributed to the background of the respondents. Aircraft maintenance by nature consists of a high degree of troubleshooting and problem solving. Many times in an airline environment numerous technicians are involved in resolving problems so that the aircraft can be returned to service in a timely manner.

Customer Service Perception

Finally, what is the perception of the work force about their own department's and the company's commitment to satisfying the customer? Questions 46 and 47 of the survey ask these questions. When you look at the results of these two questions, you can see that the subject airline may have a serious problem with customer service, or at least with the perception of customer service through the eyes of its employees. Question 47 looks at the question from the departmental aspect. The realization for many is that maintenance is an unseen entity, which only is heard about when an aircraft is delayed. Chart 22 (page 78) shows that 40.2 percent of the respondents felt that their department was less concerned than other departments, 39.1 percent felt that their department was about the same, and 20.7 percent felt that their department was more concerned about customer service.

This data is derived from question 47 of the questionnaire. The responses are spread towards the less concerned and neutral. These results may be skewed by the fact that maintenance doesn't normally interact with the customer so the line of impact isn't as direct as that of a customer service agent or a baggage handler.

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Question 46 asks the respondents about their perception of customer service commitment by the subject airline. Chart 23 (page 79) shows the results of this question. It is interesting to note that over 70 percent of those who responded perceived the airline's commitment to customer service lacking. Only 4.5 percent felt that the airline was serious about their commitment to the customer. This kind of response shows that the subject airline has a long way to go before attempting to make changes that might have a lasting impact. The most difficult factor to change will be the perceptions and attitudes of the work force. As long as there is the perception that the company isn't committed to customer satisfaction and service as well as change, it will be difficult to change the mindset of the work force and get them to commit to customer satisfaction and service. The data from this chart is extracted from question 47 of the questionnaire. The indications are that the respondents' perception of the subject airline's commitment to customer service is seriously lacking.

Question 47: Compared to other departments at Subject Airlines, how would you rate your department's concern about customer service?
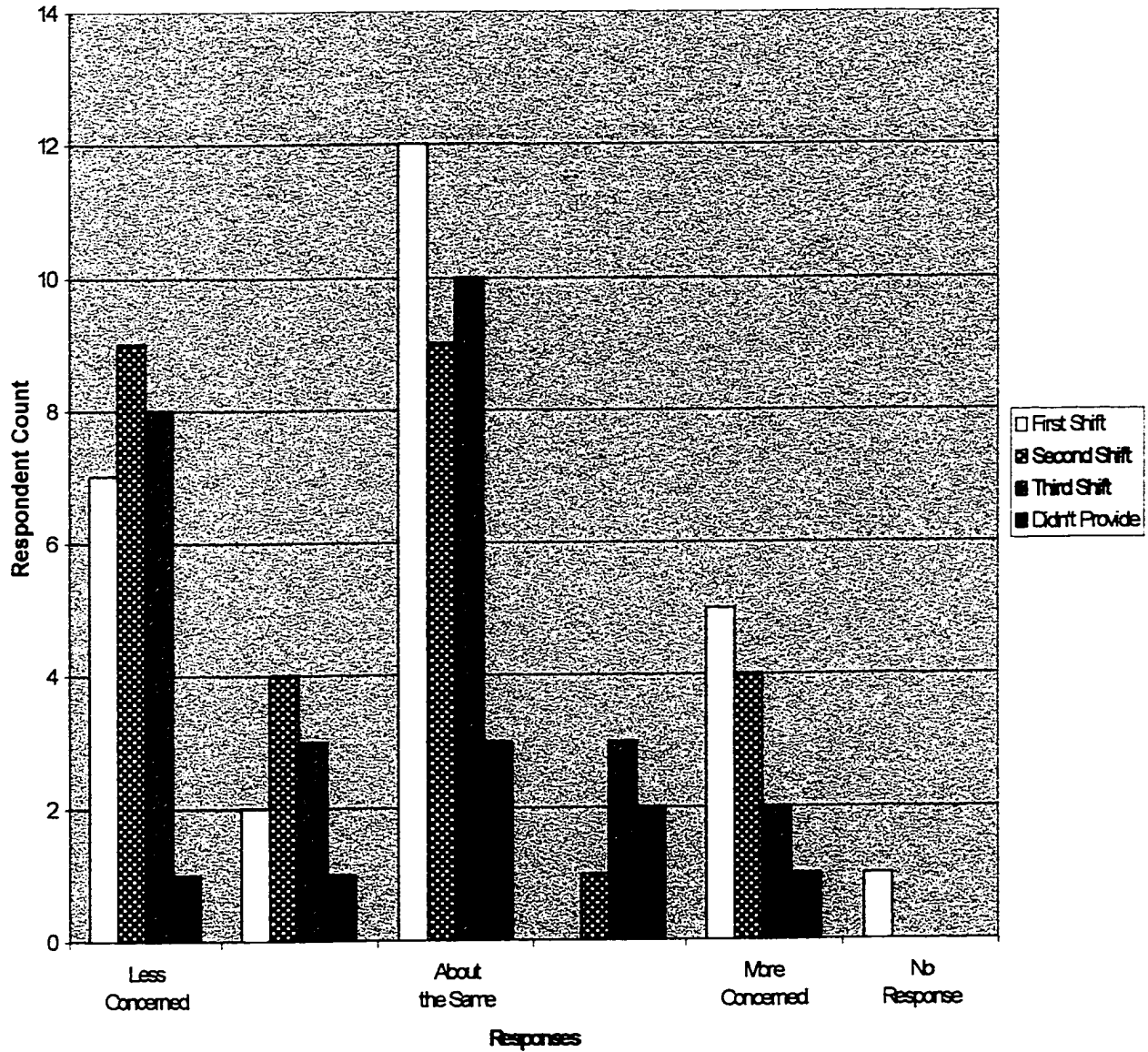
Chart 22: Employee Perception of Department's Commitment to Customer Service.

Question 46: In Your Opinion, How Serious is Subject Airline's Commitment Towards

Excellent Customer Service?
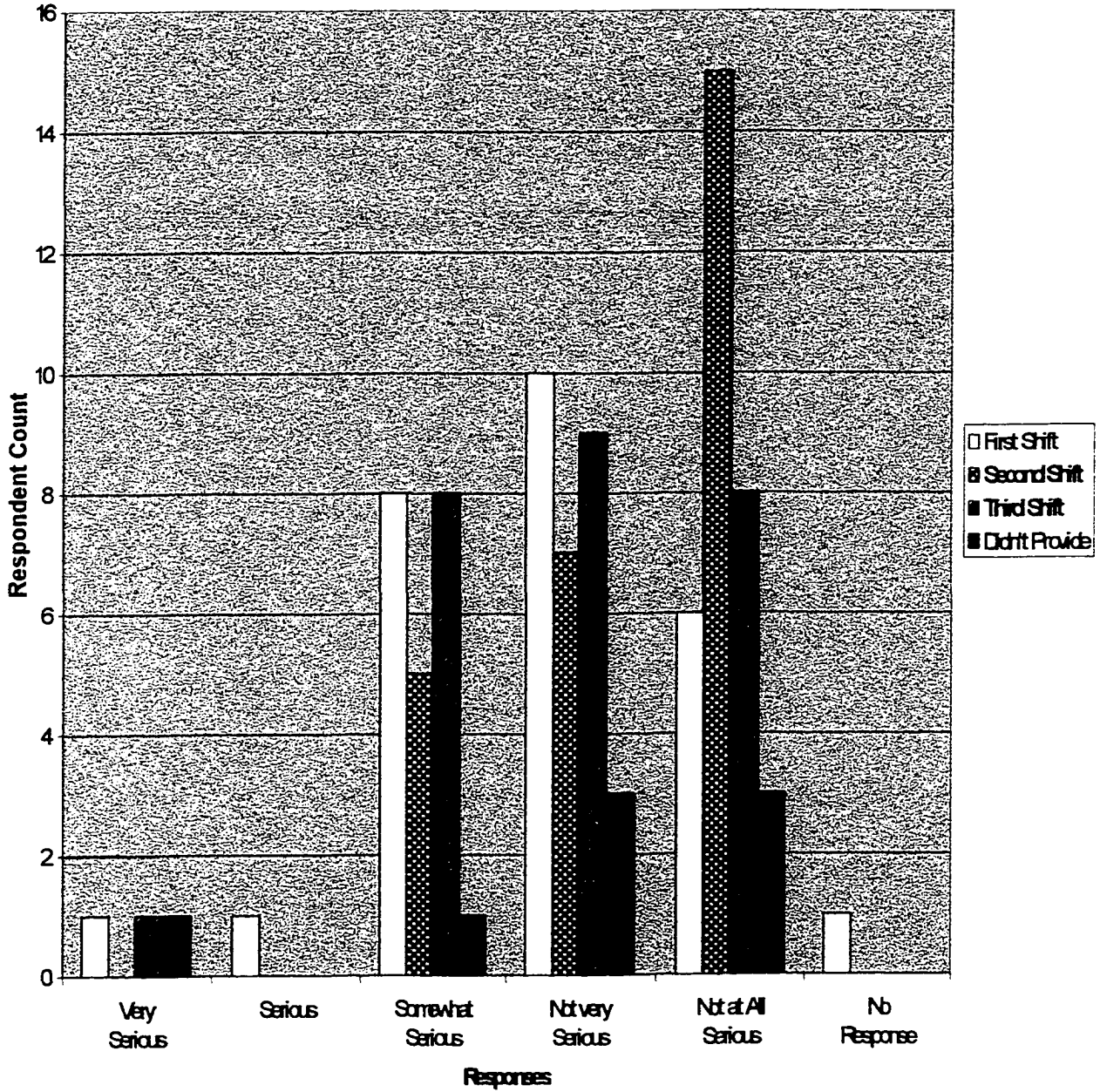
Chart 23: Employee Perceptions About the Company's Commitment to Customer Service

CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS.

Based on the data collected from this survey, there is reason to believe that a tool such as the questionnaire employed in this research has the potential of helping an organization determine the readiness of the work force in the development of participatory or total quality management programs. Careful analysis of the respondents' data shows that there are genuine issues that would possibly impede implementation of any type of change. There is a mistrust of management, but there is a willingness of the work force to work with other departments and to work on teams to improve the business.

There are two important factors in any business venture, for example, it has to satisfy the customer's needs and be value added for them to continue to use the product or service. And it has to satisfy the shareholder. Work is not always a pleasurable endeavor, but effective communication and cooperation minimize the unpleasantness of it. There will always be somebody in charge, somebody who's responsibility it is to motivate the work force in the right direction. Whether that individual is a manager or a leader depends upon how they treat their work force. Leadership is tempered with the right mix of communication, cooperation, praise, and when necessary, proper motivation.

By using a tool such as the survey, especially when there is doubt about the receptiveness to change, one can determine how much groundwork is needed to enhance the effectiveness of implementation. Any type of change as radical as participatory or total quality management, especially in a highly regulated environment such as an air carrier operation, requires a process that will insure small scale successes to begin with. The willingness of the work force to sit at the sidelines and watch change fail must be minimized.

The research conducted has a notable weakness concerning external validity because

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the sample was taken from only one part of the total organization, i.e. maintenance. It did

not account for flight operations, customer service, baggage handlers, other geographic

locations, etc. In other words, the ability to generalize the whole population based on this

sample is skewed. There is a realization that the population used for this paper is a limited

sample, taken from one segment of the subject airline's operation and from one station.

Aside from the unique constraints imposed by the federal government on an airline, it also

has the cultural concerns as well. The diversity of the air carrier work force can be seen not

only as male and female; pilots, mechanics, baggage handlers, customer service agents, etc.,

but also from the geographic locations that the airlines operates from. A uniquely American

character is to question authority, but elsewhere that is not the case and the work force

blindly follows what management dictates. Similarly, there tends to be more company

loyalty in certain cultures, Americans are more adept at changing jobs to meet their needs. In

order to understand the complexity of an organization such as an airline, one would have to

sample members of all departments and from all geographic locations throughout the

airline's system. But the evidence gathered from the survey shows that there is growth

potential for the airline in terms of process improvement programs. Is it possible for an

airline to operate under the principles of participatory or total quality management? I believe

that the answer is yes. They have competed against the railroads and bus companies for their

share of the transportation market. As the world becomes smaller and it takes on the

complexity of a global market, more people are flying and the need to establish itself above

the competition is critical. While it is difficult to change the habits of management and labor

overnight, change must come in order to survive in the world of global competition. Failure

to adapt to the new consumer may have negative outcomes as witnessed by Braniff, Eastern, and Pan Am.

Beyond the obvious failures, are those subtle losses of market share. Failure on the part of companies to effectively defend their "turf" and expand is critical. Any employee who fails to support their company through continuous improvement also shows a lack of desire to survive. No employee wants to see their company die, and they have plenty of ideas to make the company value added to the customer. Some employees state, "I could care less if this company folds tomorrow." But the majority wants it to survive and grow.

The survey participants, while showing distrust for management, showed a willingness to work at improving the company. The overwhelming perception that the company had a lack of concern about customer service is a serious issue. That issue alone shows that the company would have its work cut out for it trying to improve customer relations. If the perception of the work force is that the company doesn't care about the customer, then the workers will transfer that attitude to their job performance. That attitude also transfers to their perception of management. This attitude is very damaging to the success of any type of change program. Again, the questionnaire would provide the baseline for starting a processing improvement program. It is easy to see that any change without having a significant number of the work force in line with the concepts would fail.

While I am not saying that the survey is a cure all to any problems a company might have with implementation of change, I do firmly believe that it would be a valuable tool to help in laying the foundation for change. Any tool is effective if it is used properly. If this questionnaire is used not as a tool for improvement but for control, then the attempts at change will fail. In order to have a positive outcome on change the data collected from the

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survey must be looked at objectively. Painful as it may be, the organization as a whole has to seriously look at where the stumbling blocks to change are.

The fact that the survey was administered by an outside entity may have had an impact on how participants responded. It is the contention of this paper that those who responded, did so honestly. But in order to understand if the total work force is ready and willing to take on change such as participatory or total quality management, especially at the subject airline studied, a broader based survey would be required to build upon the foundations that this research established. The survey would have to sample management and labor from all of the divisions of labor and from all of the geographic regions where the subject airline employs people. Data of this nature would help the subject airline to better understand the perceptions of management and labor and to determine what groundwork would be required to effect positive change.

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The Department of Interdisciplinary Technology at Eastern Michigan University is conducting a survey on employees' perceptions of various organizational issues. The purpose of this survey is to assess the aviation industry's perspective on participatory management programs. This survey is strictly voluntary, but your participation will be highly appreciated. A completely randomized process selected you.

YOUR IDENTITY IN THIS SURVEY WILL REMAIN COMPLETELY ANONYMOUS. ALL INFORMATION COLLECTED IN THE SURVEY IS CONFIDENTIAL.

PART I: Background Information

1. How long have your worked for Subject Airline? _____

2. How long did you work at a previous airline? _____

3. What previous airlines did you work for?
   Airline Alpha____   Airline Bravo____   Airline Charlie____   Airline Delta____
   Airline Echo____   Subject Airline is first airline job _____
   Other (Please specify) _____

4. What crew(s) do you work on or manage?_____ (Crew Number)
   Line Maintenance _____   Hangar Maintenance _____   Other (Please specify)_____

5. What is your primary job?
   Manager_____   Mechanic____ R&E_____   Other (Please specify)_____

6. What shift do you work?   First ____   Second ____   Third _____

PART II

This part of the questionnaire asks you about your perceptions on various aspects of the company and your department. For each of these questions, please indicate the extent to which you agree or disagree using the following scale:

1 = Strongly Disagree
2 = Disagree
3 = Neither Disagree or Agree
4 = Agree
5 = Strongly Agree

___ 1. My performance on my job impacts the flying customer.

___ 2. My performance impacts the people I work with.

___ 3. My job performance impacts other departments at this station.

__ 4. The work in my department would be easier if people in other departments did their work properly.

__ 5. Workers from other departments can be trusted.

__ 6. Communications between departments needs to be improved.

__7. Communication within my department needs to be improved.

__8. People around here are encouraged to "think."

__9. Management encourages employees to make suggestions about how to improve work in this department.

__10. People are encouraged to make suggestions for improvement around here.

__11. I have a lot of ideas on how things could be improved around here.

__12. Management will listen to your ideas.

__13. Management will put a good idea offered by workers into use.

__14. Management takes credit for employee ideas.

__15. Management fully utilizes the knowledge of employees.

__16. Employees could really improve things around here if only management would listen to them.

__17. You have to be careful about talking about new ideas around here; someone else may use them and take the credit for them.

__18. If given the opportunity, I would participate in a process improvement group for this station, if personnel from other departments were included.

__19. I perform well in groups.

__20. I perform better working alone then with a team of people.

__21. I enjoy work in problem-solving groups.

__22. A program for improving quality would really change things for the better around here.

__23. Workers receive enough training to do their jobs effectively.

__24. This organization is more concerned with cutting costs then in improving its services.

__25. The work we do in this unit would be easier if people in other units did their work properly.

__26. My supervisor is more apt to punish you when you do something wrong than praise you when you do something right.

___27. My supervisor will give you recognition for good performance.

___28. My supervisor consults the workers before making a major decision that will affect the work unit.

___29. My supervisor asks for my ideas on how to do things around here.

___30. My supervisor often tells people what to do rather then ask them their opinion.

___31. I feel that I have the necessary support from management to do my job well.

___32. I have enough flexibility in my job to perform my tasks effectively.

___33. I have enough authority in my job to accomplish excellent customer servicing.

___34. I am satisfied with my job.

___35. I am satisfied with my supervisor.

___36. I am satisfied with my pay.

___37. I am satisfied with my coworkers.

___38. I am satisfied with the opportunity for promotion associated with this job.

___39. The county/airport operations affect the way I am able to perform my job.

___40. County regulations are an obstacle to my ability to satisfy the customer needs of my company.

___41. My supervisor is always second-guessing me.

42. How much autonomy is there in your job? That is to what extent does your job permit you to decide on your own, how to go about doing the work?

1---------------2---------------3---------------4---------------5---------------6---------------7
Very Little   Moderate Autonomy   Very Much

43. What extent does your job involve doing a "whole" and identifiable piece of work? That is, is the job a complete piece of work that has an obvious beginning and end/ Or is it only a small part of the overall piece of work, which is finished by other people or by automatic equipment.

1---------------2---------------3---------------4---------------5---------------6---------------7
My job is only   My job is a moderate   My job involves a
a part of the work   size of the overall   a whole piece of
                          piece of work.   work from start to
                                                          finish.

44. In general, how significant or important is your job? That is, are the results of your work likely to significantly affect the lives or well being of other people?

1---------------2---------------3---------------4---------------5---------------6---------------7
Not very significant   moderately significant   Highly significant

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45. To what extent does ding the job itself provide you with information about your work performance? That is, does the actual work itself provide clues about how well you are doing aside from any "feedback" co-workers or managers may provide?

1------------2------------3------------4------------5------------6------------7
Very little   Moderately   Very Much

46. In your opinion, how serious is Subject Airline's commitment towards excellent customer service?

___ They are very ___ Serious ___Somewhat ___ Not very ___ Not at all
    serious   serious   serious   serious

47. Compared to other departments at Subject Airline, how would you rate your department's concern for customer service?

_____   _____   _____   _____   _____
My department is   About the same   My department is
less concerned than   more concerned
other departments.   Then other depart-
                                                       ments.

48. The count airport operations affect the way I am able to perform my job.

_____   _____   _____   _____   _____
Always   Often   Sometimes   Seldom   Never

49. County regulations are an obstacle to my ability to satisfy our company's customers.

_____   _____   _____   _____   _____
Always   Often   Sometimes   Seldom   Never

50. I usually get on better with:
    a. Imaginative people.
    b. Realistic people.

51. Are you more attracted to:
    a. A person with a quick mind.
    b. A practical person with a lot
       of common sense.

52. When you have a special job, do you
    like to:
    a. Organize it carefully before you start.
    b. Find out what is necessary as you go along.

53. In doing something that many other
    people do, does it appeal to you more to:
    a. Do it in the accepted way.
    b. Invent a way of your own.

54. If I were a teacher, I would rather teach:
    a. Courses involving theory.
    b. Fact courses.

55. I get more annoyed at:
    a. Fancy theories.
    b. People who do not like theories.

56. It is higher praise to say someone has:
    a. Vision.
    b. Common sense.

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57. Compared to others, I feel that what I get out of this job (i.e., pay, recognition, working conditions, etc.) is equal to what I put into the job (i.e., effort, experience, skills, etc.)

Strongly Disagree	Disagree	Neither disagree or agree	Agree	Strongly Agree

58. The average human being prefers to be directed, wishes to avoid responsibility, and has relatively little ambition

| Strongly | Disagree | Undecided | Agree | Strongly |
| Disagree | | | | Agree |

59. Most people can acquire leadership skills regardless of their particular inborn traits and abilities.

| Strongly | Disagree | Undecided | Agree | Strongly |
| Disagree | | | | Agree |

60. The use of rewards (for example, pay and promotion) and punishment (for example, failure to promote) is the best way to get subordinates to do their job.

| Strongly | Disagree | Undecided | Agree | Strongly |
| Disagree | | | | Agree |

61. In a work situation, if the subordinates can influence you, you lose some influence over them.

| Strongly | Disagree | Undecided | Agree | Strongly |
| Disagree | | | | Agree |

62. A good leader gives detailed and complete instructions to subordinates rather then giving them general directions and depending on their initiative to work out details.

| Strongly | Disagree | Undecided | Agree | Strongly |
| Disagree | | | | Agree |

63. Individual goal setting offers advantages that cannot be obtained by group goal setting, because groups do not set high goals.

| Strongly | Disagree | Undecided | Agree | Strongly |
| Disagree | | | | Agree |

64. A superior should give subordinates only the information necessary for them to do their immediate tasks.

| Strongly | Disagree | Undecided | Agree | Strongly |
| Disagree | | | | Agree |

65. The superior's influence over subordinates in an organization is primarily economic.

| Strongly | Disagree | Undecided | Agree | Strongly |
| Disagree | | | | Agree |