MOTIVATING CONTRACTORS - IS INCENTIVE CONTRACTING THE ONLY ANSWER

DEFENSE SYSTEMS MANAGEMENT SCHOOL

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MOTIVATING CONTRACTORS - IS INCENTIVE CONTRACTING THE ONLY ANSWER?

STUDY PROJECT REPORT
PMC 74-2

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STUDY TITLE:

Motivating Contractors - Is Incentive Contracting the Only Answer?

STUDY PROJECT GOALS:

To identify methods available to the Government to motivate defense contractors.

To examine the value of incentive contracting.

STUDY REPORT ABSTRACT

This paper was written in an attempt to understand what really motivates a defense contractor, as an organization, and examines the methods that may be used by the Government to use these motivators. This paper examines incentives as motivators, in general, incentive contracting, in particular, and other motivators that may be present.

It was found that several goals are more important to the contractor than profit. Yet, the profit motive is used almost exclusively in any motivational plan. While profit can not be ignored, it is felt that, for a motivator to be effective, it must consider the prime goals of a contractor. A motivator for one contractor may be a demotivator for another. Any motivational plan should be tailored to a particular contractor or individual to be effective.

KEY WORDS

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by

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November 1974

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Executive Summary

Too often, an attempt is made to motivate defense contractors and individuals without first attempting to establish what really motivates them. In most instances, the profit motive is used as the cure-all motivator. It is widely accepted that money is not an effective motivator for individuals. However, it is assumed, without question, that in order to motivate a defense contractor, the Government must heap large sums of money into the incentive fee pool of an incentive contract.

In the following paper, I first discuss the concept of incentives as motivators in general. Next, I take a closer look at incentive contracting as a motivator without actually passing judgement or evaluating it. Finally, I discuss other factors that may be more important to a contractor than profit.

With contractors, as with individuals, the same motivator is often used for all. To be effective, a motivator must be tailored to a particular contractor or individual. I have listed, in Section IV, several goals that have consistently outranked profit when contractor goals are listed. In order to most effectively motivate a contractor to a desired response, each contractor must be evaluated on an individual basis to determine his prime goal or goals. When these prime goals have been determined, then and only then can an effective and productive motivational plan be constructed to achieve results that will be most beneficial to the Government.

A motivational plan that ignores the contractor's prime goals is doomed to failure. A motivational plan that considers his prime goals and strives to make maximum use of them will enjoy maximum success.

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"The Thing that worries me about incentives is that we are assuming that incentives are identical to motivation, and that, in fact, by adjusting the dollar values of incentives, we have very fine control over the motivations of the people who are actually doing the job."

R. A. Frosch,
Address at the Sixteenth Annual
Institue of Government Contracting
8 May 1969

Section I - Introduction

For fiscal year 1975, the budget for the Department of Defense is approximately 90 billion dollars. This is astronomical when compared to the 15 billion dollar total defense budget of the late 1940's.[1] Although this FY 75 Defense budget is the largest in absolute dollars ever submitted, it nevertheless pays for fewer people and, allowing for inflation, allocates less money for central supply and administration, for administration and associated activities, for General Purpose Forces, and for support to other nations than the FY 74 Defense budget.[2] Although the FY 75 budget is the largest in absolute dollars ever submitted, it is only approximately 27% of the overall FY 75 Federal budget, and only approximately 6% of the estimated Gross National Product. In each measurement, this is the lowest level since 1950. To put the present Defense budget in a different perspective, the 81.6 billion dollars spent on National Defense in the peak funding year of World War II (1945) is equivalent to about $300 billion in today's dollars.[3] To put it another way, although the number of dollars spent on Defense is increasing, the buying power of the Department of Defense is decreasing. This has been a trend for the Defense Department over the past few years.

Of this record Defense budget, over 19.7 billion dollars have been allocated for procurement of material and systems and

over 8.7 billion dollars have been allocated for Research and Development of these systems. Although this can be viewed as substantial sums of money, the number of materials and systems that these monies can procure or cause to be developed is decreasing every day. This calls for more efficient and effective management of these dollars. This problem has caused great concern within the Department of Defense and has caused Assistant Secretary of Defense (Comptroller) McClary to comment:

> "Defense Managers must recognize the need to continue management practices which lead to maximizing the return for DOD's limited resources. Only essential items, at the lowest practicable cost, can be included in budget requests and expenditures must be monitored and controlled."[4]

Procuring the supplies and services needed to support the Nation's defense is the biggest buying business in the world. Procurements by any one of the military departments alone is three to four times the volume of procurement by the larger non-military buying agency. The total number of firms involved in defense procurement is approximately 80,000 and the number of Defense procurement actions number approximately 10 million each year, ranging in value from small petty cash purchases to major systems contracts amounting to several hundred million dollars.[5]

The pressure to get the best possible systems for the lowest possible cost is an overriding factor in present day procurement and Research and Development contracting. To assure that the best possible system is obtained at the lowest possible cost,

the contractor must be encouraged to become more efficient. As the buying power of the Defense Department becomes less and less, efficiencies will become a greater must in the future. Although many government personnel are aware that efficiency has become a necessity, very little has been done to improve the system. This lack of action has resulted in much criticism of the Department of Defense procurement activities. The Defense Department has certainly not done any worse job of procurement than any other Government agencies, but it is constantly in the spotlight since it spends the most money. One of the main criticisms of the procurement practice of the Defense Department, both from the Department's resident critics as well as Congress, is the occurrence of frequent cost overruns. Whether due to inflation or otherwise, the news created by these overruns has resulted in constant criticism of the Defense Department's procurement activities and contract controls. Even though little, if any, of this criticism has been constructive, it has resulted in such an elaborate system of checks and balances that the Project Managers spend so much time defending against these criticisms that little time is available to alleviate the real problem of inefficiency in procurement practices.

Major emphasis has been given in recent years to incentive contracting in an attempt to eliminate cost overruns, reduce schedule slippage, and improve technical performance. However, habit has been one of the pitfalls in contracting for major

weapon systems.[6] It has been assumed, too often, that all contractors are motivated by the same things. Too often, a contract is incentivized without attempting to determine whether or not the contractor will be motivated by that incentive. And further, if he is, in fact, motivated, is it in the desired direction? For example, the contractor may be motivated to overrun the cost rather than attempt to meet the target cost. Incentive contracts assume that a contractor is motivated by increased profits and the Government spends millions of dollars each year in funding these incentive fees. Of course profit is a major concern to any corporation, but will increasing the profit work the miracles that the Government desires?

I feel that, although contract monetary incentives may have their place, other motivational consideration exists that may be just as effective, if not more so. Thus, I come to the purpose of this paper. In the following pages, I will attempt to review some general effects of incentives as motivators (Section II), discuss some pitfalls, shortcomings and uses of incentive contracting (Section III), develop other incentives that can be used by the Government or Project Manager to motivate a contractor (Section IV), and tie the sections of the paper together in my conclusions (Section V). In short, as the title of this paper indicates, in motivating contractors --- Is Incentive Contracting the Only Answer?

Section II - Incentives As Motivators

In this section, I will take a look at the value of incentives as motivators, in general. Realizing that motivating an individual by the use of incentives in order to get a desired response is vastly different from motivating a corporation by the use of incentives in order to get a desired response, it is felt that a correlation does exist between the two areas. After all, in order for an incentive to be effective, it must address the goals of an individual or a corporation. At the risk of over simplifying the problem, a corporation is no more than a group of individuals. No matter what is done to motivate the corporation, it will be ineffective unless the individuals are, in turn, motivated. Most studies have been done on the effects of incentives on the motivation of individuals within an organization. Once these individuals are motivated, it can be said that the organization is motivated.

In the remainder of this section, I will attempt to elaborate on some of the many works on motivation by incentives and strive to determine whether incentives are, in fact, good motivators.

An incentive is a stimulus to a desired action.[1] There is widespread agreement among theorists that incentives may not, in fact, motivate, but rather they move an individual to act a certain way. It is not the purpose of this paper to attempt to distinguish between "motivate" and "move" and, for this paper, the difference will be considered purely academic.

In most of today's organizations, attempts are being made to improve the quantity and/or quality of the employee's productivity by providing a variety of inducements. These inducements come in the form of financial and non-financial incentives. These incentives are based on the assumption that productivity will improve by stimulating the employees by these inducements.[2] These financial incentive plans are not new. Plans of this type have been traced back to 400 B.C. These plans assumed that employees are primarily motivated by financial considerations. This assumption is still made in many present day monetary incentive systems.

Although the history of the financial incentive system is long and many years have been spent in efforts to improve it, the effectiveness of such a system has yet to be clearly demonstrated. Because of this lack of effectiveness, several organizations have begun to experiment with non-financial means to try to motivate their employees. This increase in psychological incentives emerges from an increased understanding of group and individual behavior in organizations.

Because of this increased understanding, the evolution of special motivation programs is a logical step to help stimulate employee performance under today's industrial conditions. Needs for a new approach to worker motivation evolved from the Industrial Revolution. During this time, the close employee-employer relationship and the close employee-final product relationship began to disappear. These motivational

relationships were lost because of the transfer of skill from man to machine, product standardization, increased size of firms, and division of labor into simple detail operations.[3] During the 1920's, industrialists assumed that men worked solely to get money and that they would perform as directed in return for wages. Because of this assumption, labor-management conflict resulted and strong labor unions were formed. At this point, employers began to adopt a concept that took into consideration the worker's mind as well as his body. The employers began to realize that the state of an employee's mind had much to do with the value of their service and that they had a moral obligation to assist and encourage employees to develop their capabilities and well-being. The development of present day motivational methods used this concept as a basic foundation.

Several studies have been made in order to analyze the effect of incentives on individuals. One such study was concerned with employee productivity in the absence of financial incentives.[4] It was found that by removing a financial incentive system, which resulted in a loss of take home pay, from a group of welders that productivity dropped immediately and then began to climb. In this instance, the financial incentive system was removed from the welders due to a collective bargaining agreement between labor and management, at the request of the union. Anticipating that the productivity would drop after the deletion of the financial incentive system,

management determined that some kind of incentive would have to be initiated to replace the former financial one. Management instituted a series of production reports in discussions with the welders. Shortly after the removal of the financial incentives, the production dropped 25 percentage points below their incentive output, and began to rise almost immediately. The welders were observed for a period of 48 weeks. At the end of this period, the productivity was as high as it had been before the incentive plan was eliminated. From the data gathered in this study, it can be concluded that the incentives to work had changed from a financial one to a social one. The incentive to work, which had previously been supplied by financial incentives, were provided by improved leadership methods.

It is widely felt that the individual financial incentive is especially relevant to the production line and the standardization of repetitive operations. However, the individual incentive is rapidly losing its relevance with the advance of automation. A new approach to incentives has been developed to deal with the age of automation. This approach is referred to as the total group incentive or profit-sharing.[5] In this system, individual rewards depend on the performance of the total group instead of the performance of the individual. Total group incentives lend themselves very well to use in service industries where individual and small group incentives are limited in their application and the need is urgent to increase productivity motivation.

It has been said that:

> "The underlying rationale of profit sharing may be rooted in the proposition that efficiency earnings will be created, to the benefit of both business and labor, if workers share in the profits of the enterprise."[6]

Over the past decade, profit-sharing has doubled in importance in terms of worker coverage. This coverage extends to over 2 million employees - 12 per cent of plant and 22 per cent of office employees.

There are actually only two major types of incentive wage plans in manufacturing establishments: (1) Price-rate plans and (2) production bonus plans. Both types of plans may be based on either individual or group performance.[7]

Incentive pay plans for managers were originally designed to attract and reward managers who would reduce costs and increase profits through aggressive leadership in anticipation of added reward. In most organizations, these plans have taken on the characteristic of a base salary structure. This type of reward is given increasingly according to formula, often applied not individually, but rather to a given level of management on a uniform basis. The fact is that many such plans give little, if any, priority to the encouragement of risk-taking behavior.[8]

Benefits of many incentive plans have been inhibited by such factors as: (a) system complexity; (b) employee misunderstanding; (c) lack of integration of existing management system and the new incentive system; and (d) failure to provide

for employee participation.[9] The probability of the success of any incentive system will increase if employers minimize the factors which contributed to the failure of other plans and provide adequate psychological rewards.

It is felt that one of management's greatest failures is the use of the same motivating factors for all employees. The first step in motivation is to break down employees by category or group. Then the employer should determine which fulfillments each group needs and wants.[10]

It has been realized by psychologists for quite some time that money is not necessarily a motivating factor. Once a minimum level of compensation is reached by an employee, other factors become more important than money. These other factors include job satisfaction, recognition, involvement and participation in decisions. As was indicated above, bonuses and profit-sharing are also vastly overrated as motivators. If a bonus or profit-sharing plan is to have an effect on motivation, it must be tailor-made to fit the needs of the various groups to be motivated. Recognition is a basic motivating factor in our society. However, it should take into account the current wants and thinking of a specific individual.

Some types of work or work situations are just not suited to the application of monetary incentives. An inappropriate plan or one that is improperly introduced or administered is doomed to failure. If the workers have been well-motivated by non-monetary incentives, the possible gain from monetary

incentives may be somewhat less. A monetary incentive plan should not be expected to compensate for poor management practices or an inadequate pay scale.[11]

In a 1968 study by Locke, Bryan and Kendall, it was found that monetary incentives would affect task performance only through or by means of their effects on the individual's goals and intentions.[12] This study considered three subhypotheses. They were: (1) regardless of incentive conditions, goals and intentions will be related to behavior; (2) corresponding differences in goals or intentions will accompany the differences when incentive differences and behavior differences do correlate; and (3) there will be no relationship between incentive condition and behavior when goal or intention differences are controlled or partialed out. Two different dimensions of behavior were used to test these subhypotheses-level of performance (productivity) and direction of behavior or choice. Two experiments were performed using the level of performance (productivity) as the dependent variable. The individual's performance goals in these experiments were the relevant motivational concept. If performance is automatically affected by monetary incentives, then the higher the incentive, the higher the productivity. But, if goals depend on the effects of incentive, then incentive differences should only produce production differences, if and to the extent, that they produce goal-level differences.

Three experiments were performed using choice difficulty as the dependent variable. In these experiments, regardless of the difficulty of the task that was solved, incentives were given. If task choice is affected automatically by monetary incentives, then the subjects would more likely choose an easier task as the payment for success increases. But, if behavior intentions depend on the effects of incentives, then incentive differences should produce task-choice differences only if and to the extent that they produce intention differences.

The hypothesis that behavior is determined by goals and intentions and that they are the mechanism by which monetary incentives influence behavior was demonstrated by the five experiments conducted. Significant relationships between goals and behavior within and/or between different monetary incentives were shown in all five experiments. It was also shown in each of the studies that the amount of incentive did not affect behavior if the goal or intention level was controlled or partialed out. This was shown in the two experiments on production by showing that regardless of whether incentives were offered or not, the same goal level produced the same performance level. The same was also shown in the three choice experiments. The effects of incentive on choice were spoiled when behavioral intention level was partialed out. Also, the three choice experiments demonstrated that only when behavior differences were associated with equivalent differences in

behavioral intentions did incentives affect behavior. The ineffectiveness of monetary incentives, as compared with performance goals, was clearly demonstrated by the fact that monetary incentives did not show any effect on the two production studies.

Although performance appears not to be influenced by financial incentives, other important functions may be performed by them. The nature of intentions that are developed on a task may be influenced by financial incentives. If the financial reward is big for completing a hard task, the individual is more likely to set his intentions on completing this difficult task. Likewise, if the reward is greater for completing an easier job, he may set his intentions on completing the easier task. The degree of commitment of an individual to his goal may also be affected by monetary incentives. Finally, an individual may be persuaded to accept goals or tasks assigned to him as a result of monetary incentives. It should be stressed that whatever the affects of monetary incentives on performance, their ultimate impact should be a function of the degree to which the individual values money as compared to other incentives and his perception of the degree to which a given course of action is seen as a means of attaining this value.

It is widely held that the most potent motivating factors are opportunities of self-expression and performance recognition.[13] Self-expression can be met by employee

participation (suggestion plans, employee-employer talks, etc.) whereas, performance recognition can oftentimes be met by some type of financial reward (merit pay increases or promotion). However, motivational programs must find a way to get employee self-expression and performance recognition to more fully satisfy the ego needs and the self-fulfillment needs which are considered to be the prime basis for motivation in today's industrial environment. Viewing together all of the studies and examples of motivation in industry leads to the conclusion that participation is a key incentive. Means which allow maximum employee participation should be included in any motivational program.

An employee's drive becomes intense when he sees that his work performance for the organization also meets personal goals. If there is little or no conflict between the two, he derives satisfaction from meeting both. Management's skill in aligning the needs of their employees with the organizational goals in such a way that both can be accomplished within a set time is the secret of motivating employees toward accomplishing organizational objectives.[14]

Realistically, an integration of both financial and psychological incentives within a participation management system should be considered for organizations in today's industrial environment. This plan is consistent with the theories of employee motivation and behavioral science; it shows that management realizes that desirable performance can

be rewarded, not only by money, but also in other ways; it increases production by facilitating the employee's learning process; and it optimizes worker participation and understanding.[15] Because of the psychological research on employee motivation, managers have broadened their perspective of incentives and have begun to realize the psychological implications of job structure and leadership style.

The application of organization incentives in such a way that organization members are induced to contribute their efforts to the achievement of organizational goals and also to help the member satisfy their own personal goals is a major task of managers in dealing with human resources in today's environment. The results are likely to be more effective and desirable if the incentives offered by the organization appeal to the individual members, for many people will be motivated to action by incentives that will satisfy their needs. The incentive system will be most effective when the organization creates a state of motivation and leads its members to perceive a fairness in the system by relating the organization rewards to their productivity. A successful manager, before designing and administering an incentive system, should take into account the various theories and research findings on organization theories. Management can better utilize human resources in the organization by matching organization incentives with the needs of individual members and by correlating organization rewards with their productivity.[16]

This section is summarized in a statement by R. L. Kahn whose content contains my thoughts on this section and whose words express it far better than mine ever could.

> "An individual's motivation to work (at a particular task, time, and under particular conditions) depends upon the anticipated values of all the outcomes (positive and negative) of working, each multiplied by the strength of the individual's expectancy that work will lead to that outcome. It follows that to increase the individual's motivation to work we must either increase the positive value of the outcomes as he sees them, or we must increase his expectancy that work will really lead him to those outcomes, or we must do both these things."[17]

Section III - Incentive Contracting as a Motivator

In this section, I will take a look at the major tool presently used by the Defense Department to motivate contractors to perform in unison with the wishes of the Department. This motivational tool is incentive contracting. Although the sole purpose of incentive contracting is to motivate a contractor, there is widespread disagreement as to whether these incentive contracts actually do what they are intended to do. It is not the purpose of this section, nor this paper, to make a judgement as to whether or not incentive contracting actually accomplishes its intended purpose. However, in order to develop this paper, I will consider some of the pros and cons of incentive contracting in this section.

In 1962, the Armed Services Procurement Regulations (ASPR) were revised to encourage increased use of incentive contracts. It was felt within the Defense Department that the cost-plus-fixed-fee (CPFF) contracts, then commonly used to purchase major weapon systems, did not provide adequate incentive for contractors to control cost. The revision to the ASPR reflected this feeling within the Defense Department and established cost-plus-incentive-fee (CPIF) contracts as preferable for research and development effort and firm-fixed-price (FFP) or fixed-price-incentive (FPI) contracts for production. The use of CPFF contracts was

limited to situations involving considerable uncertainty. From 1960 to 1967, the use of CPFF contracts decreased from more than one-third to about one-tenth of total defense expenditures.[1]

This decline in the use of CPFF contracts was, of course, due to the rise in the use of incentive contracts. This represents quite a surge in incentive contracting considering that prior to 1958 incentive contracts were almost never used.[2]

Former Assistant Secretary of the Navy (R&D) Robert Frosch looked upon incentives as follows: "Incentives are statements to the contractor that say that if you are a good boy and do well on the different parts, you get more money, and if you do badly you get less money, and in the end, you may, in fact, lose your shirt."[3]

The purpose of incentive contracting is, of course, to motivate contractors to perform more efficiently and control costs more closely. This is accomplished through the incentive sharing provision, which allows the contractor to retain part of any resulting cost underruns as increased profits.

The essence of incentive contracting is the profit motive. Under incentive contracting, the contractor is rewarded, through profit, if cost, performance and schedule (if performance and schedule are incentivized) levels are more beneficial to the Government than expected, and penalized for less than expected values.[4]

The use of incentive contracts was enthusastically accepted and their effects were highly praised. In Secretary of Defense Robert McNamara's testimony before the House Armed Services Committee on the 1966 Defense budget, he boasted that the cost under incentive contracts would be 10 per cent lower than they would be under CPFF pricing arrangements.[5] Several studies have shown that under incentive contracts cost overruns have been smaller and less frequent than under CPFF contracts. This outcome has been interpreted by most people as evidence that a contractor's performance has been more efficient under incentive contracts than under CPFF contracts. However, since underruns can be achieved in several ways, there may be a valid reason to question the extent of the cost savings claimed for these contracts.

One way that a contractor can achieve an underrun is to incur a cost that is below a reasonable target cost. Another, and less demanding, way is for the contractor to negotiate a target cost that exceeds the expected actual cost and then incur a contract cost less than the inflated target cost, thus, producing an underrun. When the contractor receives a cost incentive contract, he is, in reality, being incentivized in two different ways: to increase the target cost and to reduce actual costs below the target. Therefore, it is not clear whether the "good" results of these contracts are caused from increased efficiency or cost savings or from excessive

target cost.[6] It seems clear that for cost incentive contracts to be effective (if, in fact, they can be effective at all), great care must be taken in establishing the target cost. We have seen that if the target cost is too high, there will be little incentive for the contractor to reduce cost and the resulting underruns will be unrelated to any real cost savings or increased efficiency. Conversely, if the target cost is set too low, the contractor has little chance of achieving it and product quality and performance may also suffer. It seems reasonable, therefore, to say that while incentivizing a realistic target cost may motivate the contractor, that incentivizing a target cost that is too low may actually demotivate him. The success of establishing a realistic cost target depends on the circumstances under which it is determined. If the target cost is determined under a competitive environment, a realistic target is likely since the market forces operating in a competitive environment tend to nullify the possibility of obtaining excessive targets. Target costs set for contracts negotiated in the noncompetitive environment is where the difficulty arises. Contractors have much greater opportunity to increase target costs in this situation. If the contractor succeeds in increasing the target cost above a realistic value, any incentives for cost reduction and efficiency may be eliminated.

Essentially, two ways exist in which a contractor could insure that the adjusted cost exceeds the expected cost.

One way would be to negotiate larger target cost, as mentioned abcve, and another way would be to introduce numerous and costly changes and modifications to the original specifications.

A study was run at the Rand Corporation[7] on the effect of pricing arrangements on contract cost outcome. The following conclusions were made:

(1) Overruns/underruns differ significantly between FPI contracts and other types of contracts.

(2) Overruns/underruns seem unrelated to the incentive sharing rate value.

(3) The total dollar value of a contract does not impact overruns/underruns.

(4) Supplemental changes are substantially larger for cost-reimbursable contracts than for the fixed-price contracts.

(5) The magnitude of supplemental changes is not closely related to the value of the incentive sharing rate or to contract size for the incentive contracts.

(6) Cost overruns/underruns cannot be distinguished among contractors for cost-reimbursable contracts.

(7) Cost overruns/underruns differ significantly among contractors for fixed-price contracts.

(8) Differences in observed underruns are unrelated to the incentive feature of these contracts.

These results are not consistent with the idea that stronger incentives lead to greater efficiency and lower costs. The evidence indicates that observed underruns originate from target costs that exceed the contractor's anticipated actual cost.[8]

In recent years, the Defense Department has made great strides in improving the quality and techniques for cost estimating. This is the only way that the Government can be reasonably sure that reasonable target costs are negotiated. If reasonable target costs are negotiated for all contracts, the usefulness of incentive contracting will be greatly inhanced. Although improving target cost is clearly the number one priority in improving the contribution of incentive contracting, other ways have been suggested to assure maximum benefit from contracting with incentives.[9] These other ways include:

(1) Greater restraint in the use of multi-incentive contracts - use only where the objectives are clearly defined.

(2) Greater care in writing the statement of work.

(3) The incentive matrix should be maintained throughout the life of the contract in multi-incentive contracts.

(4) Don't use an incentive contract when a great number of changes are anticipated.

(5) Allow contractor freedom to formulate trade-offs between cost, schedule and performance.

As stated at the beginning of this section, it is not the purpose of this paper to evaluate the effectiveness of incentive contracting, nor to pass judgement on its use. Rather, I have tried to show that more is involved in the motivation of a contractor than can be accomplished through incentive contracting. Whether or not incentive contracting fulfills the purpose for which it is intended (i.e., align the contractor's motivation with the Government's program objectives), I feel that several secondary effects are present that are worth mentioning before I proceed to the next section. These secondary effects can be summarized as follows:

Incentive contracting has -

(1) Made the contractor and the Government more cost-conscious.

(2) Inhanced better financial planning and budgetary control.

(3) Made the Government a more selective buyer (cost-wise).

(4) Changed contractor's attitudes toward cost.

Section IV - Other Motivational Tools Available

In the last section, it was suggested that, while incentive contracting may have benefits, other motivational tools may be available to the Government in order to get the desired outcomes from contractors. In this section, I will consider some of these tools and attempt to determine some of the motivating forces that act upon a contractor organization.

It has been generally assumed in the past that the basic motivational factor of a contractor organization was profit. Based on this assumption, the use of incentive contracting became widespread since the contractor could increase his profit by reducing cost, meeting schedules and/or meeting performance requirements. As was shown in Section III, incentive contracting may or may not accomplish these things. By accepting this assumption of profit-motive, the Government has, in effect, ignored other contractor motives that may be of more importance to the contractor than profit. Contractors, like individuals, are motivated by different things at different times and any attempt to motivate all contractors in the same manner, as incentive contracting does, can not be optimumly effective.

Although the DOD/NASA Incentive Contracting Guide of October 1969 contains one whole chapter on extracontractual influences and using non-profit goals in Government

contracting, to my knowledge, only the profit-motive is considered when a contract is written. No attempt is ever made to determine what <u>really</u> motivates a particular contractor.

In Section II, I stated that some correlation surely existed between motivating an individual to an end and motivating an organization to an end. I feel that this is still applicable. However, the analysis of organization motivation is plainly more complex, involving, as it does, the interacting operation of both individual and organization influences.[1] In motivating the organization, as the individual, it must first be determined what goals the organization has and then focusing in on these goals for motivational purposes. In an organization, both the goals of the organization <u>and</u> the goals of the individuals within the organization must be considered. Organizational motivation is intimately tied to the assumption that organizations are complex social systems, and the human behavior of the individuals within organizations must be viewed from the perspective of the entire social system.[2] Conversely, it can be said that in order to view organization behavior, one must consider the human behavior of the individuals within the organization.

With the above organization-individual relationship in mind, a more in-depth look can be taken into areas that tend to exert motivational influences on an organization. It is becoming more and more evident to individuals within contractor organization that profit is not the overriding priority.

Although profit, of course, would show up on any organizational list of goals, it is generally accepted that it would not be one of those goals close to the top of the list, but rather toward the bottom. The goals near the top of an organization list of goals, and thus factors that should be considered in organizational motivation, are the production of quality products, maintaining increased growth and employment and development of new capabilities to achieve long-term objectives.[3] In a study focused mostly in the Aerospace Research and Development environment, Dr. Raymond Hunt[4] concluded that profit was regularly outranked in lists of organizational goals by such objectives as efficiency, meeting the competition, producing quality goods, uncertainty reduction, control, and like objectives. In a lecture before Program Management Course Class 74-2 at the Defense Systems Management School (DSMS), a representative* from one of the major Defense contractors noted that, incentive contracts or not, contractors will do the best job they can and that short term incentives were virtually meaningless to contractors. Further, he noted that the basic incentive of Aerospace Companies in today's environment was to stay in business. Another guest lecturer* from an equally major Defense Contractor noted before the same class at DSMS that the contractor's motives were the

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*Because of the DSMS policy of non-attribution, the sources of this material will not be revealed in this paper.

same as the Government's plus profit, future potential, and image (to Government, public, stockholders, etc.). He further noted that profit could not be considered any more important than the other consideration.

In compiling a list of goals that consistently outrank profit in an organization the following would, based on the above studies and statements, be included:

- Survival
- Future potential
- Image
- Efficiency
- Meeting competition
- Producing quality goods
- Growth
- Control
- Developing new capabilities
- Uncertainty reduction.

I am not suggesting here that these goals/motivation factors are in any way mutually exclusive. It is felt that many of these factors are interdependent and that profit can and does play a role (although not necessarily major) in many of these factors. The organization is concerned with accomplishing a combination of these goals either in part or in total.

As was indicated earlier in this section, any attempt to motivate an organization must take into consideration both

the organizational goals and the goals of the individuals within the organization. The primary goals of an organization were developed above. The major individual goals were developed in Section II of this paper. These individual goals can be summarized as: achievement, recognition, responsibility, advancement, and growth.[5] In comparing the goals of an organization with the goals of an individual within an organization, it is enlightening to note the similiarities between the two. It was noted earlier that for an individual to be satisfied in an organization, a correlation must exist between his goals and the goals of the organization. Considering that the goals of an individual so closely resemble the goals of organizations, it follows that in order for the individual to perceive a correlation between the two goals he must feel that he is a part of the organization and this can only be done through a feeling of participation.

Recognizing now what a contractor's motivation really is, how can the Government better motivate him? It should be stressed from the start that in order to reduce cost, meet schedules, meet performance parameters, or whatever is desired by the Government, any motivational scheme must take into consideration the individuals within the organization. In effect, the individuals are the ones that make or break the desired outcomes. Therefore, when the Government does something to motivate a contractor to a desired outcome, if the contractor does not, in turn, motivate the individuals

within his organization, no benefit will come from the motivational attempt.

Clearly, some of the goals/motivational factors listed above for organizations do not readily lend themselves as factors that can be used by the Government for motivational purposes. However, some of the factors (i.e., future potential, image, growth, development of new capabilities, uncertainty reduction) could be used by the Government to its benefit. As mentioned in Section II, any motivational scheme that is not specifically tailored to an individual or organization is doomed from the start. Therefore, I do not intend here to give an easy formula for a cover-all motivational scheme for contractor motivation. However, if it is determined that a particular contractor is concerned with future potential, let it be known (possibly even guarantee) that if he performs satisfactorily further Government business will be coming his way. If it is determined that a particular contractor is concerned with its image, let it be known that his good work (as well as his poor work) will be made public. The Government could even publish a comprehensive list of all Defense Contractors that would be readily available to the public, share holders and other contractors that would rank the contractors in order of superiority and giving data on their accomplishments in the area of cost growth, schedule slippage and/or performance parameters.

This is only a couple of examples of how the Government can use the known goals of a contractor to motivate him to a desired action. Many different schemes can be invented to take advantage of each goal or a combination of goals depending on the particular contractor. Again, it must be emphasized that any motivational plan, whether monetary incentive contracting or extracontractual or non-profit plans must be tailored to a particular contractor to be effective.

In summary, if there is a basic motive in contractor organizations it is not profitmaking, much less profit maximizing, but rather the business enterprise is mainly oriented toward mastery in its own house and control over its environment so that it can organize its affairs and minimize unplanned contingencies or at least maximize its ability to meet them with a minimum of disruption.[6] Profit, along with the other goals, is a means to that end, not an end in itself.

Section V - Conclusions

In the previous sections of this paper, I have discussed three major topics. First, I discussed the concept of incentives as motivators, in general. Next, I took a particular incentive concept (i.e., incentive contracting) and discussed its use as a motivator of contractors without attempting to evaluate or pass judgement on its use. Finally, I discussed other areas that, I felt, readily lent themselves as tools to be used as motivators.

Too often with the Government contractor, as with employers, the profit motive is the overriding issue when an incentive scheme is constructed to motivate a contractor, or employee, to a desired outcome. I have attempted to show in this paper that, while it can not be ignored, other areas are possibly more important to contractors, or individuals, than profit. These other factors, if known, can be used as effective motivators. As mentioned above, I did not attempt to pass judgement or evaluate the effectiveness of incentive contracting in this paper. However, the literature I read on this subject, as related in Section III of this paper, raises serious doubts as to whether these incentive contracts actually produce the results that the Government desires. I would not be honest if I did not say that I personally feel that incentive contracts achieve the desired outcomes in some contractors. However, the same type of incentive contracts

can not be effective across the broad spectrum of defense contractors. Each contractor, as with individuals, must be evaluated individually to determine what actually motivates him and what incentive or incentives will make him achieve a desired response. I feel that this is an underlying theme to the concept of motivation, although, it is the one theme that is most often ignored or traded off. Different contractors have different motives. What motivates one may not motivate another. However, in the writing of incentive contracts, we fail to establish if a particular contractor will actually be motivated to a desired response through the profit incentive. Since the profit motive is the essence of incentive contracting,[1] this type of contracting can not be universally effective.

In Section IV, I listed several factors that consistently outranked prorit when goals for a coporation were listed. As mentioned then, these goals are not independent of each other, nor are they independent of profit. I do not advocate ignoring the profit motive entirely. It definitely has its place as a motivator, although to varying degrees depending on the particular contractor or individual.

During the past several years, it has been widely accepted that the profit motive is not the number one motive for the majority of individuals in our society because most of them are far enough up Moslow's ladder of needs[2] that he has passed those things that money can get for him. I feel that

it is time to realize and put into practice the concept that, like individuals, the profit motive is not the basic motive of business. We must strive to evaluate the motives of contractors on an individual basis before we attempt to furnish incentives to motivate the contractor to a particular desired outcome. Until this concept is accepted and until intensive work is done to evaluate contractor motive on an individual basis, we can never be sure, no matter how much of the tax payer's money is put into the incentive fee pool, that we are using the most effective and productive means to motivate the defense contractor.

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