AN ANALYSIS OF THE LINCOLN ELECTRIC COMPANY'S PERSONNEL PROGRAM

by

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CHAPTER I

INTRODUCTION

PURPOSE

The Lincoln Electric Company has achieved rather spectacular success in the manufacture of welding equipment. Much has been written concerning the incentive system which this company has. However, very little has been published with regard to the overall personnel program in effect at Lincoln. In this Thesis, an attempt will be made to show that the incentive system is only one factor which may contribute to the high productivity of the Lincoln workers. Numerous other features of Lincoln's personnel program such as the activities of the Advisory Board, provision of continuous employment, recognition of outstanding employees, etc., may also contribute to the worker productivity at this company. It is the purpose of this Thesis to thoroughly examine this personnel program, and in so doing, to indicate what features of this program might influence worker productivity and for what reasons.

PERSPECTIVE

The most publicized feature of the personnel program in effect at Lincoln is the annual bonus paid to all employees. This plan has always been discussed under the heading of a profit-sharing plan. The "profits" which are shared come from the income received by the Lincoln Electric Company before the payment of taxes. Since this bonus is paid

in yearly lump-sum, it may be treated as an expense to the company. Thus, the company pays no taxes whatsoever on any money so distributed to its employees. Under the general category of profit sharing plans, this type is known as a cash plan as opposed to a deferred plan.

Among the members of the Council of Profit-Sharing Industries, deferred plans are more prevalent than the cash plan as used by the Lincoln Electric Company. Under the deferred plan, all amounts paid out above fifteen percent of the annual payroll are not tax-deductible. For this reason, it is very doubtful if any of these firms are paying amounts comparable to that paid by Lincoln. In 1965, the average bonus paid to each Lincoln employee was $8,220.83.

To the best of the writer's knowledge, the personnel system in effect at Lincoln, including the size of the annual bonus, is truely unique in industry. For this reason alone, this plan is worthy of study.

METHODOLOGY

All available journal articles concerning this company have been thoroughly reviewed. In addition to these articles which have appeared in various periodicals, three books written by James F. Lincoln have also been reviewed. They were read with the hope of gaining some insight into the character and beliefs of this man who adopted many managerial practices which were truely unique at the time. The company itself has also published a number of pamphlets which the writer has found quite helpful in the preparation of this Thesis.

In addition, a personal interview was obtained with the Assistant Secretary of the Lincoln Electric Company, Mr. Charles G. Herbruck, and other company employees. All of the writer's questions which had been left unanswered by the available literature, were asked during these interviews.

The writer has attempted to assemble the information so gathered into a unified whole which will present a much more comprehensive picture of Lincoln's personnel program, than is found in any publication about this company. From this comprehensive analysis, a much clearer picture emerges to explain the unique record achieved by the Lincoln Electric Company.

SCOPE

With the exception of Chapter II, in which the history of the Lincoln Electric Company is presented, the scope of this Thesis will be limited to the personnel program in effect at Lincoln. Only those factors in finance, production, etc., which may possibly influence the desire and ability of the worker to produce will be discussed in this study. This limitation on the area to be covered is quite consistent with the purpose of this study as stated previously.

ORDER OF PRESENTATION

A brief history of the growth and development of the Lincoln Electric Company will be presented. This section will include both the managerial innovations introduced by James F. Lincoln, and the results which have been obtained at the Lincoln Company. It is believed

that the history will provide the necessary background for the reader. For this reason, the history is being presented first. The spectacular success of this company is felt to illustrate the desirability of, and the need for, a study of this nature. Therefore, these results are being presented early in this Thesis.

Secondly, the personnel policies currently in effect at the Lincoln Company are presented. These policies are presented in two sections. The first section (Chapter III) contains a discussion of all of the overall personnel programs including recruiting, training, merit ratings, the piecework system, etc. Chapter IV contains a discussion of all other company benefits which are usually categorized as "fringe" benefits. This chapter includes such programs as the stock purchase plan, life insurance plan, and the annuity plan.

After a thorough discussion of these programs, Chapter V presents an evaluation of the material presented previously. In this evaluation, the writer relates the total personnel program to the workers in terms of Maslow's hierarchy of needs. This analysis is presented in an attempt to explain the very high worker productivity which has become typical at the Lincoln Electric Company.

Lastly, the writer attempts to answer several questions concerning the applicability of similar systems to other firms, and the future of this system in the Lincoln Electric Company.

CHAPTER II

HISTORY OF THE LINCOLN ELECTRIC COMPANY

The foundation for today's Lincoln Electric Company was laid in 1895. In that year, John C. Lincoln formed the Lincoln Electric Company in his basement. The company was formed for the purpose of rewinding and repairing small electric motors with a total investment of $150 of borrowed capital. During the following years, the company grew moderately; however, John Lincoln was more interested in the engineering phase of the operation than in management. The Lincoln Electric Company was well established in the electric motor business by 1907, the year in which James Lincoln joined his brother in the business.

James Finney Lincoln, John's brother, has been the name synonymous with the growth and development of the Lincoln Electric Company throughout the years. James was born the son of a preacher and an outspoken abolitionist in Painesville, Ohio, on May 14, 1883. He worked hard on the family farm during his early years.

At the age of twenty, James F. Lincoln went to Ohio State University to study electrical engineering. His scholastic career was mediocre, although he excelled as a football player and the Captain of the team his senior year.[1] In the spring of 1907, James contracted typhoid fever which forced him out of school before graduation.

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[1]James F. Lincoln, A New Approach to Industrial Economics (New York: Devin-Adair Co., 1961), p. 5.

He never returned to complete work toward his degree, and went to work for his brother John. James Lincoln started as the firm's only salesman earning $50 a month plus 2% sales commission.[2] During the formative years of this company, John Lincoln had proven himself to be an extraordinarily capable engineer although he lacked managerial skill.

James' talents as a manager were quickly recognized, and he was made General Manager in 1914, at the age of thirty-one. It was during this same year that he took his first step toward the incentive management system that was to prove so successful in later years. James realized that many of the workers knew far more about the operations of the company than he did. He asked the employees to elect representatives from each department to advise him on the company operations. The Advisory Board which was then created has met twice a month ever since 1934.[3] When writing later about the Advisory Board, Lincoln made the following statement: "I knew that if I could get the people in the company to want the company to succeed as badly as I did, there would be no problems that we could not solve together."[4]

The basic rationale of the Advisory Board are as follows:

1. The job of the organization is to make a better and better product selling for less and less.

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[2] Ibid., p. 6.

[3] Ibid., p. 8.

[4] Ibid.

2. Piecework is the only fair way to reward workers.

3. Much of the savings effected in manufacturing methods is to be handed on to the consumers.[5]

The Advisory Board has functioned for the purpose of informing the employees concerning any change or policy which may affect them. Another purpose of the Advisory Board has been the opportunity it presents for the employees to bring any grievances or suggestions they might have to the attention of management. The Advisory Board will be discussed in greater detail in a later section of this Thesis.

In 1923, Lincoln began automatically adjusting earnings up or down in accord with the Bureau of Labor's cost of living index. A stock purchase plan was inaugurated in 1925, and a suggestion system was adopted in 1929.[6]

Under the innovative leadership of James Lincoln, the company came through the decade of the 1920's with new vigor. Shortly before the onset of the Great Depression, it introduced a new concept in welding electrodes. New techniques for their manufacture were also discovered which enabled cost reductions of over fifty percent.[7] The company was immediately sued, (for a patent infringement) by one of the industrial giants of that era, which considered welding a specialized

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[5]James F. Lincoln, Lincoln's Incentive System (New York: McGraw-Hill Book Co., 1946), p. 119.

[6]Lincoln, A New Approach..., p. 10.

[7]Ibid., p. 11.

process and desired to control it through licensing. The Lincoln Electric Company won this suit, thereby opening the door for its continued growth until it reached the position it holds today. Prior to World War II, Lincoln became the world's largest manufacturer of arc welding equipment, a position which it has maintained up to the present time.

The most widely known managerial innovation of Lincoln's was begun in 1934. This was the annual bonus plan. Lincoln had tried another bonus plan some years earlier, but it was not successful. It was felt that the bonus had appeared to be a gift in the eyes of Lincoln's employees. The amount each employee received was in no way related to his individual productivity. However, in 1934, the employees requested a new bonus plan. In response to this request, Lincoln decided to try another bonus plan and installed a new and improved one.

As will be explained in detail later, employees are eligible for a bonus in December of each year. The amount of this bonus depends upon the individual's merit rating, his base salary, and the total bonus pool. The size of this bonus has grown to fantastic amounts in recent years. In 1955, the bonus averaged $4,376 per worker, whereas in 1965, the average bonus had grown to $8,220.83.

These large bonuses are the result of Mr. Lincoln's philosophy of incentive management. He believed that the most serious economic waste in the free enterprise system is that the hourly worker is rarely given the opportunity and the challenge that will develop his abilities. Mr. Lincoln's approach tries to offer his employees just such an opportunity through incentive management.

There are certain principles which Mr. Lincoln felt should be followed when trying to set up an incentive system. In the first place, his plan tries to instill the "will to do" in an employee.[8] He believed that the bonus system contributed to this goal to some extent, although he also tried to give recognition to the employees for all outstanding jobs they performed. A complete discussion of the methods he used for recognizing particularly able employees will be included in Chapters III and IV.

Another prominent segment of the Lincoln philosophy was his belief that workers should be given challenging jobs which occasionally go beyond their current abilities. In this way, Lincoln believed that operatives could often develop new abilities of which they had no awareness previously. He had great faith in the latent abilities of the "common man."

Another key point in Lincoln's system was his belief in keeping the employees completely informed at all times. The Advisory Board, which was mentioned previously, accomplished this goal on most matters. The company has also performed numerous other services which have been used to inform outsiders as well as employees in many cases. It has sponsored competition for design, published textbooks, conducted seminars, provided articles for technical journals, and worked closely with engineering colleges.[9]

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[8]"Lincoln Efficiency," Newsweek, XXXIX, No.10(March 10,1952),p.79.

[9]Raymond Moley, "Lincoln's Incentive Plan", Newsweek, LVIII, No. 24 (December 11, 1961), p. 96.

Mr. Lincoln also had definite ideas concerning labor organizations. His shop has always remained completely open. When questioned concerning his beliefs in this area, Lincoln replied: "I've never done anything to fight unions - - but what have my workers got to gain by joining a union?"[10]

In one of Lincoln's books, he discussed this topic a little further.[11] He said that labor should be organized since it has different problems than those which confront management. It is necessary that these separate points of view be developed by each. However, Lincoln often referred to collective bargaining as "civil war," and he wrote in 1950 that unions were hurting labor more than they were helping.[12] He cited John L. Lewis' coal strike which secured a raise in wages for the strikers; however, it would take years for this raise to compensate the workers for wages lost during the strike. He was also strongly critical of the post war rounds of wage increases resulting in the "wage-price spiral." To Lincoln's way of thinking, his Advisory Board was his labor organization.[13]

There have been two minor attempts by unions to organize the Lincoln workers. Shortly after World War II, a Foreman's union tried

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[10]"Lincoln's New Plant", Newsweek, XXXIV, no.1 (July 4, 1949), pp. 60-61.

[11]Lincoln, Lincoln's Incentive..., p. 118.

[12]James F. Lincoln, "Is Labor Riding For a Fall?", American Magazine, CXLIX, No. 6 (June 1950), pp. 25, 127.

[13]Lincoln, Lincoln's Incentive..., pp. 118-119.

to organize Lincoln workers by writing to them at their homes. It was stated in a company publication that these organizers made the "cardinal error" of personally attacking Mr. James F. Lincoln.[14] They met with very little success.

The other effort to organize Lincoln workers also occured shortly after the war. A union organizer handed out leaflets to the workers as they entered the factory door. The workers were told that there was to be a mass meeting in the adjoining parking lot the next day at noon. As the speaker began talking on the following day, a worker started testing a gasoline powered generator, with muffler removed. The worker started and stopped the machine several times as the audience laughed. The speaker shouted to be heard above the din. Before very much time had elapsed, the speaker packed up his papers and drove away. He never returned.[15]

When asked if there were any members of craft unions presently employed by Lincoln, a member of Lincoln's management replied that there were not. He stated that this was due to the company policy of promoting from within the company entirely. The only shop workers they hire are those who come directly from high schools and trade schools.

James Lincoln had very stong feelings concerning many topics. He used all available media for presenting his views to the public. In

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[14]A.N. Weeksler, "A Case Study of the Lincoln Electric Company," Incentive Management, (Cleveland, Ohio: Lincoln Electric Company, 1963) p.1.

[15]John Desmond Glover, The Administrator (Homewood, Illinois: Richard D. Irwin, 1957), p. 558.

all three of his books, his strong opposition to big government was discussed at great length. Thousands of groups throughout the world were addressed by Mr. Lincoln, and he was a "constant" contributor to the letters-to-the-editor columns of Cleveland newspapers.[16]

In 1947, he felt that arc welding was being severely handicapped in comparison to other metal joining methods such as riveting. Mr. Lincoln stated that the government was placing restrictive tests on his industry by requiring that all arc welded joints in ships must be X-rayed. No tests of this nature were required for any other means of joining metals. With usual Lincoln enthusiasm, he presented his case to the Scientific American. The editors of this journal tried to promote a debate on the subject between Lincoln and a high-ranking member of the riveting trade.[17] There was no response from the riveting profession; but, Lincoln was able to get his beliefs before the public.

In order to avoid the temptation of allowing costs to rise during prosperous times, Mr. Lincoln declared a goal of reducing total costs by ten percent every year. This goal has been retained through the ensuing years. The company continued to grow and prosper following the war.

In 1951, a new plant was constructed for the Lincoln Electric Company. This plant is quite striking to the visitor in that it em-

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[16]Lincoln, A New Approach...,p. 17.

[17]James F. Lincoln, "Arc Welding Is Being Handicapped", Scientific American, 117, No.3 (September, 1947), pp. 101-105.

bodies a large number of Mr. Lincoln's revolutionary ideas. As the visitor enters the plant, he is confronted by a phrase placed in a prominent location on the wall facing the door. In letters each a foot high, the following words are spelled out: "The Actual Is Limited, The Possible Is Immense." This one statement is the basis for Lincoln's belief that miraculous occurrences could be expected if workers were induced to develop their abilities.

Mr. Lincoln said that he repeatedly emphasized the fact that any luxuries in the Lincoln Electric Company would be purchased out of profits and hence the employee's bonus. Once the workers requested the installation of a public address system. When Lincoln investigated this possibility, it was found to cost $50,000. When the workers were told that the system could be purchased out of profits, and therefore the bonuses would be reduced by the same amount, the workers quickly lost their enthusiasm.[18]

The remainder of their physical facilities reflect the same attitudes. There are no luxurious waiting rooms, plush offices, nor any of the other typical trademarks of large American business. In the cafeteria, the company attitude toward frills is particularly evident. All Lincoln employees, regardless of their individual status, eat in the same sparsely furnished room with bare cinderblock walls. They all eat the same food from the same straight-backed chairs.

The remainder of the plant reflects the same austerity. The company has adopted a policy of refusing to invest in any equipment

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[18]Glover, The Administrator, p. 574.

which would not pay for itself within five years.[19] It is felt that this policy will tend to make all of the employees concentrate upon new ideas as the primary means for lowering costs rather than merely advocating the purchase of new machines. As a consequence of this policy, many of the machines currently being used in the production process are quite antiquated. When questioned concerning the possible disadvantages of out-dated equipment, a management representative stated that the machines are so cycled that one worker may be working on a second machine while waiting as the first machine is performing certain other operations, implying that the motivated worker could be highly productive even when using less than optimal equipment.

Mr. James F. Lincoln moved up from President to Chairman of the Board in 1954. He retained this position until his death in June, 1965.

The foregoing has been a discussion of the history of the Lincoln Electric Company, coupled with some pertinent views of Lincoln with regard to incentive management. The following pages will be primarily concerned with the actual results which James Lincoln believed were due to his system of incentive management.

RESULTS ACHIEVED THROUGH INCENTIVE MANAGEMENT

Figure 1 shows the relationship between the selling price of

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[19] Ibid.

a welder and costs. As the chart shows, labor, copper, and steel costs have increased substantially since 1934. However, the cost of the three hundred ampere motor-generator is now approximately twenty percent less than it was in 1934. The machine, with the exception of improvements and refinements, is substantially the same today as it was thirty-two years ago.

A comparison of the price of steel rod with the price of Lincoln's welding rod is depicted in Figure 2. A welding rod is cut and drawn from the primary raw material (steel rod), and then given a complex chemical coating which adds further to its cost. As the chart shows, the cost of the basic raw material has increased tremendously; however, the Lincoln welding rod sells for less today than it did in 1934. Lincoln frequently stated a number of factors which he believed to be responsible for keeping his selling prices at a low level. Among those factors were the development of new machinery for production, better use of materials, better design, and greater skill of the operator. He believed the primary determinant of his low prices to be the cooperation of the workers, and the development of latent abilities.

Figure 3 compares the sales value of Lincoln Electric products per employee with the manufacturing industry average. This could be one measure of a worker's productivity; however, it must be remembered that the products of the manufacturing industry as a whole differ widely. For this reason, it could be argued that the manufacture of welding equipment merely requires fewer workers to maintain a

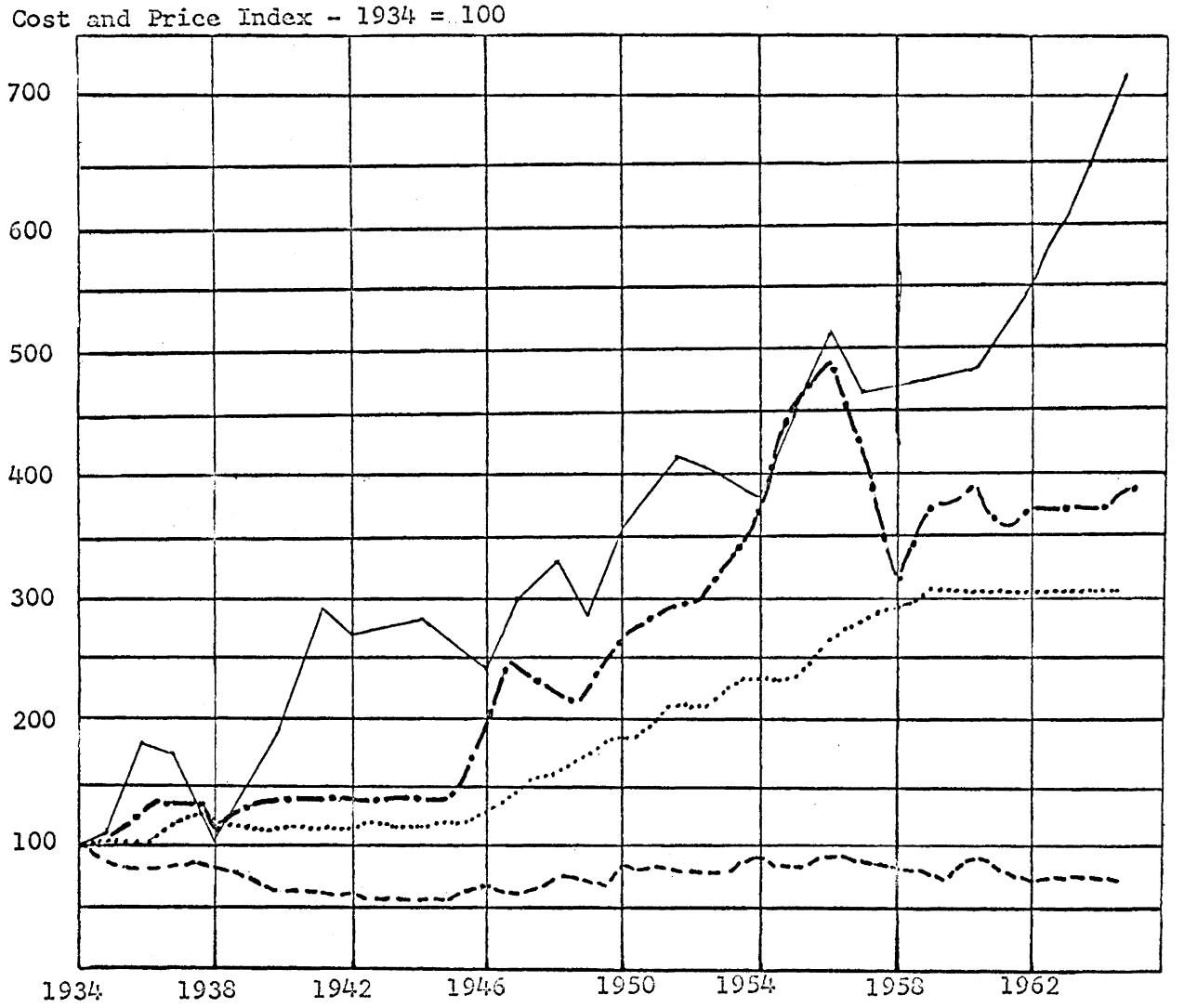

FIGURE 1

WELDER SELLING PRICE IN RELATION TO COSTS

——— Lincoln Worker Compensation Index (Annual Average)
..... Finished Steel Index
—·—·— Copper Index
– – – – 300 AMP Welder

SOURCE: James F. Lincoln, A New Approach To Industrial Economics (New York: Devin Adair Co., 1961), p. 157.

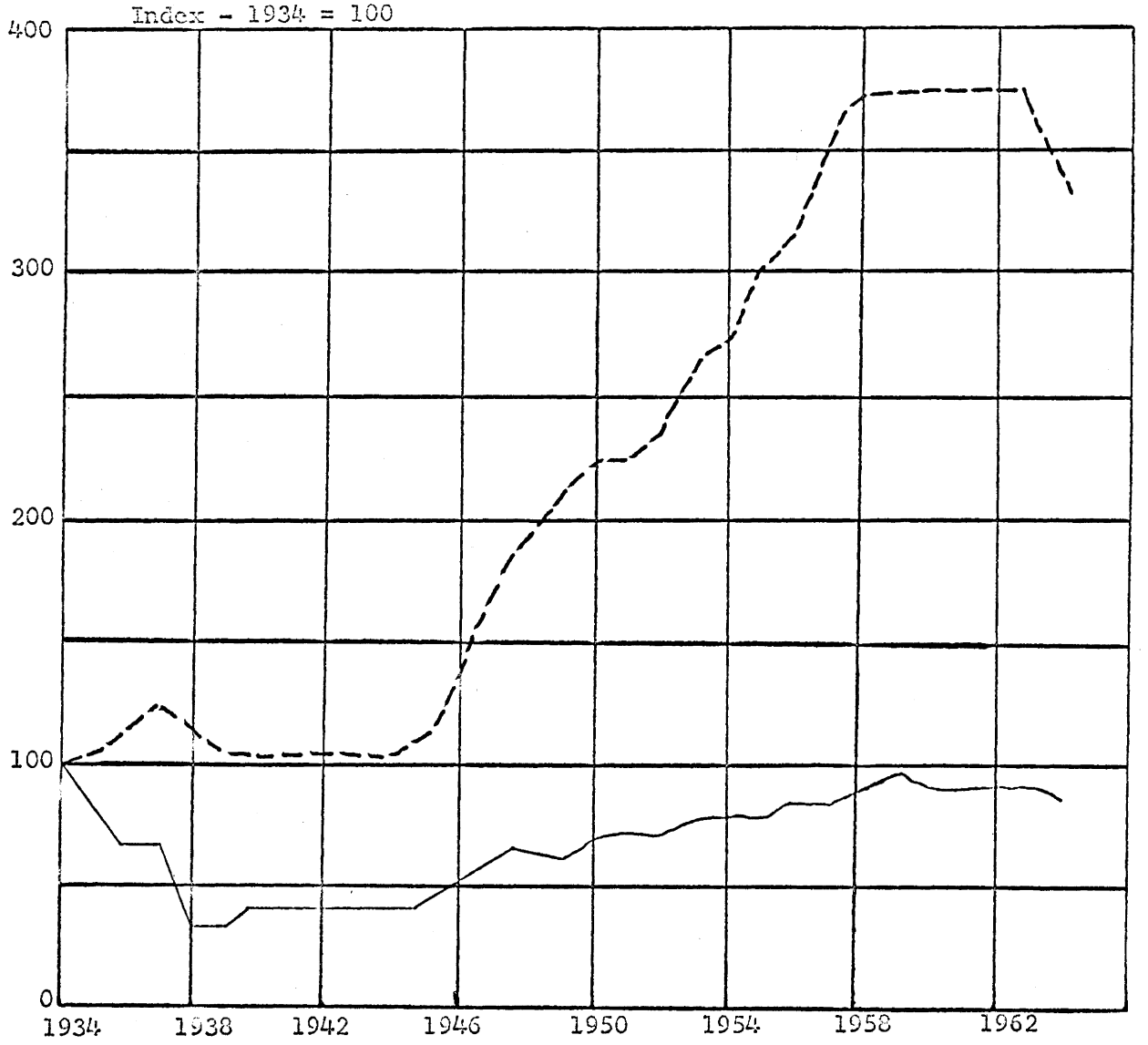

FIGURE 2

ELECTRODE SELLING PRICE IN RELATION TO COST OF STEEL ROD

_ _ _ _ Steel Rod Price Index
_____ Fleet Weld 5, 5/32" Electrode Price Index

SOURCE: James F. Lincoln, A New Approach To Industrial Economics (New York: Devian Adair Co., 1961), p. 159.

given sales level than does the manufacturing industry in its entirety.

The average hourly earnings of production workers and non-supervisory manufacturing personnel have been substantially higher at the Lincoln Electric Company than the average of all manufacturing industries. Chart 4 shows this relation for the years from 1956 to 1964. Although hourly earnings at Lincoln are more than twice the national average, the labor cost per unit produced is substantially lower than that cost for other comparable companies, allegedly due to the productivity of Lincoln workers.

Figure 5 depicts a comparison of the monthly labor turnover rate at Lincoln Electric Company with the average of all manufacturing industries. When enterpreting this chart, it must be remembered that employment at Lincoln is continuous. When business slumps there are no layoffs.

The foregoing charts clearly show that the Lincoln Electric Company has been able to reduce selling prices in spite of soaring raw material and labor costs which have increased tremendously. This practically unique performance is allegedly due to the unusually high productivity of the Lincoln workers. Evidently this high productivity has been attained while a highly motivated, competent, and satisfied work force has been maintained by the company.

When profits are used as a measuring stick, the success of this company is still quite evident. In 1965, the net income (after taxes) of the Lincoln Electric Company climbed to a new high of

FIGURE 3

SALES VALUE OF PRODUCTS PER EMPLOYEE

——— The Lincoln Electric Company
– – – – All Manufacturing Industries

SOURCE: James F. Lincoln, A New Approach To Industrial Economics (New York: Devin Adair Co., 1961), p. 161.

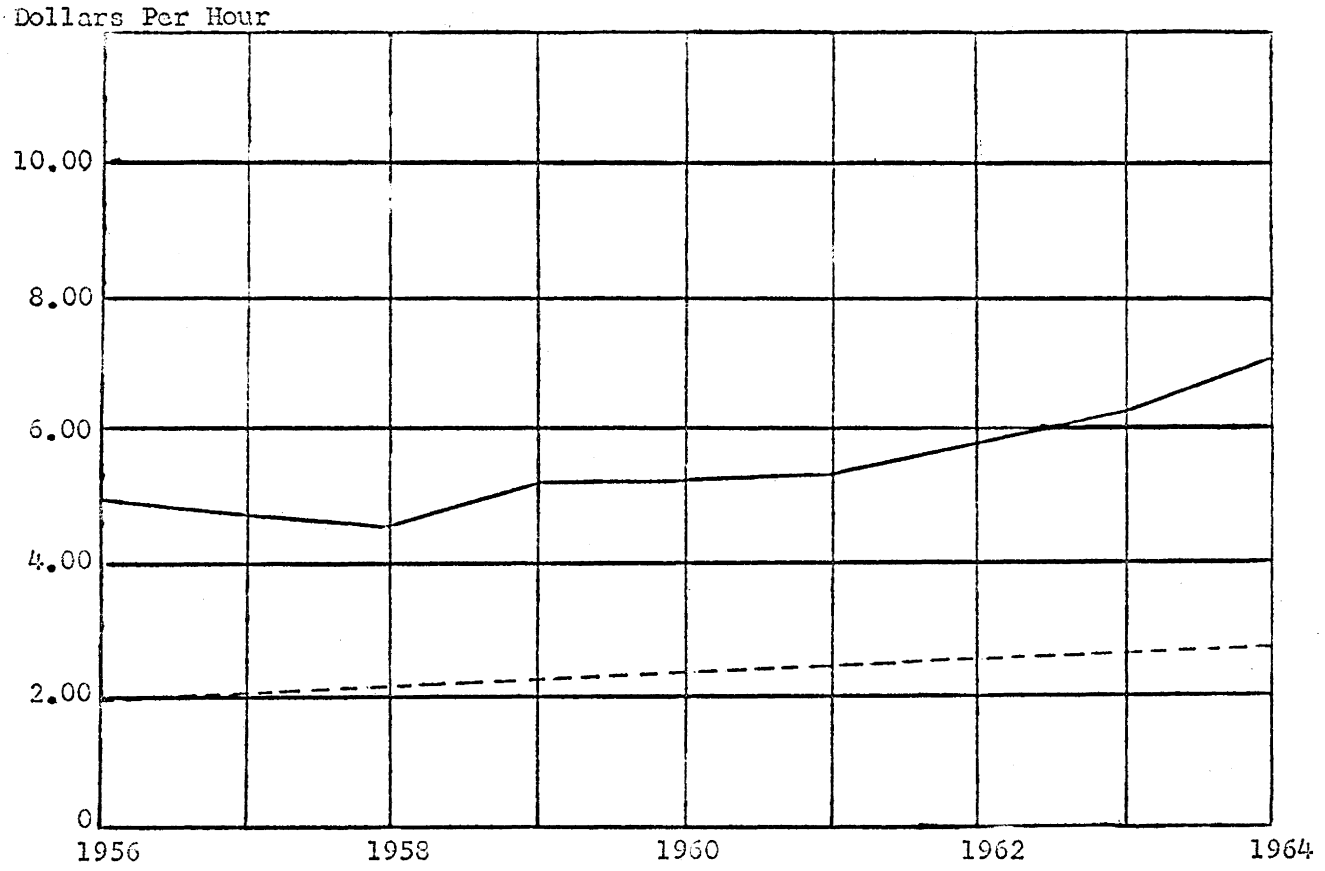

FIGURE 4

AVERAGE HOURLY EARNINGS OF PRODUCTION WORKERS

_____ The Lincoln Electric Company
_ _ _ _ All Manufacturing Industries

SOURCE: James F. Lincoln, A New Approach To Industrial Economics (New York: Devin Adair Co., 1961), p. 163.

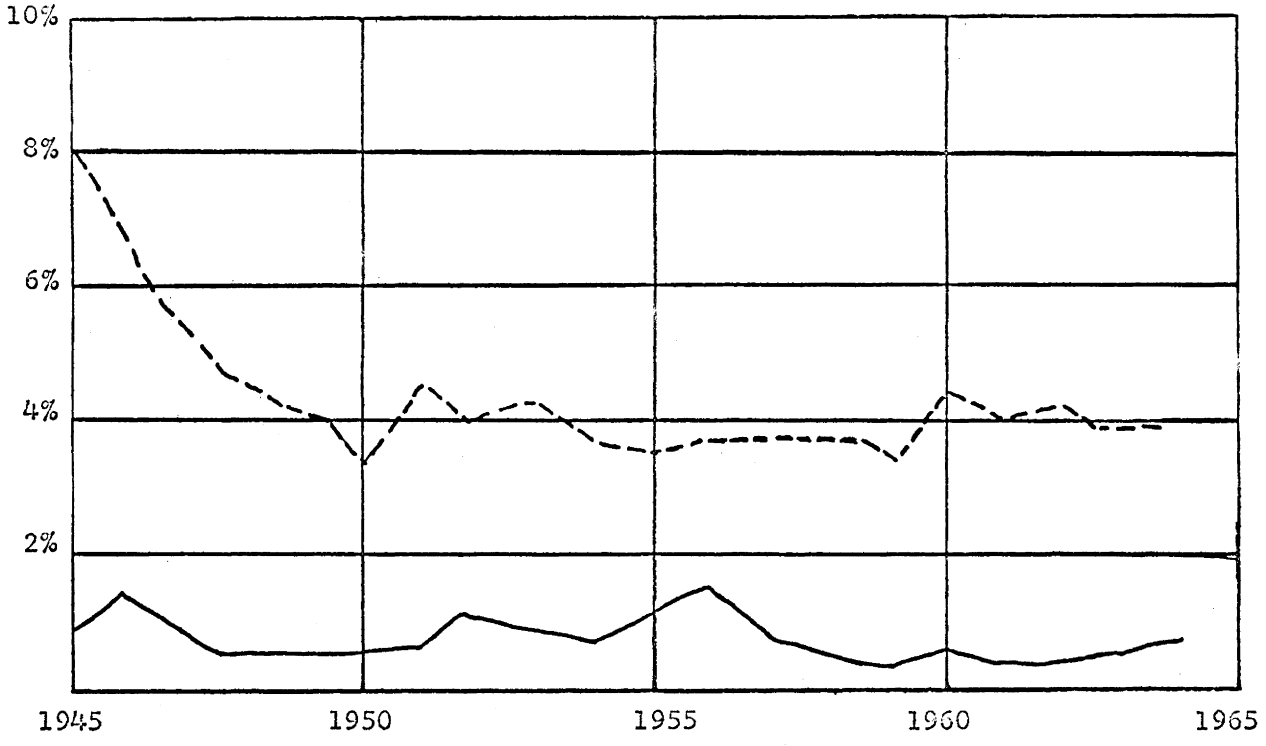

FIGURE 5

MONTHLY TURNOVER RATE

_____ The Lincoln Electric Company
_ _ _ _ All Manufacturing Industries

SOURCE: James F. Lincoln, A New Approach To Industrial Economics (New York: Devin Adair Co., 1961), p. 165.

$5,289,000. This figure represented a return of 10.77 percent on the tangible net worth, and a return of 9.14 percent on the total assets owned by the Lincoln Electric Company. This is a very substantial return when measured by any standard. Furthermore, it must be remembered that the $5,289,000 of net profit is the amount which remained after the year-end bonus of $14,444,000 was paid. In comparing the profitability of the Lincoln Electric Company with the industry average, the industry comprising the Standard Industrial Classification Code 362 was chosen. This category includes all industrial electrical apparatus of which the welding equipment industry is one segment. It is very difficult to make a direct comparison between the Lincoln Electric Company and its competitors since in most cases, the manufacture of welding equipment comprises only a small segment of their total product line. Since company statements are usually printed in consolidated form, a valid comparison is not possible.

For SIC Code 362, the median of net profits as a percentage of tangible net worth is 10.33 percent.[20] Thus, the return on equity is slightly higher for the Lincoln Electric Company than the industry median. But, the Lincoln Electric Company has no long-term debt outstanding. Therefore, the tangible net worth comprises a much larger segment of the Lincoln Electric Company financial structure than it does for the average company. The tangible net worth is greater than 83 percent of Lincoln's total assets. The median of the net profit

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[20] Dun's Review and Modern Industry, (november, 1965), p. 64.

as a percent of net working capital is 14.47 percent for SIC Code 362, whereas Lincoln returned over 18 percent on its net working capital.[21] These figures coupled with the after-tax return of 9.14 percent on total company assets give further indication of the success of this company. Similar results have been achieved in recent years at the Lincoln Electric Company.

Since it is obvious that this company is quite successful, it is now necessary to analyze the factors leading to this success. In the following Chapter, various segments of the personnel program in effect at Lincoln will be discussed. It may be revealed that some of these personnel policies are particularly useful in developing the very high level of employee productivity and satisfaction which is evident at the Lincoln Electric Company.

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[21] Ibid.

CHAPTER III

PERSONNEL PROGRAM

In this Chapter, various segments of the overall personnel program in effect at the Lincoln Electric Company are discussed. It includes such topics as recruiting and training, the Advisory Board, promotional policies, etc. However, prior to the discussion of specific personnel policies, it is felt that a discussion of the company organization is in order, since the organization itself provides the framework within which the personnel policies are applied.

ORGANIZATION AND SPAN OF CONTROL

The Lincoln Electric Company has no formal organization chart, indicative of the informality pervading the organization. The President has twenty-two department heads and staff members reporting to him. This very large span of control is quite typical of the rest of the organization as well. A very large span of control indicates that, out of necessity, decision making is quite decentralized. The supervisors make up the next level and report directly to the department heads. Each foreman in the shop has from 50 to 80 workers reporting directly to him. As the reader has probably noticed, the company appears to have a minimum of managerial personnel. Thus, the Lincoln Electric Company may be characterized as a "flat" organization.

It is said that Lincoln employs only a fraction of the engineers that similar firms employ.[1] The writer believes that the same could be said of all managerial personnel. In the engineering section, the Research Vice President is quoted as follows on this subject: "We have a small group, but it operates at peak efficiency. There is little supervision; no one has to write memos or long weekly reports. We keep our lines of command very short here."[2]

The very large span of control together with the statements quoted above provide a very strong indication that the employees receive only general supervision at this company.

RECRUITING AND TRAINING

When the Lincoln Electric Company is in need of workers, certain steps are followed to obtain these workers. Each year, representatives of the Lincoln Electric Company go to high schools in Cleveland and near-by rural areas. These representatives visit both the trade type high school and the academic high school. Lincoln looks for a high I.Q. and a competitive instinct, as evidenced by participation in athletics, debating, etc.[3] Recruiters are also looking for certain other traits such as willingness to work hard, ability to work

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[1]V. Bashian, "Does Profit-Sharing Pay Off?", Chemical Engineering, (November 26, 1962), p. 134.

[2]Ibid.

[3]Glover, The Administrator, p. 589.

with their hands, etc. It is felt that often the young men best suited to working for the Lincoln Electric Company may be obtained from the rural high schools since generally these graduates have had more experience in working with their hands.

The company also hires an average of ten to fifteen personnel with college degrees each year. The degreed employee starts at a salary of $400 per month which is very low when compared to the salaries offered by other firms. However, the degreed employee is eligible for a bonus his first year, the amount being determined as follows:

Bonus = Income For Period Worked X 60 Percent X Merit Rating

The management feels that within two years it will be able to tell whether or not the degreed employee will succeed. It is claimed that management knows within two to three months if the operative is the type sought by the Lincoln Electric Company.

There is no formal training program whatsoever employed by the Lincoln Electric Company. The individual leaving the job trains the new worker entirely on the job. During the training period, the new worker is paid the daywork rate which is 80 percent of his piecework base rate. He continues on daywork until his output increases to the point which will warrant changing over to piecework.

The instructor, during this time, is still paid his usual piecework rate; however, a good job of training will be reflected in his merit rating. This additional bonus should more than compensate the

worker for any wages lost through lowered productivity while training the new employee.

Any productive labor performed by the new employee while on daywork is credited to the department in which the work was done; this provides further compensation to the worker performing the training function.[4]

The training period for the degreed employee is one year in duration. It is a very informal procedure utilizing on the job training exclusively.

Lincoln also encourages its workers to attend night schools in order to better themselves. Most of the foremen have obtained some education beyond high school and many are technical college graduates. It was said in 1946 that Lincoln had more of its people in various night schools around Cleveland than any other plant regardless of its size.[5]

It is stated by management that there is no limit to how high the operative may go in the organization; although, the non-degreed person is at a definite disadvantage when competing with those possessing degrees.

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[4]Employees' Handbook, Lincoln Electric Company, p. 10.

[5]Glover, The Administrator, p. 589.

ADVISORY BOARD

When James F. Lincoln became the General Manager in 1914, he was immediately confronted with a difficult situation. He realized that many of the workers knew far more about the operations of the company than he did. For this reason, he decided to have each department elect representatives to advise him on company operations. The Advisory Board, which was then created, has met twice a month since 1914.

The members are elected to serve one year and they receive $8.00 for each meeting attended. No member may serve two terms consecutively; however, after being off of the Board for a year, any previous member may be re-elected. The minutes of all meetings are posted in each department; however, the Board members are expected to discuss the Board's decisions with their constituents. Any employee, regardless of his status in the company, may bring up any matter for discussion and consideration by the Advisory Board through his elected representative.

In addition to discussing specific problems existing in the various departments, the Advisory Board has also been used to discuss such other topics as business prospects, competitors' programs, general plant operations, etc.

The Advisory Board serves a number of very useful functions. Most important, it is a meeting place for labor and management. In an Advisory Board meeting, each group can bring all thoughts and beliefs out in the open for discussion. James Lincoln felt that this frankness

and lack of secrecy was a fundamental step toward labor-management peace and harmony. Thus, the Advisory Board is one method by which employees may participate in management. It also presents an ideal opportunity for employees to bring up grievances for discussion and settlement.

Furthermore, the Advisory Board plays an important role in the field of personnel development. Workers elected to the Advisory Board are confronted with the need for a different outlook upon problems. They are presented with information concerning overall company policies, problems, goals, etc. This experience should enable the employee to better understand where his particular department fits into the total picture of company operations, and therefore broaden his perspective. The employee should better understand the reasoning behind managerial decisions, and should develop his individual ability to communicate articulately since he must present his department workers' views to management and management's views to his department.

The rule that no representative may serve on the Advisory Board for two consecutive terms allows a greater number of employees to receive this valuable experience than would be the case if this rule were not in effect.

As stated previously, one of Lincoln's fundamental policies was to keep employees informed and involved at all times. The Advisory Board contributes greatly toward performing this managerial function.

MERIT RATINGS AND PROMOTIONS

The size of the annual bonus is determined by three factors: the worker's annual wage, his merit rating, and the size of the total bonus pool. Since the merit rating is the factor over which the individual employee has the greatest control, it is obviously of primary interest to the employee.

The merit rating procedure is carried out twice a year, in April and October, with each merit rating attempting to judge employee performance for the preceding six month period. The employee is judged on a number of factors regardless of what his particular job is. The job is rated in the Job Evaluation procedure which will be discussed in the next section.

The merit ratings are made on four cards; each one rates the employee on a different factor. The first card is entitled "dependability." This rating is said to be a measure of how well each worker's supervisor has been able to depend upon him to perform all functions expected of him. It also rates the worker's ability to supervise himself in keeping his workplace neat and keeping his equipment in good operating condition. This rating is made by each employee's department head.

The second card is used to rate the worker on quality. This rating is made by the employee's department head in conjunction with the Inspection Department. It rates the quality of all work turned out by each employee, including the worker's success in eliminating errors and reducing scrap and waste.

The next card is used for the purpose of rating each employee on output. It is supposed to reflect the worker's willingness to produce his maximum, and also the quantity of useful work actually completed. This rating is made for each employee by his department head in cooperation with the Production Department.

The fourth and final card evaluates the individual with regard to his ideas and cooperation. New ideas and methods are actively sought by management and will be rewarded in this rating. The employee is urged to make suggestions which will lead to reducing costs, increasing output, improving quality, and improving relations with customers. This card also rates the employee on how well he works with others, his attitude toward supervision, co-workers, and the company. The employee is judged by his department head in conjunction with the Methods Department on this factor.

In the offices, the department heads or supervisors rate all factors with the aid of one or more other executives. It is felt that having at least two individuals rate every employee tends to diminish the possibility of any personality conflicts showing up in an individual's ratings.

The average of the ratings made in each group must equal 100. For this reason, the worker is actually being rated entirely in comparison with the other workers in his own particular rating group. However, if an employee does make an unusual contribution, all rating points above 110 are not included in the rating group total, so the remaining members of the rating group will not be penalized for the

outstanding work of one or a few. All points over 110 are subject to review by a committee of company Vice Presidents. The supervisor must submit a written report justifying the very high rating in such a case. This committee will then attempt to judge the individual's outstanding contribution to the organization, and the extra points will be awarded if the department head's recommendation is approved. There is a separate pool of merit rating points which are spread over the company as a whole. The extra points (all over 110) come from this pool.[6]

The rating of an employee with less than six months tenure will be made by his department head with these points not being included in the rating group's average. If an employee has been in more than one department during the previous six month period, he will be rated with the department he served for four months. If he has not remained with one department for four months, he will be rated in the department of which he was a member at the end of the six month rating period.

The supervisor is instructed to review the completed merit rating cards in private with the individual involved. The worker's strengths and weaknesses are discussed with him during this conference. This procedure is just one more way in which Lincoln attempted to keep his employees informed at all times. The rating for any six month period is to be based upon the employee's conduct for that period only. If he is able to overcome previous weaknesses, they should never again be reflected in his merit ratings.

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[6] Employees' Handbook, p. 10.

If the employee has a tendency to be late or absent, it will substantially lower his merit rating. In rating the individual on output, four-tenths of a point is deducted for each day of absence, regardless of the reason, up to and including the fourth day of consecutive absences. Furthermore, several unexcused absences will lead to dismissal. Lateness, as evidenced by the employee's time card, will also be a factor in this rating; although, there is no specified deduction which must be made.

Promotions are based strictly upon merit, and all promotions are made from within the firm. In one of Lincoln's books he said the following about the role to be played by seniority in promotions:

> ...There will always be the striving of those below in position to out-perform those who are above them. Seniority as a measure to determine who is to be advanced to positions of leadership is wrong. Ability does not necessarily increase with years. Experience shows that seniority is death to progress in industry. It is even more disastrous in management. There is more failure in industry because of this custom than from any other single source. Do not keep the static mind in any place of leadership. Replace it at once.
>
> There is a great advantage in making frequent tryouts of the junior men in any organization to more responsible positions. When such a man succeeds, the whole organization will take on new life. The change will not only develop the man advanced, it will inspire all. It is the strongest and best medicine that any organization can have.[7]

These ideas have been the basis for one of Lincoln Electric's most effective incentives: promotion based strictly upon merit. When asked exactly what role seniority played in this company, a manage-

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[7]James F. Lincoln, Incentive Management (Cleveland, Ohio: The Lincoln Electric Co., 1951), p. 65.

ment representative replied that it would be considered if layoffs were necessary, but even then, it would be only one factor among many others to be considered.

Whenever a job opening occurs, it is posted on the bulletin boards throughout the company. The employees are encouraged to apply for any position for which they feel qualified. The department head reviews the previous merit ratings and other qualifications of all applicants in deciding whom to interview, and subsequently whom to promote.

The Promotion Committee meets once a month to review the progress of new employees (particularly college graduates). This committee also interviews department heads on an informal basis asking for the names of any employees who are deserving of promotions.

As the reader will note from the discussion presented, there are no impediments placed in the path of the ambitious employee in this company. If he demonstrates competence, he may climb to higher levels in the organization regardless of his education or seniority.

JOB EVALUATION[8]

At the Lincoln Electric Company, the basic wage rates are determined by a committee of supervisors using the techniques of job evaluation. The job evaluation method requires the use of a uniform and consistent set of standards to measure each job. It must be re-

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[8]The majority of the information presented in this and the following section (The Piecework System) comes from the Employees' Handbook, Lincoln Electric Company.

membered that job evaluation refers only to evaluating the job without regard to the person performing that job. The person performing any job is only evaluated in the individual merit ratings which have been explained previously. Jobs are rated according to the amount of skill, responsibility, effort, and other factors required in their performance.

Each factor is assigned a certain number of points, with the number being dependent upon the relative importance of each factor in comparison with all others. The sum of all the points places that particular job in one of the established job classifications, with this classification determining the basic wage rate for the job.

The six factors listed below are those which are considered when setting the basic wage rate for jobs in the factory.

1. Mentality - The evaluation of this factor is determined by the basic education required for performance of the job.
2. Skill - This factor includes an evaluation of the training and the skill required to perform the job efficiently.
3. Responsibility - This factor is defined by management as the cost and chance of error.
4. Mental Application - The concentration required by the job is evaluated under this heading.
5. Physical Application - The requirements of any job with regard to exertion, effort, and weight handling are considered when evaluating the physical application required.
6. Working Conditions - Heat, dirt, ventilation and cleanliness in the working area are considered when evaluating the

working conditions encountered in the performance of each job.

In the office, there are ten factors which are evaluated. These factors are defined in the same way as those mentioned above unless otherwise noted.

1. Mentality

2. Skill

3. Analytical Ability - This factor is defined as the ability required to examine facts, reach sound conclusions, and plan action.

4. Initiative - The amount of ingenuity, adaptability, and originality required to execute the job is classified as initiative.

5. Personal Requirements - The ability to get along with others, tact, salesmanship, etc., are considered when evaluating this requirement.

6. Supervisory Ability - This factor is designed to evaluate the executive leadership required in organizing efforts and developing skills of others.

7. Monetary Responsibility - The effect upon costs of decisions made will be used to evaluate this factor.

8. Dependability and Accuracy - The thoroughness and reliability required in clerical and record-keeping tasks are measured in evaluating the dependability and accuracy required for the job.

9. Mental Application - Memory and consentration required by

the job are considered when evaluating the mental application required to perform a job.

10. Physical Application - In the office, this factor includes the effort, pace, and fatigue required to perform the job.

The worker is clearly instructed to consult his supervisor if he should have any questions concerning the evaluation of his own particular job.

As the job requirements change, the job may be re-evaluated. This new evaluation automatically adjusts pay rates up or down. In the case of a job being simplified, and hence the basic wage reduced, the company attempts to transfer the employee to another job which offers a basic wage rate that is commensurate with that received previous to the re-evaluation procedure.

THE PIECEWORK SYSTEM

One of the necessary elements of the successful incentive system is the introduction of a piecework plan. Lincoln often stated that piecework is the only fair way to compensate employees because the employee gets paid in direct proportion to the amount he produces.[9] He strongly emphasized his belief that there should be no arbitrary limit placed upon the amount that an employee is eligible to earn in a given amount of time. The main disadvantage inherent in most piecework plans is the employee's fear that rather than being rewarded for

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[9]Lincoln, Lincoln's Incentive System, p. 50.

increased productivity; the standard will be raised, and he will be working harder for less compensation in the long run.

Lincoln said that management must overcome this fear which is always present in the worker's mind. He felt that the standards should never be changed because a worker had become more efficient, or developed better ways of performing a job. The only justification for changing standards would be a completely changed job brought about by the installation of a new and different machine, etc.

Lincoln was able to explain the possibility of a very high hourly rate to employees by comparing his direct labor costs with the total of all other costs. In 1943, Lincoln stated that his overhead was equal to two and one half times his labor cost.[10] Whenever a worker devises a new method for performing a job, he saves the company an amount that is much greater than his increase in wages per unit of time.

It is believed that not only does this system lead to a fair reward to each person, but, more importantly, there will be friendly and exciting competition between the workers, so that each tries to outdistance the other and contribute more. He felt that the greatest incentive money has is that it is a symbol of success, which gives the successful man status; the resulting status is the real incentive.

The piecework system in effect at the Lincoln Electric Company is based on a number of rules and principles. The following para-

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[10]Neil M. Clark, "How Much Are Workers Worth?", Saturday Evening Post, 216, No.4 (July 24, 1943), p. 18.

graphs include a discussion of these principles, and the procedure provided for an employee wishing to challenge his piecework rate.

Group piecework involves employee interdependence, with the cost of the job being determined by the slowest operation in the line. All interdependent prices are subject to revision as the bottlenecks are eliminated.

The employees of the Lincoln Electric Company guarantee their own work. The Piecework employee will not be paid for any work that is rejected at the inspection station. All Lincoln employees act as their own inspectors; however, inspections are made by inspection specialists at strategic points in the assembly process. The inspector has facilities provided for reporting any difficulties in his area to the President. The work is primarily of an assembly line nature; although, there are certain jobs in which the employee performs a number of operations in the conversion of raw materials into finished products.

As stated previously, the company guarantees the piecework rate established by the Time Study Department. This rate will not be lowered unless there has been a significant change in the job. Management admits that a new time study man may become overly enthusiastic and attempt to lower an already existing rate even though there has not been a significant change in the job. This practice will be reported to the head of the Time Study Department and immediately stopped. All jobs are re-timed every five years, so the rate may be lowered at that time at the discretion of the company. Management contends that they have absolutely no objections to the employee improving the methods,

and hereby increasing his earnings. The employee's ingenuity will enable him to receive a substantial amount of additional income before his job is re-timed at the end of the five year period. This practice of maintaining previous rates even though the employee has improved the methods considerably is one more way in which Lincoln offered his workers both the incentive to make improvements, and a reward for such improvements.

The piecework rate is subject to challenge by the worker if at any time he believes that the established rate is unfair. If the worker does elect to challenge his rate, the price goes out of existence, and a new one is determined by a re-time or by an actual demonstration. When the worker has challenged his piecework rate, he is placed on the corresponding day-rate until he and his foreman reach an agreement with the Time Study Department. The day-work rate is 80 percent of what the worker was expected to earn on piecework, so the worker does lose his opportunity to increase his earnings by meeting or exceeding the time allowances set by the Methods and Time Study Department. Whenever a piecework rate is challenged, the foreman will be called upon to explain to his supervisors why the employee is on day rates. The Time Study Department will also be called upon to explain in full to the chief engineer why their rate was protested. Partly as a result of these pressures, the Time Study has earned a reputation for thoroughness and fairness.[11] The fact that employees earn less money when

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[11]Clover, The Administrator, p. 582.

the rates are being challenged also tends to discourage unnecessary challenges.

The exact procedure for challenging the piecework rate is as follows:

The worker questions his foreman first. The foreman then checks the job method which was in use when the price was set. Next, both the foreman and the worker check the method which is being challenged. If the question remains unanswered, the Time Study Department is called in to re-time the job. If the worker remains unsatisfied with the method and/or the price, he may go up through the channels which are provided all the way to the President if he so desires.

When employees are transferred from a job at their own request, they will be paid 80 percent of the base rate of the new job in the beginning. This pay rate will remain in effect for the period set as standard for learning that job.

When an employee is temporarily transferred by management, he will be paid the base rate for a period of time not to exceed three days. The employee will then be paid the regular piecework as long as this job is held. When an employee is transferred temporarily to a job normally on daywork, he will be paid the rate of that job.

CONTINUOUS EMPLOYMENT

In order to dispell the fear in the worker's mind that if he produces more, he will receive less compensation per unit due to lowering the piecework rate, Lincoln guaranteed existing piecework rates.

Closely related to this fear, is the typical attitude of many production workers who feel that they should limit production so that they do not work themselves out of a job entirely. Lincoln realized that this belief was prevalent, so he guaranteed continuous employment for his workers.

The company guarantees year round employment to all Lincoln workers after two years of continuous employment. Lincoln workers are guaranteed a job for at least 75 percent of the standard work week.

This plan does not guarantee any particular job or rate of pay; however, it does guarantee to pay the standard rate for any particular job to which an employee may be temporarily assigned. The employee must be willing to accept any job offered, and he also must be willing to work overtime whenever conditions may require it. The company also guarantees that the continuous employment plan will not be terminated, regardless of conditions, without giving at least six months notice to the employees.

Lincoln discussed continuous employment in detail in one of his books.[12] He stated that not only does the company lose many efficient workers when layoffs are required, but there is the greater loss in the attitudes of the workers. He felt that worker's fear of efficiency, brought about by layoffs, cost the company far more than it would cost to provide continuous employment.

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[12]James F. Lincoln, A New Approach to Industrial Economics (New York: Devin Adair Co., 1961), pp. 83-86.

Lincoln listed a number of ways of utilizing employees during slack times.

First, he advocated manufacturing to stock. The cost of production is less per unit produced if the business cycles are leveled out in this manner; however, he failed to take into consideration the cost of carrying inventory. Obviously, if the cost of carrying inventory is less than costs incurred through fluctuating production, then this is a sound suggestion.

Secondly, Lincoln suggested that new machines or methods which were found to be feasible during busy times may be developed during business slumps. During less prosperous periods, the men and time are available for experimentation in this area.

Thirdly, Lincoln suggested that costs can be greatly reduced during business slumps. He felt that with the leisure time, the available men, and the obvious need for cost cutting, a business slowdown is the ideal time for taking definite steps to reduce costs.

Lincoln also thought that a business slump provided an ideal opportunity for developing new markets. Often when business is booming, the firm will have a tendency to follow the path of least resistance when making sales. During downturns, new markets, particularly those overseas, should be explored.

Business slumps also present an opportune time for the development of new products. Often new product ideas are generated during prosperous times when sufficient resources are not available for their exploitation. During slack times, resources are available for this use.

The number of hours worked per week may also be reduced if the employees have been informed of this possibility and they are agreeable.

Lincoln felt that business slumps can actually be quite useful if management will use this time for carrying out some worthwhile project as those indicated above. All of these projects are necessary to the success of any business, and a business slowdown does provide the opportune time for carrying them out.

PROFIT DISTRIBUTION

In one of Lincoln's books, he devoted a whole chapter to the subject of the distribution of profits.[13]

Lincoln felt that the customer must be served in the first place, since no management philosophy could produce a profit in a manufacturing situation unless the products could be sold. This belief is incorporated in the primary organizational goal which is to produce a better and better product selling for less and less.

Lincoln believed that workers should be the second group in line for the rewards which increased efficiency had yielded. Without the worker's abilities, these rewards would have been impossible.

The stockholder is a member of the last group to receive a share of Lincoln Electric profits. James Lincoln believed that his contribution was of a very questionable nature. He did not include

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[13] Ibid., pp. 115-123.

the founder of the company, nor those individuals who helped finance the company in the beginning in his definition of stockholders. He was referring to the individual who buys stock as an investment merely to receive income from dividends, and hoping to receive an additional reward through stock growth. Lincoln felt that these individuals contribute nothing to the efficiency of the company and have little or no knowledge of its operations. It was also stated that the usual stockholder would never even consider buying stock at a time when funds are most needed. The usual stockholder only buys when the company is already a success. At this time, money needed for expansion is usually available through retained earnings, or debt financing. He didn't really consider the average stockholder to be an owner of the company. Throughout the years, Lincoln has tried to pay a dividend which approximated 6 percent on the stockholder's investment.[14] Additional income the company received through increasing efficiency has been returned to the customers in the form of lower prices, or to the workers in the form of higher wages and larger bonuses.

At the present time, there are approximately 1400 stockholders. Of these 1400, roughly 800 are Lincoln employees. The employees own one-third of the outstanding shares, with most of the remaining shares owned by the Lincoln families. Originally, John C. Lincoln owned 100,000 shares. James F. Lincoln owned 100,000 shares and the employees held the other 100,000 shares. The ration remains

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[14]Lincoln, Incentive Management, pp. 256-257.

approximately the same at the present time. Thus, one-half of the employees own one-third of the outstanding shares of stock. There is an employee stock purchase plan which will be discussed in a later section.

YEAR-END BONUS

In 1942, a $4100 a year metallurgist received a bonus of $25,000. In the same year, and $8000 a year superintendent received a $50,000 bonus.[15] These are merely two examples of the way Lincoln's bonus system has rewarded workers since its inception in 1934. However, these fantastic sums are only given when deserved. The metallurgist mentioned developed a new welding electrode which cut costs by 20 percent. This same individual also discovered a way to weld armor plate which saved 20 percent on nickle and chrome. The superintendent developed new methods thereby cutting direct labor costs by 10 percent affecting a $750,000 annual saving despite pay increases of 10 percent. Mr. Lincoln stated emphatically that he did not believe in paternalism, since workers could see through the rewards to the motives behind them.

Three factors determine the size of an individual's bonus: his merit rating, his base salary, and the size of the total bonus pool.[16] The merit rating procedure and the employee's base salary

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[15] "Putting Incentive Pay To Work", Reader's Digest, 41 No. 244 (August, 1942), p. 32.

[16] Bashian, Chemical Engineering, p. 134.

have been discussed previously, so they will not be reiterated. The total bonus pool is an amount determined by the Board of Directors. The amount to be distributed is whatever is left over after taxes, dividends, and "seed money" have been deducted. As one may readily see, the amount to be distributed is determined by the success of the company, and there is absolutely no guarantee of its continuance.[17]

The average bonus paid to all employees has been in excess of the average wages paid since before World War II. In 1965, after steadily increasing, the average bonus amounted to over $8100 per worker. The total number of employees receiving the bonus at the Lincoln Electric Company was 1,757 in 1965.

In order to be eligible for the bonus payment, the employee must have been employed as a full-time employee prior to November 1 and remain on the payroll until the bonus is paid.[18] Workers who have been with the company longer than a year, and terminate their employment between August 1 and the bonus payment date, are eligible for a bonus if approved by the President. Any worker who has been discharged is not eligible for a bonus.

The large annual bonus paid by the Lincoln Electric Company has been the primary topic considered in the majority of the articles which have been published concerning the Lincoln Electric Company. Many fascinating success stories have emerged from their bonus system over

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[17]Lincoln, Lincoln's Incentive..., p. 60.

[18]Employees' Handbook, p. 13.

the past three decades, perhaps overshadowing the other features of the Lincoln system which have contributed to the company's success.

In the next chapter additional company benefits and various rules and regulations in effect at the Lincoln Electric Company will be discussed.

CHAPTER IV

ADDITIONAL COMPANY BENEFITS AND REGULATIONS[1]

STOCK PURCHASE PLAN

Approximately one-half of the employees at the Lincoln Electric Company own one-third of the outstanding shares of stock. This stock has been purchased by the employees through a stock purchase plan which was adopted in 1925. After an individual has been employed by the Lincoln Electric Company for one year as a full-time employee, he is entitled to purchase common stock on a voluntary basis. The stock may either be paid for outright, or purchased through a payroll deductions plan.

Whenever a stockholder terminates his employment, the company retains the right to purchase the employee's stock at a price set by the Board of Directors. This right will be exercised within a ninety day period from the date of separation unless this period has been extended through death, retirement, or request. The employee also has the right to borrow money from the company, using his Lincoln Electric Company stock as collateral. However, this money may not be borrowed for the purpose of purchasing additional stock.

James Lincoln's beliefs with regard to the contribution of absentee owners were discussed in the previous chapter. Due to the

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[1]Unless otherwise noted, either in the text, or in footnotes, all of the material in this chapter was taken from the Employee's Handbook (Lincoln Electric Company.

fact that the stock is only held by the various Lincoln families and the employees, there is a minimum of absentee ownership with which the company must contend.

LIFE INSURANCE

The company purchases a $5000 life insurance policy for each employee within sixty days of the date his employment commences. This life insurance is purchased through a group insurance plan. The employee may name any beneficiary he desires, and his beneficiary may be changed at any time through the Personnel Department. The employee is also informed that he may purchase additional insurance through the company using a payroll deduction plan.

ANNUITY

The company purchases retirement annuities each year for which the employee becomes eligible when he reaches sixty years of age. The amount to be received by any individual will depend upon his length of service, earnings (exclusive of bonus), and the amount of annuity purchased by the company each year. In recent years, the amount purchased yearly by the company has approximated two percent of employee earnings, excluding the bonus. After twenty-five years of service, the annuity is vested.

EMPLOYEE'S ASSOCIATION

The workers requested the formation of an Employee's Association at an Advisory Board meeting in 1919. It is said that this asso-

ciation was formed in order to provide a cooperative group apart from management for the purpose of promoting social activities and sick benefits for employees.[2] The employees elect their own representatives to this association who make all decisions concerning social events, benefits, etc., with the advice of their constituents. It sponsors an annual banquet, picnic, and similar social functions. For these occasions, the employees pay half of the expenses, with the company paying the remaining half. The employee's dues are set by the Board of Directors and deducted monthly from the employee's pay.

Any member of the voluntary benefit plan will receive compensation in case of sickness or injury in accord with the following rules and regulations.

Every member who has been enrolled for a minimum of thirty days, and who is unable to perform his usual duties due to sickness or injury, will receive rather limited benefits. No benefits are paid for the first seven days. However, the second through the tenth week of disability payment is made at the rate set by the Association. After the tenth week away from work, the employee is neither entitled to additional benefits, nor required to pay additional dues. The employee's doctor must sign a "notification of illness" card before the employee is eligible for any benefits. The Benefit Section also contains a provision for sending flowers either when an employee dies, or when a member of an employee's immediate family dies.

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[2]Glover, The Administrator, p. 553.

SUGGESTION SYSTEM

The original suggestion system was adopted by the Lincoln Electric Company in 1929.[3] Under this plan, whenever an employee made a suggestion, he was entitled to received one-half of the estimated first year's savings to the company. Suggestions could be made concerning any phase of the company operations ranging all the way from entirely new manufacturing methods to very simple cost reducing suggestions. For an example of the latter type of suggestion, in 1943, a plant guard noticed that the shipping tags used on outgoing parcels had a string through them. However, the tags were stapled to the shipping cartons rather than being tied on them. This guard submitted the suggestion that stringless tags be purchased. This simple suggestion was estimated to save the Lincoln Electric Company $116 the first year, and the guard promptly received a check for fifty-eight dollars.[4] This suggestion system was said to provide the incentive required for all employees to be constantly in search of methods leading to cost reduction.

In October, 1965, this system was discontinued. It was said that the primary reason for its discontinuance was the fact that 85 percent of all suggestions received by management were not practical. When one-half of the first year's savings from the remaining fifteen percent was paid to employees, the savings left for the company were unable to

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[3]Lincoln, A New Approach..., p. 10.

[4]Neil M. Clark, "How Much Are Workers Worth?", Saturday Evening Post, 216, No. 4 (July 24, 1943), p. 17.

cover the cost of administering the suggestion system.

Another reason given for the discontinuation of the older suggestion system was that management always made a special effort to explain to the individual why his suggestion was not used. This policy creates the obvious difficulty of telling 85 percent of those submitting suggestions that their ideas were not practical. On the other hand, if all suggestions were not discussed with the individuals submitting them, then the employees would not feel that management was actually reviewing and seriously considering the suggestions received.

A further difficulty inherent in the previous suggestion system was that many of the employees are not very articulate; therefore, they hesitated to write down their ideas. Under the current suggestion system, the employee verbally presents his suggestions to his supervisor. It is believed by management that the average employee will find it easier to express himself in this manner.

Under the new system, the employee is still strongly encouraged to make worthwhile suggestions. There are several ways in which suggestions may be made. The most direct method, as mentioned above, is for the employee to discuss his suggestion with his immediate supervisor. However, the employee is also clearly advised in the Employee's Handbook that all department heads have "open doors" and are available to discuss the employee's suggestion with him. If the employee's suggestion is concerned with any phase of the company operations which would be likely to interest the Advisory Board, then the suggestion may

be reported to the individual's Advisory Board representative who will bring the idea up for discussion at their next meeting.

A worthwhile suggestion will be reflected in the employee's merit rating; although, no specific cash payment is promised to the worker as it was under the old suggestion system.

When asked if abolishing the old suggestion system had adversly affected the employee's enthusiasm toward reducing costs, etc., a management representative expressed the belief that it is too early to know.

OUTSTANDING PERFORMANCE CITATION

Another means used by the Lincoln Electric Company for rewarding particularly capable employees is the Outstanding Performance Citation. There is no maximum number of these citations which may be given out each year; although, the number has varied between seven and ten during recent years. Under the newly adopted suggestion system in effect at Lincoln, aside from being reflected in the worker's merit rating, an unusually important suggestion may also make the employee eligible for an Outstanding Performance Citation. This award does not grant the recipient any unusual privileges, although it does publicly recognize the individual for his contributions. Public recognition is believed to be one very important method of rewarding the unusually competent worker.

SERVICE RECOGNITION

The company awards distinctive service pins to each worker who has been employed by the Lincoln Electric Company for ten consecutive

years. In addition, other service pins are awarded for each additional five years of service.

The company has also organized a Quarter Century Club to which an employee is eligible to belong after twenty-five consecutive years of service. A gold watch is presented to new members at the Club's annual banquet. Management stated that new members are being initiated into the Quarter Century Club in droves each year, indicating that the average worker remains with the Lincoln Electric Company for a longer period of time than the average industrial worker remains employed by one firm.

VACATIONS AND VACATION PAY

Every year the Lincoln Electric plant and offices close for a two-week vacation during the month of August. This policy is subject to change; however, management stated that adequate notice will be given if there should ever be a need for changing this policy.

Every full-time employee with a minumum of one year of continuous employment is eligible for this two-week vacation with pay. The salaried personnel are paid their regular salary for these two weeks. All other employees will receive one-twenty-sixth of their previous year's earnings (excluding bonus). All employees who have been with the company for less than a year are asked to take their vacation without pay during this same period. Often these persons will be asked to work part of this time in performing some essential functions which must be carried out even though the plant as such is closed. Payment

will be made to these employees at their usual rates. It is also possible that some other employees will be needed during this period. If this is the case, the employees working will be given their paid vacations later in the year. A vacation must be taken during the year it is earned, and leave cannot be accumulated from year to year.

Employees with at least fifteen years of service to the Company are given an additional week of paid vacation during the week from Christmas to New Year's.

SAFETY

There are no safety campains as such at the Lincoln Electric Company. Management expressed the belief that many companies are too paternalistic in this area. The feeling was also expressed that it is dangerous for the employee to rely too heavily upon safety devices rather than the individual's own careful nature. It was also stated that the company is extremely safety conscious in tooling. There are a number of safety rules and regulations presented in the Employee's Handbook which will be presented at the conclusion of this section.

When questioned concerning the safety record at the company, Lincoln management stated that the only comparison available between safety at the Lincoln Electric Company and other firms indicated that Lincoln's safety record is quite good. The Industrial Commission of Ohio bases it compensation rate upon a firm's past record, and the Lincoln Electric Company has the lowest possible rate for an industry of this type in the state of Ohio.

All foremen are instructed to remind the employee of the importance of safety if they should see any unsafe conditions or violations of the existing safety rules. The Employee's Handbook also emphasizes the importance of safety in several ways. It states that injury not only reduces the employee's immediate earnings, but also affects every other worker in the plant by interrupting the smooth flow of materials. Workers are further instructed to report any injuries regardless of their severity to their Department Head.

Listed below are the safety regulations in effect at the Lincoln Electric Company.[5]

1. If your regular duties are outside of the office area, you must wear regular safety glasses. Use guards, shields, and goggles on jobs as specified.

2. Only authorized power truck operators may ride on power trucks.

3. Do not smoke in any of the posted areas or in the area near spraybooths, dip oven, paper or chemical storage at any time.

4. Do not block access to fire extinguishers. If you use one, do not replace it but turn it over to your foreman for refilling.

5. Do not block the aisles.

6. Do not block watchmen's stations or sprinkler valve stations.

7. "Horseplay" or throwing articles of any kind will not be tolerated.

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[5]Employee's Handbook (Lincoln Electric Company), pp. 25-26.

8. Do not run except in emergencies.

9. Do not attempt the repair of any machinery, electrical equipment, or wiring.

10. Do not pick up a load with a hoist unless the load is directly under the hoist.

11. When a safety tag is attached to a push button or starter, do not touch the equipment.

12. Load skids safely. The Factory Specification Book specifies maximum loads.

13. Sleeves must be buttoned at the wrist or cut off above the elbow.

14. Machine operators must wear a bow tie or no tie. Other persons occasionally around machinery, such as foremen, time study men, inspectors, engineers, or others, should guard particularly against ties that might get caught.

15. All machine operators with long hair must cover their hair completely. Low heeled shoes must be worn.

16. All gas cylinder tanks must have pressure regulators. Oxygen acetylene cutting units must have fire extinguishers. All gas cylinder tanks must be chained to their hand truck.

17. Compressed air must not be used for cleaning or blowing into enclosed vessels not designed to withstand the pressure.

18. Do not walk on roller conveyors.

19. Only authorized personnel may operate traveling cranes.

In addition to the safety regulations which were presented, the company has also listed a number of safety suggestions such as keeping

tools in good repair, work area neat, etc.

GENERAL RULES AND REGULATIONS

The normal work day for plant workers at the Lincoln Electric Company is from 7:30 A.M. to 4:30 P.M. with approximately twenty minutes allowed for lunch. There is a time clock, and all plant workers must punch their cards in and out. For office workers, the average workday is from 8:00 A.M. to 5:00 P.M.

In the plant itself, there are no regular coffee breaks as such; although, there is a ten minute smoking period in the morning and another one in the afternoon. Those breaks must be taken at the individual's work station, but he may stop work during this period. Smoking in the plant is not allowed at any other time. Management stated that workers are allowed to drink coffee at their work places during the day but this should not be excessive.

An employee interviewed in the Lincoln shop stated that one of the primary complaints of the workers was related to the no smoking rule. It was stated that the men often resort to sneaking off in corners for cigarettes. This practice may be cutting down upon worker production if widespread.

Various other rules and regulations concerning such factors as parking, telephone calls, restricted areas, etc., are mentioned in the Employee's Handbook. It is not felt that any of these regulations is of sufficient importance or interest to be included in this chapter.

Thus far in this paper, the writer has attempted to present the reader with the essence of the overall personnel program in effect at the

Lincoln Electric Company. This presentation has also included many of the pertinent philosophies of James F. Lincoln with regard to incentive management. In the final chapter, an evaluation and analysis will be made of the material presented previously. An effort will be made to answer some questions which naturally arise in the mind of the reader, such as the following:

Why are the workers so outstandingly productive?

If this plan has been so successful at the Lincoln Electric Company, why hasn't it been adopted by a number of other firms?

CHAPTER V

PERSONNEL PROGRAM RELATED TO PRODUCTIVITY

Various means of measuring the success of the Lincoln Electric Company were presented in the concluding section of Chapter II. The next two Chapters contain a discussion of all of the segments of Lincoln's overall personnel program which may possibly influence productivity. In this final Chapter, an attempt is made to explain the remarkable success of this company by relating the personnel program to individual productivity in the beginning, and organizational productivity lastly.

The stable work force is a key integrating factor which tends to convert a high level of individual productivity to a high level of organizational productivity. When one is considering productivity, it is quite easy to make the mistake of analyzing factors affecting the productivity of the individual, and concluding that if the individuals making up an organization are motivated to be productive, the organization will also be productive. This type of analysis completely ignores all of the actions and interactions which are necessary in an organization to convert individual productivity into organizational productivity. Such factors as coordination, communication, and control are vitally important to the productivity of the organization as a whole. Stability strongly influences the success with which a work group is able to synchronize its efforts. It appears, therefore, that a stable work force, made up of highly productive individuals is

necessary to a highly productive organization. Therefore, the stability of Lincoln's work force is the next topic to be considered.

STABLE WORK FORCE

The very low turnover rate at the Lincoln Electric Company, which is depicted in Figure 5, Chapter II, is one indication of the stability of Lincoln's work force. The monthly labor turnover rate at the Lincoln Electric Company is considerably less than one-half of the average turnover rate for all manufacturing industries. The large number of employees being initiated into the Quarter Century Club each year is another indication of the highly stable work force being employed by this company. As discussed previously, the company has very strict regulations regarding absences. Lowered merit ratings and possible dismissal are the penalities imposed for absence. These rules minimize absences; hence, they contribute greatly to stability.

A stable work force increases the productivity of the organization in many ways. First, as workers are associated with the same work group for a long period of time, their personal relations become more predictable, and thus more satisfying. The probability of cohesive work groups developing is also increased whenever the group membership is stabilized. Cohesive work groups are desirable from management's point of view for two reasons. They increase employee satisfaction which in turn helps reduce the voluntary turnover rate in most instances. It is believed that cohesive work groups are highly productive in the majority of cases, providing the group's

goals are consistent with, and contribute to the achievement of, the organization's goals.[1] The goals motivating the individual workers, and thus the work groups, are discussed in a later section of this Chapter.

Stability also contributes to productivity since it lessens the need for shifting employees to fill other positions, and hence, re-training them. The need for training new employees is also minimized. Training costs an organization a substantial amount of money. There is always a period of time during which the employee is not productive while he is being trained. The persons performing the training function must be compensated before there is any return to the ogranization from their endeavors. In most skilled jobs, the employee's maximum efficiency is not developed until months or even years after he begins performing that job. For this reason, productivity is often lowered for a time period considerably longer than that required for the formal training program.

Stability is also an important factor facilitating coordination and communication within an organization. As the work force is stabilized, each individual learns more about his job and how it fits into the organization as a whole. Whenever the individual has become proficient enough to coordinate his own activities with those of related individuals and groups, the need for an external coordinating

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[1]Joseph A. Litterer, The Analysis of Organizations (New York: John Wiley and Sons, Inc., 1965), pp. 89-90.

body is lessened. Communication also may be made more easily and inexpensively whenever the persons or departments involved are familiar with the jobs, semantic differences, and goals, of those with whom they are communicating.

The preceding brief discussion has been concerned with the stability of the Lincoln work force, and the ways in which a stable work force can increase organizational productivity. The following pages are primarily concerned with explaining the very high level of individual productivity and satisfaction which is evident at the Lincoln Electric Company.

INDIVIDUAL PRODUCTIVITY AND SATISFACTION

High individual productivity and satisfaction are analyzed in terms of Maslow's hierarchy of needs. This theory of motivation was first introduced by A. H. Maslow, and has been revised and extended by a number of different authors since Maslow's first writing.[2] Maslow's theory categorized an infinite number of human needs into six classifications. It is assumed when studying motivation with this tool that the individual will not be strongly motivated by the possibility of satisfying a higher level need until all lower needs have been satisfied to a substantial degree. The hierarchy of needs suggested by Maslow is presented below with the more basic needs listed first, and the highest level (self-actualization) mentioned last.

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[2]A. H. Maslow, Motivation and Personality (New York: Harper 1954).

Physiological Needs - This need classification includes all of the very basic necessities for human existence such as food, clothing, and shelter.

Safety Needs - In the original formulation of this theory by Maslow, the safety need was discussed as the need to protect the means by which the physiological needs are satisfied. Thus, if the individual is satisfying his physiological needs by maintaining year-round employment and being compensated at the rate of $8,000 a year, his safety need will be activated whenever there is a threat to his job or current income level. A newer interpretation of Maslow's need hierarchy contends that the safety need is quite different from the other classes of human needs.[3] Safety needs may be thought of as paralleling all of the other need classifications. If there is a danger of the individual losing the recognition of others, or his self-esteem, etc., then the safety need is also activated. In the discussion that follows, the safety need is considered to be associated with all other needs, and not merely concerned with protecting the means by which the physiological needs are satisfied.

Belonging or Membership Needs - Generally speaking, man is a social animal. He is constantly associating with those around him because he needs and enjoys these associations. This facet of the nature of man is included in Maslow's classification of belonging or membership needs.

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[3]Litterér, pp. 29-30.

Self-esteem Needs - This category of needs includes the individual's need for self-respect, self-confidence, and a feeling of personal worth. This appreciation of one's self is quite separate and distinct from whatever others may think of him.

Recognition and Public esteem - In Maslow's theory, this classification is concerned with man's needs to be highly regarded or appreciated by others. He desires to be publicly recognized for any unique achievements which set him apart from the rest of his contemporaries.

Self-actualization - The need for self-actualization encompasses man's desire to develop himself fully. The individual usually actively seeks situations in which he may utilize his potential.

Proponents of Maslow's theory of motivation believe that, generally speaking, one level of the individual's needs is substantially satisfied before his need to satisfy the next level is activated. This is not to say that he must have fully satisfied his self-esteem needs before he has the least desire for recognition by others. In most cases, the activation of these needs does follow this hierarchial order, but there is a considerable amount of overlapping between the different need categories. The hierarchy should be thought of as consisting of some highly activated categories, some temporarily satiated ones, and others much less activated, though unsatiated.[4] The mechanisms which are provided in the Lincoln program to aid the employee in his quest to

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[4] Ibid., p. 29.

satisfy each need are presented under the headings which follow. It is hoped that this analysis will give the reader a strong indication that productive employees can anticipate a much higher level of need satisfactions at the Lincoln Electric Company than at the typical firm. These high expectations provide a clue to the high level of job satisfaction evident at this company, while also explaining the individual productivity of the Lincoln worker.

Physiological Needs - It may safely be said that Lincoln Electric Company workers have satisfied physiological needs to a greater extent than have the workers in most other industries. In 1965, the average income (including bonus) for the Lincoln plant worker totaled approximately $7.00 per hour; whereas the average worker in all other manufacturing industries was compensated at the rate of $2.96 per hour. It must be concluded from this comparison that individuals earning this amount of income are quite capable of substantially satisfying their physiological needs.

Safety Needs - In much of American industry, the fear of losing one's job during a recession is quite prevalent. The Lincoln Electric Company lessens this fear, if not entirely eliminating it, by guaranteeing continuous employment for its workers. The Lincoln Electric Company does not discharge an employee due to increases in productivity, so the worker's position is also technologically secure. The fact that Lincoln workers receive a considerably higher income than the average worker in the Cleveland area would provide one force motivating the Lincoln worker. Many employees exhibit a tendency toward lower produc-

tivity during prosperous times, the reason being the numerous attractive employment alternatives which are available to a skilled worker in a labor market such as that existing in the Cleveland area. However, the alternatives perceived by the Lincoln employee are not relatively attractive. If the Lincoln worker was required to take a similar job with another firm, in all likelihood, he would receive far less income, probably near half of what he earns at the Lincoln Electric Company. It would seem that this fact alone would account for much of the continued high productivity which is evident at this company even during prosperous times. It could also be argued that at any time, the Lincoln worker has more to lose than does his counterpart in comparable industries, since he has obtained a much higher standard of living. This facet of the safety need provides motivation for the Lincoln employee to maintain high productivity.

In connection with the need for safety, the activities of the Advisory Board insure that employees have little to fear from arbitrary action on the part of management. Since Lincoln guarantees the existing piecework rates, limiting output in order to maintain current piecework rates would not be a tempting alternative to the Lincoln worker as it is in much of industry today. The only motivation stemming from the piecework plan is of a positive nature, since it stimulates the Lincoln worker to produce more in order to earn more. The life insurance and annuity plans included in the Lincoln personnel program are additional factors contributing to the worker's satisfaction of his safety needs.

Belonging or Membership Needs - It has been frequently stated that the whole Lincoln Electric Company organization works like a team with everyone contributing to the achievement of the basic organizational goal of producing a better and better product selling for less and less. The title of one article which appeared in the Reader's Digest clearly indicated the light in which management views its workers - - "A Factory Full of Partners."[5] Thus, it may be argued that merely working for the Lincoln Electric Company with its practically unique labor-management relations would go a long way toward satisfying the individual's belonging or membership needs. However, in the plant, the work stations are rather widely scattered and the noise level is fairly high. For this reason, interaction may be rather difficult, although the company does not impose any formal restrictions upon such interactions. The company personnel program does contain a number of subgroup elements including the Advisory Board, Employee's Association, and the Quarter Century Club, which should aid the member in his quest to fulfill his social needs.

The stability of the Lincoln work force which was discussed early in this Chapter will also have a positive effect upon the worker's satisfaction of his membership needs. The stability of work groups is one of the primary prerequisites for group cohesiveness, through which employee membership needs may be satisfied. Stable

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[5]Blake Clark, "A Factory Full of Partners," Reader's Digest, 80 (June, 1962), pp. 132-136.

social relations also make the worker's actions and reactions more easily predictable by his co-workers. Predictability in social relations is an additional means through which social needs are satisfied. The individual working for the Lincoln Electric Company would tend to identify quite closely with the organization. Identification with an organization is directly related to such factors as the number of needs for which the organization provides satisfaction, and the prestige associated with the organization, etc. This strong identification would seem quite likely to contribute toward the employee's satisfaction of his belongingness or membership needs. Furthermore, the absence of a union at the Lincoln Electric Company lessens the possibility of employees strongly identifying with an external group whose goals might be quite incompatible with the organization's goals. In summary, then, it does appear that the workers at the Lincoln Electric Company are able to satisfy their social needs to a significant degree.

Need For Self-esteem - If the workers are actually developing their latent abilities as James Lincoln claimed, then this development alone should contribute greatly toward the satisfaction of their need for self-esteem. Their very high individual productivity, as evidenced by the sales value of products per employee, does indicate that Lincoln's belief is essentially true. Knowing that they are far more successful than employees in comparable firms, when success is measured in monetary terms, would also help satisfy this need.

As was indicated in Chapter II, the supervisors' span of control is quite large at all managerial levels in this organization. Thus,

out of necessity, the Lincoln employee receives supervision of a general nature. In other words, the individual is given more responsibility than would be likely if he were closely supervised. A high degree of individual responsibility is another mechanism through which the need for self-esteem may be satisfied.

When the rank and file employee is allowed to participate more directly in the decision making function which has been classically considered a management prerogative, his feeling of self-esteem will be affected. The Advisory Board at the Lincoln Electric Company directly involves its members and their constituents in many phases of top-level decision making. The suggestion system provides an additional way in which employees may participate. Whenever the employee is sincerely solicited for assistance, it must be assumed that, regardless of the position he holds in the organizational hierarchy, management believes that he is capable of offering valuable ideas, suggestions, or opinions. This managerial attitude adds dignity to any job and increases the worker's feeling of individual worth. This belief in the inherent worth of the operative employee, aside from being reflected in specific portions of Lincoln's personnel program, has permeated management's thinking in this company from the time James Lincoln first became General Manager.

Need For Recognition or Public Esteem - A number of mechanisms are used to publically recognize the competent employee at the Lincoln Electric Company. Electing an individual to the Advisory Board is one way in which an employee's co-workers may publicly recognize him. Elec-

ting him to the Board of the Employee's Association is another means by which employees may recognize a member of their own group. The merit ratings made by the worker's supervisors provide the workers with another mechanism for the satisfaction of this need. The Outstanding Performance Citations awarded each year grant the recipient no special privileges whatsoever. Their sole purpose is to provide the outstanding employee with public recognition. Service awards, including service pins and membership in the Quarter Century Club also help the employee satisfy his need for public esteem. Allowing the operative worker to participate in the decision making function is another means by which Lincoln management provides recognition for its employees. The suggestion system and the Advisory Board were both inaugurated for this purpose. As mentioned previously, Lincoln workers are only subjected to supervision of a general nature. This policy also contributes to the employee's satisfaction of his need for recognition. In conclusion, the whole managerial attitude which Lincoln professed, and which has been carried on since his death, is a further way of showing appreciation or recognition of the abilities possessed by the ordinary operative worker.

Self-actualization - This category of needs recognizes the fact that individuals have a drive to develop themselves fully. At the Lincoln Electric Company all promotions are based entirely upon merit, and no artificial impediments (e.g. need for college degree) hinder the competent employee. This relative ease of vertical mobility would tend to aid the diligent employee in his quest to satisfy this need. Lin-

coln's basic philosophy advocating the development of latent abilities would stimulate the employee to the satisfaction of this need, as well as the need for self-esteem. The elected members of the Advisory Board are given an opportunity to develop whatever talents they might possess of a managerial nature. This experience is quite valuable to the employee, and it enlightens management in their attempt to identify operative workers with managerial potential.

MOTIVATION TO PRODUCE

The Lincoln worker has more of his needs satisfied through employment than does the average industrial worker. This fact accounts for the high level of job satisfaction which is evidenced by various measures including the labor turnover rate. In order to satisfy those needs which remain capable of motivating the worker, he must proceed in a manner consistent with the organization's goals. This is the only path to need satisfaction available to the Lincoln worker. Therefore, the anticipation of need satisfaction serves as an incentive toward high individual productivity, and also provides the organizational stability so essential to effective communication and coordination.

The need for security (safety) is one of these motivating factors. The Lincoln worker has achieved a very high standard of living which could not be maintained if he were forced to seek employment elsewhere. Thus, he is motivated to retain his present employment. Maintaining a high level of productivity and minimizing absences provides him with the best insurance against losing his position at the Lincoln Electric Company. This factor alone seems to play a signif-

icant role in expanding the highly productive nature of Lincoln's work force. The piecework system, with guaranteed rates, provides incentive for the employee to increase earnings by increasing productivity. Since the individuals are closely identified with the company, group goals play a supporting role to organization goals. Thus, in the employee's effort to satisfy his membership needs through group participation, the organization's goals are achieved at the same time as the group goals. As the employee attempts to raise the satisfaction level of his need for public esteem and self-actualization, his efforts are directed toward becoming more productive, since the only paths leading toward recognition and developing one's potential require increased productivity. This need for maintaining productivity in order to increase satisfaction of personal needs is the primary cause of the high level of individual productivity which is evident at the Lincoln Electric Company. The stability of the entire Lincoln organization, with the highly productive individuals making up that organization, account for the remarkable success of the Lincoln Electric Company which was summarized in the beginning of this Chapter.

APPLICABILITY OF THE LINCOLN SYSTEM

The next logical question to be asked is as follows: Is this system generally applicable to other industrial organizations, or is there something unique about the Lincoln Electric Company which enables this plan to succeed there, whereas, it would fail elsewhere?

It is believed by the writer that there is nothing so inherently unique about the welding machinery business which would, in

itself, prevent this plan from being applicable to other industries. However, this entire personnel program has been developed at the Lincoln Electric Company in an environment which is not at all typical today. It is felt that certain environmental factors confronting this company have greatly contributed to the success of this system at the Lincoln Electric Company, and the absence of these factors would limit the chance for successful adoption of this system by other companies. The unusual environment in which this plan was developed is the primary topic for consideration in the paragraphs that follow.

The first step toward incentive management was taken by James F. Lincoln in 1919 with the introduction of the Advisory Board. This was during a time when unionization in American industry was atypical rather than being typical as it is today. It must be remembered that this plan was firmly established as a part of the Lincoln Electric Company long before the first attempt to unionize Lincoln workers following World War II. Therefore, we must ask ourselves whether it is feasible for unionized companies to adopt a personnel program such as the one in effect at the Lincoln Electric Company.

In answer to this question, it has been said that unions are not concerned by profit-sharing plans, unless they feel that employers are using the schemes as a device to weaken unions, or to substitute profit-sharing for fair wages or working conditions. This statement may well be true; however, there is far more to Lincoln's personnel program than just profit-sharing. One of the most important facets of this plan is the policy of promoting solely on the basis of merit.

This policy provides the employee with the incentive to excel. It is highly doubtful that most unions would welcome a policy whereby promotions and other rewards are based solely upon merit. The Advisory Board and the Employee's Association perform most of the functions which are normally performed by the union in American industry today. The only union function which is not performed by these two organizations is the actual bargaining with management over the terms of employment. Since the Lincoln Electric Company pays out to the employees, in the form of a bonus, all income over and above the stockholder's dividends and a minimum amount of growth money which is kept in retained earnings, there is no need to bargain for wage increases as long as the company remuneration is well above the labor market. The writer believes that a union would no longer serve a useful purpose. Therefore, the lack of a union is the first unusual environmental factor confronting the Lincoln Electric Company which has greatly helped this plan to become established at their plant. It is also rather doubtful if the management of a unionized firm would initiate such a plan knowing that it may become subject to collective bargaining.

Secondly, as stated previously, the vast majority of the stock in the Lincoln Electric Company is held by the various Lincoln families and the employees themselves. Lincoln felt that the stockholders should be the last group, following customers and workers, to share in the profits of the company. For this reason, regardless of the company's success from year to year, the stockholders have received a dividend approximating 6 percent of the current selling price per annum. It is very

doubtful that the average group of stockholders would support a system which advocated paying out much of its income to its workers to make them one of the most highly compensated work forces in the world, while the stockholder receives a 6 percent dividend with a limited amount of income being retained by the company for growth. The stock ownership is another unusual factor in the environment facing the Lincoln Electric Company.

Lastly, it must be remembered that this plan was adopted by a young growing company over three decades ago. The original company manager, James F. Lincoln, had a number of years to educate lower level managers to believe as he did in the inherent worth of the operative worker. He was able to select for higher level management only those individuals who subscribed to his beliefs. If this plan were to be adopted by a large company with a firmly established managerial hierarchy, the top management would be faced with the monumental task of re-educating all managers down to the lowest level to subscribe to James Lincoln's beliefs. The workers' trust of, and faith in, Lincoln's management also plays an important role in the success of this plan at the Lincoln Electric Company. Any firm that has experienced labor-management strife would also have the difficult, if not impossible, job of gaining employees' confidence before incentive management could be successfully applied.

SUMMARY

In concluding this section, a summary seems in order. This writer believes that there is nothing unique in the industry manufac-

turing welding equipment which would guarantee this plan a greater chance of success than it would have if adopted by a company engaged in any other industrial pursuit. However, several environmental factors facing the Lincoln Electric Company are quite unique. This plan was adopted at a time when American industry was not so highly unionized as it is today. Therefore, no union was able to become strongly entrenched as a permanent segment of the Lincoln Electric Company. Secondly, the stock of the Lincoln Electric Company is closely held by employees and surviving relatives of the founding family. Thus, management is able to follow certain policies which have been characterized as abusing the stockholders by their critics. Lastly, present-day managers and workers alike have been exposed to Lincoln's revolutionary managerial philosohpy for a number of years. It would be quite difficult to convert the average group of industrial managers or workers to this philosophy within a short period of time.

The last topic to be discussed in this paper concerns the outlook for the future success of this system at the Lincoln Electric Company. If profits were to decline, whether due to a general business recession, or some condition only affecting Lincoln Electric, such as a marked increase in competition, it must be assumed that the individuals affected first during a downturn would be the workers since their rewards are of a residual nature. The bonus distributed to employees is composed of whatever income remains after dividends are paid, and a fixed amount of "seed money" is retained. The real question is what would happen to the employee productivity, satisfaction, etc., if the

bonus were drastically reduced. This writer believes that this would have an adverse affect upon satisfaction just as reducing wages (or layoffs) would adversely affect job satisfaction in any other company. However, it seems that this effect would not be as pronounced as it would be in most other companies. The reason for this belief is that the long history of complete worker-management faith and harmony which has permeated the Lincoln Electric Company would tend to minimize the consequences of an unfortunate occurrence of this nature. However, it also is believed that the bonuses paid the workers constitute a very important segment of Lincoln's incentive management plan; therefore, the writer can see no reason why worker productivity and satisfaction would be maintained at today's very high level if earnings continue depressed over a long period of time, or should the bonus system be discontinued altogether.

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ABSTRACT

The Lincoln Electric Company has been outstandingly successful in the manufacture of welding equipment. The purpose of this thesis is to examine the overall personnel program of the Lincoln Electric Company, and to relate various segments of this program to the high level of individual and organizational productivity which is evident at Lincoln.

As a consequence of this study, numerous conclusions were reached. First, many policies in effect at the Lincoln Electric Company tend to make Lincoln's work force quite stable. Since a stable work force composed of highly productive individuals tends to result in a highly productive organization, individual productivity is also examined. It is concluded that the Lincoln worker has more of his needs satisfied through employment than does the average industrial worker. In order to satisfy those needs which remain capable of motivating the worker, he must proceed in a manner consistent with the organization's goals. This is the most important explanation advanced for the highly productive nature of this company's work force. In concluding this study, a discussion of the applicability of this system is presented. It is decided that there is nothing unique in the manufacture of welding equipment which would prevent this plan from succeeding in other industries; however, the environment within which this plan was developed is not typical, and has contributed greatly to its success.