

1967

Economic implications of converting from a wage incentive to a guaranteed salaried method of payment for production workers

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ECONOMIC IMPLICATIONS OF CONVERTING FROM A WAGE INCENTIVE TO A
GUARANTEED SALARIED METHOD OF PAYMENT FOR PRODUCTION WORKERS

by

Robert Fredrick Danzer

A Thesis Submitted to the
Graduate Faculty in Partial Fulfillment of
The Requirements for the Degree of
MASTER OF SCIENCE

Major Subject: Economics

Signatures have been redacted for privacy

Iowa State University
Ames, Iowa

1967

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I. INTRODUCTION

Until the beginning of the industrial age, the dream of an abundance of goods and services appeared incapable of realization. Before the development of powered machinery, the physical labor of the majority of the population was required to produce enough for mere survival of these laborers and the continuance of the economy.

During the second half of the nineteenth century, there were indications that in the future, productivity and total production in the United States would rise so fast that an abundance of goods and services was attainable. But, even with abundance there remains the quest for economic security for a majority of the population. Abundance and economic security are not necessarily synonymous terms because the economy still faces the problem of permanent and temporary unemployment, which in turn results in economic insecurity for many individuals.

However, the attainability of abundance in our age constitutes a measure of success in the movement toward social justice and individual freedom. It has been argued throughout the centuries that the ideal of justice and freedom could have no firm basis until each individual enjoyed his natural right to resources sufficient for his subsistence. Unless man possessed enough landed property to ensure his subsistence

he would, in effect, be a slave, both physically and mentally, in the service of his employer.

The ideal of freedom and justice was brought together in Edward Bellamy's influential novel, Looking Backward, published in 1888 (5). The central theme of the book is the concept of an absolute "guarantee" to "abundant maintenance"; in other words, a private guaranteed income concept operating in a well-established society, functioning on abundance economic principles, and not according to the divisive economic theory of scarcity.

Despite much initial enthusiasm following the publication of Looking Backward, the concept of private guaranteed income dropped out of discussion around the turn of the century. On the other hand, government guaranteed income plans were discussed and researched frequently. An example was the thorough investigation of guaranteed wages by the Office of War Mobilization and Reconversion under President Roosevelt and President Truman (15).

The imminent reality of abundance has led to a revival of interest in guaranteed income during the sixties. It has been advanced as the most appropriate method available to prevent further encroachments on social justice. Guaranteed income with its implications for increased individual freedom, provides a possible first step toward the formation of new institutions appropriate to a society of abundance.

In recent months attention has been focused on a private industry guaranteed income as a means to attain increased economic security for some groups of unionized industrial labor. This attention has been cultivated and demanded by some labor unions as the ultimate weapon against income insecurity resulting from layoffs and temporary unemployment. Because of the growing influence of labor unions, private guaranteed income has changed from a Utopian dream in the first half of the century to a very real possibility at present.*

A battle has arisen between the union labor leaders and some segments of corporate management. The union leaders think it is time to give the production worker the security and status of a guaranteed annual income. Company managers think they must keep labor a variable cost unless there would be some way to also guarantee an annual profit. They also question the psychological advantages and disadvantages, and productivity of employees under such a system of payment.

Unions are taking two different approaches which basically end in the same result, guaranteed salaries for the blue

*The private plan is often confused with the government sponsored plans of guaranteed national income and negative income tax. Their aims are different. The government plan is aimed at the population who cannot provide a minimum income for themselves; those in poverty. Its purpose is to provide these individuals with self-supporting and sustaining income.

workers. In some industries unions are preparing to demand that factory workers be paid on a weekly or monthly basis instead of by the hour. Their aim is to protect members' paychecks in the event of brief illness or tardiness, contingencies typically not covered under existing contracts.

In other industries, particularly those where benefits paid by companies to laid-off workers are not substantial, unions are seeking the once-Utopian goal of annual income guarantees. The purpose here is to assure workers in cyclical industries or those in which the size of the work force is closely tied to sales, of a basic annual income they can rely on.

Last May, United Automobile, Aerospace, and Agricultural Implement Workers of America (hereafter referred to as the UAW) president, Walter P. Reuther, vowed that "we will not sign a basic agreement excepting that it contains salaries for production and maintenance workers" (21, p.1).

It is evident that guaranteed incomes will be demanded by the UAW this year and surely other unions will follow. Since the labor union seems to view the proposal in the short run, it will be up to management and others to analyze this system of payment for more far reaching microeconomic and macroeconomic effects.

In order to thoroughly study the economic implications of converting from a wage incentive to a guaranteed annual

salary method of payment for production workers at the firm level, I chose one firm and one union. The firm is Deere and Company, one of the largest manufacturers of farm implements and industrial equipment; the union is the UAW international and its eight Deere and Company locals (Locals 450, 94, 865, 81, 74, 434, 79, and 838). Negotiations for a new agreement started August 16, 1967. The present agreement expires October 1, 1967.

My thesis is that the company and the union will bargain collectively in 1967 without undue conflict; that the resulting new agreement will adopt a limited liability guaranteed annual income or salary because of inherent advantages and abandon the standard hour incentive plan because of inherent disadvantages.* To arrive at an intelligent conclusion to the thesis it will be necessary to explore the demand for guaranteed annual income or salary, the reasoning behind it, the present environment, the areas and functions affected at the company level, and the macroeconomic effects if this type of payment is adopted by many other firms and industries.

The reference in the following discussion of the thesis will be the union (hereafter to mean the UAW) versus the company (hereafter to mean Deere and Company or John Deere) on the demand (hereafter to mean guaranteed annual income or salary).

*Because the thesis relies on current events, I have established the date of September 15, 1967, as the last day any change in content can occur.

II. RESEARCH METHODOLOGY

Because the thesis is of such a current nature and is restricted to one company and one union, useful research was limited to sources which would reflect present prevailing attitudes, data, and opinions. Few references, current or past, are available that deal with economic implications of private guaranteed annual salaries. The reason is that few such plans are or were used by private enterprise in this country or any other country. Therefore, the thesis does not contain a chapter on review of literature. Instead review of literature is paraphrased or covered in the main text.

The proposed demand for guaranteed annual income or salary is hypothetical and attempts to paraphrase available union documents and opinions on the demand. Little information is yet available on the specific stipulations of the demand, so a list was accumulated from what has been proposed in the past by the union and present qualified opinions or "leaks".

After the presentation of the demand, the existing environment is explored. Some current literature and studies are available on present blue-collar salary systems. These are reviewed with trends and characteristics noted. In order to go beyond the shallowness of this literature, a detailed report was compiled on Aluminum Company of Canada's recent

conversion to salary. This provides the reader with a good background of a successful salary plan for production workers.

Since Deere and Company and the agricultural machinery manufacturing industry is an important part of this thesis, their characteristics are given extensive coverage. This industrial setting along with the facts presented are common knowledge within the industry and are responsible for its tremendous growth. To provide proper environmental background on the company, considerable data was gathered on income, productivity, costs, personnel, and other pertinent areas for a ten year period (1957-1966) from Deere and Company records. These figures represent the company's fiscal year which runs from November first to October thirty-first. The information was probably more readily available to me because of my employment by the company. Much of the information presented about the company operations at present reflect my experience with John Deere Des Moines Works. Before entering graduate school, I spent two and one-half years as a methods engineer. Since June 1967 I have had experience as a departmental foreman and incentive and standards engineering auditor. This first-hand involvement with the company provides further validity to the presentation of the present environment. My hope is that it has not biased the conclusions drawn. Since the standard hour incentive plan is the current method of payment, many pages are spent explaining the

plan and developing its inherent advantages and disadvantages. The same holds true for the company's supplemental unemployment benefit plan.

Since the research rests heavily on qualified opinion, formal and informal interviews were conducted with union leaders, union members, company managers, and salaried employees. The specific formal interview methodology and results are the contents of Chapter VII. The interviewees proved to be the most interesting phase of my research.

The potential effects at the company level of guaranteed annual salaries are formulated by the author from qualified opinion and whatever timely data and facts were obtainable three months before strategic and important contract negotiations. The cooperation of the company and, in most instances, the union was restrained when it came to obtaining facts and, at times, opinions. This, however, had the benefit of furthering the author's awareness of the complexities and strategic maneuvering involved soon before collective bargaining.

Lastly, an "armchair" analysis of the macroeconomic effects of guaranteed annual income, assuming it might be adopted by a majority of the firms and industries in the United States, was attempted. This final chapter is more fictional in nature, since the possible future macroeconomic effects have never actually been experienced by a free economy as ours.

III. PROPOSED METHOD OF PAYMENT -
THE UNION'S DEMAND FOR GUARANTEED SALARY

In the following pages I will attempt to hypothesize the argument that the union might make for guaranteed annual salary, in the first person, as UAW negotiators would present it at the bargaining table.

A union negotiator's hypothetical opening demand for guaranteed annual salary.

We have now reached a point, and the productivity and profitability of the agricultural implement industries have reached a point,* at which it has become possible and necessary to challenge and to end the "double standard" which is the most serious remaining obstacle to our members' realization of their full equity as workers. That "double standard" is the now indefensible division which John Deere maintains between men who are hourly rated and those who have salaried status.

To be hourly rated is to be under-rated, to be put down from the human standpoint, to be down graded in company book-keeping as a variable cost, which in essence means to be

*The union claims the agricultural implement industry has increased after tax profits 85% from 1963 to 1966. Deere and Company net income increased 62% in the same period.

expendable. Salaried workers, on the other hand, have the privileged ranking of overhead; the costs of their salaries is regarded as part of the continuous cost of business.

The hourly wage system has been the source and symbol of exploitation of industrial workers by employers since the primitive beginnings of the first revolution. This system can no longer be defended in a society with access to the new tools of science and technology and committed to the advancement of democratic and human values, not only in the political sphere, but in the economic sphere as well. The hourly wage system has outlived its time.

In turn, the incentive system has demanded more from workers than is humanly healthy. It is true that the workers enjoy the short run income benefits, but through properly administered salaries they can enjoy a steadier income and a longer life. As a union representing our members best long-term interests, we feel that John Deere must sacrifice increased production and worker exploitation through abandonment of the incentive system. Guaranteed annual salaries will enable workers to use less effort, enjoy their jobs more, experience a better, more secure family life, and live a longer, more productive life before and after retirement.

Stabilization of individual income for John Deere's 20,000 UAW employees is a basic economic tool needed to balance increasing productive power and greater purchasing

power; nothing breeds unemployment like unemployment.

The United States National Commission on Technology, Automation and Economic Progress called for the abolition of the "invidious distinction" between hourly and salaried workers as a matter of "community conscience". The Commission, created by Congress and composed of top-level management, labor, and public representatives declared:

"The industrial revolution, despite sometime pious disavowals, did turn labor into a 'commodity', no more so than by instituting the practice of paying production workers by the piece or by the hour. At the same time, white-collar workers and other technical and administrative personnel are paid by the week, the month, or the year. Thus an old status distinction and social stigma is still being reinforced.

...We believe, therefore, that industry and unions should begin to discuss the question of paying all workers by the same standard, and of extending to blue-collar employees the usual prerogatives which most salaried employees enjoy today.

...We see little justice in a system whereby a production worker is laid off or works short weeks when the schedule so dictates, while office workers and clerks receive full salaries, whatever the flow of work" (45, p.91).

What we must have is not a mere change of status, but a change of substance which goes to the predictability and security of income. This is a demand whose value in human terms is high and historic. The executive of a company with \$ 78.7 million of net income last year has

provided for management's and the stockholder's annual well being, but is not reconciled to the need to make comparable provisions for the annual well being of the production workers.*

Net income increased from 1965 to 1966 by 54%, while employment only increased 10%. The profitability resulting from the increased income is the source of the monies required for guaranteed annual income. Increased product prices paid by the consumer would not be required. The disproportionate share of the fruits of increased technology in farm implement manufacturing is profit and should be shared with the consumer and with the worker. A more equitable distribution will help solve the national problems of unemployment and avoid periodic recessions in the economy.

The continuity of income, which executives and most salaried personnel now enjoy is comprised of these aspects. One is that of absolute short term security, frequently a month-to-month assurance of employment and income. The second consists of the assurance that they will not suffer loss of income if they find it necessary to be absent because of illness or for personal reasons. The third aspect which must be developed contractually is long-term

*See tables 1, 2, 3, 4, and 18.

security, a continuing security largely immune to the seasonal flow of production.

We proposed a guaranteed annual wage in 1955 and came away from the bargaining table with a plan of supplemental unemployment benefits (hereafter referred to as SUB) instead.* What resulted was a reduction in the frequency of short workweeks because of the short workweek benefit provision of our SUB plans. This affords the proof needed that the short-term form of security is feasible.

With respect to the second aspect, John Deere will say that if blue collar workers have the freedom of personal leave, they will abuse it. There is evidence to demonstrate that blue-collar workers, when given salaried status and the freedom of personal leave, do not abuse it. Studies show that when production workers have attained salaried status and the right to unlimited personal leave, absenteeism among them may rise temporarily, as they taste freedom they had not before enjoyed. After a short period, however, their rate of absenteeism declines and levels off at a rate comparable to that of white-collar workers.

There is no reason to believe that wage employees at John Deere are any less responsible than salaried employees. Allegations that wage earners are incapable of coping with levels of freedom and dignity that other people enjoy

*See Chapter V. for explanation of present plan.

simply reflect the "double standard" of the past that we are not prepared to tolerate in the future. Suspicion of lesser humanity first created and has since perpetuated the hourly wage system.

The heart of the problem of guaranteed income lies in the area of long term security. Long-term security is not written out or specified for salaried workers because they are not represented by unions and their conditions of employment are unilaterally determined by management. Where its authority is not limited by contract, management can, in fact, terminate the salaried workers employment at will. Layoffs of salaried workers have occurred, but far less frequently than in the case of hourly workers.* In practice the job tenure of salaried workers is quite different from that of hourly workers. As a general rule, salaried workers can look forward confidently to employment and continued income into the long term future, except under unusual circumstances.

John Deere lays off hourly workers every year due to seasonal variations in sales or, as the case is this year, excess inventories. To cut back cost, management could have laid-off or terminated the salaried workers, but they do not. In practice, salaried workers are treated as though they are protected by a "contract of employment" from which management is released only when the firm suffers serious adversity.

*See Appendix I.

Salaried workers normally are not laid-off except when there has been a drastic decline in company business, continued over an extended period. Barring such a major and prolonged decline, salaried workers can generally anticipate continued steady employment and income into the indefinite future.

There is a national element also. When workers at John Deere are laid-off and lose income, their purchasing power is diminished, thereby affecting other industries and worker groups. Therefore, guaranteed annual salary is not only a matter of economic justice to the workers, it is a matter of economic necessity to our whole economy in the effort to achieve full production and full employment.

The problem of guaranteed salary, which we propose to resolve in 1967, boils down to translating a nebulous and unwritten, but nevertheless meaningful, rule unilaterally established by management for unorganized employees into the precise and binding language of negotiated contracts applicable to organized workers, whether they be blue-collar or white collar workers.

The objective is not to obligate Deere and Company, regardless of the fate of its business, to retain all its present employees on payroll for the rest of their lives. It is rather to immunize their income and the security of their families for a period of time against adverse efforts

flowing from fluctuations in the volume of business. In the case of the annual guarantee, upon which we shall insist, the immunity will be assured for a year at a time. As each new year begins, workers and their families will be able to look forward with confidence to a steady flow of income, week by week, for the next twelve months. The UAW member would, in effect, have an annual contract of employment.

If actual employment was not forthcoming, income would continue. When worker's incomes must be counted as overhead costs, corporate management will concentrate more effort on the task of making the flow of work as steady as the flow of worker incomes to which they will be obligated.

It will be a complex task to rewrite the agreement to accommodate and implement the concept of guaranteed salary. But, we are determined to put an end to the degrading hourly wage system and to replace it with an annual income guarantee or contract of employment for production workers at John Deere.

At the special UAW Resolution Convention, April 1967, in Detroit, seven resolutions were proposed on conversion to salary. The following resolution, as proposed by the Agricultural Implement and Industrial Workers Wage and Hour Council, sums up our general demand for guaranteed annual income.

Salaries for all.

Whereas: The system of employment by the hour, which grew out of the early days of the Industrial Revolution is obsolete, irresponsible and unjust. It denies the dignity of man and degrades him to a status of less importance than the machine he serves. The rental of men and women by the tenth of an hour makes a mockery of our belief in the individual worth of human beings for it treats human labor as a commodity to be purchased as required and cast aside when it is not needed. It is time we move to end a system of pay that forces one group of people - the so-called blue-collar workers - to bear the brunt of the insecurity of our economy; now, therefore, be it resolved: The 1967 Special Convention go on record recommending a guaranteed yearly salary for all bargaining unit employees (35, p.36).

This completes the negotiator's hypothetical opening demand for guaranteed annual salary. An important implied demand hidden within the above proposal is guaranteed monthly income.

A. The Implied Union Demand for
Guaranteed Monthly Income

Even seasoned labor analysts would agree that the UAW demand for guaranteed annual salary for blue-collar workers is as ambitious as any so far presented to farm implement manufacturers in this year's round of collective bargaining.

However, there is a potentially more expensive proposal being quietly considered. It too calls for an income guarantee, and paradoxically, the protection is for a one month duration. How can a monthly guarantee be potentially more expensive than an annual guarantee? The answer is found in the way the annual income demand has been modified and through

a study of worker habits, the production practices and complexities of present income protections revised.

In the opening demand, the UAW wants a worker with seniority who is laid off to receive enough income to maintain his normal living standard for a period of time graduated according to his length of service up to a full year. The union indicates this protection could be built on top of existing unemployment compensation and SUB.

The union further admits it is willing to limit the liability of the company in event of a serious decline in market demand and that the protection only seeks to match a worker's normal "take home" pay.

Guaranteed monthly income would provide a worker on salary at the beginning of a month a full salary for that entire month. If the worker were called in at any time during the month, he would receive full salary for the rest of that month and all the following month. It has been indicated that this protection would not be limited to workers with seniority.

Unlike the restricted guaranteed annual salary proposal that would protect workers least likely to be laid off, the guaranteed monthly income would provide new protection to workers most likely to be laid off. Presently, workers must wait one year before being eligible for SUB which provides much less than a worker would receive for working. Under

guaranteed monthly income these workers would get full pay during short work weeks and periods of temporary layoff.

Even workers with seniority must wait one week after being laid off for the first time each year before they can collect SUB in most states. The supplement is tied to unemployment compensation and most states require one week's wait before an idled worker can collect state compensation. Thus under guaranteed monthly income a worker could receive his full salary or over 50% more than he currently would get on a typical three week layoff, if he would receive SUB and unemployment compensation.

Guaranteed monthly income pay for excused personal absence would be another expensive element. Workers now get forty paid hours off each year for short illness and personal business. After using up this paid absence time, workers are "docked" and ultimately face disciplinary action if they are rated chronic absentees. However, absenteeism among wage employees averages more than forty hours per year. General Motors says its studies show that the average worker is missing about 5% of his available working time, which is about one hundred hours a year. Although this information is not readily available from John Deere, the estimate by General Motors is probably fairly universal. Considering John Deere's average straight-time hourly earnings for the eight UAW plants is \$3.77 or \$4.90 including fringes, using the above

absenteeism rate, it would cost the company \$377.00 per employee in earnings and an extra \$118.00 in fringe benefits.

By softening the demand for annual income guarantees and placing more emphasis on short-term protection, the guarantee program becomes more marketable, especially among the younger members. A poll of some UAW members at John Deere Des Moines Works showed that guaranteed annual income ran third (wage increases and greater insurance coverage were first and second) among the list of priorities demanded. This alteration to the guarantee should please both old and new members and help the union's long sluggish drive to organize the white-collar workers.

B. The Assumed Specific Union Demands for Guaranteed Annual Salary or Income

The specifics of the union's demands for guaranteed salary have not been revealed to date. Therefore, I am required to make some assumptions from what facts I have about the demanded salaried method of payment. The guaranteed annual or monthly income, is a contract of employment with the following stipulations:

1. Maximum guaranteed earnings for the year is equal to the negotiated occupational yearly rate (based on forty hours per week, fifty-two weeks per year).
2. The company is under unlimited liability to pay the guarantee to those eligible except under conditions of serious declining market demand.
3. Pay would be by weekly salary rather than hourly rate plus incentive.

4. Employees with five or more years of seniority on layoff will receive full salary minus state unemployment compensation and present supplemental unemployment benefits.
5. Employees must have five years or more seniority to be eligible for guaranteed annual income.
6. Employees with or without seniority on short work weeks will receive forty hours' salary.
7. Employees with or without seniority on temporary lay-off will receive guaranteed monthly income and after one week guaranteed monthly income minus unemployment compensation.
8. Employees on temporary layoff with less than five years seniority but more than one year, will receive present SUB benefits plus guaranteed monthly income and unemployment compensation so that earnings equal 100%.
9. Year end bonuses will be rewarded on a negotiated hours worked and seniority basis, but will not be guaranteed.
10. Absences due to health will be paid up to twenty-six weeks.
11. Personal convenience absences will not be paid except for the present five "casual days". "Reasonableness" will be used in determining whether to pay for absences due to personal reasons.
12. Time off with pay is considered as hours worked for the purpose of computing daily or weekly overtime pay. (This allows clearer interpretation of the Fair Labor Standards Act with regard to section seven - basis for overtime pay.)
13. Standard hour incentives will be abolished in favor of the security of guaranteed salaries. Standard hours or measured day work will still be used to control production.
14. All items under the plan are arbitratable except eligibility for state benefits.
15. All fringe benefits will be increased to those of present salaried personnel, thereby eliminating dual insurance programs, etc.

IV. THE ENVIRONMENT

A. Present Salary Systems

The preceding is my prediction of the ultimate UAW demand for 1967 regarding guaranteed annual income or salary. No past precedents with available statistics have been found on which to base conclusions concerning negotiations and acceptance of this demand by John Deere and eventually by other firms and industries in the United States. Of some 1,770 major agreements studied by the Bureau of Labor statistics in 1963, fewer than 10% had a salary or employment guarantee provision. Only six of the major agreements studied contained provisions for annual guarantees. These plans were in food products or non-manufacturing industries (7).

Another study, in November of 1965 was sponsored by the National Industrial Conference Board of 1843 manufacturing firms with 250 or more employees. The report revealed that salaries (not guaranteed) for blue-collar workers were twice as prevalent (12% to 6%) at non-union companies as they were at firms where unions represented some part of the work force (48). About 7% or 138 firms indicated that some of their production workers were salaried.

Salary status for blue-collar workers was most common among manufacturers with 5,000 or more employees. Non-union companies of this size were more likely to follow this practice than unionized companies of the same size. There were only fifteen companies in the sample that had put all

blue-collar workers on salary and all were non-union.

The only standard industrial classifications that did not answer affirmatively to the question, "Are there any groups of blue-collar employees, who in most companies would be paid by the hour, paid on a salary basis in your company?", were tobacco, apparel, and "miscellaneous manufacturing". This practice is more common in some industries than in others, but the differences were usually reflected in the size of companies and in the proportion of non-union companies in each industry sample.

Farm machinery is included in the machinery (except electrical) standard industrial classification. Of the 282 companies surveyed, only thirteen or 5% said they had some or all salaried blue-collar workers.

The study shows some other conclusions which should prove helpful in clarifying the thesis. Most of the salaried blue-collar workers were in technical or experimental jobs that required close contact with white-collar employees. This resulted in an unusually homogeneous work force.

The companies that converted to salary 100% had, for the most part, a higher general level of skills, many jobs being technical or more specialized than they are in other manufacturing industries. Their production workers needed more technical knowledge and, hence, a higher level of education and training. Those companies that did not provide salary

status for the entire work force generally singled out certain types of non-production jobs for salary status. Those jobs included technicians, maintenance, tool makers, custodial, plant security, inspectors, machine set-up, and others.

A majority of companies offered salary status to blue collar workers because of the differentiating effect of wage versus salary. Also, the belief that salary status would keep employees out of an existing or threatening bargaining unit was a recurring reason for the switch. Only five companies changed employees who already belonged to unions over to salary status.

Only a minority of companies reinforced salary status for blue-collar workers with fringe benefits better than those enjoyed by the remaining hourly work force. Most companies offered a fringe benefit program to all workers, blue and white collar alike. Salaries provided status not available through fringe benefits, but the shift to salary did not cause a major increase in fringe benefit costs.

Of those companies converting some of their blue-collar workers to salary, certain differentials were noted. Time off with pay was given to salaried employees in certain cases, (such as illness in the family, medical or dental appointments), while it was not given to hourly employees. Salaried workers also were not required to punch a time clock and were not dealt monetary penalties for being late. Punching time

clocks and penalties for lateness seemed to be widely recognized as inverse status symbols.

No doubt, since 1965 the percentage of unionized companies converting some or all of their blue-collar workers to salary has increased above the 6% found by the National Industrial Conference Board study. If the UAW realizes its demand in the important industrial sectors it represents, a new trend toward "salaries for all" could begin. In order to go beyond the National Industrial Conference Board study on conversions to salary, I chose one firm to study in detail. It was difficult to find a company that has already converted, operating under the same conditions as John Deere. The Aluminum Company of Canada, LTD, Kingston, Ontario Works provides some similarities. This Canadian company recently converted to salary, there was a union involved, and information about the conversion was made available by the company. Three major differences between Alcan and John Deere must be kept in mind. 1) Alcan did not have a wage incentive system before conversion. 2) Their manufacturing is mostly continuous process rather than short run job shop type. 3) The workers involved are Canadian rather than American. With these differences in mind, Alcan's background and salary operation for blue-collar workers which was obtained from interviews, correspondence and the collective agreement, will be presented.

Alcan's Kingston Works and Lodge 54 of the International Association of Machinists and Aerospace Workers changed from hourly pay to a weekly pay system on October 3, 1966. In short, this means that employees are receiving a full week's pay when absent because of sickness or other justifiable reasons, for a period ranging up to fifty-two weeks, depending on length of service. The weekly pay is computed on the basis of forty times the hourly rate. The weekly salary provision does not apply when reduction of the work force is necessary, which eliminates any layoff guarantee of salary. Shift premiums and overtime compensation are paid as they were under the hourly pay system.

The firm regards hourly pay as a holdover from a period in industrial history when work patterns were more uncertain; when a great deal of casual help was employed; and when there was little confidence between management and employees.

Management's experience indicated that the great majority of the employees were prepared to take real interest in their work and to act in a responsible manner. Therefore, they adjusted their policies to demonstrate their confidence in the employees and encourage them, rather than retain close controls on everyone for the sake of a few who might act irresponsibly.

The firm wants to arrange for the maximum degree of intelligent decision making at all levels of the organization.

Traditional controls, rules, and regulations created a basic atmosphere at Alcan which hindered everyone's responsible behavior. The following conditions have been stressed and established in an effort to maximize the human contribution.

1. Getting the foreman to accept his responsibilities as a decision maker.
2. Getting the foreman to accept his full responsibility as the manager of his group of employees, and adjusting the plant procedures so that he could exercise this responsibility.
3. Getting the foreman to delegate more responsibility to his people.
4. Giving machine operators, maintenance men, etc., more information about what they were doing and why they were doing it.
5. Providing both the foreman and his men with some of the tools and concepts of management so that they could better evaluate what they were doing and how they were doing it.
6. Teaching the foremen how to use the staff groups (engineering, industrial engineering, metallurgical, accounting and personnel) to add to his own resources of experience and knowledge.
7. Teaching people at all levels to try to do "what makes sense in the circumstances" rather than follow the rules and instructions blindly.
8. Encouraging people at all levels to speak up, to ask questions and to add their informed intelligent ideas to the stream of productive effort in the plant.
9. Re-organizing departments to make it easier for some of the objectives listed above to be accomplished and to permit better teamwork.
10. Re-allocating management people to improve the effectiveness of the above program.

For the above reasons the practice of punching a time

clock at the beginning and ending of each shift was discontinued in 1962. It was felt that employees were honest and conscientious and would work a full shift without a time clock as a policeman. Cases where the employee is obligated to come in late or leave early are worked out between the employee and his foreman.

In 1965 the inspection department was eliminated and the responsibility placed on the operator. These alterations and the conversion to salary are all a part of management's program of adjusting their system to release the potential of human resources.

A guaranteed salary is offered under the following conditions. 1) Employees absent from work for short periods due to illness or other justifiable reasons receive full pay. 2) There is no specific limit on the number of absences allowed, however if excessive, the case would come under review. 3) In cases of a lengthy illness, the salary is continued for a period of time in accordance with the length of service.

<u>Length of Service</u>	<u>Period Salary Continued</u>
Over 90 days up to 2 years	4 weeks
Over 2 years up to 5 years	13 weeks
Over 5 years up to 10 years	26 weeks
Over 10 years	52 weeks

The Employee's Mutual Benefit Society (E.M.B.S.) supplied benefits to employees whose wages were interrupted due to absence from work. Under the salary plan, the lodge-operated E.M.B.S. has discontinued operation. The salary plan caused no alterations to the firm's contribution or worker's coverage under the provincial unemployment insurance coverage.

In an effort to find out how the salary system has been working for the last year, I corresponded with Mr. R.S. Collins, personnel manager at Alcan's Kingston Works. He is of the opinion that communications are better, people are working together more closely, there is more helpful critical comment from employees, employees are showing a greater interest in their work, and there is more job satisfaction. The firm is also operating with fewer foremen.

The change in the pay system has required a more drastic change in behavior patterns, therefore, it is taking longer for Alcan to change these patterns than was expected. For example, problems arise because the hourly system permitted more casual absence than the salary system. "Employees were used to taking a day off occasionally and felt that they paid for it by losing a day's pay. The foreman was of the opinion that the loss of the day and the loss of the wages cancelled each other out. Now the employee feels he no longer has this flexibility and the foreman feels he is under a greater

obligation to control these casual absences," said Mr. Collins.

Mr. Collins thinks that the salary system causes frustrations for the manager. When all employees are encouraged to accept responsibility, management is often justly criticized and the need for making difficult, discriminating decisions by foremen is increased.

It can be concluded that Alcan is in favor of the salary plan, but is having management and absenteeism control difficulties. Their program, philosophies, and problems encountered have been presented because they provide background for the reader on a wage to salary conversion that has been well planned and implemented. The basic human motivations should not differ greatly among labor, but certain environmental factors at John Deere may negate the natural healthy expression of these motivations.

B. The Setting for the Industry

In 1967 the United States farmer makes up approximately 7% of the nation's labor force, but he has more than compensated for his dwindling numbers. Through the use of a powerful, ingenious array of new machinery, the American farmer produces abundance. While machinery has eliminated agricultural jobs, labor shortages have also caused forced mechanization.

An hour of farm labor produces more than six times as much as it did in 1920. Per-acre crop production has risen

80%. In the 1960's alone, productivity of the average farm worker has increased by 6% a year compared to 3% a year for all other workers. The average 1967 farm laborer produces enough food and fiber for thirty-nine people.

Approximately 3,200,000 farms make up this nation's number one industry. Assets total \$273 billion with about \$20 billion tied up in machinery. Farm owners without managerial capacities and capital have had to leave the farm. The average farm was 175 acres in 1940, it now covers 359 acres, and in 1980 will probably grow to 600 acres. In order to make a profit, farmers must have volume. To have volume, they must have large acreage. To have large acreages, they must have machinery to make the land produce most efficiently.

The machines that make the modern farm run efficiently range from a \$600 manure spreader to a \$36,000 thirteen ton tractor. Seventy-five per cent of all farms have tractors in 1967; in 1952, 47% of all United States farms had tractors. While there are about 5,000,000 tractors in use on today's farms, there are also about 880,000 grain combines, 775,000 hay balers, 655,000 corn pickers and shellers. Virtually all of the nation's wheat, corn, and sugar beets are now harvested by machine, so are most soybeans, oats, cotton, and hay.

All this mechanization totals \$3.8 billion in sales for the nation's 1,600 farm machinery makers. The large, "full

line" manufacturers account for nearly 66% of all equipment sales. The largest manufacturers are Deere and Company and International Harvester. The next largest company, in terms of sales, is the Canadian based Massey-Ferguson Ltd., which sells 41% of its products in the United States.

The future looks bright for manufacturers as equipment is generally getting bigger and more powerful. The average farm tractor in 1967 has sixty-seven horsepower versus twenty-seven horsepower in 1950. The increased power enables farmers to pull bigger implements, cover broader swaths, and move faster in the fields. The larger manufacturers are also engaged in extensive research and development programs. Deere and Company is of the opinion that in the future farmers will cultivate the soil with inaudible sound waves, work fields by computer-controlled programs and use television to monitor remote-controlled machines.

Not only does the size and complexity of farm machinery mean growth for farm implement manufacturers, but also the growing population. At the present rate of growth, world population will double by the end of the century. These additional people must be fed, clothed, and housed. Also, large numbers of the present world population are determined to be better fed, better clothed, and better housed. This is creating a gradual, but significant increase in demand all over the world.

C. The Company Background

The agricultural equipment manufacturer chosen for analysis is Deere and Company. This 130 year old company, founded by John Deere's success with the cold steel plow, has thirteen United States factories and nine foreign factories. These factories manufacture, in addition to agricultural machinery, equipment for construction, forestry, landscaping, earthmoving, and materials handling. In 1966 farm equipment accounted for \$877 million in sales, industrial equipment \$157 million, and lawn and garden equipment \$27.7 million.

The data presented in Tables 1,2,3,17, and 18 provides the most precise picture of Deere and Company's growth over the past ten years. Total union man hours worked increased 65%. Net income increased 169%. Union workers' total straight time earnings increased 123%. Stock dividends increased 87%. It can be concluded that union labor's earnings have kept a close pace with net income when stock dividends and capital investment are considered.

Since the thesis is concerned with interaction of Deere and Company and the United Automobile, Aerospace, and Agricultural Implement Workers of America on guaranteed annual income, only the firm's eight UAW plants will be considered.

Table 1. Seven-year summary (1960-1966) of consolidated income and surplus - Deere and Company*

	1966
Sales and other income:	
Net sales	\$1,062,061,506
Interest and finance charges	9,859,785
Net income of credit company subsidiaries	3,365,691
Miscellaneous income	3,813,709
Total	<u>1,079,100,691</u>
Less:	
Cost of goods sold	759,999,785
Selling, administrative and general expenses	111,772,070
Provision for income taxes	98,975,843
Interest	26,021,666
Foreign exchange loss (gain)	490,819
Miscellaneous charges	3,131,938
Total	<u>1,000,392,121</u>
Income before gain on sales of chemical company assets	78,708,570
Gain on sale of chemical company assets (less related income tax)	<u>---</u>
Net income for the year	\$ 78,708,570
Earned surplus at beginning of year	416,398,909
Total	<u>495,107,479</u>
Less:	
Cash dividends on preferred stock	---
Cash dividends on common stock	26,205,957
Stock dividend - 3%	---
Charge to earned surplus arising from conversion of preferred stock to debentures	<u>---</u>
Total	<u>26,205,957</u>
Earned surplus at end of year	<u>\$ 468,901,522</u>
Earnings per common share (based on average number of shares outstanding during the year)	\$5.46
Common dividends declared per share	\$1.80

*From 1966 Deere and Company Annual Report.

+Per-share figures have been adjusted for 2-for-1 stock split in 1963.

1965	1964	1963+
\$ 886,619,587	\$ 816,636,214	\$ 688,931,372
8,041,620	9,181,056	9,536,047
3,143,573	3,284,558	3,023,005
4,136,800	3,522,884	3,238,026
<u>901,941,580</u>	<u>832,624,712</u>	<u>704,728,450</u>
659,840,332	591,567,246	505,074,954
99,903,678	98,397,328	80,625,892
69,293,339	69,426,074	58,412,456
19,206,931	11,893,935	9,672,612
466,548	369,323	881,897
2,196,133	1,525,399	1,690,171
<u>850,906,961</u>	<u>773,179,305</u>	<u>656,357,982</u>
51,034,619	59,445,407	48,370,468
---	---	---
\$ 55,792,619	\$ 59,445,407	\$ 48,370,468
382,091,461	343,386,715	312,964,751
<u>437,884,080</u>	<u>402,832,122</u>	<u>361,335,219</u>
---	---	---
21,485,171	20,740,661	17,948,504
---	---	---
---	---	---
<u>21,485,171</u>	<u>20,740,661</u>	<u>17,948,504</u>
\$ 416,398,909	\$ 382,091,461	\$ 343,386,715
\$4.03	\$4.30	\$3.50
\$1.55	\$1.50	\$1.30

Table 1. Continued

1962	1961	1960
\$ 572,829,013	\$ 561,631,043	\$ 511,858,672
9,645,093	9,182,379	7,684,504
2,970,384	2,977,503	1,380,423
<u>2,133,364</u>	<u>2,146,329</u>	<u>2,250,642</u>
<u>587,577,854</u>	<u>575,937,254</u>	<u>523,174,241</u>
418,226,618	423,286,340	409,528,038
70,614,551	71,199,964	67,010,728
44,379,197	33,007,158	15,142,390
10,092,338	10,673,974	11,199,125
4,772,206	616,263	(216,072)
<u>1,522,546</u>	<u>1,188,380</u>	<u>255,526</u>
<u>549,607,456</u>	<u>539,972,079</u>	<u>502,919,735</u>
37,970,398	35,965,175	20,254,506
---	---	---
\$ 37,970,398	\$ 35,965,175	\$ 20,254,506
<u>290,176,553</u>	<u>268,013,378</u>	<u>261,560,872</u>
<u>328,146,951</u>	<u>303,978,553</u>	<u>281,815,378</u>
---	---	---
15,182,200	13,802,000	13,802,000
---	---	---
<u>15,182,200</u>	<u>13,802,000</u>	<u>13,802,000</u>
<u>\$ 312,964,751</u>	<u>\$ 290,176,553</u>	<u>\$ 268,013,378</u>
\$2.75	\$2.61	\$1.47
\$1.10	\$1.00	\$1.00

Table 2. Net income per production union man hour worked - Deere and Company, 1957-1966

Year	Net income (million)	Total union man hours worked (million)	Cents per union man hr. or net income per union man hr. worked	Index of net income per union man hour worked
1957	29.2	27.165	\$ 1.08	100.00
1958	43.4	29.249	1.48	137.03
1959	50.9	35.006	1.43	133.65
1960	20.3	31.635	.64	88.41
1961	36.0	32.251	1.12	144.44
1962	38.0	27.625	1.38	167.65
1963	48.4	33.922	1.43	171.27
1964	59.4	40.052	1.48	174.77
1965	51.0	40.299	1.27	159.58
1966	78.7	44.946	1.75	197.38

The UAW factories and their products are:

1. John Deere Des Moines Works, Des Moines, Iowa
Equipment for harvesting corn, cotton, and beets; Cultivators, Chisel Plows, and Self-propelled Sprayers.
2. John Deere Planter Works, Moline, Illinois
Disk Harrows, Planters, and Sprayers.
3. John Deere Malleable Works, East Moline, Illinois
Malleable, Pearlitic Malleable, and Nodular Castings for Deere factories.
4. John Deere Harvester Works, East Moline, Illinois

Table 3. Net sales per production union man hour worked -
Deere and Company, 1957-1966

Year	Dollars sales (million)	Total union man hours worked (million)	Sales/union man hour	Index net sales/union man hour worked
1957	\$ 424.3	27.165	15.62	100.00
1958	507.4	29.249	17.35	108.77
1959	577.3	35.666	16.19	102.09
1960	511.9	31.635	16.18	102.03
1961	561.6	32.251	17.41	109.63
1962	572.8	27.625	20.74	128.76
1963	686.9	33.922	20.31	126.69
1964	816.6	40.052	20.44	127.33
1965	886.6	40.299	22.00	134.96
1966	1062.1	44.946	23.63	142.37

Combines.

5. John Deere Waterloo Tractor Works, Waterloo, Iowa
Farm and Industrial Tractors.
6. John Deere Dubuque Tractor Works, Dubuque, Iowa
Farm, Industrial, and Forest Tractors, and Engines.
7. John Deere Spreader Works, East Moline, Illinois
Fertilizer Spreaders, Farm Loaders, and Feed Handling
Equipment.
8. John Deere Ottumwa Works, Ottumwa, Iowa
Hay and Forage Harvesting Equipment.

Negotiations are centralized between Deere and Company, with plant representation, and the international UAW, with representation from the eight local unions.

Since I am familiar with John Deere Des Moines Works' operations and this facility is a representative Deere and Company plant, it will be used as a basis to describe general environmental conditions that exist for the company.

For the most part farming is a seasonal business (Des Moines Works and the eight UAW plants manufacture agricultural equipment almost exclusively), thus, manufacturing is basically seasonal. For this reason, blue-collar wages and employment varies considerably throughout the year. Generally, the period of slack activity is between September and February.

Des Moines Works and the company operate on a "job shop type" basis with relatively short runs and fairly high set-up costs. The factory at Des Moines has approximately 45,000 different parts with 200,000 manufacturing operations. This requires production workers to be moderately skilled and extremely adaptable. Machine operators, in addition to piece production, perform their own set-ups. They must be well qualified and familiar with their particular machine.

The parts are routed through the plant by the Methods Department. These salaried engineers determine the operations, machines, and tooling needed to produce a part at a

defined quality. The Incentive and Standards Engineering Department determine through estimation, standard data, or direct time study, the standard time together with the operation occupational rate which determines the operation's earnings. The hourly occupational rate of pay for incentive employees is determined by job evaluation and union-management negotiation. The hourly rate of pay for the non-incentive employee is set between a minimum and maximum, determined by merit rating. The hourly and incentive rates of pay, along with a comparison of straight time earnings with the automobile industry, is shown in Table 4.

Since the mechanics of converting to salary or guaranteed annual salary would be relatively simple for non-incentive employees, this present method of pay will not be pursued any further. The major hypothetical problem and disagreement between management and union lies in abandonment of the present standard hour incentive method of pay and adoption of a salary or guaranteed annual income for incentive employees. In order to more fully understand the problems for union and management, the present method of output incentive pay must be fully explored. Firstly, general union and management views on monetary output incentives will be reviewed, then Deere and Company's standard hour plan will be presented as the present method of pay.

Table 4. Typical wage rate schedule[#]- 1965 and 1967⁺

Labor Grade	Hourly Wages (Non-incentive)		Occupational Rates (Incentive)		
	Range 1965	Range* 1967	Labor Grade	1965	1967*
1	3.335-3.890	3.75 -4.370	H	3.110	3.495
2	3.180-3.735	3.575-4.195	G	2.995	3.365
3	3.040-3.575	3.415-4.015	F	2.875	3.230
4	2.890-3.425	3.245-3.850	E	2.765	3.105
5	2.710-3.205	3.045-3.615	D	2.665	2.995
6	2.590-3.065	2.910-3.445	C	2.565	2.880
7	2.495-2.920	2.804-3.280	B	2.475	2.780
8	2.450-2.780	2.755-3.250	A	2.380	2.675
9	2.405-2.635	2.705-2.960			
10	2.365-2.500	2.660-2.810			

⁺From John Deere Des Moines Works, effective June 5, 1967.

*Includes 1965 2.5% General wage increase
additives 1966 2.8% General wage increase
7.0% Cost of living additive

[#]The average straight time hourly earnings of Deere and Company's eight UAW plants.

= \$3.28 w/o additives or

= \$3.77 w/additives or

\$4.90 including fringe benefits

[#]The average straight-time hourly earnings at UAW automobile manufacturing plants (Ford, Chrysler, General Motors).

= \$3.41 w/additives

= \$4.70 including fringe benefits

V. PRESENT METHOD OF PAYMENT - WAGE INCENTIVE*

The basic theory of incentives, discounting the possibility of abuses, is to get people to produce more. During medieval times, feudal landowners lived in splendor while serfs tilled the soil for a small portion of their labors, the larger share going to the lord of the manor. Through history, one can see repeated instances in successive societies of large groups of people laboring hard and being paid less than their worth in order that a favored few can live in comparative indolence and receive much more than their worth. It cannot be disputed that certain workers contribute much more to the success of an organization than others, and on that basis are entitled to higher benefits in proportion to their increased production.

The problem of motivation has also existed as long as the employer-employee relationship. With the advent of the factory system of manufacturing, management has been faced with the problem of maintaining supervision while providing incentives to employees in order to encourage productivity. Essentially, there are two approaches; the negative method of supervision and disciplinary action and the positive

*During the discussion of wage incentives the reader should keep in mind the union's proposed guaranteed annual salary plan as an alternative.

method of providing incentives, financial and nonfinancial, for greater effort.

Allen Rucker, in a speech entitled "What does the Worker Want", listed five human desires which should be satisfied to generate higher productivity. They are:

1. Employees want to belong to a team.
2. Employees want an opportunity to take part in what they think is an important enterprise.
3. Employees want to associate with people whom they consider important.
4. Employees want an opportunity to increase their prestige and importance while having that gain matched by additions to their income.
5. Employees want to be able to do something to prevent arbitrary and unpleasant changes in the continuity of their employment, income and social prestige (37,p.2).

Although the task of eliciting employee effort encompasses nonfinancial motivation, the most common positive method is wage incentives.

Fredrick W. Taylor and scientific management introduced the formal wage incentive system. The democratic character of scientific management pays men rather than positions and through methods of payment, rewards each workman on the basis of his efficiency.

A. Management and Labor Attitudes

In the eighty-five year development of formal wage incentive systems, many variations have emerged. These systems have become an important, but controversial, tool of American management. There is much diversity of opinion among indivi-

duals and groups in regard to the merits, values, and desirability of incentive systems.

There is a general feeling that output incentives have not increased in coverage, but may be declining. Case studies of incentive abandonment have been sufficiently prevalent in the literature to give this impression. However, available empirical data in the United States does not show this to be true. A 1945-1948 Bureau of Labor Statistics survey of 55,000 establishments reported an over-all incentive coverage of 30%. Twelve years later, another Bureau of Labor Statistics study limited to manufacturing reported 27% of the employees were paid on an incentive basis (32). There is a lack of continuity between the two studies, since the earlier study covered non-manufacturing as well as manufacturing firms. In those industries where a comparison is possible, approximately as many showed an increase as showed a decrease.

According to the literature, it seems that new applications of incentives have been on the decline, but are offset by increased coverage (26,27,29,30,31,32,38, and 47). For United States Steel's Irvin Works in Pittsburgh, Pennsylvania, incentive coverage has increased from 20% to 80% in fifteen years. Deere and Company has about 53% of their wage employees on incentive (Table 21). In the garment industry about 90% of the employees are covered by incentives. Gener-

ally, it can be concluded that incentive coverage is not declining in the United States, but is remaining fairly constant (26).

The fact remains that there is still a certain amount of demoralization in regard to incentives. Industrial Relations uses this term, demoralization, to describe incentive systems which have developed substantial inequities in earnings and effort, a growing average incentive yield or bonus, a declining average level of effort, and a high proportion of "off standard" payment and time. Although no measure of the incidence of demoralization is available, a good deal of disenchantment is evident (26).

Several major firms, such as General Electric and Westinghouse, have dropped output wage incentives in favor of measured daywork. Other firms have replaced individual and small group incentives with a plant wide type, for example, the Long Range Sharing Plan between Kaiser Steel and the United Steel Workers. Others have added a new reward system to the existing structure, such as the development of a profit sharing plan between American Motors and the UAW. Stated directly, the emphasis for these companies is not on individual output, but indirect plans that focus on aspects of economic achievement for the total organization. These trends suggest an effort to reinstate the stimulus and effect that has been demoralized over a period of time.

There are many factors which have made the field of incentive pay application and the effects complex. Incentives now encompass a wide variety of methods and plans. No one plan or system can be universally applied. However, incentives can be applied with some very clear cut economic returns when the basic fundamentals of the plan are understood and correctly administered.

The success or failure of any incentive system is dependent upon management and labor objectives and philosophies.

A management decision to adopt an incentive program will generally be aimed at one, or some blend of the following objectives:

1. To improve the net profit of the firm through reduced unit costs for labor, overhead, or both.
2. To avoid or minimize the increased capital investment necessary to enlarge production capacity, or to reduce costs via mechanization of jobs.
3. To provide improved earnings for employees, thus increasing contentment with their jobs without locking the firm into a higher wage rate structure, regardless of productivity in the plant.
4. To attain the highest machine, overhead, and employee utilization possible.
5. To provide greater organizational control over production while furnishing a barometer for production problems or maladjustments.
6. To reduce the direct watching and supervision of employees, thereby providing some favorable influence on industrial relations and their personal interest in production.

Unions are traditionally opposed to wage incentives.

This hostility toward incentives exists because of earlier experience with incentive plans in the absence of union protection. "Yet on balance today unions probably exert more pressure for extension than for limitation of wage incentive coverage" (26, p.73).

There has been no uniform union attitude or objective toward incentives. Policies differ among unions, within unions and changes with time. For example, the UAW national policy avoids incentives, while Local 450 in Des Moines generally favors the incentive system. Pat Rogers, John Deere Des Moines Works industrial relations supervisor, says he sees incentive acceptance and performance higher among rural workers than among metropolitan workers. With an increasing amount of industry moving to rural areas, a general adoption of a more favorable union attitude may result.

Assuming a positive union and labor attitude toward wage incentives, their objectives would be one, or some blend of the following:

1. To share in the constantly rising level of manhour output and the declining input costs per unit of output.
2. The right to negotiate standards and rates.
3. The right to challenge standards and rates through grievance procedure and arbitration.
4. The adoption of rules governing the administration of incentive systems designed to protect the workers interest in the operation.
5. The adoption of a labor group attitude by management and a de-emphasis of individual discrimination and

differentiation.

6. The establishment of financial rewards by management that are meaningful.
7. The establishment of a salaried methods department to relieve the worker from additional risks of the business organization or operation.
8. To provide a smooth and efficient administration of incentives and a means of union recheck.
9. To provide some form of work and income guarantees.
10. To increase emphasis on job rights of the employee.
11. To change the term "wage incentive plan" to "productivity wage" which would imply a contract between management and labor to establish the right to a specified hourly wage at a normal pace. Thus, the worker would obligate himself to meet the jointly set production standard. In addition, incentives might be more acceptable under this new name.

Management philosophies will have an effect on union attitude and will condition the choice of an appropriate incentive system. Generally, management philosophies follow three patterns. The first is, "Labor time is a market commodity." The attitude is that employees of a firm are a "necessary evil" in the production and sale of the product. The belief is that employees should receive the open market replacement price for the time they spend at work and that the firm can maximize output by careful planning, detailed work analysis and forced conformance to standardized work paces. This view leaves little or no room for an incentive and will result in an equally "hard nosed" attitude by the union.

"A fair day's work for a fair day's pay" is a softer attitude which often adopts individual carrot-type incentives. The individual is treated as an "economic island", his strict motivation is money. The rate of pay is toward the high range for the industry; there are good benefits and incentives paid on direct production as long as effort is above normal and can be measured accurately. The indirect employees often have no incentive, so must still be managed to counteract their "laziness and ineptitude." Individual incentives are easily applied in this case.

"Let's get everyone on the team" is a philosophy that can lead a large group of people into efficient work rather than forcing them into it. Employees are told what must be done, constructive thinking is encouraged and both responsibility and authority are assigned to the lowest level at which both can function within executive guidance and control. This is referred to by Harold Ruttenberg as Humanation (36). Individual incentives do not work in this situation.

Management philosophy seems to be changing from the traditional view that people need a direct push or pull (which usually leads to installation of output incentives) to one of eliminating historic cleavages between manual, clerical and managerial employees within the organization. This is probably a result of union pressures and attitudes, more indirect labor in the work force, increased technology, and

greater management skill. In some instances it takes the form of placing all employees on salary; in other situations it involves the installation of a total group bonus plan (30).

Management need for long or short run gains can also be a determining factor in the type of system to adopt. If the need is for realizing short run results with a high degree of certainty, then some form of output incentive is appropriate. Output incentives can be compared to a stiff drink, the short run effect is terrific, but the long run headaches are seldom worth the short run kick. On the other hand, if the longer run view is taken and short run results can be sacrificed for long run improvements, then a cost reduction plan or salary status might be best.

B. Advantages and Disadvantages

Now some general arguments for and against monetary output incentives should be explored. Most of the disadvantages of incentive plans can be applied as advantages of salary plans.

Output incentive plans can tend to induce cheating, build up "kitties", jockeying for juicy jobs, etc. Contract provisions often tend to freeze incentives at a high level and provide incentive earnings when not really earned, for example: average earnings, temporary transfer, experimental work, etc.

Generally speaking, output incentives have increased in importance during periods of extended labor shortage. For

example, during World War II in this country, output incentives provided a means of paying more than the rates allowed under wage stabilization or under an "incomes policy".

Output incentives tend to be used more frequently where the plant is characterized by a low state of technology. This raises a serious challenge to output incentives since the pace of technology is accelerating everywhere with the corresponding area of man-paced operations diminishing. Much of industry is being automated, and the results to be achieved by systems engineering have barely been touched. In an equipment-paced economy, even though the workers are literally attendants, such operations are not at all amenable to incentives, for the pace of productivity is determined wholly by the equipment. However, the net effect of recent technological changes thus far seems to have been expansion rather than abandonment of output incentive coverage. This is due to increased coverage of incentives and adoption of equipment utilization incentives by many firms.

Turning to automation in the more complete sense, there seems to be little doubt regarding its impact on individual or small group wage incentives. Both the production standards and the concept of work measurement become meaningless as related to worker incentives with complete automation. This will probably lead to an increase in collective plans, which are concerned with the long-range welfare of the firm.

There is little or no motivation for production employees to make methods improvements which will increase output and technology of the firm. Many believe a good methods engineer and competent management are all that is needed to develop the best method for doing a job. The fact is that workers make methods improvements frequently, but they realize it is to their advantage not to tell anybody about these changes.

John Deere's attempted solution to this problem is the establishment of a suggestion plan. This encourages the operator to submit his idea under the suggestion plan by offering a reward based on yearly savings. The suggestion plan has sufficient rewards, reasonable policies, and adequate publicity, and therefore works fairly successfully. However, the employees and the union feel certain disadvantages to the suggestion plan:

1. It fosters competition among the workers for more pay.
2. The short run reward often cannot match the additional long term wage the worker can receive.
3. Loose rates could be retimed since a change in method usually occurs.

For these reasons and others, suggestion plans are good in theory, but in practice few suggestions are received on incentive operations (Table 5). The official local union policy is to not recognize the suggestion plan in the contract or otherwise.

Table 5. Typical suggestion award breakdown, 1966*

Employee type	No. suggestions w/ awards	% of total suggestions w/awards	Net dollar savings from suggestions	% of total net saving from suggestion
Salaried	19	25	\$4,089	50
Hourly wage (non-incentive)	40	53	1,458	18
Incentive wage	17	22	2,600	32
Totals	76	100	\$8,148	100

*From John Deere Des Moines Works.

The following is one excerpt from a letter distributed to UAW Local 450 members.

Suggestion plan is all company

For the benefit of the new men at the plant, the suggestion plan is a project of the company only. It is not a part of the agreement with the UNION, although the company has attempted several times to insert it into the contract. The UNION has refused to agree to the suggestion plan because we believe our members lose more than they gain from it. The Company makes the big gains from any suggestions that they accept; occasionally, of course, they award an employee a fairly large amount of money. The man in a carnival booth allows someone to be a big winner occasionally -- usually someone he has planted, the motive of course is to draw more suckers. There has been more than one case where an employee has turned in a suggestion and received a small amount of money only to have his earnings or his fellow union brother's wages cut by many times the amount paid (for the suggestion) (28).

The friction encountered in making methods improvements tends to discourage management from making all but the most dramatic and profitable changes. Also in areas with loose rates, management may initiate "uneconomical" changes in methods aimed at cutting the rate rather than increasing output.

Abuse of equipment, poor usage of materials, low quality of excessive rejects may be a by-product of an output incentive system. In the garment industry, experience has shown that this does not occur unless management slackens. Quality of the work performed depends mostly on the proper supervision and training of the operators. If incentives are used in place of good supervision, quality will tend to deteriorate. Assuming adequate supervision, quality is maintained at John Deere by paying incentives on "good" production only. If defective work is found to be produced by an incentive worker, he receives the occupational base rate for time spent on the job without the incentive and, when possible, must rework the defective work on his own time.

Effective administration is the key to a smooth running incentive system. Output incentive systems more often seem to fail, demoralize, or deteriorate because of poor administration. If a firm is not willing to make a sizable investment in incentive administration and maintenance, the system will surely fail in the long run.

Distortion of incentive plans have resulted because of:

1. Sizable inequalities in earnings and effort
2. Large and growing incentive yield accompanied by low and declining effort levels
3. High proportions of payments of average earnings and other guarantees for non-incentive work to incentive employees

Because of the tremendous number of good or bad effects administration can have upon incentives, a summary list is provided of the major effects.

Good effects resulting from effective administration of an incentive system could be any number of the following:

1. Attraction of good labor
2. Placing workers where they produce most effectively
3. Focusing attention on training needs
4. Inducing workers to contribute services with high intensity.
5. Close control of work groups and departments
6. Determination of the best methods for performing work and standardizing job conditions
7. Promotion of harmonious relations between workers and service groups
8. Promotion of more efficient management

Bad effects resulting from ineffective administration of an incentive system could be any number of the following:

1. Establishment of a social level of output acceptable to the blue collar group
2. Inflexibility to schedule men and equipment because of slow-downs

3. Lazy supervisors who allow an incentive system to replace their function
4. A margin of error by industrial engineers in the manpaced area of plus or minus 10%
5. Cooperation by supervision in loose rate applications, "to keep my boys happy"
6. Antagonism toward those who do administer incentives
7. Cynicism with respect to managements' integrity and fairness
8. The fear of unemployment and loss of self-esteem by the workers
9. The feeling that incentives reduce the skill required on a job
10. Poor understanding by employees as to how the incentive rate is set
11. Unfair or arbitrary setting of standards by management
12. Management insensitivity to employee feelings toward standards
13. The replacement of incentive earnings for increases in pay

A type of life cycle has been found to operate on the effectiveness of output incentives. At first, when administration is keen and workers enthusiastic, they usually work well. Then the letdown begins. The administration makes concessions rather than lose output and employees try to manipulate the system or become bitter toward it. The result is abandonment or revision of the system. Usually the latter results, since once individual output incentives have been used, the effect of a pull through direct reward is usually

still needed*(29).

Complete automation will lead to destruction of incentives, but such developments are far into the future. With the advent of increased use of incentive coverage, the decreased supply of effective supervision, and the ingrained incentive philosophy in the United States, incentives are likely to remain.

The largest present threat to incentives for production workers is guaranteed annual salary. This will probably be the only method of pay which, through pressure by the union, could replace the company's incentive system.

In the future the union is likely to continue to probe for and exploit weaknesses in the individual incentive system. Company management must either continue to be aware of the weaknesses and fight demoralization through costly and careful administration or accept the union demands and abandon the incentive system.

C. The Standard Hour Wage Incentive Plan

Straight piecework is the simplest and most common form of output incentive. Its chief characteristic is that all standards are expressed in terms of a certain amount of money for a given unit of production. The time standards developed

*Deere and Company converted from a costly piecework plan to a standard hour plan on August 8, 1955.

by time studies are converted into money by applying the time allowed to perform the job against the base rate for that job. Ordinarily there is some minimum hourly guarantee. Hence, for low levels of output, the plan becomes a time wage plan.

The standard hour plan, which John Deere uses, is very similar to piecework as an output incentive. The standard hour plan is expressed in terms of time per unit of production. The standard hour is the amount of work which will be performed within an hour by an average competent worker under certain prescribed conditions. Pieces produced over and above those specified in the standard hour is the incentive. Incentive workers should be able to earn 25% to 35% more than hourly workers. John Deere finds the average performance level of their employees when they are working on incentive to be 135% (Table 24). The company goal at present is to keep employees on incentives 85% of the time (Table 22 and 26). Statistical evidence indicates workers paid under output incentive systems generally earn more than they would under a time wage system (Table 21 and 22).

The principles and operations of the standard hour incentive plan are relatively easy to use and understand. The standard hour incentive plan is operated on the principle that the normal performance expected of average employees skilled in their assigned tasks is 100% performance.

Performance beyond 100% is compensated for on a one-for-one principle. Potential earnings on incentive work where the operator is not limited or restricted by process or machine time is expected to average 30% above occupational rate.

The unit of measure in this standard hour incentive plan is standard hours per 100 pieces or units. This is the unit of time measuring the quantity of work that must be produced in order to earn the equivalent of the occupational rate.

All incentive standards are established by the Incentive and Standards Engineering Department of each plant to cover permanent conditions or special conditions for a limited period. Incentive standards may be calculated by:

1. Analyzing each element of the operation by time study,
2. the use of data (standard data or plant data), or
3. a combination of the above.

Incentive standards established to cover special conditions are, for purposes of control, designated as temporary and applicable for a specific length of time or for a specific number of units or parts.

The ultimate goal in incentive wage administration is to establish incentive standards with such equity that individual earnings will be in direct ratio to the skill, effort, and time expended. The most effective tool devised for this purpose is standard data, and the present company built development program, started in 1957, is designed to event -

ally provide the highest practical degree of standard data coverage (Table 28). The purpose of this data, which is built on 100% performance, is to standardize time elements between all John Deere Plants. Standard data is used to determine standard hours on 61% of all productive operations at John Deere. Thirty-three per cent of this 61% are preset by industrial engineers without ever looking at the operation being performed. This means that only 39% of the operations are actually time studied. John Deere finds standard data extremely accurate, quick to apply, and relatively easy to calculate.

The maintenance of the incentive system and the continued effective use of standard data require strict conformance to the provisions of the incentive plan, proper construction and application of standard data, accurate recording of all off incentive time, and strict observance of established methods. The firm's experience shows that deviating from an incentive plan as it was designed to operate invariably results in deterioration of the effectiveness of the plan. For these reasons, John Deere wants to expand the use of the standard data to over 90% of all its operations in the near future.

The company has always intended that the incentive system be operated in a fair and equitable manner, both from the standpoint of the employees and of the company. Consistent with this desire, the following statement of policy is

intended to guide the operation of the incentive system in all factories of the company.

"Employee effort resulting from a well-managed incentive system is essential to the continued successful operation of the Company, and a sound incentive basis of compensation is advantageous and equitable for employees, as well as for the Company.

To assure continued successful operation of the incentive system, our procedures must: 1) Follow proper administrative practices and accurate interpretations of contract provisions; and 2) Avoid practices which create employee or union resistance to the incentive system."

Mr. Delno Brown, plant manager at John Deere Des Moines Works, said,

"The main advantage of the standard hour plan over the piecework plan is in not recalculating wages due to increases. Management can plan year to year manpower requirements because hours don't change, while dollars do....International Harvester is still on the old piece rate system and they have a one dollar base with about three dollars worth of additives. They set their rates by comparison to other similar jobs thereby magnifying their mistakes and carrying on possible bad rates.... John Deere is in a better position profit-wise because of our standard hour system...Our rate of pay is the highest among any major company under the UAW."

The standard hour plan is flexible, it can be applied to complex production processes and to those in which the contribution of the individual worker is not separable or measurable. Mr. Pat Rogers, manager of industrial relations at John Deere Des Moines Works, prefers the standard hour plan from an industrial relations standpoint because it is easy to administer and understand.

To compute incentive earnings under this plan the

following steps are required. First, multiply the production in pieces or units on each operation by the appropriate standard to arrive at earned hours. Earned hours are then multiplied by the occupational rate to calculate incentive earnings.

The incentive earnings of an employee on any given job will be in direct proportion to his rate of production, except that the minimum pay for incentive employees is the occupational rate.

The worker is guaranteed earnings (make-up to occupational rate) for the day equal to hours worked times the occupational rate or rates appropriate for the work performed during the day (Table 26). This is really a daily guaranteed income (The proposed monthly or annual guaranteed income extends the time liability of the present plan and adds to it pay for days not worked due to a company initiated layoff or adequate employee initiated reason for absenteeism).

In addition to guaranteed earnings, the incentive employees can receive average straight-time hourly earnings for special circumstances (Table 26). Average straight-time hourly earnings are computed by dividing the sum of money paid for all hours worked during the last two computed work weeks by the sum of the hours worked during such a period. Reasons for average earnings are as follows:

1. When it is impossible to run the operation at machine speeds and/or feeds used in determining the incentive standard due to excess or hard stock
2. When the employee is directed to rework returned material other than his own defective work
3. When an employee must rework his own material because of improper blue prints, wrong instructions, or defective machine and tools
4. When an employee is taken away from his regular incentive work to:
 - a. rework another's defective work
 - b. take care of an emergency
 - c. do maintenance work
 - d. do work of an experimental nature
 - e. do the work of an absent employee
 - f. perform work of a trial nature to try out tooling for a new product, job, or process
 - g. serve as an instructor to another operator
 - h. to repair equipment needed to run the incentive operation, upon direction of the foreman
 - i. to perform union business

These particular contract stipulations cause many conflicts at the foreman-employee level and often lead to grievances. In 1966, 11% of the written grievances filed at John Deere Des Moines Works concerned average earnings (Table 6). These conflicts are caused by different interpretations of reasons for average earnings.

Grievances also arise frequently regarding improper

incentive standards (Table 6). Standard grievances may only be filed if an incentive standard is not adjusted when; or is altered for reasons other than when:

1. Clerical errors occur.
2. Changes occur in design, equipment, material specification or manufacturing methods and then only affected elements may be adjusted.
3. Standards were set prior to August 8, 1955 (conversion from a piecework to a standard hour plan).

Grievances of this type, and only incentive grievances of this type, are subject to arbitration.

The jurisdiction of the arbitrator is specifically limited and restricted to the sole determination of the following questions:

1. Was there a clerical error in computation?
2. Was there a change in design, equipment, material specifications, or manufacturing methods?
3. If there was a change in the above, what elements were changed?

In addition, standard grievances can be filed if the grievance raises the question of whether or not the standard was established in conformance with the standard hour incentive plan or whether the standard is adequate or inadequate.

Written grievances concerning incentives and average earnings accounted for 37% of the total grievances filed at John Deere Des Moines Works in 1966. Since Des Moines Works is assumed to be a typical Deere and Company UAW plant, this

Table 6. Typical written grievance breakdown, 1966*

Month	Written Grievances Concerning Incentive											
	No. of Griev.		Aver.*		% of To. Griev.		Inc.		Aver. Earn.		Ratio All Inc./ Total	Ratio Aver. Earn/ Total
Other	All	Incentive	All	Incentive	All	Incentive	All	Incentive	All	Incentive		
Jan.	57	23	9	29	11	80	.288	.113				
Feb.	54	14	13	21	19	68	.206	.191				
March	64	16	11	20	14	80	.200	.138				
April	46	30	7	40	9	76	.395	.092				
May	51	28	6	35	8	79	.354	.076				
June	41	41	12	50	15	82	.500	.146				
July	25	28	4	53	8	53	.528	.076				
Aug.	44	25	13	36	19	69	.362	.188				
Sept.	71	38	12	35	11	109	.349	.110				
Oct.	49	25	9	34	12	74	.338	.122				
Nov.	59	36	9	38	10	94	.383	.096				
Dec.	79	66	10	46	7	145	.455	.069				
Total	639	370	115			1,009	.367	.114				

*From John Deere Des Moines Works.

†Average earnings grievances are included in all incentive grievances.

figure is probably average for all plants (Table 6). If a salary was adopted and the incentive plan abandoned, a majority of standard grievances, and all average earning grievances, would be eliminated. Some standard hour or measured daywork grievances would remain. However, other types of grievances, such as discipline, could possibly arise. Although John Deere has never estimated the cost of processing a grievance, the overall reduction (estimated at 30% by a company industrial relations manager) would reduce the yearly cost for processing written grievances.

As pointed out earlier, administration of the incentive system is the key to its efficient operation. Accurate records are required for effective administration. On all new or changed incentive standards, the Incentive and Standards Engineering Department prepares and files, in the foreman's office or at the work location, a record of pertinent data of the study from which the incentive standard was established.

This data is recorded on a form (hereafter referred to as a job detail and standard sheet) which shows the following items of information:

1. Date incentive standard is issued
2. Part number
3. Machine tool name and number or work location
4. Machining speeds and feeds

5. Operation description
6. Part specifications and sketches
7. Tool and die information
 - a. Sketch of tool layout
 - b. Tool and die numbers
 - c. Description of tools
 - d. Type of clamping
 (Gives at least sufficient information to identify the equipment to use that relates to the standard established.)
8. Elemental breakdown including:
 - a. Material handling conditions
 - b. Allowed time
 - c. Elements identified
 - d. Occurrence factor
 - e. Pieces per cycle
 - f. Machine time
9. Total incentive standard or piece price
10. Labor grade or occupational rate

The purpose of recording this data is to furnish the foreman and worker with the necessary information for identifying the methods used in performing the operation. It also makes this data available for inspection in the foreman's office by interested parties. This job detail and standard sheet is at the machine or work location while the operation is being performed.

In addition to the discussed data, the job detail and standard sheet also contains the following statement:

"The approved method is as shown on this form and no change in method may be made by the employee without securing approval of the Company as indicated by the issuance of a revision."

In any case, where a job detail and standard sheet is issued, it usually is reviewed by the operator who is, or will be, running the job. The operator understands that the operation is to be performed in accordance with the method shown.

One measure of the effectiveness of an incentive system is the percent of time that incentive employees work on incentive; this is maintained through effective administration (Tables 23 and 24).

The company speculates there are several reasons why incentive employees should be on incentive as near to 100% as possible. These are:

1. Incentive employees want the opportunity to work on incentive at all times. Therefore, a lack of sufficient incentive coverage creates dissatisfaction on the part of the incentive employees and increases labor problems.
2. The mixing of incentive and non-incentive work makes the administration of an incentive system more involved because of the difficulty of controlling the time reported on non-incentive work.
3. Employee effort is considerably greater when they are on incentive work than on non-incentive work. Therefore, the cost of non-incentive work is much higher than that of incentive work.
4. A high percentage of off-incentive hours is usually an indication of having too many employees for the work to be performed.

Off-incentive hours fall into one of four categories. These with their percentages of total man hours for incentive

employees are itemized below.

1. Delay hours - 5.8%
2. Untimed operation day work hours - 4.5%
3. Untimed job change hours - 1.9%
4. Other day work hours - 9.2% (Tables 24 and 25)

A decrease in the percentage of non-incentive hours is accomplished by either putting work on incentive or by eliminating or reducing the causes for these hours (Table 26).

The company claims that non-incentive work put on incentive decreases the time for that work by half. The incentive earned hours result in higher earnings, but since only about one-half as many hours are required, a considerable savings is realized.

When excessive off-incentive hours are eliminated, either by intense management effort under the incentive system or adoption of a salary system, all the excess cost of these hours is saved. The calculation of average cost per hour for off-incentive time for 1966 (Table 7) and year to date (June) 1967 (Table 8) results in \$2.80 per hour and \$3.40 per hour respectively.

Analyses of incentive employees' performance in several plants during the past few years have shown that employees performance below 100% is an important factor in low average incentive performance (Tables 23 and 24).

Table 7. Calculation of average cost per hour for off-incentive time - Deere and Company, 1966

Excess cost per hour for each category of off-incentive time

1. Delay time

Excess cost per hour = \$3.01/hr. avg. occ. rate +
\$1.18/hr. fringe cost = \$4.19/hr.

2. Untimed operations and untimed setups

Excess cost per hour - day work cost - cost if on incentive + fringe cost

Cost of (1) day work hour = \$3.01/hr. avg. occ. rate

Cost of (1) day work hour if on inc. = \$3.01/hr. x 65%
est. day work perf. = \$1.95/hr.

Excess fringe cost = $\frac{65\% \text{ day work perf.} \times \$1.18/\text{hr. fringe cost}}{130\% \text{ inc. perf.}}$
cost = \$.59/hr.

Excess cost per hour = \$3.01/hr. - \$1.95/hr. + \$.59/hr.
= \$ 1.65/hr.

3. All other day work

All other day work is a mixture of idle time, make work time and work time; therefore, the calculated excess cost for this category is based on average of the excess cost for delay time and untimed work.

Excess cost per hour = $\frac{\$4.19/\text{hr.} + \$1.65/\text{hr.}}{2}$ = \$2.92/hr.

	(1) Excess Cost per hour	(2) % of Total Time	(3) % of Total Off-Inc. Time	(4) (1) x (3)
Delay time	\$4.19	5.8%	25.5%	\$1.068
Untimed Oper.	1.65	4.9	21.6	.356
Untimed Setups	1.65	2.5	11.0	.182
Other Day Work	2.92	9.5	41.9	1.223
TOTAL		22.7%	100.0%	\$2.829

Use \$2.80/hr.

Table 8. Calculation of average cost per hour for off-incentive time - Deere and Company - year to date (June), 1967

Excess cost per hour for each category of off-incentive time

1. Delay time

Excess cost per hour = \$3.77/hr. avg. occ. rate x
\$1.299 fringe cost = \$4.90/hr.

2. Untimed operations and untimed setups

Excess cost per hour = day work cost - cost if on incentive + fringe cost

Cost of (1) day work hour - \$3.77/hr. avg. occ. rate

Cost of (1) day work hour if on inc. - \$3.77/hr. x 65%
est. day work perf. = \$2.45/hr.

Excess fringe cost = $\frac{65\% \text{ day work perf.}}{135\% \text{ inc. perf.}} \times \$1.299/\text{hr.}$
fringe cost = \$.63/hr.

Excess cost per hour = \$3.77/hr. - \$2.45/hr. + \$.63/
hr. = \$1.95/hr.

3. All other day work

All other day work is a mixture of idle time, make work time and work time; therefore, the calculated excess cost for this category is based on the average of the excess cost for delay time and untimed work.

Excess cost per hour = $\frac{\$4.90/\text{hr.} + \$1.95/\text{hr.}}{2}$ = \$3.43/hr.

	(1) Excess Cost Per Hour	(2) % of Total Time	(3) % of Total Off-Inc. Time	(4) (1) x (3)
Delay time	\$4.90	5.8%	27.1%	\$1.327
Untimed oper.	1.95	4.5	21.0	.410
Untimed setups	1.95	1.9	8.9	.174
Other day work	3.43	9.2	43.0	1.475
TOTAL		21.4%	100.0%	\$3.386

Use \$3.40/hr.

For example, the average incentive performance of incentive employees at one plant was running around 119% and 120%. Plant management's concern for this low performance resulted in an investigation which showed that there were comparatively few incentive employees at this performance of 119% and 120%. Rather, there were a considerable number of employees at 125% to 140% performance and another considerable number below 100% performance. From this investigation it seemed rather obvious that it was necessary to raise the performance level of all employees to at least 100%.

Management acted to get each incentive employee up to at least 100% performance, if possible, in the following ways.

1. They gave each foreman regular reports listing his men who were below 100% performance.
2. They talked to these low performance employees.
3. They rechecked incentive standards if they felt it necessary.
4. They gave warnings to low performance employees who did not show improvement.
5. They discharged some of the new ninety day probationary employees.

Following this action, the average incentive performance of incentive employees increased steadily and reached 127% in four months and 130% in ten months and stayed within 1% or 2% of 130% from then on (Table 26).

Although the average incentive performance of incentive

employees increased from 120% to 130%, there probably were few, if any, individual employees whose performance increased in the same way; that is from 120% to 130%. Rather, it was a case of getting those employees whose performance was below 100% up to or over 100%. The overall average increase was a result of this.

Another plant's management was concerned because of rather low average incentive performance of incentive employees. The resulting investigation concluded that foremen were keeping new employees past their probationary period (ninety days), even where their performance record during the probationary period did not justify their retention. The reason most commonly given was that if the employee was let go at the end of the probationary period, it would take one or two weeks to get a replacement and production was lost during that period. They acted to solve this problem by giving the foremen a record of each probationary employee's performance after thirty days, sixty days, and seventy-five days. This latter record was the last one the foreman would get on the particular employee and his decision to retain the employee or let him go had to be made on this record. This gave him a week or two to get a replacement before actually terminating the unsatisfactory employee. This action, along with action similar to that in the first example, apparently contributed

to a general increase in the average incentive performance of incentive employees over the following couple of years. These examples are provided to show the amount of administration and concentration needed by management to prevent demoralization or ineffectiveness of the incentive system.

A summary of steps taken in various plants to keep the number of employees with performance under 100% to a minimum at all times is as follows:

1. Provide each foreman with a list of employees with performance under 100%.
2. Check reason in each case.
3. Talk to those employees where a good reason is not apparent.
4. Watch probationary employees especially close so that low performance employees are not kept beyond the probationary period.

An effective methods audit program is essential to insure that operations are performed by the method established and as covered by the standard hour study. To be effective, the audit program must be a continuing one with the operations to be audited selected to provide coverage of all types of incentive work. The audit consists of a careful and thorough comparison of the method shown on the job detail and standard sheet with the method used by the operator. This is usually performed daily by the foreman.

Employees' time slips are audited periodically to assure

that:

1. Operations, parts numbers, incentive standards and labor grades are accurately recorded.
2. Proper factory accounts are indicated.
3. Allowances to occupational rate and average earnings conform to contract provisions.
4. The time reported is accurately recorded and properly approved by the responsible supervisor.

In addition to the above audits, special audits by departments are taken to determine the department's incentive performance and accurate administration of the incentive system.

Other special audits are also performed, a good example would be the one performed the summer of 1966 at one John Deere plant. The Incentive and Standards Engineering Department audited all current part routings against standard hour memos and job detail and standard sheets; 40,917 part numbers were audited which consisted of 140,460 operations. This audit took 6,050 man hours to complete. Approximately 20,000 discrepancies were discovered and corrected.

Another administration tool is the vast number of computer generated incentive reports. To provide the reader with an idea of the intent and extent of these reports a few will be reviewed.

The weekly incentive labor analysis is compiled to give a brief and comprehensive breakdown for all hours worked by incentive employees. The information described below is used

to inform and assist management in their efforts for maximum productivity or efficiency.

1. All productive or non-productive hours worked on incentive
2. Hours worked on operations and set-ups where incentive standards have not been set
3. Hours paid for delays
4. Hours earned on incentive
5. Hours paid to an incentive employee to bring his hours earned on incentive up to his hours worked on incentive
6. All hours reported as hours worked where average earnings are guaranteed

Another similar report, the incentive labor analysis, shows a series of progressive weeks with monthly totals. The current week is followed by accumulated totals.

There are also daily reports. After time slips are checked by clerks and foremen they are key punched for computer entry. The resulting report has thirty-seven error codes which are investigated by accounting. The information in error is corrected and another report is generated for use by industrial engineering in their daily audits of all departments.

Specialized reports are also generated showing only allowances to occupational rate and daywork taken by incentive employees. These are used by industrial engineering and distributed to shop supervision to enable more effective control of the incentive system.

All these reports are probably necessary for a properly administered incentive system, but add to the cost of administration. With a salary pay system the above reports could probably be reduced to one or two performance reports at a greatly reduced cost. To calculate the reduction in cost is beyond the scope of this paper. I only wish to point out here that pay system administration and control costs could be greatly reduced through adoption of the salary plan for production workers.

VI. SUPPLEMENTAL BENEFITS

Included in the present system of pay are a few additional plans which supplement the wage employees income.

A. Bonus

Year- end bonuses are rewarded in October on company prerogative using an unstipulated formula. These bonuses are not guaranteed or mentioned in the collective bargaining agreement. The bonus usually amounts to about one week's pay.

B. Supplemental Unemployment Benefits

John Deere uses the Ford-type SUB plan. For purposes of this plan, an employee is in active employment when he draws pay during any pay period, or is on disciplinary layoff, vacation, personal leave of absence, sick leave, strike, or military leave. At all other times a UAW bargaining unit wage employee is considered as laid off, as determined by the company. A layoff, for the purposes of this plan, includes any layoff resulting from a reduction in the work force or temporary layoff, or from the discontinuance of a plant or operation, or a layoff occurring or continuing because the employee was unable to do work offered by the company although able to perform other work in the plant to which he would have been entitled if he had sufficient seniority.

There are three types of benefits offered by this plan and the employee can receive any or all three depending on the circumstances involved.

The regular benefit means the benefit payable to an eligible employee for a week of layoff in which he performed no work for the company. He could also be eligible if he performed some work, but neither the period worked nor pay received was sufficient to disqualify him for a state system benefit.

The following is a summary list of eligibility requirements for a regular benefit as provided in the supplemental agreement between Deere and Company and the UAW (41).

An employee shall be eligible for a regular benefit for any week, if with respect to such week he:

- (a) was on a qualifying layoff, for all or part of the week
- (b) received a state system benefit not currently under protest by the company or was ineligible for a state system benefit only for one or more of the following reasons:
 - (i) he did not have prior to layoff a sufficient period of employment or earnings covered by the state system;
 - (ii) exhaustion of his state system benefit rights;
 - (iii) the period he worked or his pay (from the company or otherwise) for the week equalled or exceeded his Estimated State System Earnings Limit (hereafter referred to as ESSEL);
 - (iv) he was serving a "waiting week" of layoff under the applicable state system during a period while he has sufficient seniority to work in the plant but is laid off out of line of seniority. (This makes an employee eligible for a leveling week benefit for which he is paid SUB for the waiting week)

- (v) the week was a second "waiting week" within his benefit year under the state system, or was a state system "waiting week" immediately following a week for which he received a state system benefit or occurring within less than fifty-two weeks since his last state system "waiting week".
 - (vi) he was on layoff because he was unable to do work offered by the company while able to do other work in the plant to which he would have been entitled if he had sufficient seniority;
 - (vii) he failed to claim a state system benefit and his pay received or receivable from the company for the week such state benefit would have amounted to less than \$2.00;
 - (ix) he was entitled to statutory retirement or disability benefits which he received or could have received while working full time;
 - (x) he was denied a state system benefit and it is determined that, under the circumstances, it would be contrary to the intent of the plan to deny him a benefit.
- (c) has met any registration and reporting requirements of an employment office of the applicable state system;
- (d) had to his credit a credit unit or fraction thereof; (a credit unit means the units determining duration of an employees benefits which are credited to him generally by reason of his weeks of active service and cancelled at specified rates for the payment of benefits. The details of this system are complicated and not necessary for an understanding of the subject being discussed)
- (e) did not receive an unemployment benefit under any contract or program of another employer or

under any other SUB plan of the company (and was not eligible for such a benefit under a contract or program of another employer with whom he has greater seniority than with the company nor under any other SUB plan of the company in which he has credit units which were credited earlier than his oldest credit units under this plan);

- (f) was not eligible for an automatic short week benefit;
- (g) qualifies for a benefit of at least \$2.00; and
- (h) has made a benefit application in accordance with procedures established by the company hereunder (41).

The amount of the regular benefit is such that when added to the state benefit and other compensations will equal 62% of the employees weekly straight time pay, plus \$1.50 for each of not more than four dependents. For a John Deere wage employee this means the maximum he could receive, if he has four or more dependents, is \$109. This breaks down to \$46 from the company's SUB fund and \$63 from state benefits. The average regular benefit check for a John Deere wage employee during 1966 was \$40.39; in 1965 it was \$43.27; previous to 1965 the average was about \$30 to \$32. When leveling benefits are included the average payment increases to \$47.86 (Tables 9 and 19).

The drop in the company average from 1965 to 1966 was due to an increase in Illinois and Iowa state benefits. Although the company does not maintain any definite records as to the average length of layoff per employee, it is estimated to be

Table 9. Supplemental unemployment benefit payments for Deere and Company's eight UAW plants, 1966

Month	Regular		Leveling		Total	
	Number	Dollars	Number	Dollars	Number	Dollars
Nov-65	1911	81,039	87	5,265	1998	86,304
Dec-65	1554	61,692	34	2,549	1588	64,241
Jan-66	544	20,182	6	398	550	20,580
Feb-66	83	2,815	1	77	84	2,892
Mar-66	8	288	-	-	8	288
Apr-66	6	195	3	119	9	314
May-66	-	-	4	340	4	340
June-66	-	-	12	1,184	12	1,184
July-66	-	-	10	799	10	799
Aug-66	109	4,885	404	39,272	513	44,157
Sept-66	114	4,644	213	19,905	327	24,549
Oct-66	215	7,778	21	2,114	236	9,892
Total	4544	183,518	795	72,022	5339	255,540
Aver/Mo.	379	15,293	66	6,002	445	21,295
Aver/Em.	1	40.39	1	90.94	1	47.86
% of Total	85%		15%			

approximately thirty days. This means the average laid off employee received \$161.50 in regular SUB payments during 1966.

Total regular benefits paid in 1966 were \$183,518 (this total does not include \$72,022 paid in leveling benefits).

The special short work week benefit is a benefit payable to an eligible employee for a short work week (an employees compensated or available hours are less than forty) for which his company pay did not equal or exceed his ESSEL, or his period of work for the company was not sufficient to disqualify him for a state system benefit or waiting week credit.

An employee is eligible for special short week benefits for any week if:

1. During such week he performed some work for the company but had less than forty compensated or available hours;
2. with respect to such week his company pay and any company pay which he could have secured for hours scheduled for or made available to him but not worked did not equal or exceed his ESSEL or his period of work for the company was not sufficient to disqualify him for state system benefit or "waiting week" credit; and
3. with respect to such week he satisfied all of the eligibility conditions for a regular benefit except the requirement that such benefit amount to at least \$2.00 (41).

The special short week benefit payable to an eligible employee is an amount which, when added to the employee's state benefit and other compensation (excluding the amount of pay received from the company), will equal the product of the hours less than forty, counted to the nearest tenth of an hour, multiplied by: 1) 75% of his base hourly rate if

the short work week is scheduled; 2) 50% of his base hourly rate if the short work week is unscheduled. If the regular benefit is equal to or greater than the special short week benefit, the employee receives the regular benefit.

For an hourly worker, base hourly rate is his straight time hourly rate of record within 180 days preceding his last day worked. For an incentive worker, base hourly rate is his average earned hourly rate for the last four or the first four pay periods within 180 days preceding his last day worked. If an employee worked both on incentive and hourly during this 180 day period, his base hourly rate is computed as if he were an incentive employee. The base hourly rate includes the cost-of-living allowance and general wage increase in effect at the time of the benefit.

The automatic short week benefit is payable to an eligible employee for a short work week for which his company pay and any company pay which he could have received for hours scheduled for, or made available to him, but not worked, equalled or exceeded his ESSEL; or his period worked was sufficient to disqualify him for state system benefits or waiting week credit.

An employee is eligible for an automatic short week benefit if during such a week:

1. He performed some work for the company but had less than forty compensated or available hours;

2. he had at least one year of seniority as of the last day of the week;
3. he was on a qualifying layoff for some part of the week;
4. he was ineligible to receive a state system benefit only because his company pay and only company pay which he could have received for hours scheduled for or made available to him but not worked, equalled or exceeded his ESSEL, or his period of work for the company was sufficient to disqualify him for a state system benefit or waiting week credit; and
5. he did not have a period or periods of layoff in the week and in the preceding or following week occurring in such sequence as to constitute a "week of unemployment" (as defined under the applicable state system) which included some part of the week; provided, however, that when an employee returns to work for the company after a period of seven or more consecutive days of layoff with respect to which he has established such a state system "week of unemployment" he will be entitled to receive a partial automatic short week benefit with respect to any hours of layoff on days within the work week in which he returned to work which are not included in such established state system "week of unemployment".
6. An automatic short week benefit payable for a week shall be in lieu of any other benefit under the plan for that week (41).

The automatic short week benefit payable to an eligible employee is an amount equal to the product of the hours less than forty, counted to the nearest tenth of an hour, multiplied by 1) 75% of his base hourly rate, if the short work week is scheduled; and 2) 50% of his base hourly rate if the short work week is unscheduled. For the hourly employee, the base hourly rate is the highest straight-time hourly rate paid during the pay period in which the short work week occurs. For the incentive employee the base hourly

rate is his average straight time hourly earnings during the two work weeks prior to the short work week. The base hourly rate includes 75% and 50%, respectively, of the cost of living allowance, but excludes all other premiums and bonuses of any kind.

The company has no available figure on average short week benefits paid or the number of employees who received this benefit. The total short week (special and automatic) benefits paid in 1966 were \$151,392, \$32,126 less than regular benefits paid (Table 19).

The company makes these payments from a fund. If the fund is less than the maximum level, the company makes a contribution to the fund. This amount is determined by multiplying \$.05 by the total number of hours for which employees received pay from the company, or such a lesser amount as will bring the total market value of the fund assets up to the maximum funding (Table 18). The company is not obligated to make any contribution to the fund when the market value of the assets in the fund is equal to or in excess of the maximum funding level. In addition, the company is not obligated to make up any depreciation in the value of the securities held in the fund. If the fund should ever be exhausted, the company has no obligation to contribute until the next monthly pay period. Exhaustion of the fund is protected, however, by the credit unit cancellation

base (hereafter referred to as CUCB). This base is determined periodically by dividing the market value of the fund by the sum of the number of employees in active service plus those laid off with credit units. If the CUCB for any week is \$12.80 or more, but less than \$41.60, any benefit for the week (other than scheduled short week benefits) will be reduced by 20%, but in no event less than \$5.00. If the CUCB is less than \$12.80, no benefit for the week (other than scheduled short week benefits) will be paid.

The employer's contributions are considered a welfare plan cost, not wages, and are non-taxable. Employees have no vested interest in the assets or contributions to the fund, and consequently, some workers may never receive any benefits from the fund.

To review, this plan has a definitely predictable cost and represents a limited company obligation. Some important major aspects of the plan in relation to the guaranteed salary proposal are:

1. Coverage is limited by seniority requirements (one year seniority before being eligible).
2. There is a non-compensable waiting period before benefits begin, the first week of unemployment.
3. Benefit payments are limited to a maximum of fifty-two weeks.
4. Benefit payments are limited by the "trust fund position" and the number of credit units held by each employee.
5. Company contributions are set at \$.05 per hour worked

by every employee subject to the plan, are known and definite; they cease when the "maximum funding level" (a one hundred per cent trust fund position) is reached.

It is important to note that there are vitally significant limitations which surround employer liability.

VII. MANAGEMENT - UNION INTERVIEWS
CONCERNING GUARANTEED SALARY

A first hand view of key John Deere managers and UAW union officials opinions about the demand for guaranteed annual income was obtained through depth interviews. The interviews were conducted over a three month period in early 1967 and were recorded on a portable tape recorder.

A. Methodology

All of the managers interviewed hold key positions at John Deere Des Moines Works or Deere and Company. These managers are typical company men. They were chosen mainly because of their availability and my previous business association with them. Their responses were probably less biased than those of the union officials because of the more casual aspects of our relationship as employees of the same company.

The interviews were held with the following managers in their described positions.

1. Delno Brown Plant Manager, John Deere Des Moines Works
2. Earl Lynn Plant Superintendant, John Deere Des Moines Works
3. Ralph Gongwer Production Manager, John Deere Des Moines Works
4. William Bond Incentive and Standards Engineering Manager, John Deere Des Moines Works

5. Pat Rogers Manager, Industrial Relations, John Deere Des Moines Works
6. Robert Wolff Manager, Industrial Relations, Deere and Company
7. Eldon Zeigler Incentive and Standards Engineering, Assistant Manager, Deere and Company

Mr. Rogers, Mr. Wolff and Mr. Zeigler have a more direct connection with the collective bargaining itself. Consequently their responses are probably more nearly based on facts rather than opinions, and may tend to be more biased because of collective bargaining strategy.

Union official interviews were difficult to obtain. My intentions and plans for equal representation of management and union were thwarted by the informational security needs of the union and consequent "unavailability" of some union officials. It should be made clear here that these interviews were set up with the interviewer identified as an Iowa State Graduate Student, not as a former John Deere salaried employee. Appointments were arranged with UAW international representatives at Des Moines, Iowa and Moline, Illinois, but were continually cancelled at the last minute. One UAW union official in Moline said the day after I had interviewed the UAW Sub-regional Director in Waterloo, Iowa that, "We have been instructed by national headquarters not to discuss guaranteed annual income with anyone".

I received three cancellations of interview appointments with the Des Moines UAW International Representative. I was told by his secretary two months before negotiations were to begin that, "Mr. Roberts said that he will be far too busy to see you from now until negotiations with John Deere". Upon this rejection, the following letter was composed and sent to Mr. Roberts and Mr. Karpan on July 31, 1967.

Dear Sirs:

I very much regret not being able to get together with you. The interviews on the economic effects of guaranteed annual income will play an important part in my masters thesis. Without your participation, my results have more management responses than union responses, which tends to bias the findings. Mr. Carl Dahl provided excellent answers to my questions, so I am sure your responses would be equally helpful.

I realize you will be extremely busy from now until negotiations. If you ever find an extra hour sometime in the next month or so, even if it is on a Saturday or some evening, please give me a call and I will gladly meet with you.

Let me reemphasize that my thesis is a part of the requirements for a masters degree at Iowa State University and in no way is connected with John Deere. If there is any formally directed reason from the international union why you cannot talk with me, please let me know, for this would be useful in my project. Without your participation my thesis will be less exact and lose much of its significance.

Formal negotiations have begun and I have not heard from either man. This lack of participation forced me to cancel these planned interviews and consequently tends to limit the union responses. Seven managers and three union

officials were finally interviewed. No doubt this uneven balance will cause some bias to enter in the results.

The following union official interviews were cancelled:

1. Pat Greathouse Vice President, International
(due to illness) Union UAW
2. Robert Roberts International Representative UAW,
AFL-CIO Subregional Office, Des
Moines, Iowa
3. John Karpan International Representative UAW,
AFL-CIO Subregional Office, Des
Moines, Iowa
4. Donald Harris International Representative UAW,
(due to heart AFL-CIO Subregional Office, Waterloo
attack) Iowa
5. Kenny Hawks Subregional Director, UAW, AFL-CIO
Subregional Office, Moline, Illinois

The following union officials were interviewed:

1. Carl Dahl Subregional Director, UAW Subre-
gional Office, Waterloo, Iowa
2. Charles Mckenna President, UAW Local 450, Des
Moines, Iowa
3. Jacob Mincks Vice President, American Federation
of Labor-Congress Industrial Organ-
ization (AFL-CIO), Des Moines, Iowa

In addition to the formal interviews, I talked to a number of Local 450 members at John Deere Des Moines Works to gain their views on guaranteed annual salary.

The following letter was sent to all interviewees after an interview appointment was arranged by phone. This was done to orientate and pre-condition the interviewee to

my purpose and anticipated goals.

Dear Mr. _____:

The purpose of this letter is to introduce you in advance to the range of topics I hope we can cover in our forthcoming interview.

I need authoritative opinion and data on the economic implications of converting from a standard hour wage incentive to a salaried method of payment for production workers. The choice by management and union people between wage incentives and salary or guaranteed annual income is not clear cut. Much depends on the predominance and importance of the inherent advantages of each system. Wage incentives possess many advantages but not the preponderance claimed in the literature. The predicted union demands to change the method of payment in upcoming negotiations provides evidence of dissatisfaction.

I do not have preconceived hypotheses. I expect to formulate them after the interviews so that the interviewees' wealth of knowledge can be used. Your data and expert opinion will help in framing the assumptions and condition the conclusions of this thesis.

The first part of the study will stress present conditions relating to environment, management, and union relations at John Deere Des Moines Works. Next, process functions will be analyzed for both systems of payment. Since few salary systems for production workers are now in operation, most of the information in this area will depend on information (factual and opinion) that you can provide. Some process functions I had in mind are work measurement, incentive, administration, control, earnings, and supervisory.

I plan to use two measurements of effectiveness, labor relations and labor cost. How would the conversion affect management-employee and management-union relations? How would it affect labor efficiency and administration costs? Answers to these questions require your assistance.

I am looking forward to our interview and appreciate very much your willingness to see me.

As further pre-interview orientation, review of the present method of pay and the predicted future proposed method of pay was given orally from the information shown below. The same presentation was made to all the interviewees.

Pre-interview orientation

Present plan

Payment of wages is by the Standard Hour Incentive Plan, as existing and described in the present John Deere Des Moines Works and UAW Local 450 contract. Basically, this means employees are rewarded in direct proportion to their output; they are paid individual incentives for production hours above standard. SUB plans are in effect for employees on prolonged absence or layoff. Minimum guaranteed earnings for the job is equal to hours worked times the occupational rate.

Proposed plan

Salaried method of payment, or guaranteed annual income, is a contract of employment. The following assumptions will be made as to what the demand plan will be:

1. Maximum guaranteed earnings for the year is equal to occupational yearly rate (based on forty hours per week, fifty-two weeks per year).
2. Pay would be by weekly salary rather than hourly rate.

3. Employees must have five years seniority to be eligible for guaranteed annual income.
4. Absences due to health will be paid up to twenty-six weeks.
5. Personal convenience absences will not be paid except for the present five casual days. "Reasonableness" will be used in determining whether to pay for absences due to personal reasons.
6. Time off with pay is considered as hours worked for the purpose of computing daily or weekly overtime.
7. Employees on layoff will receive full salary minus unemployment compensation or full salary if unemployment compensation runs out.
8. Year end bonuses will be rewarded on a merit and seniority basis.
9. Standard hour incentives will be abolished in favor of higher income increases.
10. SUB plans will no longer be required, except for those with less than five years seniority.
11. All items under the plan are arbitratable except eligibility for state benefits.

Conditions of the interview

1. Feel free to state all the reasons for your answer.
2. Assume that you are analyzing the economic effects of the union demand for salaried method of payment in preparation for upcoming negotiations.
3. Assume salaried method of payment and guaranteed annual income are synonymous terms.
4. Assume "union" to mean the UAW international and its eight Deere and Company locals.
5. Assume "company" to mean Deere and Company and its eight UAW plants.

6. If you have any apprehensions or objection to a recorded interview the recorder will not be used.*

The most important aspect of effective comprehensive interviews is development of the questions. The questions are broken into two parts, one set is specific, the other general review.

The specific questions were asked first, under a formal interview atmosphere. After these were completed, the atmosphere was relaxed by stating "This is the end of the formal interview. Now let's just discuss a few general review questions I have". The purpose of the general questions were to allow the interviewer to review in his mind his feelings and to obtain any spontaneous responses which he might otherwise have suppressed in the formal interview.

Both union and management were asked exactly the same questions, in the same manner, except for question numbers eighteen, nineteen, and twenty, which were just asked to management. The questions were asked orally and a copy of all the questions was furnished each interviewee at the time of the interview. The interviewee was not permitted to see any of the questions until the time of the actual interview. This was done to enable spontaneous responses rather than planned biased responses.

*Only one manager objected to being recorded.

The questions were developed with both union and management in mind and were created to avoid any suggestion of a desired response. The entire interview took thirty to forty-five minutes and was recorded on a portable magnetic tape recorder. In order to tabulate the type of the response, a +, -, and 0 were assigned values according to the question. The plus code was assigned with the management response in mind, the minus code was assigned with the union response in mind, while the zero code was assigned for a neutral or no response. These code assignments were made after all the interviews were completed.

B. The Interview Questions

The following is a list of the questions asked and below each question the codes are shown with their assigned values.

Specific formal interview questions

1. What economically differentiates a blue collar worker from a white collar worker in the existing factory environment?
- nothing, + something, 0 no opinion
2. Should all blue collar factory operations be converted to salary?
+ none, - yes, 0 some
3. Will there be changes in the amount of labor's earnings?
+ lower, - higher, 0 no
4. How do you feel fringe benefits offered by management will be affected?
+ increased, - decreased, 0 same
5. Which plan allows more flexibility of operation?
+ incentive, - guaranteed annual income, 0 no change

6. What will be the effects on shop supervision in terms of employee motivation and number of employees per supervisor?
+ more employees/supervisor, - less employees/supervisor
0 no change
7. Will changes initiated and implemented by methods engineers become easier, more difficult, or remain the same?
+ easier, - more difficult, 0 remain the same
8. Will the amount and content of employee suggestions submitted under the company's formal suggestion plan be altered?
+ increase, - decrease, 0 no change
9. How do you feel the basic functions of Industrial Engineering will change?
+ less work, - more work, 0 no change
10. Do you feel there will be a change in the meaning of the time study function?
+ yes, - no, 0 no opinion
11. Will there be a shift in employee effort intensity and effort duration?
+ more, - less, 0 no change
12. Will production output per man and labor efficiency change in magnitude?
+ more, - less, 0 no change
13. Will there be a reduction, an increase, or no change in the amount of grievances filed per year?
+ reduction, - increase, 0 no change
14. Do you feel labor grades should be a management prerogative or established in the contract under the salary plan?
+ management prerogative, - in contract, 0 no opinion
15. Will anything happen to product quality under the proposed plan?
+ increase, - decrease, 0 no change
16. Will there be any shift in employee loyalty or individuality?
+ toward company, - toward union, 0 no change

17. Will the employee feel more, less or the same job security?
+more, - less, 0 same
18. What, if any, administrative functions and costs will be affected? How will they change?
+ affected, - not affected, 0 no opinion
19. Will the accuracy of certain management functions, such as production scheduling and forecasting, be changed?
+ no, - yes, 0 no opinion
20. Do you feel there will be any shifts in the emphasis of management concern, say from wage incentive control to realizing production objectives?
+ yes, - no, 0 no opinion

General review questions

1. Will the adoption of the salary plan offer an overall improvement over the present wage incentive plan?
+ yes, - no, 0 no opinion
2. Do you feel that a payment system needs some sort of individual monetary output incentive to maintain production output and labor efficiency?
+ no, - yes, 0 no opinion
3. How do you feel about the labor relations climate at John Deere. Will a change in the method of payments realize any changes in this climate?
+ good, - poor, 0 average
4. Do you feel the salary status will have any direct or indirect effects on union strength?
+ no, - yes, 0 no change
5. Do you think the union and the company are headed toward a collision course in upcoming negotiations?
+ no, - yes, 0 no opinion

C. The Coded Response Results

The results of the interviews proved to be very interesting and extremely valuable in pinpointing areas of management-union agreement and disagreement on the effects of

Table 11. Interview questions - coded response summary

	SPECIFIC QUESTION NUMBERS																	GENERAL QUES. NO.									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	-	1	2	3	4	5	+
Union Coded	+	2	1	3	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	1	2	2	2	2	2
Response	0	1	2	2	1	2	1	2	1	2	2	3	3	3	3	3	3	3	3	3	1	2	2	1	1	1	1
Mgt. Coded	+	6	4	6	5	1	1	4	4	5	6	2	2	2	6	3	5	5	5	5	5	4	2	3	4	2	3
Response	0	1	1	2	6	2	1	7	7	1	5	2	2	2	5	2	2	2	2	2	2	7	7	1	2	2	3

+no significant difference or similarity in coded responses
 -omitted from summary below
 *significant difference in coded responses

Summary of union-management responses

Explanation	Number of questions	% of total questions
Question responses show significant coded difference.	7	31.8
Question responses show significantly the same code.	13	59.1
Question responses show no significant difference or similarity	<u>2</u>	<u>9.1</u>
Total Questions	22	100.0

guaranteed annual income or salary. Although the questions were not designed for a "yes" or "no" answer, an interviewee's general attitude could almost always be assigned a code. Each recording tape was carefully reviewed. Attitudes were coded and tabulated; then the codes were summarized and classified as "union" or "management", depending on the interviewee's affiliation (Tables 10 and 11).

D. Summary of Interviewees' Comments and Opinions

In addition to coding attitudes, any pertinent and/or interesting comments were noted from the interview tape.

To gain a thorough understanding of the prevailing management and union opinion of guaranteed annual income and its effects, each question will now be reviewed with pertinent interviewee comments and opinions noted.

1. Specific formal interview questions, comments and opinions

1. What economically differentiates a blue collar worker from a white collar worker in the existing factory environment?

A majority of management and union interviewees agreed that there was an economic differentiation. To summarize all the responses, three general differentials were mentioned:

1. method of pay - hourly wage versus biweekly salary
2. type of work
3. fringe benefits

In the benefit area, the blue collar worker receives less health insurance benefits, does not draw sick pay as long, and has no contributory life insurance benefits. Most John Deere blue collar workers also pay \$5.00 monthly union dues, even though most of them come under the state right-to-work laws. Since the white collar worker does not work under contract, he has no employment or salary guarantee. The continuance of his employment is at the discretion of the company. The blue collar worker cannot be fired after the ninety day probationary period except for good and just cause, supported by substantial evidence, that can be proved, if necessary, in an arbitration proceeding. If the blue collar worker is separated or laid off, he is guaranteed separation pay and SUB. Therefore, the blue collar worker is guaranteed through the contract, more economic security than the white collar worker.

The white collar worker does not perform work that is of immediate economic necessity to the company. His functions are not as timely. Without the blue collar worker there would be no production and, hence, no product to sell to obtain income. The company could not function without the blue collar worker. The white collar worker attempts to add to the smoothness and "profitability" of the blue collar function. On the surface it would seem that method of pay

is the only economic differential, but presently there are other important differentials. When viewed as an overtime pay situation, method of pay no longer becomes a differential, but instead an hourly wage for both types of employees.

2. Should all blue collar factory operations be converted to salary?

A majority of the union officials thought that if the conversion were to take place, all operations should be converted rather than leaving some workers on wage incentives and changing others to salary status. Four of the managers thought no operations should be converted, while the other three thought that some should be converted. If conversion was necessary, management would like to change present hourly workers to salary and leave incentive workers on wage incentives, or give them a base salary upon which they could build incentive pay. Management admitted, however, that there were some incentive operations now that should be on salary because of limited incentive opportunity. They speculated that, on the whole, the incentive operations retained would be better off if certain types of work and consequent manipulations made to provide incentives were to be converted to salary.

3. Will there be changes in the amount of labor's earnings?

The union officials believe earnings would have to be the same or higher under the guaranteed salary plan to be

acceptable to the union in collective bargaining. They agreed that the members would not accept less earnings for the privilege of salary status.

Six of the seven managers assumed earnings would have to decrease. One manager stated, "Earnings would drop 20% to 30% for incentive workers because earnings could not be equalized without equalizing productivity. If the salary were based on average yearly earnings for each occupational rate, some would receive more earnings, but the greater majority would receive less". Another manager said, "A worker can't get the same pay on salary as incentive, his earnings must go down". Management seemed to base their belief on the preconception that productivity would decrease, while the union reasons the company must maintain the same or higher earnings. The union is on the initiative with the guaranteed salary demand and the company seems to believe the present plan is best. If the demand were accepted by the company, there would definitely be some price for the conversion. A good test to determine exactly how serious the union is about this demand is to see if they are willing to accept a smaller general income increase for the conversion.*

*General income increase means more money for hours worked. An overall income increase with guaranteed income would mean money for hours worked plus hours not worked which would be higher than present overall income.

4. How do you feel fringe benefits offered by management will be affected?

The union officials speculated fringe benefits would have to be higher to be acceptable to the union in collective bargaining. They did concede, however, that if the guaranteed salary did cost the company more, then there would have to be less improvement in fringe benefits. The general attitude of the Local 450 members is that they would have to think twice about taking a reduction in fringe benefits or take-home earnings in exchange for guaranteed salary.

The managers maintain that fringe benefits offered would have to be less due to the anticipated increased cost of the guaranteed salary demand. Although the cost of fringe benefits is predicted to be low this year, certain benefits would be affected by guaranteed salary. These include excused personal absence days, sick pay, disability pay, and the supplemental unemployment benefit plan. "It is doubtful that the union would buy something new at the expense of something they already have", a manager concluded.

Management concedes fringe benefits must rise, but by how much? One manager maintains if salary were to be adopted for blue collar workers, the only differential remaining between them and white collar workers would be fringe benefits. He believes white collar workers deserve more benefits because they usually have more invested in education and

self development. The only differential remaining would be fringe benefits and type of work.

5. Which plan allows more flexibility of operation?

The majority of management and union interviewees agreed the present incentive wage system would allow more flexibility in terms of manpower changes. Their reasons why the salary plan would be less flexible may be summarized as follows:

1. Workers would be held on the job when not needed because if full salary is to be paid, some sort of work for the company should result.
 2. Production schedules would have to be more accurate and relatively fixed. This would be more difficult because of less operator concern over pieces produced.
 3. Production schedules would have to be leveled off, which is difficult in a seasonal business.
6. What will be the effects on shop supervision in terms of employee motivation and number of employees per supervisor?

The majority of management and union interviewees agreed there would have to be less employees per supervisor and that supervisors would have to increase their use of motivational techniques. Management concluded that supervisors would have more responsibilities which would require higher skills and more training. Because the incentive system offers motivation, many supervisors have become lax in this area. "They would be forced to perform more objective

supervisory functions and it's quite likely many of our present supervisors couldn't handle this", says one manager.

A union official states, "It's going to take more supervisors to keep production going because the incentive worker will look for work to keep himself busy while the salary worker wouldn't in most cases". Another manager surmises that the number of workers would have to increase to get the same production, therefore, the number of supervisors would have to increase proportionately.

7. Will changes initiated and implemented by methods engineers become easier, more difficult, or remain the same?

The majority of the union officials conceive that methods changes would be easier because of elimination of worker fears that the method change is to make the product cheaper at his wage incentive expense.

The management consensus was that the methods changes would neither become easier nor more difficult. They agreed that methods engineers would face the same problems of resistance to change. "Incidence of methods changes could be lower because of more worker initiated changes, but the seriousness or gravity of the changes would be greater", suggested one manager.

8. Will the amount and content of employee suggestions submitted under the company's formal suggestion plan be altered?

The majority of management and union interviewees agreed there would be more employee suggestions if the guaranteed salary were adopted. It was concluded there would be more suggestions turned in on operation content because the operator would now formally submit changes. One manager states, "Under the present wage incentive system, suggestions are restrained because the worker finds he can make more money by simplifying the operation and receiving the wage incentive than he can from the suggestion award".

9. How do you feel the basic functions of industrial engineering will change?

Management and union interviewees agreed that basic industrial engineering duties would be reduced in magnitude, detail, rigidity, and intensity. They provided the following reasons:

1. The job of work measurement would still have to be performed to maintain control, although it could be less refined and accurate.
2. The emphasis would change from earnings control limits to performance.
3. Less emphasis would be placed on methods and motion analysis.
4. Disciplinary action, rather than reduced earnings, would become the penalty for low performance.
5. There would be less pressure on Incentive and Standards Engineering Departments, in the short run, to provide standards.

A more relaxed atmosphere in the Incentive and Standards Engineering Department would result, allowing attention to

more basic industrial engineering functions.

10. Do you feel there will be a change in the meaning of the time study function?

Managers and union officials concluded that there would be fewer operations time studied and more standard data used. They offered the following predictions:

1. The direct involvement of the time study would be reduced.
2. The standards could become more general with the industrial engineer taking over some methods engineering functions.
3. The basic work study method might have to change emphasis from what an employee could produce in a standard hour to what he could produce in a day or week.

The union officials believed the union time study man must be retained. His duties would be to determine whether the employee is assigned a fair work load and whether he can perform the designated job in eight hours at a normal pace.

11. Will there be a shift in employee effort intensity and effort duration?

Two thirds of the union officials surmised effort intensity and duration would increase. They believed that employee effort depends on factors other than money. Motivation is supplied by the supervisor and the employees' attitude toward the company and the job. "The same effort would be attained under the new plan if the plan was properly sold to the employees", said one union official.

All the managers thought effort intensity and duration would decrease. A majority believed the employees would not work as hard because the job standards would not require them to. One manager maintained that effort intensity would be less which would allow effort duration to increase. "But, in order to maintain duration, the employee must be kept on the job, a function the wage incentive now performs."

12. Will production output per man and labor efficiency change in magnitude?

Managers and union officials agreed that output per man and labor efficiency would be reduced under the new plan. It is interesting to note that union officials have contradicting opinions between questions eleven and twelve. With the same effort intensity and duration, how can production and labor efficiency be less? Their answer was that under the new plan, standards would only demand 100% performance rather than the present expected 135% performance. Therefore, effort and intensity would be the same relative to the standard demands, but output and efficiency would be reduced.

The overall consensus was that employee performance, and consequently output, would drop 30% immediately and probably average somewhere around 100% or 105% in terms of present standard hour plan criteria. One manager said that efficiency of present hourly machine maintenance workers is 60% to 65% performance and if production workers were on salary

their efficiency would tend to be the same. Another manager expressed the view that proper morale, and therefore productivity, has nothing to do with the pay method.

13. Will there be a reduction, an increase, or no change in the amount of grievances filed per year?

Both sides agreed that the number of formal grievances would be reduced because of the elimination of incentive grievances. Management and union officials agreed that grievances on disciplinary action would increase because of greater use of discipline by foremen. "Average earnings grievances would be eliminated, but job classification grievances would increase", predicted one union official.

14. Do you feel labor grades should be a management prerogative or established in the contract under the salary plan?

The majority of managers and union officials concluded it would be necessary to establish salary labor grades and occupational rates in the contract. (Presently salary labor grades are available only to middle and high management.)

15. Will anything happen to product quality under the proposed plan?

Union officials responded that quality would increase while the majority of managers felt there would be no change. Union men thought that if there is less pressure and emphasis on making incentive earnings, greater concentration can be given to quality. Scheduling would have to allow more lead time under the new plan. This would mean a longer

period in which to produce a higher quality part or assembly. The union men were of the opinion that fewer inspectors would be required under the new plan. Most managers said presently there is now no relationship between the amount of scrap and high incentive earners. Therefore, quality probably would not change. A few managers predicted lower quality. Their reason was that present incentive standards provide more and better defined measures of quality, and because these standards now determine their pay, operators follow them.

16. Will there be any shift in employee loyalty or individuality?

A majority of management and union interviewees concluded that there would be no shift in employee loyalty toward the union or company. The president of Local 450 estimates the present union-company loyalty ratio is sixty to forty. A manager agreed that the wage employee loyalty favors the union quite a bit. One manager had an interestingly different opinion. He had recently visited Aluminum Company of Canada. He stated that they found their employees to be much more loyal to the company and that the union had few functions left. He claimed, "Alcan found that their salary plan removed many areas of friction that provided the union with a purpose." He speculates that in the long run, the employee will become more company orientated.

All interviewees agreed that the incentive system promotes individuality and that this quality would be stifled somewhat under the salary plan. One union official stated that members expressed to him the idea that a salary plan would allow them to think more for themselves instead of being guided by rigid standards.

17. Will the employee feel more, less, or the same job security?

Both management and union officials said that employees would definitely feel more job security through the annual guarantee. A union official stated, "The elimination of layoff concern would enable an employee to accurately plan a yearly budget". The same union official believed that many workers become frustrated and insecure under the pressure of the incentive system. "Elimination of the incentive system would attract more labor to John Deere because they could be more secure." A manager pointed out that those with less than five years seniority would not be eligible for the guarantee and that John Deere seldom lays off employees over this seniority level. He also noted that at first the company may have to trim labor because of the higher cost of the salary plan, which would adversely affect job security.

18. What, if any, administrative functions and costs will be affected? How will they change?*

A majority of managers interviewed thought the following administrative functions and costs would be affected by adoption of the salary plan.

1. Time slips, which report the daily work, would be simplified.
2. There would be no need for wage employees to punch a time clock.
3. Paper work would be reduced for accounting and industrial engineering.
4. No ready barometer, available with the incentive plan, could be used to determine slipping of work force control.
5. Tighter auditing would be needed on standards and production.
6. The number of foremen would have to increase. The new and existing foremen would need greater supervisory abilities and therefore more training in motivational techniques.
7. More capital investment would be needed because of less efficiency from machines.
8. More maintenance workers would be needed.
9. More staff workers would be needed.

A few managers thought administrative functions and costs would not be affected, but did not provide any reasons.

*Questions eighteen to twenty were asked to managers only.

19. Will the accuracy of certain management functions, such as production scheduling and forecasting, be changed?

Most of the managers interviewed were of the opinion that the following management functions would be affected.

1. More accurate forecasting, and fewer last minute changes would be required from branch house distributors.
 2. Sales departments would be required, in turn, to balance their requirements and have better control of their inputs.
 3. Production departments would need to balance out their schedules over the entire year to reduce employment fluctuations.
 4. More lead time would be required to produce parts.
 5. Difficulties would arise in accurately predicting the production pace.
20. Do you feel there will be any shifts in the emphasis of management concern, say from wage incentive control to realizing production objectives?

All the managers who offered an opinion concluded there would be a shift of concern from wage incentive control to production output control. They stressed the need for better labor cost analysis reports to replace the ones now generated by the incentive system. They also supported the need for production worker appraisals to replace the present detailed daily wage incentive reports.

2. General review questions, comments and opinions

1. Will the adoption of the salary plan offer an overall improvement over the present wage incentive plan?

This is the only general question on which managers and union officials strongly disagreed. All union officials interviewed believed the guaranteed salary plan would offer an improvement. All company managers interviewed believed the present wage incentive plan was best.

One manager said, "From the viewpoint of the company, abandonment of the incentive system would be impossible." Another manager stated, "Abolishing the incentive system is the worst thing that could ever happen to us". A third manager concluded, "100% SUB with the incentive system, yes; guaranteed salary without the incentive system, no!".

A union official sums up the overall situation nicely,

"The union could strike John Deere for years and the company wouldn't get rid of the incentive system. In the short run no incentive system means lower earnings, which would cause bitterness. If production dropped 25% it would mean that more workers would be required, which would increase the company's cost, cause profits to drop, and leave a smaller cut of the pie for the union."

"The union has made a great contribution to peoples' lives. But trying to convince the incentive worker of this is a difficult task for the union. These workers are more interested in the short run incentive system gains in terms of money. Because of this difficult task and the gains in the physical-human elements, I think hourly workers should first be converted to salary and after the incentive workers realize the advantages, convert them."

2. Do you feel that a payment system needs some sort of individual monetary output incentive to maintain production output and labor efficiency?

All the managers and all but one union official think

that output incentives are needed. They reason that since John Deere has the incentive system that any change now would be difficult or impossible. Once the employees experience a direct monetary reward for extra individual effort, it is impossible to remove this reward and expect the same production and labor efficiency. The responses to questions one and two reflect an interesting contrast. The union leaders conclude the salary plan would be an improvement over the wage incentive plan, but in relation to the John Deere environment, the incentive worker needs the individual reward to maintain performance. They like the proposed plan, but they are afraid that certain members will not want to sacrifice their incentive benefits for it. A manager speculated that the company could drive a wedge between the local and national union on this issue.

3. How do you feel about the labor relations climate at John Deere. Will a change in the method of payments realize any changes in this climate?

A majority of managers and union officials believe that labor relations is good at John Deere and probably would be affected by adoption of the salary plan. The following are some management opinions:

1. The loss of incentive earnings would cause employees to be more concerned over price or the occupational rate of the job, rather than the standard.
2. The transition would cause problems of work force control.

3. Control would change from the incentive system to direct foreman surveillance. "Foremen breathing down employee's necks would be bad for the labor relations climate", explained a manager.
4. Contract changes would be extensive. It would take a long time to work out all the changes needed and for the employee to become familiar with and accept the changes.

The union officials thought there would be fewer labor relations problems because of abandonment of incentives.

4. Do you feel the salary status will have any direct or indirect effects on union strength?

Most managers and union officials thought there would be no effect or change. One manager speculated that salary status might weaken the union since there would probably be less strife under the salary plan. He said "A union stag- nates, except in an atmosphere of strife." Another manager conceived that the union might weaken because of fewer grievances and less "rally force", but admitted probably no change would occur.

A third manager surmised salary for union blue collar workers would be the first step to encroachment by the union into white collar jobs. He speculated that once salary status was attained by present union members there would be little left to differentiate the white collar workers, so the advantages of the union contract might become appealing to them. This could increase the quantity and status of union membership and consequently, its strength.

5. Do you think the union and the company are headed toward a collision course in upcoming negotiations?

Both managers and union officials were split in their opinion. Sixty-six per cent of the union officials thought there would be a strike, while 45% of the managers thought a strike might occur in October, 1967. The general opinion is that negotiations are going to be "rough".

One union official said, "There is a new element of members who have never experienced a strike and feel they must strike to get it out of their systems." A manager states, "If a strike did result over guaranteed salary, it would not be a popular strike at the local level." Another manager thinks that union and management enjoy a mature relationship. "The union knows how far the company can go on this issue, they won't try to break the company."

VIII. EFFECTS OF GUARANTEED SALARY AT THE COMPANY LEVEL

In the foregoing pages, the interview data and opinions of directly involved people have been presented. I will now attempt to formulate and summarize my own ideas and opinions in some of the critical areas that could be affected by the proposed guaranteed salary.

A. Productivity

Of primary importance is the potential influence of salaries on progressive improvement of productivity.

It is an ordinary charge that one of the major effects of unionism is to organize the restriction of production. This may or may not be true. The basic cause of the restriction of output is the belief that failure to restrict inevitably increases insecurity. Most workers think that there is a given amount of work to be done; that the more quickly the work is done, the sooner will unemployment or layoff result. Consequently, the worker's primary protection against reduced earnings is to limit output. The company is presently of the opinion that wage incentives more than offset the phenomenon of limited output. This could be true. But it seems that at some point earnings must leave off and security must take over. It has been found in many studies that security places higher on the

list of workers need than wages (3,8,12,19,26,47, and 48).

In a company with approximately 20,000 wage employees there are persons of all backgrounds, motivations, predispositions, and tendencies. Therefore, the increase in security, resulting from salaries, would lead some workers to loiter, become lazy and in general produce less than they did under previous conditions. Many individuals would permit the assurance of a full year's pay to slowly erode away their personal initiative and cause them to perform at a minimum level whenever possible for as long as possible.

But, what is important is the aggregate effect. Generally speaking, an advance in security ought to have the same general effect as wage incentives on production. All the more so in the case of salaries which assures the senior worker against the loss in average yearly income that might otherwise result from any improvement in output. It will be assumed that the effect of security on workers in the aggregate is to lift, rather than limit, production and the degree of increased security. An additional contribution to productivity may arise from the fact that because of increased security the quit rate under salary is likely to

decline, thus reducing the cost of turnover.* Whether the motivation through increased security will more than offset the motivation that was supplied by the wage incentive would be difficult to predict. Even if the carrot of a year end bonus based on merit rating and seniority were adopted, production performance would probably not be much over 105% compared to the present 135%. Increasing efficiency by eliminating the disincentive, or motivational drop produced by the fear of job loss, often is more effective than instituting new incentives.

If, on the other hand, productivity of the company should be adversely affected, the very source of the employees' long-term security would be worn away. Without ever-increasing productivity through the more efficient use of machines and manpower, the company's economic progress would be stifled.

B. Loyalty

The all-on-salary plan under certain conditions develops close employee identification with the company, its goals, and its welfare. Tangible proof is provided by International Business Machines, Gillette, Cannon Electric and Alcan

*Employees with five years seniority would experience the immediate effects of increased security from salary. Employees with less seniority would want to remain employed to attain the security offered to his seniors. The company would not be reluctant to layoff these less senior employees because this cost would not be much greater than it is now.

where salaries now exist. Generally, they found more loyalty to job, to supervisor, and to fellow workers in the organization. Where a union was involved, they noticed a shift from more union loyalty to more company loyalty (13 and 21). Cannon Electric was "delighted" by the many tangible indications of employee identification with corporate goods (21). In 1962, little Sabo Machine and Tool Works in Buffalo, New York, put a salary proposal before the UAW local with which it bargains. It was quickly accepted. C. Taylow Kew, assistant to the president, said, "We figured that putting production men on salary would give them a better feeling of being part of the company" (21).

Labor relations at John Deere are excellent, according to Robert S. Wolff, Director of Labor Relations for Deere and Company. This is evidenced by few grievances and no arbitration cases in almost two years at the Des Moines Works (Table 6). The conditions are probably right for increased company loyalty at Des Moines Works and other John Deere plants through the adoption of salaries.

C. Status

Company loyalty is rooted in status. The ratio of white collar workers to blue collar workers is steadily rising and with technology advances forcing the upgrading of the industrial work force, management and union are feeling the pressure of worker's expectations for increased

status (48).

Between 1953 and 1963 blue collar employment remained at about the twenty-five million level. During the same period the number of white collar jobs increased from twenty-three point six million to thirty point two million, a gain of 28%. Production workers in manufacturing industries declined from fourteen point one million in 1953 to twelve point six million in 1963. At the same time, the civilian labor force increased by more than nine million (48).

The company has been anxious to recognize the increased importance of skilled workers by affording them the same employment arrangement as other employees. It has struck them as somewhat incongruous that their skilled maintenance (no incentives) and operating people should receive income on an hourly basis, while relatively unskilled clerical people enjoy salary status (45).

The union thinks pay by the tenth of an hour denies the dignity of man and degrades him to a status of less importance than the machines he services. Wages treat the physical and mental effort of human beings at work as a commodity to be used or cast aside at will (35).

The best way to upgrade the status of production workers is to reduce the differences in the way they and white collar workers are treated. However, the relationship of former wage paid workers on a salary basis with white collar

workers in traditional salaried jobs could be one of contention. In many cases, white collar workers are content with smaller yearly incomes than most blue collar workers earn. This is because of the normally accepted salaried job privileges, such as full pay during absence for sickness or personal business and the belief of greater opportunities at increased salary in the future.

Should blue collar workers achieve salary status, especially on a yearly contract basis, the resentment of white collar workers would probably be shown in demands for more pay, the same guarantee of annual income, plus new benefits, in order to maintain their traditionally higher social status. Such demands would increase the company's costs.

The blue collar worker would have more security than the white collar worker, but would still lack a certain social status connected with the white collar worker. Is this subjective security sufficient for the white collar worker to feel differentiated from the blue collar worker? Maybe the white collar worker will seek unionization to ensure an economic security the same as those now unionized? These and other questions in this area are difficult to answer.

With salaries for production workers comes status, but this also means more responsibility. The company shows its genuine trust and faith in the employee as a productive adult,

and at the same time, assures him reasonable economic security through salaries. The employee on the other hand, must now accept this responsibility through self motivation to make his contribution to the success of the company.

D. Security - Financial and Employment

Security was mentioned briefly in connection with productivity, but needs more expansion at this point. The worker's greatest worry is probably the fear of losing his job or his place in the "picking order" of his informal work group (22). Among his goals is a standard of living equal to that of his best suited associates, a standard that assures him against intermittent poverty. Workers who are purchasing homes and participating fully in the consumer credit boom place a great value on stable incomes. A man's economic well-being is determined not by his daily wage, but by his earnings over a period of time. Regularity of income is necessary for satisfying his economic needs, which arise daily, for the whole year. Only in this way can a worker pursue a stable and secure life, plan ahead, and develop himself fully. But, while the worker sees one form of his security as financial or in his pay envelope, salaries can be meaningful only as productive employment continues and gives adequate goods and services that are purchasable with pay checks. To realize the promise of a valid, regular, continuing pay check, the worker's attention must inevitably

be directed toward the company.

Fifty-two pay checks per year would result in no loss of pension credits, giving the worker another aspect of financial security.

A philosophical question to ask in relation to financial security is: Should a man who doesn't work receive as much money as the man who does?

Of course there is also the concept of employment security. A distinction needs to be made between two aspects of employment security. One is reflected in continuing employment on a given job. The other lies in the opportunity to find one's best niche as an employee, without being barred by guarantees which solidify the existing labor force against outsiders. Taking on additional employees would mean additional guaranteed overhead cost obligations. It would also probably mean a longer "break-in" period because of the lack of monetary incentive motivation. The result would be caution in hiring and the freezing of employment among the older generation of workers. It would, in that respect, hamper company opportunities to hire younger workers looking for their place. The company would probably prefer to offer large amounts of overtime to existing workers before opening the ranks to new employees. Security would result for those in the company's labor force, but make it more difficult for those seeking opportunity to get in.

The pressure to get by with fewer workers takes other forms. For example, in the sugar industry considerable mechanization has taken place while salaries were present. As a result, no new workers have been hired for the last five years (30). Naturally, this means reduced training costs for new employees. If a company speculates that it will not have a full year of employment for an individual, then he is laid off at the end of the guaranteed year and his remaining work is allocated to more senior employees on an overtime basis. The only solution for this defect is for the union to demand longer guarantees. But, such an alternative would only increase the company's inclination to use less labor.

There could be a troublesome problem with security through seniority. Traditionally, seniority was intended to assure workers with the longest service first chance at available jobs. But with salaries, those with the greatest seniority may want the first chance to be laid-off in a downturn or seasonal fluctuation since there would be no loss of income. This would clash with present state laws that require layoff to be involuntary before workers can receive benefits.

E. Absenteeism

A typical hypothesis with guaranteed salary is that it causes an increase in absenteeism. However, empirical evidence does not prove this hypothesis to be true. The National Industrial Conference Board study, mentioned earlier (48), showed that of thirty-one companies making studies of absenteeism before and after salary programs were begun, only three reported workers stayed off the job more often. Five said their absentee rate actually dropped and the rest could discern no long-term change in the rate.

One of the three companies showed a rise in absenteeism records and only a "slight" increase in the number of sick days taken. The remaining two companies do not indicate the extent of the increase. Five companies reported a general decline in absenteeism, but only one of them indicated its extent; absenteeism was 8% lower than it had been during the year before the conversion was made.

Three companies that changed all employees to salaried status carefully monitored absenteeism rates on a monthly basis. They noted that for a period of three to six months after the conversion, absenteeism rose slightly but dropped back to its normal pattern by the year following the transition.

On balance, it appears that in companies studied which have small groups of blue collar workers paid on a salaried

basis, their absenteeism rates tend to be about the same as white collar workers and in a large part lower than their remaining hourly paid counterparts. However, this difference may well be due to the general characteristics of the salaried blue collar work force - its stability, length of service, and skill education level, rather than to the salary system itself (48).

IBM claims there was a brief spurt of absenteeism immediately after its move to blue collar salaries, but that the rate soon returned to normal. The rate of absenteeism among former hourly employees is now approximately the same as for employees who have always been on salary (21). Gillette actually experienced a drop in absenteeism after installation of its salary plan, although not substantial enough to be statistically significant (13). Cannon Electric Company finds absenteeism rates for production employees in their two non-union divisions on salary far below those of other manufacturing firms whose employees are on clocks. In one of these two divisions, plant employees regularly show a better attendance record than do their brethren who have traditionally been on salary. However, in the company's third UAW unionized division, three times as much absenteeism is often experienced (21).

From the above evidence it can be stated with some assurance that in the long run, on the average, absenteeism

will not increase for the company due to adoption of salaries for everyone. However, there will probably be a small hard core of violent anti-company workers who would take advantage of their position for absence and create problems for all the workers. This policing problem for both the union and management would require continuing work and probably arbitration to keep peace within the working groups. The supervisor could now be "hard nosed" about these hard core groups since under the salary plan they would be paid for more than five personal absences, while presently they are not.

F. Administration

1. Industrial engineering

The industrial engineering and time study functions are more formal with incentives than with salaries. The present performance rating is based on the industrial engineering concept of normal. Where earnings and effort inequalities exist it is difficult for the industrial engineer to maintain a consistent concept of normal. With salaries, standards would have to exist for control purposes. However, non-standard conditions could now exist and be a function of technology instead of "necessary" plant coverage. Set-ups are more efficient in the incentive system. With salaries the set-up would be measured on a burden basis. A yearly ratio of set-up to productive time could be established for

each labor classification. However, in the companies' job shop type atmosphere, work measurement on each set-up is important since set-ups comprise so much of the elapsed time. Under salaries, more standard data could be applied. Presently some operations cannot be standardized sufficiently to use standard data and pay an incentive.

Industrial engineers under an incentive system are normally better trained in time and motion study than those under a salary system (14). The size of the industrial engineering department is not completely a function of wage payment, but is also a function of the company's type of technology. A job shop state of technology needs more industrial engineers (Table 20).

2. Production

Under incentives, management is more concerned with focusing its attention primarily on controlling the wage payment system and not directly on increasing output.

Under incentives the employee's effort is self directed within the framework or regulations as prescribed by the system; salaries would require skillful management and new or greater use of present techniques. Techniques that could be used or expanded are work backlog, pacing, selection, training, placement, competition, mass appeals, precedent, relating salary increases to performance, transfer, disqualification, and discipline.

Quality of production is more a function of employee's and supervisors' attitudes than the existing type of wage payment system.

The incentive system emphasizes performance; the salary system emphasizes efficiency. Performance emphasis causes foremen to be preoccupied with acquiring extra production standards and allocating elapsed hours into non-productive accounts. The primary objective of the salary foreman would be to improve operating results and methods of achieving these results. Under the company's incentive system, the number of employees per foreman averages thirty to thirty-five. It is probable that a company can get a given output with "poorer" foremen under an incentive system than under a salary system.

3. Industrial relations

Grievances in a salary situation would be more intensive and troublesome since discussions regarding them would often be focused on effort. Under incentives, the discussions are focused on earnings which is not as nebulous a subject. Pressure on the salaried employee to reach an agreement would not be as strong since it would cost him nothing to prolong the dispute. An incentive employee could suffer through reduced earnings.

4. Summary

The following is a list of some of the inherent advantages in administration of incentives and salaries for production workers.

Incentives

1. They provide a thorough barometer of earnings which enables management to appraise how effectively it is analyzing methods and establishing production standards.
2. The work measurement function is more sophisticated:
 - a. time study is detailed and exactly accurate
 - b. non-standard conditions are easily measured
 - c. set-ups are measured specifically
 - d. industrial engineers are better trained
3. Eliciting effort is self directed as prescribed by the system.
4. Changes are more rapidly assimilated both in introducing new employees to existing jobs or adjustment of regular employees to changed operations.
5. Less discipline is needed to secure employee effort.
6. Grievances and disputes over employee effort are individually less troublesome.

Salaries

1. Management has more freedom in administering the work measurement function. Management could establish standards, determine the type of standard, or revise standards more at its own discretion. The basis for work measurement (standard data or informal time study) and the extent of change needed to require retiming would be established at management's discretion.

2. The scope of work measurement could be extended to more factory operations.
3. The scope of work in industrial engineering could encompass cost reduction as well as work measurement.
4. No earnings inequalities would exist.
5. Management could put more emphasis on realizing production objectives than on control of the wage payment system.
6. Changes by methods engineers and employees could be more frequent and acceptable.
7. More emphasis by management on efficiency than performance (that is; on factors affecting utilization of labor rather than solely the factor level of effort) could result.
8. Management could be more flexible in establishing and changing man assignments and machine operating speeds.
9. Fewer grievances would be incurred over industrial engineering standards.
10. The collective bargaining agreement would contain fewer provisions dealing with employee effort.
11. Employee advancement would be more orderly (assuming guaranteed salaries would eliminate the bidding system).

G. Cost Estimates

What effects will a guaranteed income or salary plan have on costs for the company? This section does not provide a sophisticated depth study into the subject of costs because of the complexities of the present and proposed plan, the time limitations, and the unavailability of necessary data. However, an effort has been made to provide some idea of the areas that need to be considered. In some cases a

short investigation into actual costs has been attempted.

In order to determine as accurately as possible the increased costs for the company, realistic models would have to be built and programmed for computer analysis. Real economic situations, based on assumptions about such variables as number of layoffs and employment levels, could be represented by models with simulation and summary provided by a computer. But this more precise method of cost analysis would require a lengthy study in itself.

For the present analysis, costs are divided into: 1) manpower costs, 2) administration costs, 3) labor earnings, and 4) temporary unemployment costs.

Any estimate of potential cost of a guaranteed salary plan must be derived from an analysis of past employment experience using the assumption that the firm, in the past, had been operating under such a plan. The question must be asked; How much would have been added to costs had the firm been obligated to meet provisions of a given plan? Two points should be noted: in deriving an estimate of what the plan is likely to cost, account should be taken of the possibility that past employment experience would have been different if management were operating under such a plan. Secondly, the extent to which the estimate is valid for the future depends on how closely employment conditions in the future approximate those of the past. Therefore, if the

analysis takes these considerations into account, one might end up, not with a single figure of potential cost, but rather with a range of costs within which the actual cost is likely to fall.

1. Manpower costs

In this age of high employment, voluntary changing of jobs is one of the most important causes of labor turnover. Labor turnover raises production costs because of losses in output when less workers are available for essential operations, and because of lower productivity of inexperienced labor. A reduction in the volume of turnover, due to guaranteed salaries would result in distinct economies to the company by increasing aggregate productivity, apart from any change in the level of productivity, of workers of given experience and training. It also eliminates the losses which arise out of hiring and breaking in new workers.

Through bidding and other procedures, the union limits the company's right to transfer workers. Employees find these provisions useful in protecting the wage structure they have built up and in assuring that jobs are not arbitrarily abolished. On the other hand, management needs to maintain a flexible labor force to meet with variables. A salary would protect employees even though it could remove the limitations on personnel transfers which were thought essential to protect labor standards. This increased

flexibility could aid in reducing manpower costs. It may also allow production scheduling to take advantage of the reinforced employment stability.

Since collective bargaining would center around annual earnings rather than hourly rate, manpower costs would become stabilized in relation to productivity, assuming productivity remained constant. Control of production could still be maintained by measured daywork. Relative stability in manpower costs is important to any business in the planning of its production and sales, and in securing and maintaining its position in a competitive market.

Some of these effects of salaries would be realized in a short time; others would become significant only over a longer period of time. The effect of labor turnover and reduction of training costs would be felt in less than a year. The benefits of ability to make transfers and the advantages of stabilized manpower costs would require a longer period of time and some serious planning. John Deere has a high wage bill in comparison with total costs (In 1966 \$147.3 million versus \$858 million from Tables 1 and 18), therefore they run more risk in adopting salaries than a firm with a small wage bill. Manpower cost would not immediately be as low as it is under incentives, but after awhile an improvement could well result.

2. Administration costs

To place a dollar and cent figure on administration cost is difficult. The added and reduced administration functions have already been mentioned. In most cases the additional administration costs imposed by guaranteed salaries would improve the company's present administration. To mention a few added functions in review:

1. Additional training of supervisors in motivational and disciplinary techniques
2. More supervisors
3. Closer audits of worker production and performance
4. Greater production lead time
5. More accurate sales forecasting

An added fixed cost would also be incurred in converting to the new plan.

Reduced administration costs would result through:

1. Fewer grievances (Table 6)
2. Elimination of the complex SUB plan
3. Fewer industrial engineers (Table 20)
4. Less time to set standards
5. Reduced accounting department auditing
6. Elimination of complicated daily time slip reporting

The Eddy-Rucker-Nickels consulting firm estimated and summarized per cent increases or decreases in administration costs of the two methods of pay considered over a unmeasured

daywork type of operation (38).

Table 12. Administration cost comparison

	<u>Present</u>	<u>Proposed</u>	<u>Change</u>
	Stan. hr. incentive wage	Guar. annual salary with measured day work	If proposed plan adopted
General relative cost to develop and install plan in % of annual direct labor payroll+	15%	<u>-3%</u>	<u>+12%*</u>
General relative cost to maintain plan in % of annual direct labor payroll+	9%	1%	<u>+ 8%</u>
Net savings the first year			+ 5% or \$7,115,000

*This cannot be considered a savings since the incentive plan is already installed at the company.

+Based on 1966 straight time earnings for Deere and Company's eight UAW plants.

From these figures it can be seen there is a relatively small installation cost and a very small cost of maintaining the salary plan. Although this table was established as a universal estimate, it could well be applied to the company cost analysis.

3. Labor earnings

What is the difference between the present and proposed plan in relation to hours worked and consequently labors' earnings? The choice was to analyze labor's earnings cost from an effective hours worked standpoint. Incentive and non-incentive work distribution and performance of employees on this work were multiplied by the hours they actually worked to arrive at effective hours worked. The results of my analysis are shown in Table 13. It is concluded labor earnings would be reduced \$12.5 million a year. This figure is based on the following assumptions:

1. Direct labor produces at 65% of the normal rate when not on incentive and 135% of the normal rate when on incentive.
2. Indirect labor (toolmakers, maintenance, etc.), which is never exposed to incentives, presently produces at the same rate as direct labor when not on incentive.
3. In the absence of incentive, direct labor will average 100% - 105% of the normal rate, due to increased job security, removal of the discouragement of not having all work on incentive, better trained supervision, etc.
4. The reaction of indirect labor to guaranteed annual salary will be a rise of 35% - 40% in performance due to increased job security, better trained supervision, etc.
5. The figure of 135% of normal production rate presently represents "real" hours and a consequent loss of 30% - 35% in productivity of sellable goods.
6. Earnings for incentive workers could not fall below the present average straight time hourly earnings.

Table 13. Hours worked analysis - salary versus incentive and non-incentive work (based on June 1967 earnings figures for Deere and Company's eight UAW plants)

Analysis of hours worked in June 1967 - Incentive and non-incentive

	A.	Percent of total hours worked by incentive employees = 40.4%
	B.	Percent of total hours worked by non-incentive employees* = 59.6%
	C.	Total hours worked (June 1967) = 4,750,542
(AxC)	D.	Total hours worked by incentive employees = 1,919,219
(BxC)	E.	Total hours worked by non-incentive employees = 2,831,323
	F.	Average percent performance by incentive employees = 135%
	G.	Average percent performance by non-incentive employees = 65% (estimated)
(FxD)	H.	Effective hours worked by incentive employees = 2,590,945
(GxE)	I.	Effective hours worked by non-incentive employees = 1,840,360
(H+I)	J.	Total effective hours worked = 4,431,305
(H-I)	K.	More effective hours worked by incentive employees = 750,584
(K/J)	L.	Percent more effective hours worked by incentive employees = 41%

Projected analysis of hours worked in June 1967 for salary work replacing non-incentive work

	M.	Average percent performance by salary employees = 100% (estimated)
(MxE)	N.	Effective hours worked by salary employees ⁺ = 2,831,323
(N-H)	O.	More effective hours worked by salary employees = 240,378
(O/N)	P.	Percent more effective hours worked by salary employees = 9%
(H+N)	Q.	Total effective hours worked = 5,421,268
(J-Q)	R.	Increase in total effective hours worked = 989,963

*Non-incentive employees or work means hourly employees plus incentive employees performing non-incentive work.

Table 13. Continued

Projected analysis of hours worked in June 1967 for salary work replacing non-incentive work

(R/J) S. Percent increase in total effective hours worked = 22%

Projected analysis of hours worked in June 1967 for salary work replacing incentive work

T. Average percent performance by salary employees = 100% (estimated)

U. Effective productive hours by salary employees = 1,919,219

(H-U) V. Less effective hours worked by salary employees = 571,726

(V/H) W. Percent less effective hours worked by salary employees = 22%

(U+I) X. Total effective hours worked = 3,759,579

(J-X) Y. Decrease in total effective hours worked = 671,726

Z. Percent decrease in total effective hours worked = 15%

Projected analysis of hours worked in June 1967 for a complete conversion to salary work

I. Average percent performance by salary employees = 100% (estimated)

(C) II. Total effective hours worked by salary employees = 4,750,542

(J) III. Total effective hours worked by incentive and non-incentive employees = 4,431,305

(C-J) IV. Increase in total effective hours⁺ worked = 319,237

(IV/III) V. Percent increase in total effective hours worked = .07%

(IVx 3.28) VI. Reduced labor cost for June 1967 = \$1,047,097 (using \$3.28 per hour)

(VIx12) VII. Projected reduced labor cost for a year = \$12,565,164

⁺The effective hours are not necessarily productive hours, therefore, it is possible a decrease in productivity could result from the conversion.

7. Employees not eligible for guaranteed annual salary were not deducted. They are expected to perform at the norm of 100% - 105% due to the lure of increased security through the eventual eligibility for the annual guarantee.

4. Temporary unemployment costs

The company presently incurs costs in this area under the SUB plan. What would be the added cost if a guaranteed income were provided to employees with five or more years of seniority? It is assumed for this cost analysis that a limited liability fund would be used to pay the guaranteed income. The results of my analysis are shown in Table 14. It is concluded regular funding costs would rise one cent per employee per hour, or \$532,405 per year.

5. A general operating cost analysis

John Deere Des Moines Works looks at the cost picture in regard to incentives from a different viewpoint (Table 15). They figure the increased cost of operation if incentives were not in force. On work where incentives have not been set, employees are found to operate 60%*. On work where incentives are in force, the worker operates at 135%. This represents an increase of 75% due to incentives. Their reasoning is that if an incentive system were not in force, production would decline.

*This is an estimate for Des Moines Works only, versus the Deere and Company estimate for eight UAW plants of 65%.

Table 14. Cost analysis - guaranteed annual salary versus supplemental unemployment benefits

1966 regular SUB costs for Deere and Company's eight UAW plants*

	A.	Total number employees receiving regular SUB payment	=	4,544
	B.	Total company regular SUB payments	=	\$183,518
(B/A)	C.	Average weekly company SUB payments per employee	=	\$40.39
	D.	Average weeks of layoff per employee (5 yrs. or more seniority)+	=	2
(DxC)	E.	Average total company SUB payment per employee	=	\$80.78
	F.	Average weekly straight time earnings per emp. (w/o additives)	=	\$131.20
(62%xF)	G.	Average weekly unemployment payment per emp. (company and state)	=	\$81.34
(G-C)	H.	Average state weekly unemployment payment per emp.	=	\$40.95

Projected 1966 guaranteed salary costs for eight Deere and Company UAW plants

(F-G)	I.	Added weekly company payment per emp.	=	\$49.86
(IxD)	J.	Added total company payment per emp.	=	\$99.72
(AxJ)	K.	Added total company payments	=	\$532,405
	L.	Average number of wage employees	=	23,646
(K/L)	M.	Added cost per employee	=	\$22.52
	N.	Average hours worked per employee	=	1900.77
(M/N)	O.	Added cost per hour per employee	=	\$.01184

+This figure is an estimate provided by the company, its accuracy is affected by the lack of seniority records in connection with SUB payments and unreported inventory layoff.

*These are regular SUB costs only, short work week costs are not included because of inavailability of records on the number of employees receiving these payments and the average amount of payment leveling costs are not included because of their special nature and coverage under guaranteed monthly income.

Table 14. Continued

1966 funding level guaranteed salary versus SUB^a

	P.	Percent increase over SUB payment due to guaranteed salary	=	108%
	Q.	Dollars left in fund with SUB ⁺	=	2,353,138
(Q-K)	R.	Dollars left in fund with guaranteed salary	=	1,820,733
(Q-R/Q)	S.	Percent reduction in fund due to guaranteed salary	=	23%
	T.	Total cost per employee per hour for SUB fund	=	\$.05
(T+0)	U.	Total cost per employee per hour for guaranteed salary fund (approximate)	=	\$.06 ^b

^aThe ratio of regular to leveling payments affects the funding level.

^bThis figure would be higher if short work weeks and guaranteed monthly income were considered but inavailability of information placed these costs beyond the depth of this analysis.

Table 15. Added operation costs due to elimination of wage incentives - John Deere Des Moines Works*

Area of Operation	Wage Incentive in force	If no out-put incentives	
	Present cost or number of employees	Added % or number of employees	Added cost
Machine maintenance	314	31	\$ 86,000
Machines & equipment	\$ 10,000,000	30%	3,000,000
Dies & tooling	1,500,000	30%	450,000
Buildings	9,000,000	30%	2,700,000
Production employees	839	293	1,300,000
Non-incentive employees	392	150	
Factory supervisors	140	23	161,000
		Total	\$ 7,697,000*

*Dollar figures are arbitrary. Increased cost in the areas of operation should be considered by the reader, however, dollar figures for the overhead items were not available from Deere and Company.

In order to bring production up to the incentive level, additional operational requirements and costs would be added. The total figure represents, to them, the total worth of the incentive system at Des Moines Works.

Employees at John Deere Des Moines Works were on

incentive 78% of the time in 1966. Management feels if they could increase this coverage 1% by eliminating some delays, day work, and untimed jobs and setups the resulting savings would be \$100,000 (Table 26). It can be concluded, from an economic standpoint, Des Moines Works is strongly in favor of the incentive system.

The key difference between the calculations in tables thirteen and fifteen lies in the employees' performance without output incentives. Des Moines Works thinks performance would be at 60% just as it is now when incentive employees work at non-incentive jobs. The other viewpoint is that the atmosphere of the incentive pace would remain and employees would perform at the expected 100% level or a little higher.

6. Summary

<u>"Costs"</u>	<u>Dollars</u>	<u>"Benefits"</u>	<u>Dollars</u>
More unemployment benefits (Table 14)	\$ 532,405	Lower total labor cost (Table 13)	\$12,565,164
More trained factory supervisors	?*	More employee suggestions (Table 5)	?
Install proposed plan (Table 12)	1,348,374	Fewer ind. eng. (Table 20)	?
Overhead costs (Table 15)	?	Fewer grievances (Table 6)	?
		Lower manpower costs	?
		Administration costs savings (Table 12)	3,595,664
<hr/>			
Total	\$1,880,779		\$16,160,828
<hr/>			

The probable result, in the long run, is that potential "benefits" would outweigh potential "costs" if the proposed guaranteed annual salary were adopted by the company.

*Dollar figure difficult to determine.

IX. CONCLUSION

In the first part of the thesis a prediction is made that, "The company and the union will bargain collectively in 1967 without undue conflict...". Many factors have a bearing on the accuracy of this speculation. The first is, how far will the UAW push its demand for monthly and annual guarantees of income? The evidence might be reflected in the UAW strike against Ford Motor Company, and hence in theory all automobile manufacturers, which began September 7, 1967. One of the issues of this strike, which authorities predict will last at least a month, is the economic demand of monthly and annual guarantees. However, a strike over this issue would appear somewhat ridiculous since the union and its chief bargainer and president, Walter P. Reuther, have not really spelled out this demand in detail. This could mean the union is not really serious about guaranteed salaries and is just using the general proposal as a handy strike issue.

Mr. Reuther and the UAW have much at stake in the year's negotiations. Mr. Reuther's recent power struggle with Mr. George Meany for control of the American Federation of Labor - Congress Industrial Organization (AFL-CIO) or some Reuther created federation of unions rests on how well the UAW fares in negotiations this year. Mr. Reuther repre-

sents the industrial union approach in which all workers in one factory or one industry belong to the same union, regardless of the many different kinds of work they do. Mr. Meany represents the craft, or trade union approach in which all workers of one craft are organized into separate unions. If Mr. Reuther succeeds in attaining significant and record breaking economic gains for industrial union workers, it could well mean the downfall of Mr. Meany's leadership of the American labor movement and the eventual doom of separate craft unions.

However, Mr. Reuther has a more immediate problem to contend with. There are political problems within his union that Mr. Reuther apparently hopes to resolve at management's expense. The UAW is badly fragmented into power blocks; young workers who want more money, skilled veterans who demand special boosts in income, older workers who want bigger pensions and "social reformers" (including Mr. Reuther himself) who want income guarantees and cost-of-living escalators for pension payments. If all these segments are satisfied in 1967 negotiations with automobile and agricultural machinery manufacturers, Mr. Reuther and the UAW will have scored a victory.

It is evident that some company or companies are headed toward a collision course with the UAW. It will not necessarily be John Deere. Mr. Reuther feels prospects are

fairly bright for both the automobile and agricultural machinery manufacturers and surmises they are ripe for a good package settlement.

Apparently the automobile companies feel prospects are not bright enough to accept Mr. Reuther's proposed package of a \$.13 an hour income increase in the first year, a 24% increase in pension benefits with escalators, an extra large boost in incomes for skilled workers, guaranteed salary, and Canadian income parity. Ford Motor Company will probably remain struck for a long period before accepting such demands for themselves and the rest of the industry.

There will probably be considerable pressure from the Administration to resolve negotiations in the automobile industry. If a strike results in a damaged economy, it may signal a rash of anti-union legislation.

If the automobile strike is resolved before the October 1, 1967 Deere and Company contract deadline, it will probably mean a 5% per year total package increase. In 1964, most of the total package represented increases in benefits rather than wages. This year 3% to 4% will most likely represent an increase in money income with another 1% to 2% for a guaranteed monthly and annual income plan. Thus, a revolutionary, pace setting, and historic guaranteed income plan would go to Mr. Reuther's and the UAW's credit. Since the automobile contract usually sets the pace for

agricultural machinery manufacturers, Deere and Company would probably be forced and willing to also accept such a package. The union will be forced to drop its demand to eliminate the incentive system because they could not sustain a strike long enough to resolve the issue.

If, on the other hand, the automobile strike is not resolved by October 1, 1967, a strike at John Deere probably will be unavoidable (Contracts also expire at International Harvester and Caterpillar on October 1, 1967). An unsettled automobile strike would mean the union is staying with its demand of a 6% to 7% total package increase per year which could not be much different for Deere and Company, International Harvester or Caterpillar.

Union strategists probably will not extend the farm implement manufacturer contract if they still lack an automobile manufacturers settlement (although this is an alternative). The bargaining with agricultural machinery manufacturers will then be a rerun of the automotive negotiations. The target company in agricultural, industrial and construction machinery negotiations will be Deere and Company because of its smaller size* (less depletion of strike fund) and reputation for strong principles.

* International Harvester employs 42,000 UAW workers. Caterpillar employs 25,000 UAW workers. Deere and Company employs 20,650 workers.

With both Ford Motor Company and Deere and Company on strike (approximately 180,000 workers would be idle, not to mention suppliers' cut backs) increased pressure for a settlement from the administration would be inevitable. Economic pressure on the union to pay strike benefits would also cause a more immediate settlement. If so, this could mean an eventual lower package increase (say 4%) than in the first situation.

From the above decision, it can be concluded the first part of my thesis will be rejected if an automobile manufacturer's agreement is not reached by October 1, 1967, and will be accepted if an automobile manufacturer's agreement is reached by October 1, 1967. Neither conclusion would be correct, however, if the union sticks by its demand to abandon the incentive system at John Deere.

Because of centralized bargaining with Deere and Company, national union issues are stressed with little consideration of local union feelings. Since the local unions seem to favor the incentive system, if such a strike did result, it would not be a popular strike at the local level and would cause dissention between the local unions and international headquarters. Table 16 summarizes the preceding alternatives.

Now to consider the second prediction, "....that the resulting new agreement will adopt a limited liability

Table 16. Summary of automobile negotiation effects on Deere and Company negotiation results

Automotive negotiation effects	Deere and Company results			Alternative Company results	
	GAS ^a w/INC ^b	GAS w/o INC	5%/yr. incr. w/INC	Caterpillar	Internat. Harvester
End Oct. 1 5%/yr. increase w/o GAS	Strike	Strike	No Strike	No Strike	No Strike
End Oct. 1 w/GAS	No Strike	Strike	No Strike	No Strike	No Strike
Ford strike still on after Oct. 1	Strike ^c	Strike	No Strike	No Strike ^d	No Strike

^a

GAS = Guaranteed annual salary

^bINC = Standard hour incentive plan

^cAn alternative theory is that the UAW will extend the Deere and Company contract to keep members working so they can contribute \$5.00 per week to those on strike.

^dAnother alternative is that Caterpillar or International Harvester will be chosen as the company to strike.

guaranteed annual income or salary because of inherent advantages and abandon the standard hour incentive plan because of inherent disadvantages."

Not considering the inherent values of guaranteed salaries versus wage incentives, John Deere will accept guaranteed income if the automobile companies do before October 1, 1967, but will insist that present standard hour incentives be built into such a plan. The guaranteed annual salary can be worked out between the company and the

union staying close to what was presented as the union demand (Chapter III B). There would probably be some contract language difficulties involved in incorporating guaranteed salaries and standard hour incentives. If the incentive system remains, the union will demand that some changes be made. The worker will no longer be able to collect average earnings in certain situations, therefore, some other differential will have to be resolved. The union will question conditions under which standards may be recalculated. They are also unhappy with fatigue elements in standards and some changes will no doubt be asked.

If no settlement is reached by October 1, 1967 the guaranteed income plan could well be missing from any resulting automobile or agriculture machinery company agreements with the UAW (Table 16).

If the guarantee were not adopted it would probably mean increasing the present SUB and short work week benefits. The short work week benefit would be increased to approximately 80% of straight time pay for both scheduled and unscheduled short work weeks. SUB payments, when added to unemployment compensation, would most likely remain at the same 62% of normal weekly pay plus \$1.50 for each dependent. But, the maximum company paid weekly benefit would probably increase to \$70.

It has been established that the company will not

abandon the standard hour incentive plan. Whether the company feels it has more advantages than salaries or that it is simply a rationalized tradition is not clear. It is evident that the company and the local workers like the present plan and will not abandon it this year without a long strike imposed by the national union. The company and the union should objectively review the inherent advantages and disadvantages of each plan. The resulting conclusion should be that guaranteed salaries, in the long run, could result in potential benefits greater than expected "costs". An agreement between the company and the union in 1970 to install salaries for non-incentive wage earners and skilled workers is probable. After non-incentive wage earners have achieved salary status, the review of salary versus incentive, recommended above, could be accomplished by utilizing experience rather than opinion.

Incentives may be feasible from an industrial engineering point of view, but they are not as necessary or desirable as the company believes. Such factors as plant characteristics, paced technology, management emphasis on efficiency, weak or cooperative unions exert a far greater influence on employee effort than do wage incentives.

The company clings to the incentive system because:

1. It retains a certain amount of pull on production.
2. Supervision does not have to continually exhort

employees to achieve output.

3. Increased performance is different before and after an operation is placed on incentives.
4. Employees have become accustomed to incentives as a right rather than a privilege.

From an industrial engineering point of view, incentives are endorsed because most industrial engineers assume that without them, their function would be de-emphasized. But salaries would allow more time for "true" industrial engineering functions to be performed.

Employees like the freedom of incentives. Transferring from a job paid on an hourly basis to one paid on an output basis is normally considered a promotion because it means independence and usually higher earnings. Salaries, however, would provide even greater status and independence.

The assumption (incentives increase output 20% - 35%) which originally led to the installation of incentives was validated because of the presence of incentives, but not in the manner originally contemplated. In effect, management used incentives to achieve "normal" effort and in the process, to avoid the exhortation necessary with salaries.

Formal abandonment of incentives does not eliminate incentive thinking and conditioning which has been ingrained into the organization fabric. In the short run, conversion would be difficult and perhaps not worth the cost and headaches. In the long run, however, the policy choice of

abandonment of the incentive system becomes a more meaningful alternative. John Deere's biggest question is; "Will salaries give us the same efficient production as wage incentives do now?"

The answer is; although wage incentives are the most common positive method of motivation, guaranteed salaries with good supervision can more closely fulfill the five human desires which should be satisfied to generate equal or higher productivity. They are:

1. Employees want to belong to a team.
2. Employees want an opportunity to take part in what they think is an important enterprise.
3. Employees want to associate with people whom they consider important.
4. Employees want an opportunity to increase their prestige and importance while having that gain matched by additions to their income.
5. Employees want to be able to do something to prevent arbitrary and unpleasant changes in the continuity of their employment, income, and social prestige (37, p.2).

The potential exists and can be met through effective planning, prediction, and support by both the company and the union.

The more general policy question, incentives or salaries cannot be answered in the abstract, but only in operating characteristics; those characteristics inherent in each system and those dependent upon the context of conditions encountered.

X. POTENTIAL MACROECONOMIC EFFECTS

A program to put firms and industries under guaranteed annual salary may start out with short steps, but this fact does not relieve us from the necessity of considering what the cumulative effects may be of programming toward a widening coverage of guaranteed salaries.

A. Manpower

The inference that the lowered rate of turnover will result in a drop in the mobility of labor to a point which would become dangerously inflexible is unwarranted. An employer who guarantees salaries will immediately eliminate any labor reserve, normally underemployed, which he may have maintained for peak periods or emergencies. This would be an economic, as well as a social gain. Elimination of labor reserves has a one-time effect. Low turnover has both a fairly immediate and a permanent long-range effect. A permanently lowered turnover will become dangerous only if there are groups of persons receiving pay for idle time while there are employees looking for work with unfilled suitable jobs available. Much of labor mobility is unnecessary and excessive, and reductions in mobility are to be looked upon as beneficial rather than otherwise (23).

Undue restrictions on the mobility of labor relates not only to transfers between employers but also to changes in

jobs without changing employers. The effect of salary guarantees is likely to increase the flexibility of the work force and to break down barriers that unions have up to now deemed necessary to erect for the protection of their members.

A guaranteed salary can be best applied when it is least needed; and when it is most needed, it can be least applied. This is the tragedy of guaranteed salaries. Highly skilled workers, key workers, maintenance men, and those with high seniority ranking often do not need the guarantee; but it is easiest to give it to them. Young workers, new entrants into a trade, less skilled, and the whole host of marginal workers are in need of the guarantee, but it is difficult and often impossible to extend it to them. Industries where demand is stable or expanding, predictable and protected, where labor costs form a small proportion of total costs, where labor relations are cordial and top management interested can most easily afford the guarantee. But in industries with reverse conditions, stabilization is difficult for much of the time and many of the employees.

Guaranteed salaries may make a real contribution toward increasing security in a high employment economy, when properly integrated with other full employment measures. During high employment, individual firms and industries with unstable employment saddle the community with "social costs" which they should bear themselves. These enterprises attract

workers who must finance their unemployment themselves or be supported by the community. It seems only fair that consumers with unstable purchase habits (where applicable) should bear the cost of such idleness through extra charges and the employers should devise means of reducing these erratic, and secular fluctuations.

The stipulated integration of unemployment compensation funds with the annual salary commitment, so that the employer's guarantee would supplement social security payments, would introduce a conflict of objectives. Unemployment compensation represents our common responsibility to bear the social cost of unavoidable layoffs. It requires that eligible beneficiaries seek other suitable employment and accept it when offered. It aids the removal of the employees from the business situation that cannot support him. When these payments are included as part of the guarantee payment, that would mean a public contribution to carry out a private contract between employer and employee. In effect, it would bring unemployment compensation up to 100% of full time earnings while the employee was attached to the payroll. It would, in the case of extended layoff, leave the employee without any unemployment compensation benefits on which to fall back on when his annual guarantee ended. I do not have a pat solution. However, the government compensation program as a backstop for the worker seeking employment, should not be

confused with terms of employment worked out between the employee and the employer.

A national employment program directed toward full employment, irrespective of the degree of government participation, can be successful to the extent that it opens new job opportunities. In that respect the drive toward full employment would be inconsistent with the widespread guarantee of the status quo in employer-employee relationships. The achievement of the latter could well involve the enlistment of government in the role of supporting specific industries and individuals rather than expanding total employment opportunity.

B. Inflation

A major criticism of the guaranteed annual income is the strong possibility of its inflationary effect. Whatever form of funding a company uses to provide the money to guarantee its workers' income, it would be greater than current SUB contributions. An increase would probably add to product cost, thus erasing to a degree the increased purchasing power being released on the economy.

Another inflationary factor is the inherent tendency of our free market to raise its price in order to capture every possible dollar of predictive or assured income in the economy. This force would help the cost of living continue its upward movement, forcing workers in other industries to seek wage

and benefit increases comparable to those proposed by the UAW. If inflation arose this would add to the reasons for government to raise federal taxes or trim domestic spending.

C. Guaranteed Annual Profit

The idea of a guaranteed annual income for production workers is not theoretically reconcilable with the basic concept of a free market in a free society. Labor is considered by management to be a variable cost. The United States economy is a want economy. Most of the basic needs for a large segment of our employed population are available with an excess of disposable income used to buy the "want" products - better furniture, automobiles, clothes, homes, televisions - and other numerous "want" products for comfort, pleasure, or status. This is in direct contrast to underdeveloped countries, which have a "need" economy. In many of these countries the basic need is food. Much of the effort of the worker is necessarily directed towards the production of food, and there is a predictive market for it. All that is produced will be sold or utilized. The workers who produce the food are assured jobs and income.

Our "want" economy, has no guarantee that all of its products will be sold and that the producing companies will be guaranteed a profit. Individual companies compete in the free market presumably to maximize profits. Guaranteed annual income could stifle product innovation since most manufacturers

cannot afford long work stoppages for retooling. Some firms would be forced to add or drop products from their lines in order to smooth out seasonal variations. It could also make firms seek techniques for stabilizing production and sales a prerequisite.

But an industry or company cannot necessarily apply its technological planning abilities to spread the work over a year. Some improvements have been made, for example at John Deere (Table 17). The fact remains that manufacturers will produce and sell only as much as the market will buy. When sales slump, just as materials that go into products are no longer required, neither is labor. It is unfortunate that this causes hardship on the worker and the economy.

Companies and their stockholders and salaried personnel also undergo financial strain during long unproductive periods when their products are not "wanted" by the free market. Profits that might normally go into improving products or processes become non-existent. Stockholders, many of them employees, see the value of their equity go down. The history of corporate success is filled with stories of companies whose products became "unwanted" in the free market for one reason or another and thus had to close down forever. Even in our present high level of prosperity more than one large corporation is having difficulties. The picture with respect to the hourly worker who "suffers" and the corporation "which

does not" is not as one-sided as unions claim.

The producer or seller has only limited freedom of choice. In most instances freedom belongs to the buyer. In our free economy, government does not control his wants. He is free to buy whatever he "wants", whenever he wants it. A guaranteed income for a large segment of the economy is possible only when the buying habits of people can be thoroughly and predictably controlled. This is undesirable because it would require controlling most other segments of our economy and social structure.

D. Other Guarantees

One final aspect of the proposed guaranteed annual income is that it approaches the developing theory among a number of economists and social scientists that income should be separated from work. This theory is basic to the idea of a national guaranteed income or a negative income tax proposal which would provide a guaranteed income to those persons who cannot earn a minimum existence.

Such groups as the President's Commission on Technology, Automation, and Economic Freedom; the Council of Economic Advisers; and the White House Conference "To Fulfill These Rights," have already studied versions of these guarantees.

1. Negative income tax

The most famous proponent of negative income tax is Professor Milton Friedman of the University of Chicago. An

example of the negative income tax will best express the idea.

Under current income tax brackets, a family with two children has deductions and exemptions of \$3000, call this the "break even" point. A family with \$4000 income would pay only \$1000, the amount above the "break even" point. A family with only \$2000 income would pay no tax. It would have a "negative income" and government funds would be paid to them at a negative rate of 50 per cent. That family would receive \$500 (50 per cent of the amount required to meet the "break even" point).

2. National guaranteed income

Robert Theobald claims technology will eventually lead to fewer jobs with fewer people having the capabilities for doing them. He thinks the need for a national guaranteed income becomes apparent since every citizen has the right to an income from the Federal Government sufficient to live with dignity (43).

Mr. Theobald's theory about a highly automated economy killing jobs has not yet proved true. After many years of intense automation, employment is still rising, and there are many shortages among skilled labor groups although his theory might some day prove itself.

It is claimed that much of the national guaranteed income could be paid for by doing away with welfare spending and per-

mitting social workers to more profitably use their time counseling and educating instead of on paperwork.

There is, of course, much opposition to the idea of a national guaranteed income. First comes the thought of the tremendous power over our lives that the Federal Government would hold. Unless the national guaranteed income plan became a Constitutional right, finagling by individuals in the government could coerce its intent and give them the power of tyrants.

There is the question of the plan's morality. It contradicts traditional American feeling against "getting something for nothing". The value system of western man has for centuries associated work with income. Can a right to income without work be adopted without deep cleavages in our society?

It is plain that the full-blown versions of national guaranteed income for everybody would destroy the value of personal responsibility. Some of the proponents say exactly as much: Personal responsibility is a thing of the past; the only responsibility is of the society to the members. The implications of that, in a world already abundantly supplied with irresponsible persons of all ages is something to think about.

E. The Outlook

The time may be near to end an invidious distinction which has denied workers in the United States a sense of full participation in the social enterprise. What once may have

been difficult is today more manageable. In the emerging economy, the majority of workers are in service and white-collar jobs, and the relative number of blue-collar workers is declining. In the changing nature of work, it is more and more difficult to measure the contribution of the single worker in the productive process, and the concept of "the piece" or "the hour" loses meaning where work is a team affair and production processes are continuous.

The established differences in the treatment of the two groups have adversely influenced the willingness of many wage earners to approach the idea of change with an open mind. The proposal to put all workers on a weekly, monthly or annual salary - with its implications of greater continuity of employment, closer equalization of fringe benefits, and abolition of divisive class distinctions within the enterprise - is worthy of the most careful consideration by employers and unions. Among other things, such a step would tend to break down barriers between present groups of salary and wage earners on issues of mutual concern and make possible a more fruitful collaboration.

To say that these are matters of public policy does not mean that they are, therefore, matters for legislative or governmental action (although in some instances legislative policy may stand in the way of certain actions). The reorganization of work and the single standard of pay are questions

which devolve on industry and labor, and are a legitimate subject for collective bargaining. All such improvements require give-and-take on both sides.

To declare these matters of public policy is, however, to declare them matters of community conscience, requiring the establishment of public standards by which we can judge ourselves. There is another and larger implication. For if such a step is taken, it would demonstrate to all other countries that the American way can give a new meaning and substance to that ancient phrase, "the dignity of work". It would indeed be a landmark in the history of work and of civilized society.

Objective students of economics generally seem to agree that economic fluctuations and general economic instability would not be overcome with a private guarantee of salaries and that it would not achieve the macroeconomic objectives sought by its proponents. However, a growing nation is marked by confidence in the ability of its individuals to create opportunities for expanding output and improving economic levels. What guaranteed salaries seek mainly to protect is the freedom of opportunity to make the most of one's abilities. The emphasis on insurance of status develops as confidence in the rewards of individual enterprise gives way to the fear that there may not be enough to go around, unless the shares in total product are rationed. The general guarantee of salaries implies the general acceptance of fixed placements in a

regulated economy. A basic decision to be made before widespread income guarantees are adopted concerns the kind of economic discipline we are prepared to accept in order to ensure existing pay rolls.

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XII. ACKNOWLEDGEMENTS

The author wishes to express his sincere appreciation to his wife, Patti, because without her sustenance, understanding, and typing this work could never have been completed; to Alan Kamhuis, a fellow John Deere employee, for his counseling, prodding, criticism, and stimulation; to Dr. Harold Davey and Dr. Edward Jakubauskas for their guidance, advice, and patience; to Deere and Company managers for their valuable aid in supplying needed data and interviews; to John Deere Des Moines Works for furnishing data, interviewees, and a ten-month leave of absence along with the stimulus to succeed in pursuit of my endeavor; to some of the UAW union leaders and members for catering to my interviews and information needs; and to others, too numerous to mention, that have shared freely and generously of their time and understanding in this study.

XIII. APPENDIX I

Data and calculations for regression and correlation analysis

Data*

Year	Wage X	Salary Y	X ²	Y ²	XY
1958	15.5	4.0	240.25	16.00	62.00
1959	18.7	4.4	349.69	19.36	82.28
1960	16.6	4.7	275.56	22.09	78.02
1961	17.2	4.8	295.84	23.04	82.50
1962	14.9	4.7	222.01	22.09	70.03
1963	17.9	5.0	320.41	25.00	89.50
1964	20.4	5.3	416.16	28.09	108.12
1965	21.5	5.7	462.25	32.49	122.55
1966	23.7	6.0	561.69	36.00	142.20

Calculations

$$n = 9$$

$$\sum X = 166.4$$

$$\bar{X} = 18.49$$

$$\sum X^2 = 3143.86$$

$$(\sum X)^2/n = 3076.55$$

$$\sum x^2 = 67.31$$

$$\sum Y = 44.6$$

$$\bar{Y} = 4.96$$

$$\sum Y^2 = 224.16$$

$$(\sum Y)^2/n = 221.11$$

$$\sum y^2 = 3.05$$

$$\sum XY = 837.26$$

$$(\sum X)(\sum Y)/n = 824.60$$

$$\sum xy = 12.66$$

$$b_1 = \sum xy / \sum x^2 = 12.66 / 67.31 = .18$$

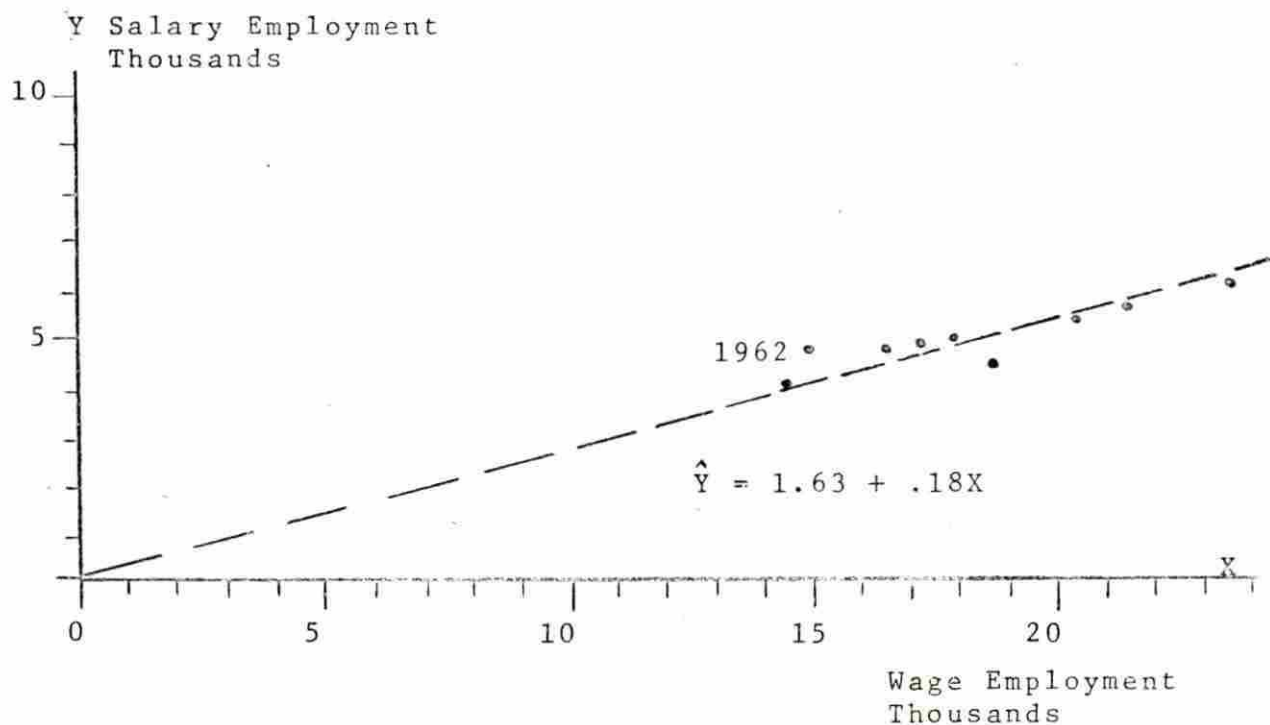
$$b_0 = 4.96 - .18(18.49) = 1.63$$

$$\hat{Y} = 1.63 + .18X$$

$$r = \frac{(\sum xy)^2}{(\sum x^2)(\sum y^2)} = \frac{(12.66)^2}{67.31 \cdot 3.05} = \frac{160.28}{205.30} = .78$$

*From Table 16.

Simple linear regression analysis and correlation analysis of salary-wage employment variations for Deere and Company's eight UAW plants



Analysis of variance

Source of variation	Degrees of freedom	Sum of squares	Mean square
Due to b_0	1	221.11	221.11
Due to b_1/b_0	1	2.28	2.28
Residual	7	.77	.096
Total	9	224.16	

$r = 0$ Salary employment doesn't vary with wage employment.

$r > 0$ Salary employment does vary with wage employment.

$r = .78$ (actual value of r)

$r = \pm 1$ One variable is capable of explaining nearly all the variation in the other.

XIV. APPENDIX II

Table 17. Number of wage-salary employees - Deere and Company's eight UAW plants, 1957 - 1966

No. of Em- ployees	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
<u>1956-1957</u>						
Wage	17,791	17,873	18,050	18,173	17,924	17,317
Salary	1,182	1,178	1,177	1,174	1,177	1,165
Total	18,973	19,051	19,227	19,347	19,101	18,482
<u>1957-1958</u>						
Wage	14,017	14,451	14,837	14,972	15,371	15,987
Salary	3,835	3,892	3,904	3,939	3,943	3,966
Total	17,852	18,343	18,741	18,911	19,314	19,953
<u>1958-1959</u>						
Wage	16,828	17,444	18,662	19,398	19,712	19,662
Salary	4,163	4,222	4,257	4,291	4,355	4,395
Total	20,991	21,666	22,919	23,689	24,067	24,057
<u>1959-1960</u>						
Wage	16,480	15,405	15,596	14,995	14,643	14,674
Salary	4,621	4,639	4,628	4,677	4,651	4,653
Total	21,101	20,044	20,224	19,672	19,294	19,327
<u>1960-1961</u>						
Wage	19,990	20,168	20,276	19,652	18,628	18,050
Salary	4,840	4,867	4,869	4,864	4,855	4,842
Total	24,830	25,035	25,145	24,516	23,483	22,892
<u>1961-1962</u>						
Wage	12,964	13,691	14,572	14,971	15,076	15,095
Salary	4,626	4,606	4,621	4,610	4,601	4,602
Total	17,590	18,297	19,193	19,581	19,677	19,697
<u>1962-1963</u>						
Wage	15,751	17,128	18,101	18,900	19,061	18,856
Salary	4,703	4,756	4,813	4,869	4,913	4,944
Total	20,454	21,884	22,914	23,769	23,974	23,800
<u>1963-1964</u>						
Wage	18,382	19,804	20,728	21,045	20,942	20,785
Salary	5,067	5,151	5,169	5,208	5,227	5,244
Total	23,449	24,955	25,897	26,253	26,169	26,029
<u>1964-1965</u>						
Wage	20,289	20,732	21,438	22,074	22,253	21,747
Salary	5,490	5,534	5,580	5,627	5,665	5,671
Total	25,779	26,266	27,018	27,701	27,918	27,418
<u>1965-1966</u>						
Wage	22,018	22,582	23,307	23,741	23,813	23,825
Salary	5,655	5,703	5,757	5,826	5,868	5,895
Total	27,673	28,285	29,064	29,567	29,681	29,720
% of total salary 1966	20.4	20.2	19.8	19.7	19.8	19.8
wage 1966	79.6	79.8	80.2	80.3	80.2	80.
Wage/salary ratio 1966	3.9	4.0	4.1	4.1	4.1	4.0

May	June	July	Aug.	Sept.	Oct.	Average and wage/ salary ratio
16,392	16,342	16,146	16,201	16,050	12,789	16,087
1,146	1,157	1,146	1,144	1,136	3,841	1,385
17,538	17,499	17,292	17,345	17,186	16,630	11.6
16,089						
16,089	16,229	15,844	16,127	16,032	15,391	15,446
3,982	4,127	4,140	4,153	4,085	4,112	4,006
20,071	20,356	19,984	20,280	20,117	19,503	3.9
19,504	19,691	18,787	18,673	18,464	17,644	18,706
4,434	4,609	4,646	4,658	4,595	4,593	4,435
23,938	24,300	23,433	23,331	23,059	22,237	4.2
15,125	16,754	18,021	18,965	19,593	19,203	16,621
4,645	4,774	4,807	4,821	4,764	4,809	4,707
19,770	21,528	22,828	23,786	24,357	24,012	3.5
17,398	16,364	14,589	13,770	13,830	13,147	17,155
4,802	4,922	4,900	4,838	4,693	4,655	4,829
22,200	21,286	19,489	18,608	18,523	17,802	3.6
15,283	15,746	15,627	15,618	15,495	14,905	14,924
4,620	4,758	4,766	4,756	4,683	4,692	4,662
19,903	20,504	20,393	20,374	20,178	19,642	3.2
18,083	17,970	17,786	17,725	18,052	17,577	17,915
4,964	5,137	5,135	5,122	4,999	5,035	4,949
23,047	23,107	22,921	22,847	23,051	22,612	3.6
20,759	20,963	20,634	20,528	20,346	19,816	20,394
5,252	5,527	5,558	5,569	5,408	5,442	5,319
26,011	26,490	26,192	26,097	25,754	25,258	3.8
21,296	21,601	21,802	21,849	21,315	21,579	21,498
5,658	5,787	5,809	5,807	5,617	5,625	5,656
26,954	27,388	27,611	27,656	26,932	27,204	3.8
23,854	24,388	23,577	24,126	24,124	24,403	23,646
5,934	6,406	6,448	6,419	6,173	6,222	6,026
29,788	30,794	30,025	30,545	30,297	30,625	3.9
19.9	20.8	21.5	21.0	20.4	20.3	
80.1	79.2	78.5	79.0	79.6	79.7	
4.0	3.8	3.7	3.8	3.9	3.9	

Table 18. Weekly - salary earnings and benefits - Deere and Company's eight UAW plants, 1957-1966

Earnings and Benefits	1957	
	Weekly	Salary
Total hours worked	27,165,287	-
Aver. hours worked/emp.	1,688.65	-
Reg. straight-time earn.	\$63,742,195	\$23,927,544
Aver. straight-time hourly earn.	2.35	-
Year end bonus	1,130,070	1,226,767
Supp. workmen's acc.* comp.	N.A.	-
Workmen's acc. comp.	458,485	39,880
Health & acc. ins.	1,208,770	271,727
Pension	3,397,462	1,709,673
Grouplife - non contrib.	560,613	187,884
Grouplife - contrib.	-	121,302
Supp. unemp. - contrib.	1,211,469	-
% emp. benefits to total payroll	11.6%	11.1%
Wages in lieu of SUB	234,988	-
	1960	
	Weekly	Salary
Total hours worked	31,634,464	-
Aver. hours worked/emp.	1,903.28	-
Reg. straight-time earn.	\$80,423,396	\$34,393,084
Aver. straight-time hourly earn.	2.54	-
Year end bonus	771,464	807,057
Supp. workmen's acc. comp.	N.A.	-
Workmen's acc. comp.	718,514	52,171
Health & acc. ins.	2,167,476	512,577
Pension	6,021,973	2,787,911
Grouplife - non contrib.	775,939	286,647
Grouplife - contrib.	-	164,794
Supp. unemp. - contrib.	1,403,512	-
% emp. benefits to total payroll	14.3%	13.1%
Wages in lieu of SUB	282,300	-

*acc. = accident

1958		1959	
Weekly	Salary	Weekly	Salary
29,248,579	-	35,661,567	-
1,893.60	-	1,906.42	-
\$72,100,992	\$27,541,040	\$90,302,212	\$31,708,616
2.47	-	2.53	-
1,483,905	1,780,307	2,035,711	2,333,157
N.A.	-	N. A.	-
533,415	45,158	650,613	57,039
1,869,738	409,588	1,933,926	392,691
4,218,754	2,072,300	5,277,690	2,506,570
629,141	208,194	503,643	163,795
-	138,889	-	155,136
1,286,458	-	1,376,498	-
12.2%	11.1%	11.3%	11.5%
266,680	-	265,064	-
1961		1962	
Weekly	Salary	Weekly	Salary
32,250,844	-	27,624,774	-
1,879.97	-	1,851.03	-
\$86,875,204	\$36,562,116	\$79,027,220	\$37,044,188
2.69	-	2.86	-
1,194,320	1,362,518	1,144,338	1,587,868
N. A.	-	39,565	-
654,771	92,065	539,373	59,465
2,750,219	636,510	3,885,264	1,144,477
5,626,905	2,852,875	5,763,912	2,885,990
852,475	310,059	671,813	269,643
-	183,167	-	186,338
870,999	-	1,406,263	-
13.7%	13.5%	17.0%	15.1%
244,189	-	-	-

Table 18. Continued

1963		1964	
Weekly	Salary	Weekly	Salary
33,922,218	-	40,052,121	-
1,893.51	-	1,963.92	-
\$98,853,897	\$40,568,318	\$119,633,634	\$44,756,240
3.91	-	2.99	-
1,905,219	2,611,715	2,267,333	2,859,270
83,840	-	132,134	-
642,356	63,579	851,333	96,675
4,724,947	1,249,148	5,332,702	1,281,427
6,255,682	3,134,401	7,170,706	3,568,659
635,557	275,299	645,572	224,444
-	199,177	-	206,951
1,728,005	-	2,035,936	-
17.0%	14.8%	15.0%	14.5%
-	-	-	-
1965		1966	
Weekly	Salary	Weekly	Salary
10,298,468	-	44,945,809	-
1,874.52	-	1,900.77	-
\$122,655,047	\$43,106,719	\$142,319,506	\$47,569,375
3.04	-	3.17	-
1,792,998	2,198,333	2,786,546	3,457,581
136,625	-	110,627	-
1,141,449	72,379	1,213,225	66,241
7,674,543	1,312,761	10,064,124	1,756,656
11,170,603	4,718,747	11,879,773	4,950,935
1,514,780	457,527	1,879,777	532,314
-	218,138	-	236,447
2,110,629	-	2,353,138	-
18.7%	16.0%	19.0%	16.5%
-	-	-	-

Table 19. Unemployment benefit information - Deere and Company's eight UAW plants, 1957-1966

Laid off with credit units* (more than one year seniority)	Nov.	Dec.	Jan.
1957	2,220	361	308
1958	820	541	286
1959	37	14	14
1960	905	1,529	1,929
1961	365	272	219
1962	3,965	3,346	2,594
1963	784	255	94
1964	253	211	17
1965	448	350	100
1966	337	136	2

*Per month - not cumulative

SUB payments

1957 - Regular	\$ 21,657	\$ 3,309	\$ 1,111
Leveling	-	-	-
Short week	-	-	-
1958 - Regular	29,495	5,380	3,355
Leveling	-	-	-
Short week	-	-	-
1959 - Regular	30,882	2,066	384
Leveling	-	-	-
Short week	-	-	-
1960 - Regular	56,812	54,416	93,584
Leveling	-	-	-
Short week	-	-	-
1961 - Regular	34,276	17,435	14,195
Leveling	-	-	-
Short week	-	-	-
1962 - Regular	223,106	238,898	290,702
Leveling	-	-	-
Short week	-	-	-
1963 - Regular	103,563	66,671	12,084
Leveling	29,959	6,155	171
Short week	97,229	1,635	2,969
1964 - Regular	26,463	22,082	13,816
Leveling	34,065	1,918	343
Short week	13,136	100,603	47,935
1965 - Regular	35,956	75,229	50,512
Leveling	16,785	34,554	823
Short week	31,622	140,075	5,460
1966 - Regular	81,039	61,692	20,182
Leveling	5,265	2,550	398
Short week	31,103	13,954	7,545

Grand Total

Regular	\$ 4,573,924
All	5,660,677

Average per Year

Regular	457,392
Leveling	73,738
Short week	143,612

Feb.	Mar.	Apr.	May	June	July
323	226	241	245	269	316
354	254	13	14	15	17
13	9	10	17	175	290
2,809	3,230	3,062	1,052	1,021	478
262	459	527	423	764	2,497
2,225	1,758	1,386	1,005	727	594
64	75	69	236	672	550
12	13	64	29	112	123
6	1	2	214	114	196
-	-	-	-	-	2
\$ 919	\$ 275	\$ 684	\$ 1,468	\$ 958	\$ 2,039
-	-	-	-	-	-
-	-	-	-	-	-
3,805	20,036	332	468	104	448
-	-	-	-	-	-
-	-	38	51	1,699	11,324
-	-	-	-	-	-
131,382	196,764	200,413	200,970	94,666	27,405
-	-	-	-	-	-
9,982	21,335	20,898	23,369	17,745	30,480
-	-	-	-	-	-
135,734	93,587	240,803	41,997	19,121	11,294
-	-	-	-	565	59
-	-	-	-	5,772	12,143
1,309	550	332	631	26,049	68,036
-	-	-	-	5,896	4,712
543	1,148	1,432	7,272	7,651	14,226
80	1,161	323	1,028	3,301	14,208
761	94	-	84	348	836
25,302	1,565	1,145	1,034	1,020	3,735
16,830	2,662	114	2,124	23,606	13,469
85	482	217	-	654	309
904	6,505	5,176	6,000	6,532	6,403
2,815	288	195	-	-	-
77	-	119	340	1,183	799
14,111	8,951	9,723	5,960	5,528	6,292

Table 19. Continued

Aug.	Sept.	Oct.	Yearly Total
570	725	1,061	6,865
16	15	420	2,765
414	395	762	2,150
423	416	703	17,557
3,456	3,153	3,274	15,671
742	892	1,305	20,539
379	284	594	4,056
188	147	655	1,824
5	88	578	2,102
1	62	130	670
\$4,402	\$4,564	\$4,366	\$45,752
-	-	-	-
-	-	-	-
224	1,137	2,425	67,209
-	-	-	-
-	-	-	-
25,607	26,670	21,185	119,906
-	-	-	-
-	-	-	-
19,884	13,162	15,495	1,104,953
-	-	-	-
-	-	-	-
140,708	209,312	272,980	812,715
-	-	-	-
-	-	-	-
24,986	31,778	60,457	1,412,460
231	7,041	1,873	9,769
6,277	50,814	1,356	76,362
52,651	41,739	25,788	399,403
14,645	4,278	1,041	66,857
11,724	8,264	4,280	158,373
16,522	31,196	16,989	147,169
29,913	6,129	1,322	75,813
8,863	4,459	4,259	213,056
15,406	37,773	7,158	280,839
24,426	61,505	4,393	144,233
12,075	12,294	11,830	118,876
4,885	4,644	7,778	183,518
39,272	19,905	2,114	72,022
24,897	9,345	13,983	151,392

Table 20. Number of industrial engineering personnel - Deere and Company's eight UAW plants, 1960-1967+

FACTORIES	YEAR																													
	1967			1966			1965			1964			1963			1962			1961			1960								
	I	A	L	I	A	L	I	A	L	I	A	L	I	A	L	I	A	L	I	A	L	I	A	L	I	A	L			
Harvester	30	70		30	63		31	61		31	52		30	46		29	41		29	43		19	43		19	43		19	43	
Spreader	7.5	23		10	18		6	19		9	16		10	16		9	15		10	17		10	17		10	17		10	17	
Malleable	8	15		7	13		5	18		7	11		5	10		4	10		4	11		5	14		5	14		5	14	
Planter	18	32		16	32		13	27		12	19		12	28		11	19		12	21		10	18		10	18		10	18	
Waterloo	44	75		36	61		36	63		36	60		40	62		32	55		45	65		38	60		38	60		38	60	
Ottumwa	17	37		14	35		14	32		14	31		14	33		15	31		11	28		12	22		12	22		12	22	
Dubuque	34	58		35	53		34	50		42	42		25	41		26	39		18	34		13	24		13	24		13	24	
Des Moines	22	48		22	45		27	45		21	44		15	37		19	41		17	45		18	40		18	40		18	40	
Total	180.5	358		170	320		166	315		154	275		151	273		145	251		146	264		125	238		125	238		125	238	
Average	23	45		21	40		21	39		19	34		19	34		18	31		18	33		16	30		16	30		16	30	
Ratio																														
inc/all		.504			.531			.527			.560			.553			.578			.553			.525			.525			.525	
Total hrs. worked(million)				44.9			40.3			40.1			33.9			27.6			32.3			31.6			31.6			31.6		

+Summary for all Deere and Company UAW plants

% decrease in inc/all ratio = 11%, % increase in inc. average = 50%
 % increase in all avg. = 65%, % increase in total hours = 65%

Conclusion: 1) Incentive industrial engineering personnel have increased less than total hours worked. 2) All industrial engineering personnel have increased the same as total hours worked. 3) The ratio of incentive personnel to all personnel has decreased significantly. 4) Some industrial engineering personnel could be eliminated if the incentive system were abandoned.

Table 21. Earnings for incentive and hourly paid employees - Deere and Company's eight UAW plants, 1967 (excludes overtime penalty and shift premium)

FACTORIES	INCEN. EMP.		HRLY. PAID EMP.		% of Total Man hours for All Employees		
	Inc. All Day Work & MUA Allow				INCEN. EMP.	HRLY. PD. EMP.	
	Av. No. of Emp. June 1967	Av. Ern. /hr. YTD +	Av. No. of Emp. June 1967	Av. Ern. /hr. YTD	Inc. Hrs. YTD	Non-Inc. Hrs. YTD	
Harvester	1,911	3.610	1,389	2.957	43.2	13.0	43.8
Spreader	459	3.413	441	2.943	40.0	10.6	49.4
Malleable	374	3.538	499	2.945	32.4	9.8	57.9
Planter	777	3.421	630	2.907	36.5	17.9	45.6
Waterloo	4,023	3.660	3,555	2.968	45.2	8.9	46.0
Ottumwa	773	3.399	587	3.009	40.2	16.5	43.3
Dubuque	1,467	3.559	1,450	3.032	41.0	11.3	47.7
Des Moines	760	3.593	778	3.010	34.6	12.2	53.2
8 UAW Factories w/o*	10,543	3.580	9,329	2.976	41.6	11.4	47.0
8 UAW Factories w*		4.002		3.327			

*Summaries are shown both without and with cost of living & general wage increase.
 +Year to date
 aMake-up

Table 22. Incentive earnings for incentive employees - Deere and Company's eight UAW plants, 1967 (Excludes overtime penalty, shift premium, day work and make-up allowances)

FACTORIES	Average Incentive Earnings		Wtd. Av. Occ. Rate	% Earnings of Occupational Rate	
	1967 (June) Year To Date	Last Year To Date		1967 (June) Year To Date	Last Year To Date
			June 1967		
Harvester	3.686	3.678	2.708	136.2	136.0
Spreader	3.397	3.406	2.700	125.6	125.5
Malleable	3.601	3.355	2.647	134.6	124.4
Planter	3.560	3.620	2.677	132.9	135.6
Waterloo	3.732	3.691	2.717	137.2	135.8
Ottumwa	3.568	3.682	2.707	131.4	132.8
Dubuque	3.710	3.646	2.741	135.7	132.6
Des Moines	3.725	3.752	2.707	138.0	139.0
*Eight UAW Factories w/o	3.680	3.657	2.712	135.6	134.5
*Eight UAW Factories w	4.114	3.874	3.045		

*Summaries are shown both without and with cost of living & general wage increase.

Table 23. Percent hours on incentive - Deere and Company's eight UAW plants, 1967

FACTORIES	Hours on Incentive (%)											
	0-50%		51-65%		66-75%		76-85%		Over 85%			
	Emp. July 1967	% of Emp. YTD+	Emp. July 1967	% of Emp. YTD	Emp. July 1967	% of Emp. YTD	Emp. July 1967	% of Emp. YTD	Emp. July 1967			
Total Incentive Emp.*	1,692	171	10.4	174	12.3	225	14.2	315	17.5	807	44.6	
Harvester	435	41	8.7	41	9.9	58	12.4	81	19.8	214	49.1	
Spreader	386	53	11.8	34	13.0	45	15.2	70	17.5	184	42.4	
Malleable	597	214	24.9	88	15.4	78	13.4	90	16.7	127	29.5	
Planter	4,202	366	7.6	386	6.9	366	9.0	547	13.8	2537	62.7	
Waterloo	741	248	20.7	117	12.9	84	12.8	111	16.7	181	36.9	
Ottumwa	1,405	271	12.0	144	9.0	144	11.1	224	18.7	622	49.3	
Dubuque	682	131	17.7	104	13.4	87	13.5	137	19.0	223	36.4	
Des Moines	8 UAW Plants	10,140	1495	12.1	1088	10.0	1087	11.5	1575	16.4	4895	49.9

+ Year to date.

Table 24. Percentage earnings of occupational rate - Deere and Company's eight UAW plants, 1967

EARNINGS OF OCCUPATIONAL RATE (%)

FACTORIES	Total Incent. Emp.	No. Inc. Earnings.		Below 100%		100 - 115%		116 - 125%		126 - 135%		136 - 145%		146 - 160%		Over 160%	
		Emp. July 1967	% of Emp. YTD*	Emp. July 1967	% of Emp. YTD	Emp. July 1967	% of Emp. YTD	Emp. July 1967	% of Emp. YTD	Emp. July 1967	% of Emp. YTD	Emp. July 1967	% of Emp. YTD	Emp. July 1967	% of Emp. YTD	Emp. July 1967	% of Emp. YTD
Harvester	1,692	42	2.1	174	12.1	130	7.1	119	6.6	154	9.6	308	19.1	574	33.3	191	10.1
Spreader	435	13	1.6	87	20.6	61	13.2	49	10.7	61	13.6	65	15.9	68	17.5	31	7.0
Malleable	386	8	1.9	47	14.2	55	10.9	44	10.7	46	12.1	54	14.0	64	16.8	68	19.4
Planter	597	87	4.7	133	18.0	57	9.8	49	7.9	52	9.9	55	13.1	108	22.3	56	14.3
Waterloo	4,202	74	1.8	219	5.4	199	4.8	243	6.9	927	21.0	1393	33.3	1147	26.9	0	0.0
Ottumwa	741	75	5.1	47	8.4	68	11.1	78	11.7	149	22.3	151	21.7	113	13.3	60	6.3
Dubuque	1,405	95	3.4	108	5.3	64	4.3	95	6.4	196	16.1	632	47.9	204	15.6	11	1.0
Des Moines	682	44	3.1	102	12.7	69	10.0	59	8.4	86	12.4	92	14.0	135	21.1	95	18.2
8 UAW Factories	10,140	438	2.6	917	9.3	703	7.0	736	7.6	1671	16.3	2750	27.5	2413	23.8	512	5.9

*YTD = Year to date

Table 25. Incentive employees' hours - Deere and Company's eight UAW plants, 1967

FACTORIES	Total Man Hrs. for Inc. Emp. June 1967	% of Total Man Hours for Incentive Employees				Hours of Make-up to Occ. Rate			Hrs* Wrkd. A.E. Guar. YTD
		Inc. Hrs. YTD	Unt. Oper. Hrs. YTD	Delay J.C. Hours YTD	A.O. D.W. Hrs. YTD	Hours	% of Inc. Hrs. YTD		
							YTD	YTD	
Harvester	340,725	76.8	2.1	1.3	9.3	10.5	8,985	4.3	5.3
Spreader	80,649	79.2	4.5	1.9	3.6	10.8	3,736	5.9	4.4
Malleable	65,222	76.8	3.4	1.9	9.9	8.0	2,677	6.1	2.0
Planter	129,252	67.1	6.3	3.1	11.3	12.3	6,594	6.4	4.2
Waterloo	763,342	83.8	2.7	1.0	3.9	8.5	13,242	2.2	4.2
Ottumwa	146,308	78.9	12.8	1.6	3.4	11.3	2,879	2.9	3.4
Dubuque	260,141	78.3	5.3	3.9	4.3	8.0	5,236	2.0	1.8
Des Moines	133,580	73.9	8.5	3.0	6.9	7.6	5,342	4.5	4.5
8 UAW Factories	1,919,219	78.6	4.5	1.9	5.8	9.2	48,718	3.2	3.9

*Abbreviations:

J.C. = job change

Unt. = untimed

D.W. = daywork

A.O. = all other

A.E. = average earnings

YTD = year to date

Table 26. Operating performance Deere and Company's eight UAW plants, 1967

EXCESS COST PER INCENTIVE HOUR

	Delay		Other Day Work		Untimed Oper.		Untimed Setups		Make-up to Av. Earns Occ. Rate		Guar.		Excess Cost		Overtime Hourly and Inc.		Inc. Earn.			
	YTD*	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	YTD	
Goals	2.5%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	130%	
Plants																				
Harvester	\$.369 9.3%	\$.112 10.5%	\$.000 2.1%	\$.000 1.3%	\$.095 4.3%	\$.039 5.3%	\$.616 \$1,165,470	\$.039 5.3%	\$.095 4.3%	\$.039 5.3%	\$.039 5.3%	\$.616 \$1,165,470	\$.039 5.3%	\$.039 5.3%	\$.616 \$1,165,470	3.4%	3.4%	136.2%	136.2%	
Spreader	\$.058 3.6%	\$.121 10.8%	\$.032 4.5%	\$.000 1.9%	\$.165 5.9%	\$.027 4.4%	\$.403 \$213,200	\$.027 4.4%	\$.165 5.9%	\$.027 4.4%	\$.027 4.4%	\$.403 \$213,200	\$.027 4.4%	\$.027 4.4%	\$.403 \$213,200	3.7%	3.7%	125.6%	125.6%	
Malleable	\$.402 9.9%	\$.018 8.0%	\$.008 3.4%	\$.000 1.9%	\$.173 6.1%	\$.000 2.0%	\$.602 \$247,902	\$.000 2.0%	\$.173 6.1%	\$.000 2.0%	\$.000 2.0%	\$.602 \$247,902	\$.000 2.0%	\$.000 2.0%	\$.602 \$247,902	4.4%	4.4%	134.6%	134.6%	
Planter	\$.548 11.3%	\$.208 12.3%	\$.081 6.3%	\$.026 3.1%	\$.183 6.4%	\$.030 4.2%	\$ 1.076 \$795,396	\$.030 4.2%	\$.183 6.4%	\$.030 4.2%	\$.030 4.2%	\$ 1.076 \$795,396	\$.030 4.2%	\$.030 4.2%	\$ 1.076 \$795,396	5.3%	5.3%	132.9%	132.9%	
Waterloo	\$.072 3.9%	\$.034 8.5%	\$.000 2.7%	\$.000 1.0%	\$.007 2.2%	\$.024 4.2%	\$.137 \$676,509	\$.024 4.2%	\$.007 2.2%	\$.024 4.2%	\$.024 4.2%	\$.137 \$676,509	\$.024 4.2%	\$.024 4.2%	\$.137 \$676,509	4.7%	4.7%	137.2%	137.2%	
Ottumwa	\$.055 3.4%	\$.156 11.3%	\$.227 12.8%	\$.000 1.6%	\$.039 2.9%	\$.018 3.4%	\$.495 \$376,235	\$.018 3.4%	\$.039 2.9%	\$.018 3.4%	\$.018 3.4%	\$.495 \$376,235	\$.018 3.4%	\$.018 3.4%	\$.495 \$376,235	4.1%	4.1%	131.4%	131.4%	
Dubuque	\$.098 4.3%	\$.019 8.0%	\$.049 5.3%	\$.041 3.9%	\$.002 2.0%	\$.000 1.8%	\$.210 \$394,575	\$.000 1.8%	\$.002 2.0%	\$.000 1.8%	\$.000 1.8%	\$.210 \$394,575	\$.000 1.8%	\$.000 1.8%	\$.210 \$394,575	2.0%	2.0%	135.7%	135.7%	
Des Moines	\$.251 6.9%	\$.005 7.6%	\$.123 8.5%	\$.022 3.0%	\$.104 4.5%	\$.030 4.5%	\$.534 \$400,248	\$.030 4.5%	\$.104 4.5%	\$.030 4.5%	\$.030 4.5%	\$.534 \$400,248	\$.030 4.5%	\$.030 4.5%	\$.534 \$400,248	1.8%	1.8%	138.0%	138.0%	

* YTD = Year to date

Table 27. Percent incentive coverage - Deere and Company's eight UAW plants, 1956-1966

	YEAR										
	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
Harvester	83.9	70.4	78.7	72.3	73.1	74.9	71.5	67.1	69.3	75.2	75.2
Spreader	80.5	78.1	79.4	83.3	78.9	76.8	83.1	79.1	72.3	74.2	75.1
Malleable	91.8	90.6	90.6	87.9	83.5	83.1	85.9	80.8	78.7	74.9	70.1
Planter	83.7	77.1	73.9	76.0	74.2	73.8	75.2	74.9	62.7	73.8	73.9
Waterloo	60.4	77.0	82.3	82.6	45.7	72.2	77.3	74.8	80.4	81.2	82.1
Ottumwa	76.0	65.3	61.9	59.5	56.6	67.4	68.1	69.4	72.6	65.7	75.2
Dubuque	76.5	79.2	77.7	78.5	60.5	66.8	76.1	82.1	79.3	67.9	72.2
Des Moines	70.2	69.1	59.4	61.9	68.1	69.0	69.9	68.6	65.3	69.5	75.6
8 UAW Plants	71.3	77.4	76.6	77.5	60.1	71.1	75.7	74.8	74.6	73.5	77.0

Table 28. Incentive standards breakdown - Deere and Company's eight UAW plants, 1967

Factory	Incentive Standards Established						No. of Re-Studies		No. of Joint Studies		
	New		Revised for Methods Changes		Temporary Conditions		Total	Estab. by Time Study	Estab. by Data	Estab. by Time Study	Estab. by Data
	No.	%	No.	%	No.	%	No.	Study	Data	Study	Data
Harvester	2876	38.8	3824	51.7	704	9.5	7404	14	35	7	3
Spreader	1477	65.5	714	31.6	65	2.9	2256	50	108	1	1
Malleable	875	21.2	3094	75.0	159	3.9	4128	50	34	3	4
Planter	768	44.0	507	30.0	465	26.0	1740	35	38	3	-
Waterloo	3371	48.7	3060	44.2	495	7.1	6926	26	6	14	12
Ottumwa	3715	69.7	530	9.9	1087	20.4	5332	19	23	-	6
Dubuque	3315	62.6	1810	34.1	177	3.3	5302	24	43	1	8
Des Moines	2630	66.8	716	18.1	591	15.0	3937	75	50	6	8

*Estab. = Established