PROFIT SHARING AND PRODUCTIVITY MOTIVATION

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Productivity
(1960-61 folder)

A SYMPOSIUM ON

PROFIT SHARING AND PRODUCTIVITY MOTIVATION

CENTER FOR PRODUCTIVITY MOTIVATION
SCHOOL OF COMMERCE
THE UNIVERSITY OF WISCONSIN
MADISON 6, WISCONSIN

SYMPOSIUM ON

PROFIT SHARING AND PRODUCTIVITY MOTIVATION,

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WINGSPREAD, RACINE, WISCONSIN. //

CENTER FOR PRODUCTIVITY MOTIVATION
SCHOOL OF COMMERCE
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MADISON ~~6, WISCONSIN~~

c[1961]

CPM

THE CENTER IS UNDER THE GUIDANCE OF W. D. KNIGHT, DIRECTOR OF THE BUREAU OF BUSINESS RESEARCH, SCHOOL OF COMMERCE, THE UNIVERSITY OF WISCONSIN. ASSOCIATED WITH HIM IS J. J. JEHRING; FORMERLY ON THE STAFF OF THE NEW YORK STATE SCHOOL OF INDUSTRIAL RELATIONS, CORNELL UNIVERSITY, ITHACA, NEW YORK AND DIRECTOR OF THE PROFIT SHARING RESEARCH FOUNDATION IN EVANSTON, ILLINOIS.

INTRODUCTION

The Center for the Productivity Motivation was established in the School of Commerce at The University of Wisconsin through a grant from the Johnson Foundation of Racine, Wisconsin.

The purpose of the Center is to study objectively the human factors affecting productivity in our economy in the hope that new light will be shed upon some of the emerging forms of industrial organization which can help us meet the challenges our business system faces, and will face in the future.

One of the areas which should be subjected to the attention of our economists, social scientists, and business specialists in the University is the rapidly developing area of profit sharing in American business.

To initiate such a study the Center arranged for this symposium, at which the executives of a number of profit sharing companies from the United States and Canada were invited to meet with a group of professors from The University of Wisconsin to explore in a general way both the theory and practice which surround the practice of profit sharing in business.

This publication records the papers which were given, as well as the discussions which followed those papers. It includes on the one hand some suggestions as to theories which might help us to better understand the role of profit sharing in the economy, and on the other hand, examples of the practical and effective application of the principles underlying those theories.

These discussions will serve as the basis for further investigations by the Center staff of the theoretical aspects of profit sharing as well as its practical application in solving some underlying problems of our economy.

E. A. Gaumnitz

E. A. GAUMNITZ
DEAN

A NOTE ON THE TECHNIQUES OF REPORTING THE DISCUSSIONS

In order to encourage free and open discussions, it was agreed not to report the comments made in the discussions on a personal basis. Therefore, we have resorted to the following method of presenting this material.

The participants were separated into three distinct groups:

Professors

Industrialists

Association Executives

The statements are numbered in such a manner that the comments by individuals can be traced through each discussion.

The comments are not reported verbatim, but are rather a summary of the salient points made by each person.

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SOME RELATIONSHIPS OF PRODUCTIVITY TO WAGES

Ewan Clague,
Commissioner, U. S. Bureau of Labor Statistics
Washington, D. C.

Your mention of the Bureau of Labor Statistics leads me to make a few remarks about that Bureau. It was organized 75 years ago, in 1885, in the middle of a depression, when Congress was deeply concerned about labor unrest, agricultural unrest, business depressions, and a lot of other difficulties. They decided that fact finding might be a useful tool to apply in the economy of that day, so they created this Bureau, which was called the Bureau of Labor. The interesting point is that in 75 years there have been only six commissioners – I'm the sixth – so you can see we've all had long and substantial terms of office.

The foundations of this Bureau were established by the first commissioner, Carroll D. Wright. Colonel Wright had been a Civil War veteran and had become a Commissioner of Labor in the State of Massachusetts. A book on this subject has just been published, and I was asked to review it. I didn't know until I read the book that there was a prolonged political issue as to who was to be the Commissioner of Labor. The political drive for the creation of the Bureau came from the labor movement. They wanted a cabinet department that would represent the voice of labor and would support labor's interests. One of the candidates for Commissioner was Terence E. Powderly, the head of the Knights of Labor. President Arthur, however, appointed another labor leader, sent his name to the Senate, which immediately confirmed him (about October; the law had been passed in July). By that time President Arthur found out that his appointee had been on Blaine's side in the contest for the Republican nomination, so he wouldn't issue a commission to him. January came, and there was still no appointment. President Arthur got tired of the political squabbling, and decided to appoint a statistician; the choice fell on Colonel Wright, who was appointed for a four-year term.

Then another interesting issue arose. You will recall that in those days the change of administration occurred on the 4th of March. It was no use being appointed in January if you were going to be thrown out in March. So an agreement was made between Presidents Arthur and Cleveland that Cleveland would leave Wright in office for the four-year term, which would run to January, 1889. Well, then Cleveland was out and Harrison was elected – the Republicans got in. Again the same arrangement was made; Wright was reappointed. Then Harrison lost out and Cleveland came back. Again Wright was reappointed. Then Cleveland went out and McKinley came in, and once more Wright was reappointed. Finally, Teddy Roosevelt came in and Wright was permitted to continue. In 1905, after 20 years of having a different President every term, he became President of Clark University and retired from the scene.

Carroll D. Wright set the tradition of this Bureau. Some of his statements are still as eloquent as any you can find on the subject of statistics. His basic principle was that the purpose of a statistical bureau was to publish the facts, not to theorize nor to make policy. Give the facts to the public and let the public decide what to do with them. He established the tradition of this Bureau, and it has been continued ever since.

The Bureau has never had a political commissioner. In my own case, I was a civil servant of many years standing. I was appointed twice by Truman, twice by Eisenhower, and on August 1, 1963, Mr. Kennedy will have an opportunity to decide what he wants to do. Ours is a non-political Bureau, which has always "hued to the line" on that basis. It's a wonderful tradition, and I am happy and honored to have been the sixth in line in such a list. I hope to pass on to the seventh this same tradition.

I have brought along a few charts. I shall use them to illustrate a point or two in each case, relate them to the very interesting discussion I heard this afternoon, and then leave it to you to draw your own conclusions.

Figure 1 shows the weekly earnings in manufacturing industry. The average weekly earnings in manufacturing were $24.00 a week in 1939. They have gone up over the last 20 years until they are now about $90.00 a week, not quite four times. That's the average, of course – high wage, low wage, men and women, part time, full time. That is the way wages have gone up over the past 20 years. This other line shows the Consumer Price Index, and for our purposes here let's call it the cost of living. It's gone up a little more than double over the intervening period. How did it happen that wages could go up four times when the cost of living only doubled? Of course, the answer is "productivity." Wages have gone up this much because labor has gained the benefit of increasing productivity, during the period, over and beyond the cost of living.

There are some classes of workers who have not obtained full advantage of this rise in wages. There are certain groups whose wages or salaries have lagged behind. Of course, there are some workers who have had larger increases than those in the manufacturing field.

Figure 2 shows a productivity measure that we developed. The data go back to 1909. I'm not going to go into the mathematical formulas behind these figures. I think that Dean Gaumnitz mentioned that somebody had read a book claiming none of these figures to be any good. Well, I know they are not very good, but I think they are a little better than some people think. I know the weaknesses in them, but I still say they're worth something, and I am showing them to you for what they are worth. The lines show output per man-hour of the total private economy, excluding government. We government workers are not included in it nor is our output included in it, because we are counted in the gross national product merely at our salaries. We never have any productivity measurement. We don't sell anything, so our output is our input and nothing more.

Taking the private economy, then, you can see that output per man-hour has increased about three times in the past 50 years – in other words, tripled. This represents the real product of goods and services, with price increases taken out of it. Prices, of course, rose substantially over the period. Over that same period, agriculture lagged for a couple of decades, but in the last 25 years, and particularly in the last 15 years, agriculture has done a remarkable job. You know very well the tremendous output of farm products and the shrinkage in agricultural employment.

I want to emphasize, however, that we still do not have an output per man in agriculture equal to that in industry. Farm productivity only shows ahead

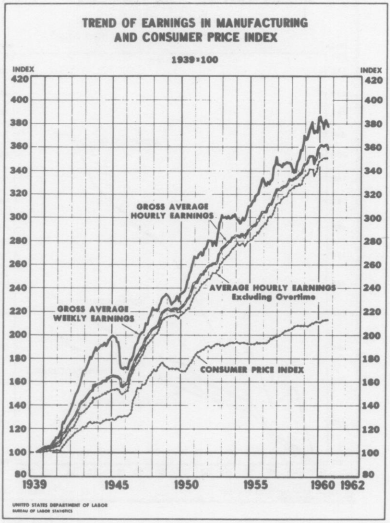


FIGURE 1

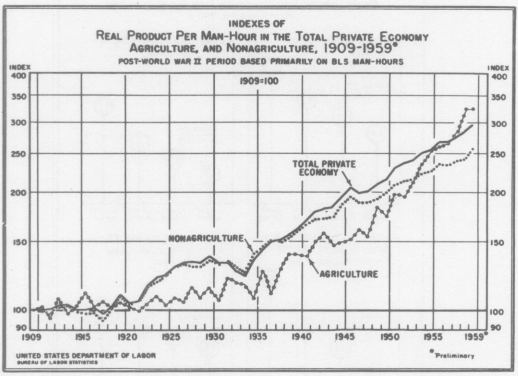


FIGURE 2

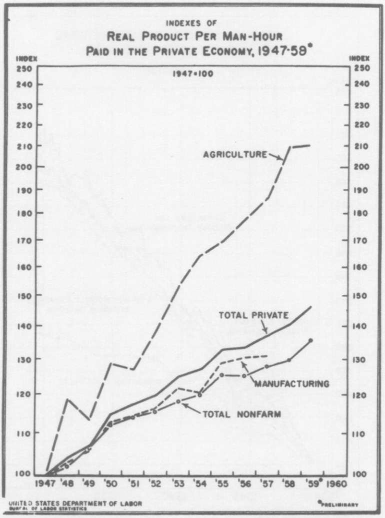


FIGURE 3

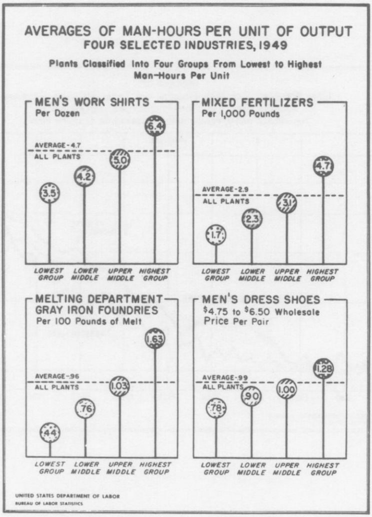


FIGURE 4

on the chart because we used 1909 as the base of 100. At that time farm output per man was far below industry. In fact, agriculture is still trying to catch up. We are still losing workers out of agriculture, and I think we shall continue to do so for the next 10 to 15 years. We estimate a loss of 1,000,000 to 1,500,000 workers in agriculture up to about 1975. By that time, I think, our population needs will have expanded and agriculture will have increased its output per man to the point where it will be competitive with industry. Our agricultural decline in employment could then come to an end. Of course, that's just a guess. At any rate, this is the existing trend. For the last 50 years employment in agriculture has been going down. For the economy as a whole, this long-run trend in productivity runs about 3 percent per year. While it wobbles from time to time, the general trend is upward. We are continually mechanizing and improving.

Figure 3 shows productivity for the last 12 years, from 1947. Using 1947 as a base (100), we have gained almost 50 percent in output per man-hour up to 1959. Note that agriculture has more than doubled its productivity over the last 12 years. We are now able to turn out twice as much per man-hour in agriculture as we did in 1947. Non-agriculture shows a steady rise, but the over-all increase has been not quite 40 percent over the period.

I would like to show some other aspects of this productivity – this output per man-hour. Figure 4 shows some averages that we obtained in studies we used to conduct in the Bureau. These data were reports from individual firms in 1949. Our data were gathered by visiting the firms and doing an accounting process on labor utilization.

I must interrupt this demonstration to explain that productivity can be expressed in two different ways: output of product per man-hour of labor, or man-hours of labor per unit of product. In the first two charts I showed productivity as output per man-hour of labor, but this chart shows it in reverse – labor per unit of output. The latter is the way an employer usually looks at the situation. He thinks of the minutes or hours of work it took to make the product. If the efficiency is increasing, the operation that took 100 hours last year will take only 97 hours this year, and next year it will be 94 hours, then 91, etc. The result would be a declining number of hours to produce the same output. That is the way it is shown here.

Please note the wide variations between firms in the same industry on this test of efficiency. One section of the chart shows the unit of a dozen men's work shirts. We divided all the plants that we studied into four groups. Note that the most efficient one-fourth averaged only 3.5 hours of labor to make a dozen shirts. (These figures relate only to production workers. The office workers are not included, so the total personnel cost or total labor cost is not shown. That doesn't matter for my demonstration, however, for all I want to show you is the shape of the variations.) The middle group of firms averaged 4.2 hours per dozen shirts. Then there were others at 5.0 and 6.4. Yet the average of all groups was about 4¾ hours per dozen men's work shirts. In 1949 all these firms were in operation, but look at the differences in labor costs that existed. Some firms surely must have been losing money. How could they have been operating while using 6½ hours of labor when somebody else was using only 3½? Of course, they might have been paying lower wages; perhaps they didn't have such expensive machinery or pay so much machine rental. In 1949 we were still in rather an inflationary period.

My guess is that some of these firms were surviving because prices were going up and many of them were rescued by price increases.

You have been discussing profit sharing here. Note that significant differences would exist among these firms. Some would have good profits to share; others probably were not making any profits at all. There is another interesting speculation: How did the best group get down to 3½ hours? What were the factors that accounted for that achievement? Was it mechanization, or was it motivation? Were the workers organized? Were they working enthusiastically despite the saving in man-hours?

The other commodities represented on the chart show the same general picture. Of course, some of the differentials were tremendous, as in the melting department of iron foundries. The best group was down at .44 – less than a half an hour for one hundred pounds of melt. Yet there is one group at 1.6 hours. The shoe groups run a little closer together. While all groups average just about 1 – .99 it is – the best one averaged about 3/4 hour, another group 9/10 hour, while still another had 1¼ hours. Again one can raise the basic question: How do all these firms survive? Of course, the shoe industry is one in which mechanization didn't yield much of a differential. The United Shoe Machinery Company rents all the machines, so most firms were probably on an equivalent basis, technologically speaking. The differentials might have been due to efficiency in organization, skill in management, etc. In any case, we find these wide differentials existing right in the same industry at the same time.

Question: Is this *adjusted* for the quality of the shoe?

Answer: Yes, this is as close as we could get to a comparable pair of shoes: $4.75 to $6.50 wholesale price per pair. There probably were little variations but that factor was supposed to be constant. The variations simply show that plants differ very widely in the amount of labor costs they can have. I have to emphasize here that some of these firms could have paid low wages and so reduced their labor cost. In view of the fact that one range is nearly 3 to 1, however, I would doubt that any savings in low wages could have fully offset the differential. I'm quite sure that there are other factors of efficient production, good organization, high wages, and low labor costs, but one can't be entirely sure of what the factors actually were.

Question: What about geographical areas?

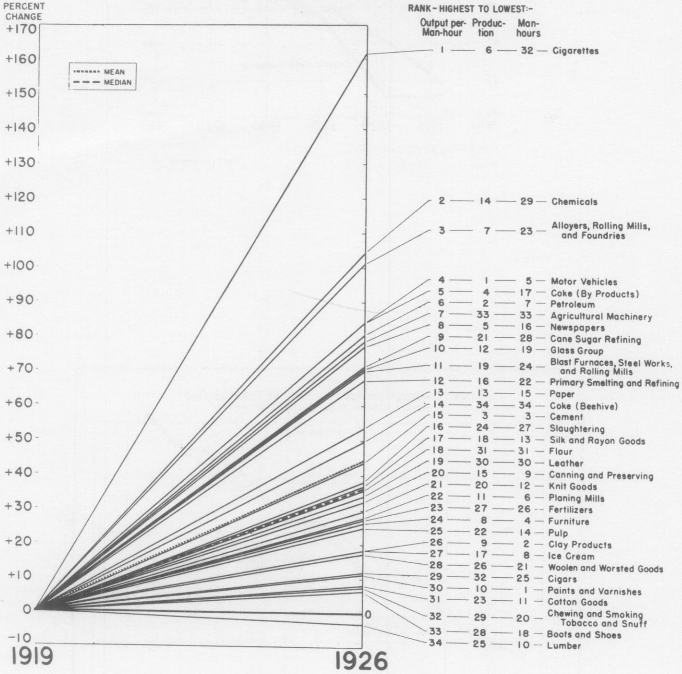
Answer: These shoe plants were all pretty well centered, as I recall it, mostly in New England. I think foundries ranged quite widely. There were some Middle Western plants and some East Coast plants. That might account for some of the big differences in labor requirements. Fertilizers were spread widely, too. We weren't trying to take account of geographical differences, just trying to find a reasonably representative list of plants in these different industries.

Question: These data are very valuable. Have you been able to keep them up to date?

Answer: No. This was all lost. We never got money to keep it up. It was quite costly, because we had to have agents talk to the management in the plant. After that, employers could report year after year. The plant had to select a comparable unit of product, such as men's work shirts, which would be comparable from year to year. Then they had to work up with the accountants the man-hours that should be charged. We were charging two

PERCENT CHANGE IN OUTPUT PER MAN-HOUR

34 MANUFACTURING INDUSTRIES, 1919-1926



UNITED STATES DEPARTMENT OF LABOR

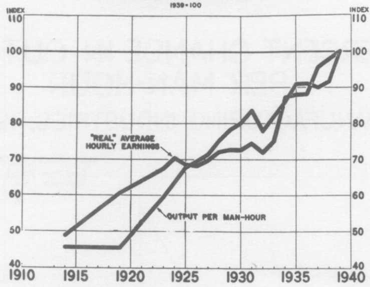
BUREAU OF LABOR STATISTICS.

FIGURE 5

OUTPUT PER MAN-HOUR AND "REAL" HOURLY EARNINGS

MANUFACTURING 1914-1939

1939=100



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

FIGURE 6

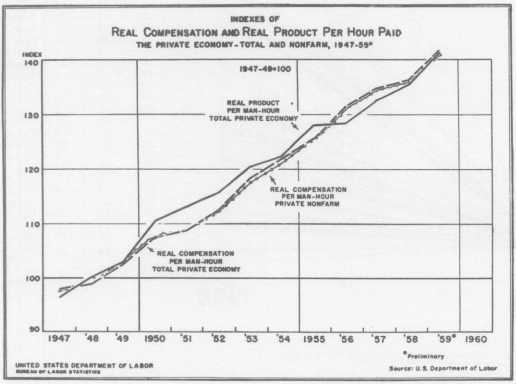


FIGURE 7

kinds of man-hours: the direct – making the shirt – and also the indirect – the sweepers, the guards, and other labor of that kind. We did not include the central office staffs. We did a lot of this work for I. C. A. in 1949–53 for comparison with European plants. We selected smaller plants in this country, and we broke the man-hours of labor down much more finely than shown in this chart. For the I.C.A. we estimated the man-hours required for each stage of production – the stitching, the cutting, the basting, the packaging, and so on. The reports were sent to Europe for use in their productivity centers. Then they in turn made similar studies. The French especially have done a great many such studies, comparing French labor requirements to our labor requirements on similar articles. There was no French plant that was as low in man-hours as the least efficient American plant. This was around 1950–53.

There is another productivity differential that I want to point out. Productivity gains can differ widely over a period of time. Figure 5 shows changes in output per man-hour from 1919 to 1926. This comparison is industry by industry, not plant by plant. Note that one industry increased 160 percent – that is, 2.6 times as much per man-hour in seven years. That was cigarettes. It was due to the introduction of the cigarette machine. You will notice that cigars are far down the list – they didn't have a machine. They increased only about 10 percent to 15 percent over the seven-year period. There are many other industries: chemicals, rolling mills, etc. The American Rolling Mill Company was putting in its continuous roller about 1926 and some effect of that shows up. Automobiles were going through their marvelous mechanization at that time, but that was accompanied by a spectacular production increase. Over a period of time we get a wide difference between industries in the rate of technological progress. Some are ranging far ahead, while others are losing ground. In fact, the lumber industry wasn't doing as well in productivity as it had been seven years before.

Figure 6, representing productivity and earnings, shows real hourly earnings with the rising cost of living taken out of it, so that we show real purchasing power. This figure covers the period from 1914 to 1939. One line measures the changes in productivity – the output per man-hour – in manufacturing. The other line measures the buying power of the wages of factory workers over this period. During World War I and the early 1920's workers tended to get more in earnings than they achieved in productivity; but over the 25-year period, the lines came back together again. In other words, productivity, or increased efficiency, yields higher real wages in the economy, and nothing else does. That is simply a truism. We can consume what we produce. The real buying power of wages in the economy will be what the workers produce over the period.

Figure 7 shows the same thing. This is based on 1947–49 = 100. The real product of the economy per man-hour over the period increased about 50 percent from 1947 to 1960. This is the total private economy. Here is the real buying power of the earnings in the total private economy. This *does* include vice-presidents, officers of companies – it includes the *entire* personnel returns of all the people participating in production.

The average net purchasing power of that group stays almost the same – they're absolutely together in 1959. If productivity goes up, then the real earnings can go up. If productivity does not, then money wages might rise, but there would not be a corresponding rise in buying power. So again we have a truism. If productivity goes up, our standard of living will go up in proportion.

Question: What is included in this standard of living? Would it cover such items as TV sets, etc.?

Answer: Yes, TV sets are included. I didn't describe how we measure these things; I just asked you to accept it on faith. One is a measure of the total value of goods and services produced in the economy. The compensation covers all wages and salaries received in the economy. There is no allowance for capital investment (rent, interest, or profits); since the figure shows only the percent of change from year to year, the omission is not too important. If these proportionate shares remain about the same, the increases in personal compensation (wages and salaries) will closely approximate the rates of increase in total income. You were discussing this afternoon whether profit sharing had any value in causing this productivity line to go up faster, and thereby pull real purchasing power up faster. Is profit sharing a factor in increasing the rate of progress in production? Would it make the economy more dynamic?

I would like to speak briefly about some booklets I have here. All of these details are shown in a bulletin we published last year, "Trends in Output per Man-Hour in the Private Economy." In this booklet we analyzed some of these factors influencing economic progress. We compared this rate of increase in productivity with capital investment in dollars, with factory construction, with equipment purchases. The amount of money put into factory buildings seems to have had practically no connection with this rise in productivity, but equipment increases showed a high correlation with productivity. So, equipment is a very potent factor, which makes sense. The machines are what is important, not the buildings in which they are housed. We even analyzed the human factor. We compared productivity with research and development expenditures. We checked on electrical power, which also had a very close correlation with productivity. However, we did not go into the issues of wages and human motivation, into any of the things you are talking about here in the conference.

Next, I would like to mention some speeches I have made on the economic situation—one in Chicago a year and a half ago on "Prices, Wages and Productivity," one at Cornell on "Emerging Issues of Labor-Management Relations," and another in New York at the New York University Conference last May on "The Economic Climate of Collective Bargaining." I can sum it all up very briefly by saying this: During the 1950's we have had an inflationary economy fairly often, particularly from 1947 to 1950 and again from 1955 to 1957. During those periods the major problem was the expansion of the money supply and rising prices. Most of the productivity gains in the 1950's went into wages and salaries (Fig. 1). In a decade of labor scarcity and goods shortages, this is probably inevitable. I do not know. At any rate this is true. The main point I want to make is that the 1960's, I think, are going to be somewhat different. I rather lean to the point of view that we are not going to have an inflationary price rise. We have guessed the 1961 rise in the Consumer Price Index at 1½ percent. Perhaps next December that won't turn out to be right. However, it's about the same as it was last year and the year before. That is quite a small rise. In that case, price increases will not solve an employer's difficulties if he makes a bad collective bargain.

As a matter of fact, both management and labor will look at things differently under those conditions. All this debate about automation, mechanization, productivity, labor-saving, etc., is a reflection of those changed conditions. I want to call your attention, therefore, to a booklet we published on "The Impact of Automation." In that we have reviewed briefly the contract of the International Longshoremen's Union of the West Coast with the Pacific Maritime Employers, who wanted to raise productivity. They asked themselves if there was any way to motivate the workers. They invested five million dollars a year in motivating the men to get rid of featherbedding. I needn't go into the featherbedding issues on the West Coast, but all of them stem from job protectionism—the worker reacts to unemployment by trying to protect his job by spreading the work, if possible. Of course, this is anti-productivity. At any rate the employers and the men reached an agreement for a five-million-dollar investment running for 5½ years—a total fund of $27,500,000—in return for which the employers are to have a free hand to use containerization and other labor-saving practices. The Union, in other words, has promised to cooperate in order to save labor costs. What's the Union going to get out of it? Well, they are going to get the five million dollars. But what's it for? Stated simply, it is to eliminate some workers from the work force and provide steadier work for those who remain. There are three classes of men in the Pacific Longshoremen's Union. The Class A Longshoremen are fully developed senior Union members. The Class B group are the younger men of the Union, who get called if all the older men are employed. Then there is a group of casuals who don't even have Union privileges; they are brought in whenever there is an extra volume of work. The Union knows that with mechanization less labor will be needed. So the casuals who now work only occasionally on the water front will have no work at all. Probably the Class B longshoremen will be cut down, if not entirely eliminated. The Class A workers will be able to do the work. So two classes of unemployed will be created, which may be a problem for the cities of San Francisco and Los Angeles, but the change will cut the labor cost of longshoring activity. Of course, the hope is that by cutting the labor cost there will be more shipping through those ports and eventually more work to be done. Then perhaps employers will hire again, but at a low labor cost and at an efficient rate of production.

I would like to mention the article on the Kaiser Steel Company. The general steel industry has had a committee at work on the subject of what can be done about improving productivity in the industry. Kaiser, however, has two committees. They have a steel committee of the kind that is going to discuss local work practices, what can be done with anti-productivity practices existing in local plants. They have another committee to discuss the whole question of how to share productivity gains between the consumer, the employer, and the workers. That means a three-way classification of returns. Whether anything will come out of that effort, I don't know. Whether any labor-management group would agree to cut the consumer in on it, I'm not sure. At any rate the Company and the Union have recognized the principle that some part of productivity should take the form of lower prices to the consumer.

We have published some other materials in the Bureau of Labor Statistics on automation as such, that is, on specific devices that have been introduced and how they have worked out—the electronic computer, electronics in a bakery, the manufacture of TV sets, the electronic computer in an insurance company, and the airline reservation system. We studied each of these from a labor relations point of view. How did the firm introduce to the men and the women workers the idea of making a drastic change? How did they explain to the workers what was going to happen? What did they do when they introduced the machine? How did they shift the people who were affected by it? What did they do with those who were no longer needed? What training was established? How many were actually displaced and who was displaced? I can't forbear mentioning one interesting point: In the twenty firms that introduced electronic computers, very few workers were laid off. In units that employed 2,800 persons, 1,500 persons had no job change at all, 900 persons were transferred, shifted, or retrained in a variety of ways, and 400 was the net reduction of employment in those twenty firms. How was the reduction of 400 achieved? Practically all of it was in workers under age 45. There was practically no reduction at all in workers beyond the age of 45. This was entirely employer judgment as to what was the best thing to do. The older people were kept on. What happened is that a lot of the younger workers quit, and were not replaced. On the whole it was a success story, meaning that when these changes are handled well, it works out all right. We are planning to publish a pamphlet on the principles that work well in obtaining worker cooperation in this kind of dramatic change in work processes.

I close with one last thought. I think we're going to have *very much more* of this. There's going to be a lot of discussion of automation, technology, and labor displacement. Workers are going to be worried about their jobs. It is going to be much more difficult to get worker cooperation under present conditions than in a rapidly growing economy in which jobs are relatively easy to get. If workers don't like your place, they'll quit and go somewhere else. However, it is most important to assure that the rate of productivity increase in the economy is maintained, and even pushed higher rather than being dampened by restrictions. Productivity can be the source of greater economic growth and a rising standard of living for American workers.

QUESTIONS AND ANSWERS FOLLOWING MR. CLAGUE'S SPEECH:

Question: With the consumer price index do you take into consideration any improvement in the quality of the product?

Answer by Mr. Clague: Insofar as we could, we take that out of the index. The price of an automobile in our consumer price index is not a straight price comparison of the present car with the 1939 car. The present price is adjusted downward for any improvements that we could detect from year to year. I have to admit that there's probably a creep in quality, because there are some improvements in a car that we can't take out very well, at least not without a lot more work.

Question: We all know that machinery has been the big thing to increase productivity. What are your ideas on our ability to increase productivity through productivity motivation achieved through labor-management cooperation?

Answer by Mr. Clague: In many ways the changed economic atmosphere is going to lead to a larger area of labor interest and cooperation in increasing productivity. The former Secretary of Labor undertook to act as chairman of a committee on labor-management cooperation in the railroads. He felt that there was enough of a chance of success to do that. The railroad unions have been strongly resisting any changes in working rules, partly because they have been suffering so long from declining employment.

Comment from floor: Today you can ship carloads to the East or West coasts or intermediate points by rail cheaper than you can by truck.

Mr. Clague: I feel that you certainly ought to be able to do so. From the point of view of an efficient economy, it seems to me that we have over-developed long-range trucking when we could use the railroads more. The trouble is that, between railroad management and railroad labor, the railroads have been pricing themselves right out of the transportation market. They lack the fluidity and flexibility of trucking. If management on the railroads can exercise some engineering ingenuity, and if the railroad unions will cooperate in cutting costs, they could recapture some of the transportation they've lost.

In answer to the latter point, I think there is every sign that unions are now beginning to be deeply concerned. They've begun to realize that high wages can mean more purchasing power, but high wages can also mean unemployment. In many of the large industries of this country, there is more unemployment now than there has been since the late 1930's. Some unions are aware of this problem. Did you ever hear, in the last twenty years, of any union offering to take a wage reduction, as a few of them are now offering? Others are offering to pass up a wage increase. There may now be a good chance to talk efficiency and mutual interests in efficiency, on the part of both labor and management, to protect their joint interests.

Question: They will not, however, cease pushing for a higher minimum wage, will they?

Answer: That's right, but this doesn't mean as much as you might think. These statutory minimums apply only to lower-paid workers. The effect on the whole economy is not great, even though it may be quite a blow to some firms and some industries.

During the last fifteen years, since the end of World War II, the economy has been in an upward sweep of wages and prices, with general prosperity and a rising standard of living. Labor has wanted to share in that increase, and management hasn't felt an overwhelming urge to resist. Both parties may realize that conditions have changed and that in many industries they have a joint interest in cutting costs and expanding production. Productivity makes that possible.

The Railroad Commission will have a tough job because the railroads have been in trouble for a long time. Now the problem has spread to the airlines. Some unions are afraid they are going to bear the brunt of the readjustments—firemen on the railroads and flight engineers on the airlines. These unions cannot agree to being eliminated. The Mediation Board tried to put the airline pilots and flight engineers in the same union, hoping that, in being together, they could resolve some of their difficulties among themselves. John L. Lewis, as President of the United Mine Workers, solved a lot of difficulties among the miners between the skilled and the less skilled and the various others, because he had them all in one union. These problems can be very tough; but at least it's now possible to get a hearing.

Question: We have a law that allows a combination of people to set the price of a product through power bargaining over wages. This is a monopoly situation that we don't like. When we allow our laboring force to conspire together to set the price of a product, don't we introduce, in effect, the same combination of circumstances that we have when managements combine to set prices? You cannot remedy the situation because you, in effect, built the situation through a law that allows a combination of that type to exist.

Answer by Mr. Clague: Unions were organized to be a group effort, both in wage bargaining and in protection of workers against managerial power. Unions grew in spite of early efforts to suppress them. You can't get rid of unions—you can't pass a law preventing their existence—and you wouldn't want to do that anyhow. About the only thing you can do is to raise the question as to whether or not in some instances they've reached such power that the community might want to change some of the factors that have brought that about. But even that would be very hard to do. My former teacher, Professor John R. Commons, used to say that businessmen are essentially individualists—they think in terms of improving their competitive position—whereas laboring men tend to be much more group conscious, and much more "one for all and all for one." Unions will continue to exist, but of course their powers, privileges, and immunities will not remain fixed for all time.

Question: Would you comment on the use of the "cost of living" for wage increases—in other words, escalator increases?

Answer by Mr. Clague: It has been widely used for the last twelve years. As you know, the automobile industry has been employing it since 1948.

Question: What do you think of it?

Answer: As far as we in the Bureau are concerned, it has brought us a lot of problems and also a lot of recognition. We neither oppose it nor endorse it. I can tell you ways of escalating that would make it easier. I have cautioned both labor and management that this index is not so perfect that it should be measuring by a tenth of a point. It might be better if the escalation was less precise; but as long as the index keeps going up, escalation will be used, I can assure you of that. If and when we get stability, the workers lose interest in it. We had 4,500,000 workers on escalation in 1958; today I would say it's 2,500,000. The railroad workers dropped out. Other workers have dropped off. The building trades have seldom used it. They bargain every year and prefer to get their increases at the bargaining table each time. Escalation developed because Charles Wilson of General Motors thought he would like to have labor peace for a period of years. Under long-term contracts, workers want something that will protect the purchasing power of their wage bargains. The cost-of-living escalation is simply protecting the purchasing power of the bargain. No union would ever agree to sign a contract for 3, 4, or 5 years without being assured that a rising cost of living would be taken care of.

Question: In the Internal Revenue Bureau a record is kept of the number of profit-sharing plans approved by that Bureau. Is there any way that you can integrate some of the information that you have on productivity and relate it to those plan-reporting companies that would indicate anything of importance to us who are interested in profit sharing?

Answer: The kind of study we would make would be like one of these automation studies that I mentioned. It would be a question of our getting information from you on your production prior to profit sharing and then afterward, so that we could see the gains resulting from it.

Question: Are the statistics of profit-sharing companies reported every year to the Internal Revenue Service? Is there anything that is reported to the government now that would indicate the productivity of profit-sharing companies?

Comment from floor: No, there is not. I think it would be a good idea if we could get such information from the Labor Department or perhaps through a Senate committee, like the old Vandenberg Committee. We should have another investigation of profit sharing and productivity.

Answer by Mr. Clague: You would have to produce your own reports. You would have to be willing to show what you're achieving in reduced labor costs for a given volume of output for your plant. Of course, most companies are not willing to have their individual data published as such. They will only do it if the figures are combined. The data I have presented here are all group data. We get the volume of steel production and ore production from other agencies, and then use the man-hours from our employment statistics. We put together these sets of figures. For the kind of information you are talking about, however, it would be necessary to get a list of the companies that were willing to cooperate, taking their changing production and their changing man-hours, and show the net effect of these in terms of productivity gains (or losses) each year.

Question: Could the Council of Profit Sharing Industries or the Profit Sharing Research Foundation do anything about collecting some figures that would prove the point of productivity before profit sharing?

Answer (by Admiral Burrows): I would like to recall the experience that Mr. Jehring and Mr. Metzger had with Quality Castings. These two men put in a tremendous amount of work, especially considering the fact that this gray iron foundry had undergone almost no technological changes at all. Their product mix was almost exactly the same both before and after profit sharing, so that the improvements in productivity, the lessening in man-hours, the increased value, and so on, were almost directly equatable to the human factor.

The job, even so, was not easy and the firm had kept meticulously careful records.

Mr. Clague: You have here many different kinds of industry—a complex of industries, each of which has its own management.

Comment: Averages wouldn't mean a thing; you would have to take them case by case.

Mr. Clague: Case by case is the way you'd have to do it. One firm represented here has shared profits since 1917, so the plan must be working in this instance or there wouldn't be any profits. The fact that profit sharing lasted a long time means it must have had some accelerating effects.

Comment: In our records we divide our record of sales by the number of employees, and the dollars per employee have constantly gone up. The volume of sales per employee is bigger and bigger. Although profit sharing is partly responsible, it is also partly due to the price.

Comment: We have the same thing. From 1947 we can show that for three years our productivity increased after we installed a cash profit-sharing plan. We had no change in prices, we had no change in equipment, but we kept reducing the number of men, and productivity kept going up, because the union wanted to have fewer people to divide the profits. If you have an unusual situation like this, you can prove it. Last year, of course, we had such factors as price increases and machinery-equipment changes. There was a time, though, when we first installed the cash plan, when we could see the production per hour increase solely because of the change brought about by profit sharing.

Mr. Clague: A lot of your productivity comes from the efficiency of the men themselves.

Answer: It is the productivity of the entire personnel—office and sales force as well.

Question: In the study that you made on the productivity of shirts and shoes, for example, would it be possible to discover some relationship between productivity and the companies that had profit sharing? Did it tend to appear in the higher or lower brackets?

Answer by Mr. Clague: Among the firms with which we were working, I doubt if there was any. We had a representative list of seven or eight firms. I don't remember any profit-sharing companies, so we never thought of making that comparison.

I'd like to say one thing about labor, as far as productivity is concerned, that ought to be clear to all of us. Workers can contribute their own skill and their own ability, which is very important, but management must engineer the productivity of the enterprise. Labor's contribution is to cooperate in the changes that management may want to make. Labor is willing, under certain circumstances, to accept changes in work procedures. The West Coast maritime employers are buying from the workers their resistances to technological changes that threaten their jobs. There are many firms and industries in which the skill and enthusiasm of the work force is very important in improving productivity.

There are other industries where labor is a less important factor, where technology so completely dominates the situation that labor's chief contribution is willingness to cooperate in management plans. To achieve that, you will have to reward them in some way—profit sharing, bonuses, job protection, separation pay, etc. There are many questions to be answered. Is profit sharing better than the bonus system? What are the limitations of a reward system? In the steel dispute of 1959 the employers argued that the workers were featherbedding and restricting, but the workers never felt guilty because many of them were earning bonuses for producing beyond the standard rate. How can you convince a man he's featherbedding if he's earning a bonus for producing? Management's problem is a continuing one. No system of rewards works automatically.

PROFIT SHARING IN THE JOINT ENTERPRISE SYSTEM

Rear Admiral A. C. Burrows, U.S.N. (Ret.)
President
Council of Profit Sharing Industries
Chicago, Illinois

Let us reflect at the outset that we are able to be here and to engage in that activity which sets us apart from other animals—that of thinking about and being concerned with the welfare of our fellow man, as well as ourselves, solely because of saved labor. It is because there was a surplus left over after paying the wages of subsistence, because there has been a profit.

We are gathered in these pleasant surroundings to talk about a way of life in business and industrial relations. To the economist, until we *do* convert him, we are talking about a theory of wages, or of an income distribution.

Our subject means different things to different people. A distinguished gentleman from San Francisco said, in welcoming my colleague and me to his city last Election Day, "Well, I just don't know what things are coming to. There is a rumor that they might elect that fellow Kennedy. And on the same day, you chaps come into town with some Communistic idea of sharing one's profits!"

What we are talking about is, in truth, a matter of the left and of the right. I speak of the area lying on either side of the intersection of the curve of the Value of Output and the Cost of Input. Their intersection is, of course, the break-even point. To the right lies profit; to the left lies loss. It is well to remember—with respect to the break-even chart, as well as in some other areas—that profit for humanity lies only to the right.

Our distinguished associate, Tom Leavey, in his remarks made upon the acceptance of Seattle University's Award Citation for Economic Statesmanship, expressed the hope that we might replace the overworked, vague—betimes contradictory—"free-enterprise system" with words that express the cooperating *unity of effort* in achievement. He suggested "joint enterprise." What did he mean? Webster says of "joint"—"involving the united activity of two or more." Of "enterprise" he says, "an undertaking which involves activity, courage, energy; an important or daring project; a venture"—and also, "the character or disposition that leads one to attempt the difficult, the untried."

Tom Leavey would have us united in cooperative endeavor, which demands the best of all of us. He would achieve this through the mutual trust and confidence born of the respect due both voluntarily saved capital and the efforts of individual free men!

Karl Marx gazed upon the neat, almost English garden-like precision of the observations of Adam Smith and, more particularly, those of Malthus and his friendly enemy, David Ricardo. Because chaos, confusion, and ultimate revolution was his purpose, Marx liked what he saw.

Drawing his observation from what was indeed status classes, particularly among the workers and the capitalists, Ricardo enunciated what came to be known as the Iron Law of Wages. Certainly, Marx noted, there were more workers than capitalists. He thought, quite correctly, that this state of affairs could not last forever. His solution was that there had to be a class struggle until that time came when, by eliminating private property, the society was made a "classless" one. His solution for property was to make no one an owner.

Almost contemporaneously with Karl Marx was a countryman of his who was saying that the answer was quite the opposite. Von Thunen said, "Make everyone an owner of property. Do away completely with the non-owners." How did von Thunen propose to bring this about?

This German economist saw, with brilliant clarity, that there were two components within the labor assets of man. One was the objective, functional factor of production known as labor. This was the component that was juggled so neatly by the classical economists when they lined up their factors of production. It was the human ingredient in the finished product of "laborers, one with another" (to quote Ricardo slightly out of context). It was what you bought when you purchased labor by the time interval.

Von Thunen saw not this alone, but also recognized another component of man's work. This came from the innate aspiration of man to pit himself against the challenge of nature in free, creative, imaginative, and innovational activity.

Von Thunen's tremendous contribution to our present subject is his observation that this second component of man's endeavor did not fit within the classical definition of the economists' labor factor, nor was it assignable by function, as in the case of marginal productivity. This was "free" activity and, by definition, could not be classed with the other factors such as land, materials, capital, or rent.

This free, creative activity, however, resulted in profits. Von Thunen saw, too, that a worker can create such profits by his free activity, just as the owners of capital can create profits by their free and entrepreneurial activity. It is essential to note here, however, that the reward to the worker for this "innovating" activity component of his work is not paid to him in the market place. He must participate in an enterprise so organized as to recognize and reward non-property assets—the profit-sharing firm!

I earnestly hope that I am forgiven for thus truncating the brilliant mathematical reasoning of the great von Thunen into this capsule explanation. I hope, too, that our discussion periods will permit us to elaborate upon the creative work of this great economic thinker.

It is interesting to note that quite outside the framework of profit sharing, these truths arrived at by von Thunen were noted by Clarence Francis, then Chairman of the Board of General Foods Corporation, when he said at a post-war convention of the National Association of Manufacturers:

> You can buy a man's time, you can buy a man's physical presence at a given place; you can even buy a measured number of skilled muscular motions per day or per hour. But you cannot buy enthusiasm . . . initiative . . . loyalty; you cannot buy the devotion of hearts, minds and souls. You have to earn these things.

In the days of Ricardo, as now, objective labor as a function of production is a cul-de-sac. There is no way out because there is no way in!

The philosophy of profit sharing, distinct from its economic theories, says to a man "Come in, join us. You are a partner. Bring all of your assets; bring your clarity of vision to our operations; bring your imagination that you may envision a better tomorrow; bring your thoughts, your suggestions, the fruits of innovation. Bring, in short, all you have—all that God gave you—because there is a place for them here with us. Invest them here, and dividends will be paid on your total contribution."

Out of such a welcome, as the firms of men who are present here today have attested time and time again, there comes the *will to do—the desire to achieve.* With the self-respect of partnership goes the formerly held contentment with mediocrity. The esteem of one's fellows and of personal pride in achievement cannot but bring a desire for excellence.

Dr. Charles Malik,[1] President of the General Assembly of the United Nations, has observed:

> In a fundamental sense, certainly all men are born equal, and certainly they are entitled by nature to the enjoyment of inalienable rights. But there is such a thing as excellence in workmanship and excellence in moral character, and we are certainly not all equally excellent in these respects. Discontent, distrust, frustration and rebellion—these will continue plaguing and poisoning human relations until the objective demands of excellence are recognized. If I rise to the challenge of excellence neither in what I do—namely, in my workmanship—nor in what I am—namely, in my character—I should be ashamed to ask for more and more benefits and more and more attention. Only the shame of our failure to measure up to objective standards of excellence can curb our endless demands, can put us in our place and restore sanity and reason to human relations. What is wanted is more shame, and therefore more satisfaction. Because we all fall so far short of what we should do and what we should be!

In a larger sense, we are not here discussing a domestic problem between those who own the tools and those who use them. The vital problem (and it is indeed a matter of life itself) is simply this: What is there of the very essence of America that we can take with us to foreign lands? What is it, outside of vague intangibles, wholly unknown to primitive peoples, that we can carry with us to show them what has made the nation we have built, and what we can offer them in place of the dead hand of Communism?

We need but to light another torch from the flame previously carried abroad by our own profit sharers. We need but to explain to them that there is no black magic about economic growth. By this, we must tell them, we mean increased industrial productivity at a profit! We must tell them that the worker—from the top to the bottom, as an individual and as a member of work groups—really holds the key to industrial productivity. When they understand that *the more you care, the more you share,* they will be as enthusiastic as all others in all lands where profit sharing is known. They will increase their productivity, and they will enhance their creativity.

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[1] IN AN ADDRESS BEFORE THE MID-WINTER PERSONNEL CONFERENCE OF THE AMERICAN MANAGEMENT ASSOCIATION, CHICAGO, FEBRUARY 18, 1959.

They should be taught early that a further key to economic growth in an industrial society is improved technology and modern machinery. By letting them earn their share of production with tools, there will be no complaint about their introduction nor any holdback about their acceptance.

They should learn early, too, that work paid for but not done merely short-changes the workers themselves. Such American education, properly presented, might leave many languages as we found them—without a meaning for the word "featherbedding."

On the occasion of the Annual Profit Sharing Party last December for the employees of the S. C. Johnson Company here in Racine, the Chairman of the Company's Board—and our good associate and Director of our Council—had this to say:

> We are today locked in a grim struggle—now ideological, but tomorrow it may be military—with a great foreign power whose ideals, philosophies, and treatment of the individual are contrary to our belief. Profit sharing helps give me confidence that we can win in this struggle. It seems to strike deeply and importantly at the basic roots of Communism. It is typically a practice of the American Free Enterprise System and is absolutely unknown to the Communist world. It is gratifying to note that the theory and practice of profit sharing is spreading rapidly in this country and is catching hold in a few other countries of the world. This could grow to be a major barrier to the Communistic inroads which even at this moment literally threaten our shores.

Writing in 1875, John Bates Clark,[2] one of the most eminent of American economists, saw the future with rare and discerning prescience. In his *Philosophy of Wealth*, Clark distinguished four stages in the relationship between an employer and his employees: competition, arbitration, sharing, and cooperation.

In the first stage, Clark pointed out *competition* between employer and employees over the division of the product of the enterprise. Here, we see the battle between workers in their efforts to obtain higher wages and the resistance of the employer in his effort to keep wages low and profit high. Social, economic, and political power are the weapons with which the battle is waged.

The second stage, *arbitration*, begins when the employer and his employees, eventually realizing the futility of the struggle, ask some third party to decide how the product should be divided. The ruling of an arbitrator replaces decision by open battle.

In the third stage, *sharing*, the employer and the employees enter into an agreement beforehand as to how the product of the enterprise—over and above the wage—is to be shared. This stage is usually characterized by cash profit sharing, or productivity sharing plans.

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[2] JOHN BATES CLARK, THE PHILOSOPHY OF WEALTH, GINN & CO., BOSTON, 1886

The final stage is *cooperation*. This is achieved when the agents of production share in the fruits of the enterprise—both as employees and employers (that is, the employees become stockholders). There are stock-purchase plans, thrift plans, stock purchases, and certain types of deferred profit-sharing plans which invest the proceeds in company stock. Clark pointed out the truth, which we can see about us in this country today. He said that in a free industrial society, one can find, at any given time, examples of each of these four stages in operation among the various enterprises. He pointed out some interesting things, too, about industrial relations based on this theory. For instance, the first two stages are based on *conflict*. Both groups are struggling to obtain the larger share of the product of the enterprise. The share that labor or management receives is based primarily on how skillful it is at bargaining—how much power (strike or government) it can bring to bear on the other in making the contract. The last two stages, on the other hand, are based on cooperation, and the attention of both parties is focused on productivity and efficiency because the more productive and efficient the enterprise, the larger their respective shares. Clark also believed that as the Social Sciences came to have a greater impact on the industrial community, the tendency would be for labor-management relations to move away from conflict and toward cooperation.

While we may look back today and say that profit sharing has gained wide acceptance in this country, we cannot but be appalled at the distance yet to go.

The chaos that has resulted from the 116-day steel strike has not yet been toted up. Beset by a powerful enemy closing in from all sides, the United States cannot long endure with its productive machinery attempting thus to operate while sand is being continuously thrown into the bearings.

We must achieve unity in order that we might present a united front in our determination to maintain freedom and liberty—not for ourselves alone, but also for those others of the world who are of a like mind and for our children who will follow us. The open combat which is euphemistically termed "collective bargaining" serves only the purpose today that it did when it was originally conceived. Then, as now, it is a thinly disguised attempt to perpetuate the class struggle of Karl Marx.

Today, our potentially greatest productive nation in history is carrying burdens all but unbearable. Labor itself is carrying so many notions that are simply not true, that these in themselves are sufficient to stagnate our economy. Work practices can only lead one to conclude that Labor thinks that the less they do, the more certain they are of continued employment. They apparently think that money wages are limited only by the enforceable demands they put on the boss, that the ever-increasing tax demand will somehow be paid by the rich, and that severely restricted work practices and featherbedding will greatly increase labor's "gains." Obviously, it is labor's belief that there is an endless money in an all-powerful government to alleviate distressed areas, however large those areas may become.

There is apparently no understanding on the part of labor—and in all honesty it must be admitted that it has not been aided in this understanding by its own leaders, by government, and by some industrialists—that a higher standard of living can be obtained only by greater purchasing power. Greater purchasing power can come only through higher *real* wages. (Need one recall the relatively recent days in Germany when a wheelbarrow full of currency would not purchase a loaf of bread?) Our people have not yet learned that lower costs mean higher real wages. Costs can be lowered only through higher efficiency of production. Efficiency of production is limited only by the will and motivation of man.

It is our job to bring this lesson home—not only to our own people, but also to workers everywhere.

It is ludicrous to believe that we can win over the Communists, even without their continuous subversion and conspiracy, when we stand idly by in our perilous ignorance and permit them to flood the markets of the world with goods paid for by exorbitant profits squeezed out of the bodies of their slave laborers. Consider how the Moscow laborer spends one hour and four minutes in return for a pound of sugar; his American counterpart takes his pound of sugar for three minutes' work. After fifteen hours of labor, the Russian worker may purchase a white shirt of mediocre quality; his American brother takes his pick of a wide selection of such items after but fifty-six minutes at his workplace. A Moscow citizen renders the return on 223 hours of labor for a suit of clothes that he might find on a rack in "his" store; in the United States, 15 hours of work brings an excellent suit from a wide variety.

I cite these United States Department of Commerce figures not for the purpose of showing how much better off we are here than under the tyranny of the Communists. I point them out solely for the purpose of showing the unbelievable "trade" leverage that the Communists can bring to bear by reason of the difference between the subsistence costs of their laborers and the prices contrived by ignorance, burden, taxation, and inefficiency of our American product.

Is it not clear that if we are going to win in this struggle we must clear our productive system of every impediment to efficient operation—to the end that real purchasing power of our people, as well as those whom we wish to go our way, may be enormously increased?

Herein, *and herein alone,* lies the way of supremacy for freedom and liberty in this world. We must force the Soviets to compete on a basis of production under conditions of human decency and individual dignity. Man was not made to be a slave for any class, old or new.

The opportunity for the Center for Productivity Motivation is limitless. The challenge is as great as the infinite aspirations of man. This task will include the development of a sound, new economic theory of incentive production and the equitable sharing of the earnings of the enterprise. It will build, of course, upon the brilliant theory of von Thunen, as carried forward by Dempsey and by Tobin. Because of the great body of experience amassed by our own profit sharers, the structure that the Center will raise might well be likened to our modern curtain-wall construction. The practical examples of successful profit sharing and incentive production will, because of their ready availability and complete coverage, make the building ready for almost immediate occupancy.

The Center will want to overlook the fact that Henry Charles Carey was not a product of a university. This man, violently opposed as he was to Communist theory, was called by Karl Marx "the only American economist of importance." Carey, it will be recalled, viewed man's life as a "contest with nature." But, as Bruckburger[3] points out:

> The concept of the struggle for power over nature as the goal of mankind can hardly be called original. But where Carey was so characteristically American was in his insistence that this association of men's strength and power had a more distant, loftier aim, a more imperative goal than that of mere power over nature. 'The ultimate object of all human effort,' wrote Carey, in a truly remarkable statement, 'is the production of the being known as MAN capable of the highest aspirations.' Here, Carey took a decisive step of his own. Nowhere in the theoreticians of the capitalist school, nowhere in Marx and Lenin, can any such words as these be found. Basically, all that concerned Carey was MAN, and the process whereby Man becomes more and more civilized. What Carey sought to create, beyond a theory of political economy, was a theory of civilization itself. For him, man was not only greater than the whole of nature, but even above the victory he won over it. At this victory, civilization began, but it still had far, far indeed, to go. It still faced the obligation to fulfill man's highest aspirations.

The Center will want, without doubt, to place the revolutionary genius of our own Henry Ford in its proper perspective regarding incentive production and the emancipation of workers from the binding thongs of low purchasing power.

Recall, if you will, January 1, 1914. Top industrial wages had then never exceeded $2.50 for nine hours of labor—and these wages were reputed to be the highest in the world. With one stroke of chalk on a blackboard, Mr. Ford made the minimum wage $5. "This is neither charity nor wages," Ford told the reporters, "but profit sharing and efficiency engineering. I can find methods of manufacturing," he continued, "which will make high wages the cheapest of wages. . . . If you cut wages, you just cut the number of your own customers."

I would like to return again to Bruckburger [4] (a foreigner who viewed America with eyes sympathetic, but impartial), who said:

> Let me speak plainly: I consider that what Henry Ford accomplished on January 1st, 1914, contributed far more to the emancipation of workers than the October Revolution of 1917. The Revolution of Lenin and his colleagues, however bloody, was still only a literary revolution which never emerged from the mythical political economy invented by Ricardo and Marx. The fact is, Lenin's Revolution was bloody precisely because it was literary. But Henry Ford, in his characteristically American way, cared nothing for mythical or literary revolution. Having covered his blackboard with figures, he moved straight into truth and reality.

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[3] RAYMOND L. BRUCKBERGER, IMAGE OF AMERICA, VIKING PRESS, NEW YORK, 1959.

[4] IBID.

> What Marx had dreamed, Ford achieved. But he achieved it only because he was far more of a revolutionary than Marx or Lenin. Ford exploded the whole idea of the famous, supposedly immutable 'Iron Law' of wages on which Ricardo believed capitalist economy was founded, and which was to provide every proletarian revolution with a springboard.

I would be remiss, and indeed less than candid with our friends of The University of Wisconsin and of the Center, if I did not make quite clear the fact that this philosophy is not of profits alone. Profits are but the means by which the scoreboard is kept. This philosophy's essence is freedom, firmly buttressed by the personal responsibility of the individual. The coin of payment is, in reality, the personal realization of a worthwhile job well done. There is in its very essence a quality that rises above the material, and finds its place in the belief that there is a Higher Power than Man. In my readings of the successes and of the apparent failures of this philosophy, and indeed my better-than-casual acquaintanceship with many profit sharers in this room, I am led to the firm belief that a plan's "best fruits can be reaped only by men who feel that life does not consist in abundance of material possessions, who regard stewardship as nobler than ownership, who see, in the ultimate outcome of all true work, issues reaching beyond the limits of the present dispensation, and who act faithfully and strenuously on these beliefs."[5]

It is significant to note, too, that Edme Jean LeClaire, the man who put into actual practice the significant intellectual breakthrough (the existence of a component of work above and beyond the ordinary), wrote, on the eve of his death:

> I believe in the God Who has written in our hearts the law of duty, the law of progress, the law of the sacrifice of one's self for others. I submit myself to His Will. I bow before the mysteries of His power and of our destiny. I am the humble disciple of Him Who has told us to do to others what we would have others do to us, and to love our neighbor as ourselves; it is in this sense that I desire to remain a Christian until my last breath.[6]

It will behoove us all, in the study of this philosophy, to remember that no compulsion can affect it; no fixed wage, however high, can buy it. It is the reward of the aspiration of man.

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[5] SEDLEY TAYLOR, PREFACE TO PROFIT SHARING BETWEEN CAPITAL AND LABOUR, KEGAN PAUL, TRENCH & CO., LONDON, 1884.

[6] M. CHARLES ROBERT, BIOGRAPHIE D'UN HOMME UTILE, SANDOZ ET FISCHBACKER, PARIS, 1878.

DISCUSSION I

DISCUSSION LEADER: ASSOCIATE DEAN J. H. WESTING
SCHOOL OF COMMERCE, THE UNIVERSITY OF WISCONSIN

INDUSTRIALIST (1)

I'd like a few comments from the economists on this von Thunen theory. Just to start off the discussion, I might say that the marginal productivity phase of von Thunen's theory was developed by the Austrian economists and was certainly recognized by Marshall. Most of us who have had courses in economics within the last 25 or 30 years learned a Marshall type of economics. Marshall so dominated economics for the first quarter of this century that we were all brought up on some popularized version of his thinking. Marshall recognized von Thunen, but the part that Marshall recognized was the marginal-productivity theory; it wasn't profit sharing. Von Thunen had been recognized as a bona fide and legitimate economist, as an economist who had probably anticipated by at least 25 years one of the most significant theories in economics, namely marginal-productivity theory.

The eminent economist Schumpeter, writing in his history of economic analysis, had a section in which he discussed men who wrote ahead of their time. Von Thunen was one of these economists and in this section Schumpeter included a list of von Thunen's accomplishments, including, but not limited to, his marginal-productivity theory. Schumpeter gives von Thunen credit for being one of the first economists. He considers him as the primary contributor to the science of agricultural economics, to the theory of location, as one of the chief enunciators of the principle of substitution, which is one of the cornerstones also of the Marshall system. In face of his general record of accomplishment, the phase of von Thunen's work on wages that he himself considered to be more important than any other, has been overlooked; in fact, as the popular story goes, he had the formula for the natural wage engraved upon his tombstone. This particular aspect of his theory, where it was given attention, was held up to very high and detailed criticism. At the time when von Thunen developed the marginal-productivity theory, he was discontented with it on the basis that it seemed to say that all workers of the same class should get the same wage, whereas he recognized that there were differences in productivity among workers with the same objective characteristics. It was his conclusion that this situation existed because of organization. The whole part of the isolated state, which develops the natural wage, was set up under conditions where the worker could go from the existing state of things to a new farm that existed on the margin of cultivation; there, through the possibility of being free and having the ability to apply his creative energy, he could, with the same objective factors, increase his return. Von Thunen believed that this solved the problem created by the marginal-productivity theory and brought the worker an increased return. As has been pointed out, this was not a factor return but a return that was the result of the worker investing his human asset power in the enterprise.

In speculation, then, the profit sharing part of von Thunen's theory didn't develop because in the growing and somewhat primitive economy of his day there were always alternatives and profit sharing didn't seem to be the crucial problem the people were facing. They were more concerned about how to divide the income from production. A great deal of the difficulty resulted from the implicit class-oriented point of view of the economists in the classical system and their tendency to agree with Ricardo on the ultimate level of wages and to treat the worker as a statistic in some previously developed production plan. I suggest that this is one area along which to develop the research of the Center for Productivity Motivation. One of the most fruitful directions for research would be in elucidating, broadening, and developing economic laws for a profit sharing economy and testing these by assigning numbers through empirical experiments.

INDUSTRIALIST (2)

Is it possible to bridge the gap between von Thunen's analysis of agricultural capitalism and our modern industrial system? It occurs to me that his agricultural system of profit sharing wouldn't be applicable to our industrial system and therefore those who followed him simply abandoned the plan.

INDUSTRIALIST (1)

I might say that Schumpeter, whom I mentioned above and who was sympathetic toward profit sharing, thought that the most fruitful fields to develop profit sharing were in agriculture and in the light industries where services and individual effort were of paramount importance. He did not see how profit sharing could ever be applied to heavier industry. That was indeed the thinking of one who was sympathetic to the idea.

Part of the problem in trying to get proper communication between the academician and the practical world involves a lack of understanding as to the tools used by professionals in trying to arrive at their conclusions. In his work entitled *The Isolated State,* von Thunen used workers on the farms as an analytical tool by means of which he tried to derive laws to explain economic reality. His propositions were not limited to agriculture even though he used a model based on agriculture to develop this thought.

INDUSTRIALIST (2)

I would like to make a comment concerning semantics. I have great difficulty following the literature because of the language changes over a period of years. In my opinion, when the older economists used the term profit sharing as you do in agriculture, they were talking about what you come up with at the end of the year. You have so many bushels of grain and so you divide them; these economists' concept of profit sharing is what I call production sharing, and labor shared in what was produced. Now we come to the modern age with accountants who talk of profits and who come up with an entirely different language as they speak in terms of federal income tax, profit, net profit, and profit sharing. Then we take this term profit sharing and we apply it across the board everywhere. I don't think we should. If we talk in terms of production sharing we should use the word production sharing, and if we are talking of sharing profits we should define profits as accountants do and say this is the net profit after taxes or before taxes. I would agree with some theories if it meant only production sharing. I would disagree violently if it meant just the term net profit.

If you say that you are in favor of sharing profits with the workers in an industry and you mean production sharing I will agree 100 percent. I think that one of the possible solutions to our problem is to have some sort of production sharing with the workers. If you use profit sharing in the accounting sense I will disagree 100 percent, and I will say that the workers will have absolutely nothing to do with the net profits and I wouldn't agree to share one penny.

INDUSTRIALIST (3)

I think that a widely held difference of opinion exists here. I read some material distributed by the United States Chamber of Commerce which very much agrees with the above statements—that profits are a return on capital. Profits are the reward for risking capital and therefore do not belong to labor, and the whole system of a profit-directed enterprise system will not stand the strain if you give to labor what does not belong to it.

PROFESSOR (1)

An economist defines profits as a return over and above interest. To him the profits to be shared are not the accountant's profit, which is a hodgepodge of a lot of things from the economist's point of view, but are instead the earnings of the enterprise after having paid the going wage to labor and the going rate of interest to capital; there is also a residual which could come in part from a more effective organization, higher morale, better feeling, or more initiative on the part of everyone.

PROFESSOR (2)

Don't you have to take into consideration the risk concept of innovation? It seems to me that we have a problem, particularly growing out of innovation. If we come down to the idea that in equilibrium there are no profits, that the output is divided according to marginal physical productivity, then profits can arise only when there are situations arising out of innovation. Who should share in this type of profit? Do labor or the other factors share in innovation profits?

PROFESSOR (3)

A simpler question is: Who innovates? Is there the implication that only capital innovates? Does capital innovate, may labor innovate, may they both innovate?

INDUSTRIALIST (4)

It comes down to risk. Any innovation is a risk. Whether or not this innovation results in a profit is determined by the market. Whether or not, in the light of innovation, the money that is earmarked for a research project will produce profit depends upon the manner in which the risk is handled. At this point, the result is in the lap of the gods, and only the market place can determine it.

Now suppose we credited capital with a basic interest rate, including a compensation for risk represented by, say, a 10 percent return. Ten percent sounds like a higher return than just a compensation for interest; it sounds like a compensation for some kind of risk and uncertainty. Suppose we kept that before we calculated the profits to be shared.

INDUSTRIALIST (5)

I raise the question as to whether or not you can have one rate for risk bearing. The degree of risk will vary broadly, depending on the nature of the innovation and the length of time required to make the innovation pay off.

INDUSTRIALIST (6)

Suppose, as is so often the case, the innovation is a labor-saving device. Do you mean to say that an employee who suggested this innovation isn't risking anything particularly if it eliminated his job? I think labor takes risks, when it suggests innovations.

INDUSTRIALIST (2)

I became intrigued with production sharing in about 1935 and I have maintained wage statistics on companies for 20 to 25 years. I will give you some actual figures to illustrate my point. A company has had a profit sharing plan for almost twenty years. Take the twelve years immediately before and after they had a profit sharing plan; you will find that the average of the sales dollar that went to labor before the profit sharing plan was exactly 37½ percent, and the average of the sales dollar that went to labor after the profit sharing plan, including fringe benefits, was exactly 37½ percent. There had been no profit sharing; you took 5½ percent out of the labor costs that existed beforehand and put it into something else. Labor gets a percentage of the consumer's dollar, and I am convinced that an economic law is involved. According to Department of Commerce figures going back 150 years, labor's share has averaged 40.2 percent. The maximum deviation has been 3 or 4 percent. Every company and every industry has a norm, and I guarantee that if you go over the norm you will try to get back to it just as fast as possible. The steel industry is a good illustration. I've got United States Steel figures that show they are over the norm right now, and they are reducing the number of people just as fast as possible in order to reduce their total labor costs. On the other hand, when the cost of labor falls below the norm, you can only afford to give labor a certain percentage of what you take in. When I say production sharing I mean that a certain percentage of the consumer dollar can go to labor year after year, no more no less, and from labor's viewpoint it is immaterial whether you make a profit or lose money.

ASSOCIATION EXECUTIVE (1)

I would like to cite a *Harvard Business Review* article called "Management in Jeopardy," which speaks about the productivity illusion. The point is made that the gain in productivity is meaningless unless it relates to change in profit potential. In other words, admittedly there are productivity-sharing plans of the Scanlon type where you can share productivity gain. That type of plan is good up to a point, but it is really meaningless unless the productivity gain gives a profit gain. What you have to do, in a sense, is not to tie the worker just to productivity, because you can have a gain in productivity without having a gain in profits. The business manager wants to motivate the individual worker to increase the profits of the company, and profit sharing motivates the worker toward the same goals as the business manager himself.

Profit sharing itself is an innovation. The interjection of the profit sharing plan results in cooperation, which begets certain efficiency gains, efficiency earnings. That is what is really shared; it is a residual after capital has a certain reward. It includes part of the accountant's profit. It also includes something else; it includes part of what is left over, or the efficiency earnings generated by the profit sharing program, which is in itself an innovation or an organizational change within the firm.

PROFESSOR (4)

Those of us who profess to being economists would perhaps say that we had been influenced by our teachers. I was influenced by a gentleman who is quite a theorist. He, in turn, was strongly influenced by Marshall. He thought that J. B. Clark was exceptionally fine and that von Thunen was an excellent theorist, but fundamentally this man was a classical economist.

Economists have coined a lot of terms and introduced the concept of the static economy mainly to facilitate the analysis of their problems. There are so many variables that they would have us rule out this and this and this just to make our thinking structure a little more simple, and presumably we would then remove the restrictions of a so-called static economy.

Consider the economist's vs. the accountant's vs. the general street use of the word profits. In the strict economist's sense of the word you don't have any profits. Therefore, I was taught that the way you can take care of von Thunen's argument about profit sharing is that if you have zero profits your technique of sharing them was rather simple, since they were nonexistent. Now say you do have profits, what would they be? They would be profits of the type discussed earlier. They would be profits in the sense of compensation for risk taking, or they would be profits arising from innovation, or they would be profits from superiority of management, or even monopolistic profits resulting, say, from ownership of a mine that nobody else owns. In other words, you could think of profits as coming from one or more of those sources.

If there is compensation for risk taking, what type of risk are you talking about? If it is a type of risk compensation for some so-called new idea, then you approach the idea of innovation; you almost say that risk taking and innovation are similar. How long is that risk going to remain a risk? It's a risk only in the developmental stage. For example, it's the risk that a radio manufacturer would face in the early stages of development of the radio industry. Once the bumps are ironed out and radios become producible and they become a matter of common demand, then the risk isn't there in the strict innovational sense of the word.

If you have a certain idea, whether it is a managerial idea, a production-technique idea, or a new-commodity idea that would be innovational, an economist of the neo-classical school would look upon profits arising from it as being temporary. Therefore, instead of a problem of profit sharing, you have only a temporary phenomenon. You could argue that such profits remain only for a short time, for as soon as something is found out to be quite generally functional, other people adopt it and your superiority vanishes. Now, that's not completely true. For example, take a company that's generally thought of as being a well-managed company. Other companies can look and see how they operate and what they are doing, as they face essentially similar costs, yet you have one company that year in and year out will be more profitable than some other company. Why is that? If they have a lot of things in common, it must be due to superiority in management—a vague term that includes a lot of things. You do find that such situations persist, and, therefore, you have a persistence of profits. However, here again you have profits in the economist's sense of the word and profits in the newspaper sense of the word as opposed, let's say, to the accountant's concept. You can actually go back to the economist's concept and argue that some of what we call profits can really be analyzed as interest, and some of it is reward for risk taking in the sense of merely having had nerve enough to invest money in a certain venture where nobody else had either the funds or the nerve to put the funds. Therefore, there is a profit because to a certain extent you have a monopolistic situation, but it is of short duration. You may also experience the short-run type of profit situation when you have to get your plant in operation before somebody else gets ahead of you. You can analyze profits down to many things and, when you get through, say how much of it is due to this and how much due to that, and how much of it is really compensation for superior management, which is, in effect, a glorified classification of labor, if you want to call it that. It is a contribution of the human element, separate from higher capital contributions, separate from special features of location, and separate from certain monopolistic control of raw materials. Then you have a much different conception of profit, and therefore you have a much different conception of the problem of sharing.

PROFESSOR (5)

Do profit sharers, when they talk about profit sharing, mean dividing a residual after a certain assumed essential profit has been taken out?

ASSOCIATION EXECUTIVE (2)

In deferred profit sharing, it is common to set aside an amount based on a percentage, as a return on investment. Then there is a sharing of the remainder, percentage-wise; this may be inherent in some profit sharers' concept. In general, then, it is a sharing after a certain minimum profit, which might be thought of as interest on the investment. However, this is not necessarily so. If a plan provides payment of 10 percent of the profits to employees, you are retaining 90 percent for the owners, so unless you pay out 100 percent you are retaining something. However, if you have a program that merely calls for paying 10 percent, I suppose technically it wouldn't be the same as saying that 20 percent will be paid after a return of 6 percent on the invested capital. Probably the majority of profit sharing plans simply indicate 10 percent or 20 percent of profits.

INDUSTRIALIST (7)

I would like to comment on the question of risk. There is quite a risk for the employees in many deferred-type profit sharing plans; ours is an example.

We have no pension plan. All of our retirement security comes from deferred-type profit sharing, which is based upon 20 percent of profits. Therefore, the risk to the employees of having inadequate retirement benefits is dependent upon the success of the business.

INDUSTRIALIST (8)

I think that there is another answer: There is less risk for the stockholders when there is a sharing of profits than when there is no sharing of profits. This is what really stimulates most of us who are sharing profits to get into profit sharing, because we believe that there is a productivity motivation so that we actually make more money. You have more money left if you are sharing some profits. In effect, then, risks are reduced by the actual sharing of profits.

ASSOCIATION EXECUTIVE (2)

Marx felt that the only way really to solve this conflict between the few owners and the many non-owners was to eliminate the owners and make the state the supreme owner; then the state would administer everything on behalf of the people. Von Thunen's main contribution was the alternative of solving the problem by making everybody owners, after a fashion, giving everybody a share of the total prosperity of the economy. This theory was really never accepted in this country or elsewhere, but until this time we did have an alternative and the alternative, as I see it, is two-fold. We shared in this country and this sharing made us strong. This sharing was done through the collective bargaining of the labor unions and the indirect benefits realized by others who were not members of labor unions; as a result of this bargaining, we have had a rechanneling of wealth. In other words, the masses of the people did two things. They collectively united and bargained for benefits and they went to the government and the government began to redistribute wealth under the guise of social legislation. These things forced sharing upon American management. It was forced to share its profits whether it liked to or not. For example, under social security where I pay 3 percent and my employer pays 3 percent, you have a form of forced profit sharing whereby the government imposes a sharing of the profits of the company through a federal program redistributed to me as an individual. Von Thunen felt that there was a way out of the dilemma of moving toward federal programs, of solving the security needs of individuals. He proposed that management and labor do it in a voluntary way. Let the sharing go on in such a way that it is an organizational change, for it's a voluntary change that has an incentive value. Today we have major problems and we look to Washington. Von Thunen looked to industry for labor and management to cooperate and share the rewards of their cooperation; he reasoned that the federal program would then not be necessary because these problems would be solved directly in the economic sphere.

INDUSTRIALIST (8)

This thinking completely overlooks the definition of profits. Certainly social security isn't based on profit. The sharing of benefits and increasing the welfare of the employee, as proposed by legislation, is not related to profits at all.

ASSOCIATION EXECUTIVE (2)

It's a cost of doing business; in other words, it's a certain part of the sales dollar that has to be paid out indirectly to the employees through the federal program, which minimizes profits.

INDUSTRIALIST (8)

This is not the type of profit sharing we are talking about here.

ASSOCIATION EXECUTIVE (2)

It is a forced type of profit sharing that has been imposed on us because certain programs were not undertaken in the economic sphere by labor and management.

INDUSTRIALIST (1)

The main point at issue, in the case of the social-security example, is that this constitutes nothing more than an increase in cost for management that has to be subtracted before profit. The importance of this is that the social-security system doesn't impose any increased efficiency or participation on the part of the worker. The importance of profit sharing is that it can motivate. I happen to be attached to an industry where a few giants have billions of sales dollars each year and they have difficulty in making a cent on each of those sales dollars. Production planning, it seems to me, is related to output and the sales dollars just represent the revenue value of that output, which might be put on the market at great profit or at no profit. The essential difference between production planning and profit sharing is that you can get an increased profit through the investment of labor's human assets by the elimination of waste and by the many small innovations that are possible to the existing production functions at any level of output.

One of the teachers I had in economics began to expound an analytical system recognizing the fact that, basically, perfect competition is the exception rather than the rule, and to develop a system that permits a wobbling rather than a fixed structure, and considers variables that are not normally distributed. I suggest that this might be another fruitful line of inquiry, to see if we can develop a system of such economic law. According to the economist's definition, profits will disappear. Industry goes through phases, and the development stage is just one phase. What everyone forgets is that this is another analytical tool. My company has been in existence for 75 years and it's still in the development stage. It still has innovations, it's still a segmented industry with each part of the industry having its own special claim to extraordinary profit. As the situation exists today, there's usually a return available over cost and over normal profit, all of which under typical conditions returns to management. There exists, though, a possibility in the organization for enterprise to increase these profits through the free activity of labor. The reason that some profit sharing organizations perhaps have less success than others is that they simply impose a profit sharing plan without making the organizational changes necessary to get the productivity increases out of which these increased efficiency earnings can come.

ASSOCIATION EXECUTIVE (2)

In the files of profit sharing industries, there are undoubtedly many plans that are not worth the paper they are printed on to the companies. They are in the hands of the fiscal officer of the company and he pays out in accordance with the provision thereof, but they don't really provide for the profit sharing program. They never even mention profit sharing, there is no communication, no motivation, there is no nothing. We don't consider that to be profit sharing or that that company has a profit sharing plan, except that they are paying for it.

INDUSTRIALIST (9)

Why change to joint enterprise from free enterprise? Aren't we going in the wrong direction by saying that profit sharing goes into joint enterprise but doesn't come into free enterprise? Isn't free enterprise such a common term that we should stick with it and say that profit sharing does have a place in the free-enterprise system?

ASSOCIATION EXECUTIVE (2)

What I see as free enterprise is the opportunity for individuals to go into business or to go into a line of work of their own choice. Therefore, it is the opposite of a government-structured system where everything is so tightly organized that individuals are told what to do and have no choice. It seems to me that profit sharing is an attempt to preserve a free-enterprise system by making it attractive enough to the great masses of society that there would be no question about the system that everyone desires.

This idea seems to me to be the place of profit sharing in the joint-enterprise system. I think that we sometimes become confused because, if our topic is the joint-enterprise system, we constantly move from the economics of the firm to the economics of the system, and therefore what we call profit sharing is, in effect, productivity sharing throughout the entire economy. There are some companies that are operating at a loss and they are also contributing to that economy. Something like 4 in 10 of our 700,000 firms in this country make no profit at all, and yet they are contributing to the profitability and productivity of the system. I would just hope for my own enlightenment as a non-economist that, when we are talking about these things, we indicate whether we are talking about the economics of the firm as an individual firm or whether we are talking about the economy as a whole. I think that the topic for this part of the symposium is profit sharing in the entire system. I would like to know more about how progress and profits are shared in the entire economy, as distinct from individual firms.

PROFESSOR (6)

A great body of knowledge about theory and practice has been developed in terms of production of goods, and another body of knowledge about theory and practice developed concerning distribution. I wonder if von Thunen was not thinking in terms of something that would combine a concept of both production and distribution. To a very considerable extent we have been thinking in terms of distribution; for example, collective bargaining is basically concerned with distribution of the pie as it has been produced. Von Thunen was not only thinking in terms of the distribution of that pie, but also about increasing its size. This more or less combines both the productive and the distributive aspect of a firm or of a combination of firms.

ECONOMIST

It is true that the economics of dynamics or of growth have never been developed as much as some of us would like to see. One other point about the way in which economists look at things might be useful. The system as a whole, even the marginal productivity approach to resource payment as to wages and other forms of income received, does imply a sharing of growth for the economy as a whole. Economists think of variables as being related to each other, and if, for example, growth of the economy is descending and if you have scarce labor, then the value product at the market of the labor or a laborer, when there are few laborers in relation to capital, does tend to increase. Over a period of time, then, there is a statistical constancy of what is called shares (income) throughout the economy. I think, though, that the question needing a great deal more attention today and in the future is: What is it that is conducive to dynamic growth? Therefore, I am reluctant to use the pie-chart kind of condition, because what we really want to see is how we can increase the pie in the most effective and in the most dynamic fashion. It has been very useful to hear the comments of a number of people from this group and I think in most cases they have been talking about the firm as a part of the economy, and they have asked about the kind of mechanism that will elicit the cooperation and enthusiasm and developmental growth in the firm that will then become a part of the growth in the economy as a whole.

INDUSTRIALIST (10)

We should confine ourselves to the effects of profit sharing in the economy, but if you are going to trace the prospect of growth you may have to look at how profit sharing affects the individual company.

PROFESSOR (7)

I would like to comment along that line and it fits in with the von Thunen theory. As I understand it, the von Thunen theory is not only a theory of sharing profits but is also a specific method of sharing profits, which is a little unique. Von Thunen was interested not in sharing profits, as such, with workers, but in giving the workers access to interest. Let me explain this by telling about the plan he instituted on his estate. Every year he would share a certain percentage of the profits, which he determined according to formula, with his workers. Instead of giving it to them in cash, he took this money and reinvested it in the estate. The following year he paid them interest on that money in cash. He was building up capital to expand his enterprise and at the same time he was cutting in his workers by giving them access to interest. Actually this is what we are beginning to do in our economy today, but we are doing it in a roundabout way. We aren't facing up to it and doing it directly. We're doing it through various government programs, various pension and fringe-benefit programs. A German economist by the name of Spann in the 1920's pointed out that von Thunen's theory is the basic theory underlying the so-called fringe benefits. He said that this is the theory which explains the direction in which we are moving in paying labor, and this important comment was just lost sight of. It seems to me that the question is whether industry does this directly through profit sharing programs and gets the benefit out of cooperation, which might be engendered, or whether industry prefers to do it indirectly through programs that might not possibly be so stimulating to the economy. I think that this is the way we have to look at von Thunen. John Bates Clark also made a statement similar to that of von Thunen. He said that workers should have access to interest. It would help the economy if we would devise a system whereby we could accomplish this.

INDUSTRIALIST (11)

I think we should talk about specific cases, as these are living examples of what is happening to our free-enterprise system. We have many examples right here as to the effect on our free-enterprise or joint-enterprise system. I think that in all our discussions we should use specific examples, because these have really been the key to success of sharing profits in America. Companies look to other companies that have been successful in profit sharing and we can spread it if we keep on looking at actual examples of success with profit sharing. The success of the Council of Profit Sharing Industries, the success of the whole movement has been based upon the success of one company after another.

INDUSTRIALIST (12)

I, too, feel that we should get down to something concrete and specific in the present, because it seems to me that we are talking about a system and I don't see any great distinction in talking about the firm or the economy. I think we are talking about both simultaneously. We are talking about a system of organizing the individual firm and, therefore, all firms, as well as the economy, which will be characterized by diffusion of ownership so that the great masses of people will feel that they are in on the system, that they are owners. It is the same kind of thing that Keith Funston was talking about in the New York Stock Exchange. He wanted everybody to own common stock. It is the same idea in that he wanted everybody to be an owner. The essence of profit sharing is a system of organizing a business or organizing an economy in such a fashion that everyone can become an owner. How is the business set up so that all employees are owners? There you have to have some efficiency saving, some kind of surplus profits so that you can give them their first two shares of ownership; they can eventually accumulate four shares of ownership out of the earnings, so that every man might expect, over his lifetime, to acquire some stake in ownership. Then you have a capitalistic system based frankly and unmistakably on private ownership, which is acceptable to everyone in the economy because everyone is in it.

INDUSTRIALIST (2)

There is a valid basis for distributing the shares between the factors and this can be expressed in terms of marginal net productivity. There is, however, an inherent question. Can you arbitrarily increase a share going to one of the factors over and beyond the marginal productivity of that factor and hold this share, which is now larger than marginal productivity, indefinitely in the future? Can you hold this share if there are forces at work that cause business to initiate immediately compensative action tending to bring the share going to this factor back to its previous relationship? Also implicit in the discussions, I think, is the question whether, under a given institutional arrangement, you can bring about an increase in the marginal net productivity of labor, or maybe of all factors, or whether all factors must progress together. The question then arises as to whether or not a course of action that produces this kind of result of profit sharing is really valid. Is it rather a course of action that is more in keeping with the title that has been given to the entire research operation—an increase in productivity in which all factors share, but share on the basis of increase in total productivity, with the share still being decided upon the basis of some basic fundamental law that runs through this distribution process and that the economists have come to believe is on the basis of marginal net productivity?

ASSOCIATION EXECUTIVE (2)

I think you have cleared up the point as to whether we are paying a higher and higher price for the same productivity. Certainly we aren't. With respect to the investigation of various enterprises, however, I think that we might profitably discuss the history of the Lincoln Electric Company. They have no patents to protect them in any way. They make electric welding machinery. They inaugurated the profit sharing plan in 1934 and since that time, although over-all wages have increased fivefold and the price of steel, the major ingredient in their product, has increased threefold, one of their products sells today at 30 percent less than it did in 1934. That is against the picture of rising cost curves on almost every kind of manufactured gear. During that time the labor costs have come down miraculously, in comparison, on a motor generator that is also made by one of their largest competitors. To compare the cost piece by piece is most interesting. The productivity per man at Lincoln Electric runs four times that achieved by its competitors. That production is divided with the worker. The general theory is that the money doesn't work any harder; the residual subtracted from production goes to the customer in reduced prices and thus decreases the cost of living and raises the living standard.

INDUSTRIALIST (2)

I would like to comment on these last few statements, because basically I have the same question. At Lincoln Electric today, the percentage of the sales dollar that goes for wages, including profit sharing labor, is the same as it was before 1934. With other companies the same thing exists. I am raising the question: Is it possible to give any segment of our society more than it can get through marginal productivity? I raise the question in the accounting sense, whether we are talking of profit sharing or whether we are talking of a sharing of production.

INDUSTRIALIST (12)

I wonder what difference it makes?

ASSOCIATION EXECUTIVE (2)

There is this difference. There are many cases where workers have been given a production bonus for increasing their production while the company was going broke. They had production, but they didn't sell it, they didn't move it, and they couldn't meet their bills. Insofar as the security of the individual worker was concerned, it was nil. It was not part of a going concern that would be here tomorrow, a concern upon which he could depend and upon which he could plan.

Whether he is or is not getting an increased share of the product, I don't think is germain to our discussion here. He is getting more dollars in his pocket.

This is the point that Clarke makes. He says that there should be a very obvious, just formula that will represent labor's share and capital's share. What we are concerned with today is to try to pay that share in such a way that we generate bigger absolute dollars, bigger absolute shares. It is, then, not so much the percentage share that should be divided this way or that way, but payment of that share in such a way that it has motivational value to increase the absolute size of the shares.

INDUSTRIALIST (13)

There are other elements to profit sharing, but I think that one of the basic elements of all profit sharing is this increase in productivity so that you can, on the part of the owners of the company, experience a greater accounting profit at least—and that's the purpose of it. I think that in most profit sharing companies, it has worked out that way if they have had the proper communication system and have had some profits to share.

ASSOCIATION EXECUTIVE (2)

I can remember during the war that the Navy conducted quite an investigation of Lincoln Electric because of the high wages they were paying the workers. It was only when the company was able to show that it was charging less for a unit than any competitor that the Navy withdrew its charges. One question that has occurred to me here is that no one has defined how much profit a company ought to make. There are some who say that American business does not make enough profit to assure itself of the risks over the length of one or more business cycles. I am most concerned about the question of the consumer. We've talked about the worker, management, and company, but it seems to me that the third party ought to be considered, i.e. the buying public. I think that is an important part of the picture.

INDUSTRIALIST (14)

It is very difficult to find a formula to meet the various situations that the operating head of a business finds in the business day or year. It is like trying to tell your son that determination plus attention plus effort times time equals results of study. In my estimation no business can be run according to a formula. I think that you have to get into case histories, actual business operations. If academic people would take the time to build up case histories as they do in corporation law, you would build a fund of information that businessmen could study and more readily interpret and understand, because it's in terms of today's business.

THE DEFINITION AND MEASUREMENT OF PRODUCTIVITY

DR. RICHARD LANG, INTERNATIONAL ADMINISTRATOR,
S. C. JOHNSON & SON, INC.,
RACINE, WISCONSIN

About three years ago the Bureau of Labor Statistics published a bibliography on productivity. Although no particular year had been set for the starting point for titles in the bibliography, most sources covered a period of about thirteen years. The Bureau pointed out, in its introduction to the publication, that the references were generally limited to productivity and the input of labor. In spite of the limitation in the scope of the listings, nearly nine hundred references are annotated, presenting technical and non-technical descriptions of productivity measurements, factors that affect productivity, and the significance of productivity changes. Without trying to anticipate my remarks on definitions of productivity, I believe it would be agreed that there has been fairly good productivity as far as articles on the subject of my talk are concerned.

The productivity concept has been clouded and sometimes misunderstood because of an apparent confusion in terminology. This confusion is not one produced by the scientist who sometimes finds great joy in jousting with his colleagues through the use of a variety of definitions of the same terms. The confusion is real, and it is likely to continue. Authors on the subject change their definition of productivity as they proceed through their writings. Knowledge of the existence of this confusion in terminology should, however, enable us to deal with the subject at hand with more care and with less time lost!

Since the standard of living is sometimes determined by the total output of the nation per capita of population, the goods and services produced by the economy can have real significance for each person. In the United States, as in many other industrialized nations, output generally has increased each year, and as a result, there has been a continuing improvement in the standard of living.

Here is where we have our first and broadest definition of productivity: "the ratio of the production of wealth to human effort" or "the gross national product divided by the number of people." This seminar group, however, can probably shoot more holes in this definition than any other, and the first shot will be fired by the one who makes the observation that the Gross National Product is measured in value (dollars, francs, rubles, etc.) and inflation or deflation can distort changes in this so-called measure of productivity. A few years ago, H. F. Johnson and I were associated with the Office of Industrial Resources of the International Co-operation Administration. One of our activities concerned the servicing of National Productivity Centers located in most European countries and some additional countries in other areas of the world. There are now 28 of these centers, the basic objectives of which are the building of economic strength and improvement of standards of living by developing sound industrial economics.

The over-all purpose of the productivity programs is to obtain a high standard of living by achieving a higher flow of goods and services. Productivity is a means toward this over-all purpose.

I would like to quote from the Chief of the Industrial Training Program: "Production in this sense means getting the best results out of any of the numerous factors of production — capital, raw materials, plant and machinery, land, labor and management, among others."[1]

In the narrowest sense, productivity is the relation of labor output and input, the relation of the number of units produced by a worker to the number of hours he used to produce them. It is in this field of specific worker or labor productivity—output per man-hour—that the Bureau of Labor Statistics and industrial firms in the United States have conducted cooperative studies. There are dozens of articles in the 900-reference bibliography that report the results of such studies. One study concerned itself with the man-hours needed to sew part of a man's dress shirt.

There are, though, meaningful definitions of productivity in this narrower sense. One was used in a study that measured productivity in the Japanese cotton-spinning industry.

An article reporting that study which, incidentally, had the title, "Precise Measurement of Productivity—One Aspect," has a pertinent paragraph:

> Ideally, the measurement of productivity should be based on all the inputs involved in the production of a finished good. The Japanese cotton-textile industry has used an intermediate good-cotton yarn as its measure of output and has expressed inputs in terms of a single factor of production—labor. Thus, one should not infer that labor requirements throughout the entire industry have followed the trends in spinning. Total labor requirements in the production of cloth may have declined more, less, or by the same amount as in spinning.[2]

In other words, although the article was entitled "Precise Measurement of Productivity," there were many qualifications, and at the very end it was pointed out that this so-called precise study could not be used for measuring trends in the total industry.

In a book entitled *Sociology Today,* Paul F. Lazarsfield[3] summarized a report of a study that he had made of the activities of eminent college professors of social science. Some 2,451 of them replied to a questionnaire that he asked them to fill out. Mr. Lazarsfield constructed a productivity index on the output of articles and books by these men. One of his conclusions was that, on the average, men who had higher productivity indexes reached full-professorship rank earlier in life than their colleagues.

Ernest J. McCormick, Professor of Industrial Psychology at Purdue, wrote in his pioneering book, *Human Engineering,* that in broad terms the goals of human engineering are those of human economy, or efficiency, in work activities.[4]

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[1] L. E. BROWN, CHIEF OF INDUSTRIAL TRAINING, INTERNATIONAL COOPERATION ADMINISTRATION, WASHINGTON, D. C. FROM AN UNPUBLISHED SPEECH, 1960.

[2] WILLIAM H. MIERNYK, "POSTWAR PRODUCTIVITY CHANGES IN JAPANESE COTTON SPINNING," MONTHLY LABOR REVIEW, JULY 1960, PP. 700-704 (P. 704).

[3] ROBERT K. MURTON AND OTHERS, SOCIOLOGY TODAY. NEW YORK: BASIC BOOKS, INC. 1959, PP. 60-63.

[4] ERNEST J. MCCORMICK, HUMAN ENGINEERING. NEW YORK: MCGRAW-HILL BOOK CO., INC., 1957, PP. 1-2.

Two specific goals are: (1) to improve work that is actually performed—quality and quantity, and (2) make work "easier," or more comfortable or pleasant or less hazardous for the employee.

The general goal and the two specific goals are related to the broader, as well as the narrower, definitions of productivity.

In summary, general productivity might be defined as follows: To the extent that all factors of production are related to output, the productivity ratio is an over-all measure of economic efficiency. Since labor productivity is only part of economic efficiency, it sometimes is useful to estimate the output of all types of production and service, which obviously include more than labor's contribution. So much for the concept and definitions of productivity.

The principal purpose of a definition of productivity is to be able to measure it, for without definition there can be little measurement. With so many definitions before us, it is difficult to obtain measurement that is acceptable, meaningful, and conclusive.

We should make one thing clear at the outset of this brief discussion of measurement: We are measuring, or attempting to measure, productivity in order to discover changes and trends, or lack of change or trend. A productivity ratio or index, unlike some other statistical measures, means very little unless it is compared with a base or a trend line.

The simplest measures of productivity have to do with what we have already called labor productivity, because here we can frequently obtain output data in units of pounds, gallons, tools, shoes, lengths of threads, etc., etc., for the numerator of the fraction. For the denominator of the fraction, the input data, the most frequently used data, are hours of work.

On the face of it, this seems to be so simple as to preclude discussion, but certain questions concerning the measurement of labor's input arise. Are the hours only those actually worked, or the entire eight-hour day, which includes such time as clocking in, walking to the place of actual work, coffee breaks, rest periods, down-time, washing-up time, walking to the exit, and clocking-out time? Should the input denominator be hourly wages paid or total labor cost, which would include a multitude of fringe benefits? Whether or not the hours spent on the job by immediate supervisors should be counted as part of the input is also a good question, since it could be argued that without first-line supervision, the output could never be obtained.

Some of the questions concerning measurement were raised in an article that appeared about eighteen months ago on the subject of "Output per Worker in American and Soviet Industry."[5] Productivity was defined in this article as the "level of industrial output per production worker." Physical measures of production were used, such as steel ingots, bricks, bottles of beer, pairs of shoes, cubic meters of lumber, etc. The number of cautionary statements about the comparisons makes the reader wonder whether the conclusions (most American productivity was greater than Russian) were substantiated. For example, are the thousands of maintenance workers in Russian industry included or excluded from the count of production workers, the "input"? How many more hours per week are worked, on the average, by Russian employees

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[5] "OUTPUT PER WORKER IN AMERICAN AND SOVIET INDUSTRY," MONTHLY LABOR REVIEW, SEPT. 1959, PP.992-994.

in some industries, and how many less hours per week are worked in some other industries?

One has only to read the numerous reports on productivity measurement in the *Monthly Labor Review* to be aware of the enormous problems of measurement. Frequently there is a statement that says, in effect, "some qualifications and limitations of the data should be noted," or, as in a recent study of the job performance of office workers in selected business and government establishments, there is this statement: "The data cover only a small proportion of total office workers in the selected establishments and do not represent a cross section of various office skills. It was not possible to determine whether workers who were not receiving incentive pay at the time of the survey would have worked harder and produced more if they had received the incentives."[6]

For the remainder of this paper I will confine myself to the problems confronting a company that is interested in the measurement of productivity for itself, not for the nation as a whole. The subject of productivity and wage determination will not be touched upon.

As far as a company is concerned, output may be described as the final result of a productive activity resulting in products or services that have a market value. In arriving at a total company productivity ratio, the output could be expressed in dollars, either as the value of production or the value of sales.

The measure of input is much more difficult because one has to include all employees if the value of sales is used as output, and a portion of the employees if the value of production is used as output. The choice depends on the kind of company one is dealing with and what the measure of productivity is to be used for. In a high labor-content company, the value of the production worker's wages might be sufficient; in a low labor-content company, total wages, etc., might be used.

Whatever measure of input is used to divide into the measure of output, the resulting ratio of productivity will be a guide to efficiency only if compared to historical data, or to similar companies.

Let us look at a productivity ratio based on total company sales divided by total company payroll. Suppose we had these ratios for a fifteen-year period and we saw the ratio increasing, except for two years of decline, and one year which was a plateau. Where do we look for explanation of the upward trend, the two declines, and the one plateau?

First, let us look at the "output" figure, or in this case the sales of the company. Many changes could have taken place. Prices may have been changed downward, remained the same, or changed upward, and without any change in unit sales, the output would change. The market for one group of products may have disappeared with changing conditions that were beyond the control and out of the forecast of management. Competition may have forced a price cut at a time when unit sales were sliding, thus making the total "output" figure look even worse than it was. These are among many things which could have happened.

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[6] MONTHLY LABOR REVIEW, JULY 1960, P. 39.

Second, let us look at the "input" figure, or in this case the total payroll of the company. Wage and salary increases, benefit cost increases, new products requiring more skilled workers and higher salaries, etc.—these are some of the factors that could cause higher input figures.

On the other hand, the same input figures in the ratio could be due to no change in the work force in the plant—because of the company purchasing on the outside semi-finished or completely finished products which would be added to its total sales.

The above factors are not at all fictitious. Some of them have been operating in the past few years at S. C. Johnson and Son, Inc. Let me give you one example. It appeared that productivity, as measured in terms of value of our production divided by our production worker payroll, had not shown the same rate of growth as we had expected. A careful investigation revealed that we had increased our sales of pressure-packed products considerably and, until a year ago, these were all packaged by an outside contract filler, not by our company. This is a highly specialized business and uses special equipment, which we have since purchased. In the meantime, our own production employees were working on some new, more difficult, and more time-consuming products, and on the face of it, their productivity was not moving upward as we had originally anticipated. For the company *as a whole*, however, productivity, using gross sales as "output," was increasing very satisfactorily.

This illustration points out in a fairly simple way one of the many pitfalls into which statisticians and others fall when they try to interpret productivity data without an intimate knowledge of the particular production and other factors being measured.

As an over-all measure of productivity in our company, we use the total amount of sales per employee and sales per payroll dollar. In our type of business, there is need for the full cooperation of salesmen, warehouse workers, office workers, production workers, laboratory personnel, and all the scientific and supervisory people.

While there are some specific measures of productivity in certain areas of our company's non-operations, such as number of calls per salesman and ratio of orders to calls, we believe that the measure of over-all productivity based on sales is most meaningful and acceptable to all of us. Therefore, in discussing the state of business with employees, as we do periodically, we always relate the sales and profit-sharing picture to the effectiveness of over-all employee productivity. When it is necessary to stress the need for increasing productivity to boost the size of our profit-sharing pool, we believe that, generally speaking, our employees know what is being discussed.

DISCUSSION II

DISCUSSION LEADER: DR. A. C. JOHNSON
SCHOOL OF COMMERCE, THE UNIVERSITY OF WISCONSIN

CONFERENCE LEADER

One of the objectives of this particular meeting is to identify the issues surrounding profit sharing, productivity, and motivation. With this thought in mind we might give some consideration to the various concepts of profit sharing and its relationship to productivity. Second, there is the question of how we would measure productivity as it relates to profit sharing, motivation, productivity, and specific companies, particularly in terms of whether or not an individual measure or the total output-input concept is involved. Third, would there be any suggestions as to future research or future efforts in this particular area? Perhaps we might begin by looking at some of the concepts of profit sharing.

ASSOCIATION EXECUTIVE I

I was somewhat concerned with yesterday's session about profits, and learned that from the economist's standpoint you ideally have no profits and you try to break even. In the Council of Profit Sharing Industries we more or less accept the usual accountant's idea that profit represents the excess of income over expenses. What an individual company may do with this profit is not a precise concern of ours, since the company may make reservations or exceptions to the accountant's statement to include or exclude certain items. In many cases, for example, gains or losses due to the sale of capital assets are specifically excluded from consideration of the profits that are to be shared with the employee. The second point that I would like to make is what we in the Council are generally talking about when we talk about profit sharing. We believe that this involves any procedure under which an employer pays or makes available to all eligible employees, subject to reasonable eligibility rules, in addition to prevailing rates of pay, special current or deferred sums based on the profits of the business. I would like to point out that, although we are discussing all regular employees, it is obvious that rarely are 100 percent of the employees covered by a profit sharing plan at any one point in time. There are always some entering the period of eligibility and others who have not completed that eligibility. On the other hand, we do not say that a company which shares its profits with a limited number of employees is not profit sharing; we merely say that a better type of profit sharing is one in which an attempt is made to bring in the largest number of employees.

There also has to be a very clear-cut understanding of the fact that there are different kinds of profit sharing methods in existence today. Basically one is a cash or current-payment type of plan in which the employer pays to the employee a portion of the profits which the employee is free to spend in any way he chooses. The second type of plan is one in which the employer pays nothing to the employee directly, but pays to a trust fund administered by a trustee the portion of the profits that are to be available to the employees at some future time. We sometimes refer to a third kind of plan but it really embraces the ideas of the first two; a company either has an individual cash type of plan and a separate individual type of deferred plan, or it has a deferred plan in which the employee has a choice of taking all or some portion of the company's profits in cash or of deferring some part of it. If we keep these separate kinds of plans clearly in mind, I think that our conclusions and discussions will not become confused. It is necessary to keep these definitions because the types of plans have different reasons and purposes behind them. I doubt if any company has put in a cash-payment type of plan as a means of providing for the ultimate retirement benefits of the employee. On the other hand, most deferred types of plans have that as a primary objective. We feel that if the payments are based on any other factor than profits, then it is not a profit sharing plan. In other words, if the company is making payments to some scheme, no matter what it might be called, and if the payments are made during a period in which the company does not actually make any profit, we would not consider that a profit sharing plan. That is somewhat opposed to the ruling of the Internal Revenue Service in that they will permit plans to be paid out of accumulated profits.

PROFESSOR I

I would like to ask Dr. Lang about a point that he made during the close of his talk. You spoke of a method of productivity measurement that you have found meaningful in your company. Would you elaborate on this?

SPEAKER

We have taken the total sales of the company for our financial year and divided by the number of employees. We also use a scale, and this is important in communicating to our employees the trend of what profits have been made in terms of productivity.

PROFESSOR I

How does that tie in with profit sharing?

SPEAKER

Cooperation and teamwork in the company are unmeasurable as such, but they do result in a total effort which does increase, not only our sales, but our ultimate profits. Both of these are measured in our chart, which shows our profit sharing line alongside our sales-dollar productivity lines.

PROFESSOR I

Don't you really present this to employees to show what they can do to increase the profits?

SPEAKER

What we try to do with the chart is to show what happens to profit sharing as the sales increase, what the result of cooperation is with respect to profit sharing, and what happens when sales dollars and costs change. There is never a direct relationship; one is not determined by the other. One is used to show how it contributes or generates profits, but not in arithmetic relation.

PROFESSOR I

What is your basic formula for defining profits?

SPEAKER

Our company takes the total net profits before taxes, sets aside a reasonable return on net-worth— a formula that has been set with the Internal Revenue Service because we have a combined plan, both cash and deferred—and takes 25 percent of that sum to put in a profit sharing pool. The relationship of how much goes into cash and how much into the deferred plan is based on the amount that's in the pool. A sliding scale has been approved by the Treasury Department. What goes into the deferred plan, therefore, becomes a percentage, which is 15 percent; it may go below 15 percent but never above it. The percentage that goes into cash is dependent upon each employee's share as related to what we call a standard pool, which is the sum of a share based on the employee's base rate of salary, on a percentage for length of service, and on his responsibility in the company.

PROFESSOR II

In your explanation to employees, what do you call that ratio, sales divided by employees? Do you call it productivity?

SPEAKER

We call it that. If everyone's work contributes to that productivity, either directly or indirectly, we don't try to say that any one particular person is directly contributing to productivity, as some are not. I am referring to our type of business, which is pretty much of a marketing business.

Productivity is a good word to use, but it is really a hard thing to explain. We go right back to profits. It is a nice sounding word, but it isn't a very good word. We are a good example of a rather aberrational use of the word productivity.

INDUSTRIALIST I

I take it that, in your experience, the ratio of sales to employees or payroll and the ratio of net profit or sales to employees would be pretty highly correlated. By and large, would the two move together rather consistently? You don't have cases where the ratio of sales to employees go one way and the ratio to profits another, do you?

SPEAKER

No, we do not.

PROFESSOR II

I want to ask a question about this index. You mentioned in your remarks that in one year you increased the use of pressurized containers and had a different product mix and this affected the index. Would you make adjustment for refined differences of this kind? I am curious because, if we were to make a study, would we have to get into such subtleties, or is it sufficient to make this broad calculation without refinement?

SPEAKER

Since we have only used the productivity analysis for this general communication use, we do not make the refinement. However, were our people in the accounting field or some of them doing work on economic analysis, I certainly would feel that we should take out and correct for the outside purchasing type of profit.

PROFESSOR II

I personally, and I'm sure others, would be interested in other company experiences along these lines.

INDUSTRIALIST II

We have tried to relate our over-all productivity to our actual dollar units in somewhat of a communication line or measure. For instance, one of our goals, which we have played up very high, is *10 by 5*—a $10 unit value in our profit sharing trust. This is something that people understand, something in their experience. We are trying to get a $10 unit by 1965, and we break that down for each year as annual goals. It is an over-all measurement that they can see and the idea has logic and perfection in the purely economic sense. It does have some real value.

PROFESSOR II

How do you define that unit?

INDUSTRIALIST II

It is a $10 unit. A unit, in our particular case, is represented either by $100 worth of compensation or by one year of service; all of the units are then put together and divided into the over-all profit sharing pool, and this becomes a dollar value on each unit. This is something everyone in the company understands.

PROFESSOR II

You want to get to the point where you will be paying $10 for each one of those units each year?

INDUSTRIALIST II

This is our goal for 1965.

INDUSTRIALIST III

Dr. Lang, you mentioned some measurements for your formula. One I would like to consider is length of service; another, I think you said, is responsibility of the employee.

SPEAKER

We have four classes in terms of supervisory responsibility. The length of service is based on a scale from 1 to 10 years. If there are more than 10 years of service, the same percentage applies. The scale after one year of service starts for the lowest group at 5 percent and the terminal point after

10 years is 20 percent. The terminal point after 10 years in case of first-line supervision is 25 percent. It is 30 percent in the case of middle management and 35 percent for top management.

INDUSTRIALIST III

I would like to comment that in 1949 we tried to get our profit sharing plan amended to put in some such formula as this, and the Bureau of Internal Revenue turned us down mainly because it discriminated in favor of higher paid employees. We finally resorted to straight distribution based on salaries paid in the biggest year.

SPEAKER

We're talking about different things now. The percentages I'm talking about and the groups of employees I'm talking about represent our cash plan. The plan you are talking about is a deferred trust. Our deferred trust has everybody on the same basis.

It might be well to bear in mind that the Treasury Department has no interest in a cash profit sharing plan except to the extent that the compensation made is reasonable. There is no approval, as such, as there is in a deferred profit sharing plan.

PROFESSOR III

Do you distinguish between efficiency and productivity, Dr. Lang? Do you distinguish between scrap, for example, and no scrap?

SPEAKER

We haven't measured it in this sense. We don't make productivity studies of that kind.

INDUSTRIALIST IV

We operate under a combination plan, cash and deferred. We take care of any difference in the length of employment through the cash section of our plan. The deferred section deals with everyone on the same uniform basis. We measure productivity on a weekly basis, based on the finished merchandise that passes from the factory into storage and on production per wage dollar at the factory level. (We take out and at the same time report on the waste element which is based on costings of the *total* production that has been going through the plant during the period.) We are thus aware of any rise or fall in our waste and in our production results. We have found quite a variation at times, particularly when introducing new lines where production hasn't been up to the expectations. However, when we have kept the employees informed as to our problems, it is surprising how they will help the company or management get out of these unfortunate situations. It is remarkable how employees will cooperate when they are taken into confidence by management.

PROFESSOR IV

I suppose that these productivity measures that you mentioned do not enter into your profit sharing formula directly. Are they merely controls over net profit, the net profit being the basis for the profit sharing?

INDUSTRIALIST IV

Yes. Our formula is a very simple one and it is basically this. Pay the going rate to labor and to capital and then split the profits 50-50. We keep track of the going rates by making a survey once a year, and the results of that survey are made known to the head of our plant council (we have no union), and if there is any question of our rates being below the going rate, they are corrected by management.

INDUSTRIALIST V

Our plan started in 1916. Through profit sharing the employees of our company own something like 26 percent of the stock. They own or have cash from the stocks that are worth about $1,400,000,000. Our profit sharing contribution and their participation is determined by length of service and income. We know that we do not pay the going rate; we pay the top rate for people in our business. We know that our benefits are comparable with the best. We know that the turnover of personnel in our business is substantially less than that of our competitors. You might be interested to know that our turnover in 1960 was the lowest it has been in the history of the company since we began keeping records in the early 1930's. We know that we have a large cadre of men and women who are advancing and who are ready to assume major responsibilities as those vacancies occur, due to expansion, retirement, etc. We know that this is an asset not shown on the balance sheet. It is reflected in the sales and profits of the company. We know that the net profits for our business, as compared with others, are very, very set. Why do we have profit sharing? It's not just to keep out the unions, as someone might have suggested yesterday, but because it is good business. We can't afford not to have it. Our profit sharing plan in 1959 cost us something like 45 million dollars and about 39 million this last year. What I have just said has not been accomplished by profit sharing alone. A going organization could install a profit sharing plan and it could possibly be no better than it was before. There are certain types of people to whom profit sharing is meaningful and others not. I attribute profit sharing in my company to the fine results that we have had. Less than 5 percent of our people are organized. They are people who have a daily interest in their business. I define productivity in the present instance in terms of where we are now, despite the fact that we pay top wages. To me this is a result of profit sharing.

INDUSTRIALIST VI

Isn't this exactly the role that profit sharing plays in the free-enterprise system? You just got through saying it. You are proving that in your organization throughout the world the free-enterprise system is not just for stockholders but it is for employees, for everyone in the organization, and customers, too.

PROFESSOR V

You mentioned customers in respect to profit sharing. Is there any specific tie there?

INDUSTRIALIST VI

The customers benefit by lower prices and by good service.

INDUSTRIALIST V

Speaking about the consumer benefiting from profit sharing, I would say that this factor is sometimes rather difficult to measure, but I believe that the over-all growth and success of the company are possibly the best measurement. In our particular industry, I know that our company has been making far more money than any other. Based on our past 13 years' experience, I can say that any of our employees who have been in our profit sharing plan for 25 years will have a fund, which is completely vested in them up to $45,000 or $50,000. This money can be taken out at any time after 25 years. It seems to me it gets around to this point in our discussion of the distribution of property.

PROFIT SHARING AND MOTIVATION FOR PRODUCTIVITY

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What management does or doesn't do probably has the most effect on raising productivity in America. We might well ask, "Where is the leverage in management today?" In the past, many of the problems management has dealt with have been in the world of finance, or in the world of marketing, manufacturing, or research. But today, the management of people is the major area in which management, through its own efforts, can raise productivity. The major thesis of this paper is that every organization has enormous unrealized potential that could be translated into profits, through better management of people.

The duty to manage human resources to raise productivity.—Just for a moment let's look at some of the factors that allow management, nay, impose upon it, the duty to manage better our human resources. America has a rising curve of educated workers. Adults with a completed high school or college education have increased from 39.1 percent of the population in 1940, to over 62 percent in 1959. This is accompanied by a rising level of skills. Actual and projected employment from 1900 to 1975 indicates that, while manual workers have stayed at about the same level (35.6 percent) of the total work force, the professional, technical, and clerical group has gone from 17.6 percent to an estimated 1975 figure of 46.7 percent of the work force. This fact allows, perhaps pushes, management to bring more people into the "management of the business." The search for better ways to manage people goes on continuously.

Many studies of how to motivate and manage workers better have been made; many proposals have been adopted; many experiments have been conducted to try to raise productivity. One of those movements that has made great impact on management thinking has been profit sharing. Profit sharing and how it motivates productivity is the subject of discussion here. I'd like to report briefly on a study that our organization, Opinion Research Corporation of Princeton, New Jersey, has made of the employees of over 30 profit-sharing companies. Some of the participating companies are well known to American management—Bell and Howell, Eastman Kodak, International Milling, S. C. Johnson and Co., Standard Oil of California, Proctor and Gamble, Sears, Roebuck and Co., Motorola, Pitney-Bowes, and many others. Not all of the companies in the study were large. In fact, in terms of the survey sample composition, 16 percent were "smaller companies," 44 percent "medium size," and 40 percent "large companies." Of those surveyed, 67 percent were production employees, 22 percent clerical, and 11 percent professional or managerial.

What objectives does management have in installing profit sharing?—What are some of management's objectives in starting a profit-sharing plan? The main one, we found, was to instill a live sense of joint effort toward common ends. There are certain blocks to management leadership, which profit sharing seeks to overcome. First, it is very common in American industry for the workers to feel that management doesn't share fairly with employees, and second, that management doesn't care about employees. In a nationwide survey, manual workers were asked a number of questions about how sharing has taken place in our economy. Of those replying, 79 percent said that the larger share of increased output has gone to the owners; 58 percent said that companies must be forced to pay higher wages; 50 percent denied that they have gotten their fair share as their companies have grown and prospered.

These kinds of attitudes are found in survey after survey, and show how workers simply don't understand the facts of how much they have shared in material progress.

How does profit sharing affect employee attitudes?—How does profit-sharing experience affect workers' attitudes on how their companies share income on productivity and on our free-enterprise system? There are a number of questions under the general heading of a sense of sharing. First, have employees gotten their fair share of company growth and prosperity? Among production workers *without* profit sharing, 47 percent say "yes," but *with* profit sharing the figure of those who feel they have shared fairly rises to 79 percent.

On the question of recognition for their part in raising output and being given proper credit for company success, 43 percent of production workers nationally say "yes" and among profit-sharing workers who say "yes" the figure is 79 percent.

Productivity attitudes improve.—What about productivity attitudes? On the question of trouble caused by poor planning and organizing by top management, half of the production workers polled nationally say that top management is causing a lot of trouble. This figure drops to 30 percent among production workers who have profit sharing. Better productivity attitudes are seen again when employees are asked whether or not they gain when they find ways to cut costs and save money. Among production workers who have profit sharing, 60 percent say that they gain when they do find ways to cut costs and save money; only 4 in 10 workers nationally say that where profit sharing does not prevail.

What about the proposition that management's main idea of how to cut costs is to get employees to work harder? Of those questioned, 50 percent agree to that proposition where a profit-sharing plan is *not* in effect, whereas only 36 percent agree where profit sharing is in effect.

What does profit sharing do to increase the workers' sense of participation? On the question of whether or not employees are given a say on how things are done in their work group, 64 percent of those with profit sharing concur; only half of those without profit sharing agree. Confidence in management demonstrably rises under profit-sharing plans.

On the question of whether their management is "pretty outstanding," 81 percent of profit-sharing workers in Company "A" rate their top management as such, in Company "B" 80 percent, Company "C" 77 percent, Company "D" 74 percent, Company "E" 66 percent, Company "F" 64 percent, and Company "G" 53 percent. In companies without profit sharing, the average vote on rating top management as outstanding drops to a low 35 percent on the average.

Does profit sharing affect free-enterprise attitudes?—In the area of free-enterprise thinking, have there been any gains? Under profit sharing there certainly are gains. In a nationwide poll, 62 percent of the production workers agreed that one of the faults of the system is that too much goes to the owners. In profit-sharing companies, only half said this. "The larger share of increased output due to installation of machinery and equipment has gone to the owners," was the nationwide reply of 75 percent of production workers. The figure dropped to 65 percent among profit-sharing workers.

However, the picture is not all rosy. There is no change, under profit sharing, on attitudes toward government putting a top limitation on profits; 31 percent of both production workers under profit sharing and those without it agree to that. In fact, more profit-sharing workers than production workers nationwide feel that the government should do a lot to regulate business closely.

Thus, we can see that, while sharing and productivity attitudes improve under profit sharing, there are no across-the-board gains in free-enterprise thinking.

What employees see as best about profit sharing.—When we asked employees what good they saw in profit sharing, 62 percent said that there was an increased feeling of partnership with management; 57 percent said that it makes people do better work; 54 percent saw more benefits for retirement; 34 percent saw more cash for employees; and 32 percent said that it helps lessen labor-management friction. Anti-capitalist feelings also decline under profit sharing.

Are stockholders' and employees' interests opposed? Without profit sharing, 34 percent of production workers agree to that idea, and with profit sharing, the total drops to 27 percent. This is not a uniform finding throughout all profit-sharing companies. In one such company, 55 percent of the workers felt that stockholder and employee interests were opposed, while in two other profit-sharing companies, 8 percent felt that way, and in another only 3 percent so that there is some wide variation, and profit sharing does not breed uniformity in feelings.

The main finding: Chance for advancement improves.—Now, to take up the main theme of our discussion, let's look at one of the most important fields in survey research today—how people feel about their chances for advancement.

On the question, "Is there good opportunity in your company for people with ability to get ahead?" only 46 percent of employees without profit sharing said yes; the figure rose to 67 percent for those who had profit sharing. We have found, over the years, that there is an intense desire on the part of most people in industry to develop their capabilities. When we ask people what they like least about their job, we find it is that there is not enough chance to advance. Between 19 percent and 32 percent of engineers, supervisors, white-collar and factory workers say that they just don't have a chance to get ahead, and this feeling, as we have demonstrated earlier, is one that is considerably improved under profit-sharing management.

Further study needed, but profit-sharing managers may be most developmental.—Many managers are not developmentally minded; that is, they don't care whether or not their employees get ahead. When we study employees—managers, supervisors, white-collar workers, hourly employees, or engineers—

in various kinds of businesses, such as utilities, rubber companies, office-equipment manufacturers, and so on, they rate their boss highest on "knowing the work," much less well on "encouraging people to do better," and they are least likely to say, "He's good on helping people to get ahead."

This is regardless of the kind of company or the kind of employee. So the area of most leverage for management today is the tapping of this need that people have to get ahead. As we have seen, profit sharing is evidently one of the ways to show people that they're on the management team, and are getting better chances to move ahead in their jobs.

Authoritarian vs. developmental managers.—One of the things that we've noticed in all of our studies is that there is a real contrast in the philosophies of managements of different kinds of companies. We have noticed that the authoritarian managers in many of our studies drive their employees, rather than lead them. They tell them, rather than ask them. They show them, rather than encourage them. They reward and punish, rather than try to motivate, and in the end they tend to build dependent people, rather than self-responsible people. On the other hand, we have noticed that the characteristics of the developmental manager are to lead, to ask, to encourage, to try to motivate his people, and build self-responsible individuals.

One way in which management can best examine whether or not it is building self-responsible people is to ask these questions. What are the typical responses of our employees, as a group, when a problem comes up? Is there first a tendency to (1) ignore the problem and hope someone else will help take care of it, (2) to take the problem to the boss and ask him for a solution, (3) to give the boss alternate solutions and get him to make the decision, (4) to go to the boss with a solution and get him to make the decision, or (5) to work out the problem as best they can by themselves, unless it's definitely a policy matter?

The point here is that it's important for management to realize where their people are in this self-responsibility continuum, and how adequate measures can be set up to move a group toward a position where more people in the group tend to follow these latter problem-solving methods. There are many limitations to the old-fashioned authoritarian management. First of all, it encourages average performance. Second, it doesn't tap people's initiative. Third, it fails to develop new skills; and finally, it neglects psychological needs. You could easily sum up authoritarian management with this phrase, "Do what you are told, when you are told, and how you are told."

Another thing we've noticed is the need to feel important, and this influences employees' motivation. Many employees say, "They don't keep me informed around here," "They pay no attention to me as a person," "They never ask for my ideas," "They don't give credit when you do a good job." Most employees feel they are *not* "in the know" about their company. In a paper company we studied, 53 percent of the hourly employees and 41 percent of the supervisors said, "Yes, I get enough information." In a refinery the percentage was about half for both groups, and less than half in an electrical equipment and a machinery company, respectively. In company after company we see the same pattern—typically, less than half of the hourly and supervisory employees feel that they are in the know, that they get enough information about their company.

There are many problems that can't be resolved by the old school of ordering and forbidding: waste and rejects, high labor costs, work stoppages, excessive research lead time, lack of delegation, employment turnover, the bogging down of ability to make decisions, and all sorts of inter-departmental conflicts. Of course, the combination of developmental management and profit sharing is not the only solution to many of these problems, but it is one of the best answers that we've seen in actual operation.

What characterizes the developmental manager?—What can the developmental manager in a profit-sharing organization actually do? First of all, he formulates company objectives. He makes sure that people understand these objectives. He delegates decision-making to the lowest possible level. He backs up delegation with ample information. He holds subordinates responsible for decisions within a reasonable margin of error. Then he evaluates their performance and replaces those who fail to measure up.

Are there difficulties with profit sharing?—Many employees see difficulties under profit sharing. For instance, over one-third of them say that employees count on profit sharing, and take it hard if profits go down; 28 percent say some employees "take it easy," and lean on others. One in four says that you can't link your own work to the profit results. According to 23 percent, when profits decline, employees lose interest. Another 22 percent say they have to wait too long for the pay-off; and 11 percent feel that profits depend on management, and employees can't do too much to help. Many profit sharing companies' employees are aware of these drawbacks; but these drawbacks, again, are in large part a matter of lack of information. Even in profit-sharing companies, many employees feel that they don't get enough information, that management doesn't share more than the profits—in other words, share responsibility with the employees for managing the business.

Summary.—Profit sharing gives employees a sense of common purpose with management. It breeds attitudes toward productivity that are measurably better. Attitudes are not alone controlled by money, but are symbolized by the spirit of cooperation. In no sense is profit sharing an automatic cure-all for employee-relation problems. It does not operate automatically to teach free enterprise, although attitudes toward sharing and attitudes toward increasing productivity are definitely improved.

There are, of course, some unanswered questions for profit-sharing managements. First, what will happen in a severe economic downturn? Second, will profit sharing become a major target for collective bargaining, and if so, what would be the consequences? Third, will present tax advantages be sustained? These are all questions for further study.

In terms of realizing the full potential of a profit-sharing organization, better management of people is certainly one of the prime requisites. Profit sharing is one of the "economic" tools for helping to manage people better. Authoritarian control limits the employees' contribution to company success. Developmental management encourages people to use their creativity, and to reach for responsibility. The building of self-responsibility requires that more attention be given to non-material rewards. It requires more than profit sharing. The introduction of developmental management must be through a gradual and planned approach. Organizational self-responsibility provides a working test of developmental management. Greater involvement should help channel employees' energy into productive activity, and the pay-off is a dynamic organization better able to meet tomorrow's expanding challenge, and build more profits for everyone.

DISCUSSION III

DISCUSSION LEADER: DR. G. B. STROTHER
SCHOOL OF COMMERCE, THE UNIVERSITY OF WISCONSIN

CONFERENCE LEADER

What happens to profit sharing in a recession? An editor of a newspaper in an editorial once advised his community to be very cautious about accepting new industry in the community because "after all you want to remember that we did much better than other communities did during the depression." I think all of us who have lived through it have this specter of the depression in our minds. If profit sharing has any value, one of the aspects of that value should be to mitigate some of the forces that tend to bring about depressions. Increases in productivity and increases in efficiency that continue to bring goods to society on an even and ever-increasing basis at decreasing real costs, which are the results of programs that increase participation of the employees in the system and at the same time encourage habits of thrift, are by themselves a depression-mitigating force. Therefore, I think it is a mistake to focus too strongly on profit sharing during a recession, because one of the results that could come from profit sharing would be to help to minimize, although certainly not eliminate, this possibility.

Profit sharing is not only a form of motivation that may encounter special problems during a period of recession but it can also be a factor in relieving the severity of a recession.

If profit sharing is to accomplish what is intended, i.e., to build an incentive for productivity motivation, a non-profit-sharing company shouldn't be any worse off in a depression than a company that does have a profit-sharing plan, even though the plan was successful prior to that time.

The investment policies of the trustees of a deferred profit-sharing plan can influence the over-all result of the share that is divided among the employees. After all, that is the trustees' responsibility. If it happens to be invested in the stock of the company, there might be some embarrassment during a depression. In the company that I represent, where we invest in common stock, we have had periods where the stock market hadn't responded the way we wanted it to; unfortunately we didn't get the message and the fund value went down. It is necessary to communicate this information on market prices of the investments to participants in the plan. It wasn't a very tolerable situation, but we had to face up to it and we lived through it. Over a period of 16 years, by and large, there have been increases in the value of the investments. If they are an incentive in good times, plans should be incentives in bad times as well. The company has made a success by upping their productivity and so it certainly isn't in any worse shape than companies that didn't have profit sharing.

ASSN. EXECUTIVE I

I think that we are very fortunate in that we have a considerable body of experience to answer the questions about profit sharing in a depression. In the latter part of 1937 Guy Reed, Vice-President of Operations of the Harris Bank, General Wood of Sears, Roebuck, and some other profit sharers from Chicago persuaded Republican Senator Vandenburg, who in turn convinced the Democratic majority of the Senate Finance Committee, to create a Senate subcommittee, whose purpose would be to look back over the desolate 1930's and find out just why many manufacturing concerns and other businesses had been able to keep smoke in the smokestacks and people working. Out of this committee came what we now term the Vandenburg Herring Committee report.

The profit sharers went to Washington and opened up their books and records for what was perhaps one of the most extensive economic surveys. The report of that committee is still in very large part valid today. The chairman of the subcommittee had before him the balance sheets for at least 1932 and 1933 from the profit-sharing firms of the country at that time. As a final question during the hearings he asked what would happen when there were no profits. General Wood said that this question was one of the finest things that ever happened to his company. His words went something like this: "In the first place you must realize that we had a job when our neighbors did not. Yes, we had to cut down, and we saw a lot of places where we had grown slack in the conduct of our business because we had come to think that a profit was automatic. We were pretty well off when we looked at ourselves in relation to our fellows. Times were bad all over, but we were better off. When good times returned, we were all convinced that we were going to be able to make the best of it." That was just about the answer given by General Wood for the successful profit-sharing firm. I'm confident that, if management plays fair with labor in good times, labor will be very loyal in tough times.

INDUSTRIALIST I

There is another side of this coin. You talk about the equalizing effect, of profit sharing during a recession. What about a falling off of profits during a period of generally good times and the attitude of employees under those circumstances?

CONFERENCE LEADER

There are two ways in which falling profits may enter into the picture. We talked about the recession type. What about profits in industry that reach a plateau or begin to decline because of the nature of the industry? Does anybody have any experience with falling profits during good times and what effect profit sharing may have under such circumstances?

INDUSTRIALIST II

I'm convinced that a lot of troubles can be placed at management's door if the lack of profits is the fault of management, and if it is the fault of management, the employees will know it. In such instances, if management will admit its mistakes, it will have its employees with it all the time.

PROFESSOR I

I made a study a few years ago of a company that has had a profit-sharing plan since 1899. I discovered that, as long as management was enthusiastic about profit sharing, everything seemed to be all right, but when management became indifferent and communication with the workers broke down, the program was in trouble. It seems to me that the attitude of management is more important than the profits.

INDUSTRIALIST III

I don't particularly see that this problem is one that centers around profit sharing. If a company is not making money when other companies in that line of business are fairly prosperous, I think that the stockholder is equally concerned as to why it is not making money and that there will be a change in management if it doesn't have a good excuse. I can't see where profit-sharing employees have the right to expect that management should be as good or better than management in general. If the management can't make money, when everyone else is, then I think that management has a lot of explaining to do, and I think that it will have as hard a time convincing the stockholder as the employee.

PROFESSOR I

In the case with which I'm familiar, the company was making enough profit to pay the dividends, rather generous dividends, but the amount of profit left over for the workers was rather small; in fact, it was so small that you could hardly call it a factor in motivating the worker to produce more.

ASSN. EXECUTIVE I

We have a similar situation with a company in the East that manufactured horse whips. Every year the business was worse and, of course, profit sharing wasn't very important as far as the employees were concerned. In this case I think that it was management's responsibility to get out of the horse-whip business. I don't think that was a failure of profit sharing.

PROFESSOR I

I didn't mean to imply that it was a failure of profit sharing at all, but I was just pointing out that it was a failure on the part of management to communicate with the workers.

INDUSTRIALIST IV

I don't think that profit sharing is really the relating factor there. Failures can occur with or without profit sharing. Any company that continues not to make money will go out of business whether they have profit sharing or whether they don't. I think that you are putting an unfair burden on profit sharing when you ask what happens to a profit-sharing plan when a company doesn't make money. What happens to any company that doesn't make money? It can't continue indefinitely. Either it goes bankrupt, the owners try to sell it to somebody else, or they change the management.

CONFERENCE LEADER

I think you have a point there in suggesting that profit-sharing companies, where they have a loss year or several loss years, are different than companies that do not have profit sharing. In both cases the employees continue to receive their wages, but in a profit-sharing company they miss the profit-sharing dividend, so they might be more unhappy.

PROFESSOR II

I have had the managements of a number of companies tell me that the best thing that ever happened to their profit-sharing plan was when they had a year or two of no profits. Then they began to realize that profit sharing had made a difference. Of course, if a lack of profit was to continue indefinitely it would be another matter.

CONFERENCE LEADER

This suggests a question in relation to motivation and productivity. What are the different types of motivation that may be involved here? Some of these remarks suggest that a certain security concept is provided by certain types of profit-sharing plans and by some plans more than others. There is also the participational or, one might say, informational dimension of this having an effect. Of course, there is certainly in some cases the direct cash incentive involved. I wonder if the different types of motivation were related or could be related to different types of plans, or differential-performance response under various plans.

SPEAKER

There is certainly room to link motivation with productivity on some kind of strict measure. In studying the motivational aspects of productivity, it became apparent to us that, insofar as sharing the fruits of the enterprise was concerned, there was a noticeable increase in favorable attitudes among the profit-sharing companies. In attitudes toward output, increasing productivity, and being a part of the enterprise, there were more favorable responses under profit sharing. Insofar as attitudes toward the entire economic system, how the system functions and how it shares, there was not a particularly noticeable increase. This may be a matter of communication of plan aspects. I think that there is room for considerable research in the area of whether or not profit sharing comes first or management's attitude toward the workers comes first; and then profit sharing is installed as the personification of that attitude, whether or not the act of sharing through formula has been installed by the more progressive and developmentally minded management. There are some companies you could probably name that do not have profit sharing but that have been eminently successful in bringing a sense of participation to their workers, giving them economic security and a number of other motivations toward output. There are a number of profit-sharing companies that do not have the right management attitude, and therefore they couldn't motivate their people even with the best profit-sharing plan. What are the factors that make for these kinds of differences, and are these measurable differences?

There are many things concerned with motivation, and motivation changes even in time. Motivation to stay on the job during increasing unemployment is a very good one; even though a man may not be particularly interested in the company in which he is working, he may strive to do a good job just to stay employed. Therefore his motivation and his productivity may be better than it was the year previous, even though he may not care about remaining permanently employed by this particular employer. This may account for some less absenteeism, less turnover, etc. I can see where this could happen.

There is one thing that we have to keep in mind when talking about motivation. We may be dealing with several types of motives and we should try to determine if the motive that induces a man to stay with a company may or may not be the same motive that induces him to be productive. The motives that induce him to be productive may not necessarily be those that further the basic stability of the organization. Profit sharing may perhaps induce stability more than productivity or some other combination.

Management can't supply motivation; it is supplied by the employee. Management can only supply the framework or environment in which motivation can take place.

INDUSTRIALIST V

Define motivation.

CONFERENCE LEADER

A psychologist's definition would say that a motive is two things. It is a need and an incentive. The person is not motivated except when there is a need, and motivated behavior only exhibits itself when there is an incentive. It seems to me that management does not provide the incentive. The employee provides the need. It is an unfilled need. We don't think much about the air until we are deprived of it and then it becomes a very important need for us.

There are many successful companies that have never used profit sharing. They have found other ways to motivate employees to increase productivity over the years. Is one of the objectives of a group of us getting together to try and discover if, in a free society, we are better if we have profit-sharing plans? Is this saving the free enterprise, or are we just raising questions as to whether this is a sound method of motivating employees to increase productivity and, if so, is it better than some of the other ones that have been developed?

PROFESSOR III

You don't necessarily have to make a black and a white choice. We are looking at the profitabilities and limitations of profit sharing and we might say that profit sharing is not the only answer to all questions, but that it can make a contribution. I don't see anything inconsistent in recognizing that there may be other things that also may make a contribution.

INDUSTRIALIST VI

In our business, we have to try to get people to work harder, more intelligently, to work faster to try to put out our product. We want to get more work out of the individual because that's the way to make profits. It's the only way that we can keep up with higher wages, greater benefits, etc. We overcome some of this by machinery, but we can do this only to a certain extent. The rest we have got to overcome through people, and people have to be managed and well managed. In our particular case, we probably are owned to a greater extent by the employees of the company than is generally the case. Our employees have their ownership, and vote their stock, they receive the dividends on their stock, they appreciate the stock which is offered on the deferred compensation plan, and they get the same dividends as the other stockholders.

The only difference in their condition is that, if they leave the company for some reason, they have to sell their stock back to the trust to be sold to the other employees. Despite that, we pay wages and salaries that are comparable to any other firm in our line of business in our community. Our benefits are more liberal than are generally prevalent in our industry and, in addition, we have a noncontributory pension plan. In our case we compare our records of production, sales and everything except net profit with five other similar companies of comparable size situated around the Midwest and the Atlantic coast.

Let us find out the traits of good profit sharing, not only plans but failures and weaknesses. If there are other things that contribute to greater total output, let's find out what they are. Profit sharing isn't the only thing that will contribute toward total output, but at least it is one of the important things. Let's examine all of them, and let's see how they work together.

PARTICIPANTS IN SYMPOSIUM
FEBRUARY 23 AND 24

Name and Title	Company	City
From the University:		
N. C. Allhiser, Director Management Institute	The University of Wisconsin	Madison, Wis.
C. C. Center, Professor of Commerce (Insurance)	The University of Wisconsin	Madison, Wis.
R. W. Fenske, Instructor, School of Commerce	The University of Wisconsin	Milwaukee, Wis.
E. A. Gaumnitz, Dean, School of Commerce	The University of Wisconsin	Madison, Wis.
R. M. Heins, Associate Professor of Commerce (Insurance)	The University of Wisconsin	Madison, Wis.
J. J. Jehring, Center for Productivity Motivation	The University of Wisconsin	Madison, Wis.
A. C. Johnson, Assistant Professor of Commerce (Management)	The University of Wisconsin	Madison, Wis.
W. D. Knight, Professor of Commerce, Director, Bureau of Business Research and Service	The University of Wisconsin	Madison, Wis.
H. E. Kubly, Professor of Commerce (Management)	The University of Wisconsin	Madison, Wis.
A. J. Lindemann, Associate Professor of Commerce	The University of Wisconsin	Milwaukee, Wis.
J. C. Schabacker, Associate Professor of Commerce Chairman, Commerce Extension	The University of Wisconsin	Madison, Wis.
John Smith, Professor of Commerce	The University of Wisconsin	Milwaukee, Wis.
G. B. Strother, Professor of Commerce (Management and Transportation)	The University of Wisconsin	Madison, Wis.
R. L. Tripp, Professor of Economics	The University of Wisconsin	Madison, Wis.
J. H. Westing, Associate Dean, School of Commerce	The University of Wisconsin	Madison, Wis.

Name and Title	Company	City
From Profit Sharing Companies:		
W. N. Connolly, Vice President	S. C. Johnson & Son, Inc.	Racine, Wis.
Ralph W. Ells, Chief Economist	Allen-Bradley Company	Milwaukee, Wis.
J. M. Ferren, Vice President of Industrial Relations	Zenith Radio Corporation	Chicago, Ill.
George C. French, Jr., Vice President	Centralab	Milwaukee, Wis.
H. F. Johnson, Chairman	S. C. Johnson & Son, Inc.	Racine, Wis.
Dr. Richard Lang, International Administrator	S. C. Johnson & Son, Inc.	Racine, Wis.
T. E. Leavey, Chairman of the Board	Farmers Insurance Group	Los Angeles, Calif.
Ron Ecke, Financial Vice President	Farmers Insurance Group	Los Angeles, Calif.
Harold V. Lush, President	Supreme Aluminum Industries, Ltd.	Toronto, Ontario, Canada
Irwin Maier, President and Publisher	The Milwaukee Journal	Milwaukee, Wis.
Lucas S. Miel, President	Commercial Steel Treating Corporation	Detroit, Mich.
K. R. Nelson, Secretary	S. C. Johnson & Son, Inc.	Racine, Wis.
S. D. Noble, Executive Director	Savings & Profit Sharing Pension Fund of Sears, Roebuck & Co. Employees	Chicago, Ill.
Jack Quigley, President	F. W. Means & Company	Chicago, Ill.
Robert E. Schmitz, Secretary and Controller	The Pelton Steel Casting Company	Milwaukee, Wis.
H. L. Severance, Secretary Executive Committee	Standard Oil of California	San Francisco, Calif.
George F. Sisler, Vice President	The First National Bank of Chicago	Chicago, Ill.
Floyd Springer, Public Relations	S. C. Johnson & Son, Inc.	Racine, Wis.
Weir Swanson, Chief of Personnel	Jewel Tea Company, Inc.	Chicago, Ill.
Dr. Charles Tobin	Oscar Mayer & Company	Madison, Wis.
W. W. Tudor, Vice President in Charge of Personnel	Sears, Roebuck & Company	Chicago, Ill.

Name and Title	Company	City
From Council of Profit Sharing Industries and Profit Sharing Research Foundation:		
Rear Admiral A. C. Burrows, President (speaker)	Council of Profit Sharing Industries	Chicago, Ill.
Joseph Meier	Council of Profit Sharing Industries	Chicago, Ill.
Bertram Metzger, Director	Profit Sharing Research Foundation	Evanston, Ill.
From Johnson Foundation:		
Leslie Paffrath, President	Johnson Foundation	Racine, Wis.
Others:		
Robert D. Best, Research Director (speaker)	Opinion Research Corp.	Princeton, N. J.
Dr. Ewan Clague, Commissioner (speaker)	Bureau of Labor Statistics U. S. Department of Labor	Washington, D. C.
Mr. Wm. D. Stansil, Executive Secretary	Manufacturers Association of Racine	Racine, Wis.
Observer-Recorder;		
E. Arthur Prieve, School of Commerce Extension	The University of Wisconsin	Madison, Wis.

CPM

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