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THE WORK OF THE BUREAU OF LABOR STATISTICS.

Lecture

by

Doctor E. Stewart.

March 17, 1928.

This meeting was held with Dr. Stewart, Director of the Department of Labor Statistics, and very keenly interested in our work.

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INTRODUCTORY REMARKS - COL. I. J. CARR, S.C.

Gentlemen:

In connection with the series of committee problems that we have been working on, one is on labor and the labor supply; what it is doing and how we can get hold of it. Those who have been working on this problem will realize that labor is one of those invisible agencies that we must get our hands on in time of war-- where it is, what it is doing and its relation to classification of industries.

The value of skilled labor is also a thing of vital importance to us in planning.

As yet, we have been unable to compile all our requirements in labor. However, that is being worked out in the branches and eventually we hope to have all that data so that we can get in touch with the Department of Labor and through them with the agencies of labor so that we can insure to the manufacturer sufficient labor to enable him to enter on his War contract or his excepted schedule of production.

We have our power fixed--we know where it is--We have our facilities fixed but where our labor is, that is a problem which remains to be solved.

This morning we have with us Dr. Stewart, Commissioner of the Department of Labor Statistics. He is one of our old friends and very keenly interested in our work. He has lectured here before

and attended our graduation exercises whenever he has had time.

Gentlemen, I take great pleasure in introducing Dr. Stewart.

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THE WORK OF THE BUREAU OF LABOR STATISTICS.

I will briefly discuss the general information obtainable in the Bureau of Labor Statistics which may be of interest to this group. After a brief summary, if time permits, there will be some discussion of the material itself.

WHOLESALE PRICE INDEX.

Since I addressed this organization in November 1926, the Bureau has revised its wholesale price index. We are at the present time gathering wholesale prices on five hundred and fifty (550) articles and the index contains that number. Last year four hundred and four (404) articles entered into the index. Prices are quoted weekly or even daily, they are converted into a monthly average price. For instance, the quantity of corn used for this purpose is the corn sold in the market and not the corn fed to cattle on the farm. Corn fed on the farm is represented by live stock sold from the farm. The new index shows this period from 1919 and the average of the two censuses of 1923 and 1925, and where the quantity sold could be secured as in agriculture - we show the average of 1923, 1924 and 1925 as our weighted quantity. The base of the index has been changed from 1913 equals one hundred (100), to the average of 1926 equals one hundred (100). The primary value of this material to this group is in measuring the purchasing power of their appropriations. For instance, for any given thing, we have an index for each item as well as for the various groups of items and for all articles combined.

The obverse of this picture is the purchasing power of the dollar, by which you can readily measure the adequacy of your appropriation for any given thing. Manifestly the purchasing power of the dollar depends upon what you intend to purchase, and any general statement of the purchasing power of the dollar is simply another way of measuring the all commodity price index. For instance, where the purchasing power of the dollar under the old index was forty-three (.43) cents, the purchasing power of the dollar if you wished to buy coke was sixteen (.16) cents. You will see at a glance the wide range of application that this might have in measuring the adequacy of your appropriations. The adequacy of the appropriation would entirely depend upon the list of supplies that you are intending to purchase.

RETAIL PRICES.

Our retail prices refer principally to food items and are weighted according to our family budget and are used as part of the cost of living study. We can give you the retail price on forty-three (43) articles of food in fifty-one (51) cities in the United States. Note the difference between the wholesale and retail price index. The wholesale price index is purely a commercial price index scientifically constructed to cover the entire field of purchasable things which are annually purchased. It does not cover real estate, buildings or stocks and bonds, but nevertheless is a general commercial index. Our retail price studies are restricted

separate by sex, nevertheless the study of the industrial world
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 indicates whether the unemployed labor could be largely used or furnished

to a definite purpose which is to aid the Bureau of Labor Statistics in estimating from time to time the cost of living and the cost of living is just what the term implies. It is a study of commodities used in the household, based upon the quantity consumption found to exist in the family budget in 1928. These prices are recurring studies and are reapplied to the weights every six months; that is to say, June and December.

Retail prices are collected monthly.

VOLUME OF EMPLOYMENT.

We collect statements monthly of volume of employment, showing the number of men on the payroll and the volume of the payroll nearest the 15th of each month. The report of June covers ten thousand seven hundred and seventy-two (10,772) establishments in fifty-four of the chief manufacturing industries. These establishments in January 1928 had two million nine hundred thousand employees whose combined earnings in one week is seventy five million eight hundred and eighty thousand dollars (\$75,880,000.00). This is segregated by industries and shows which industries are taking on men and which are laying off men. It is segregated by geographical districts. We hope ultimately to segregate it by industries and geographical districts, and by States and cities. The material would be of incalculable value to this group in the event of the necessity of suddenly organizing a large force, as it would show where any considerable number of men had been dropped from employment. While we do not keep this material separate by sex, nevertheless the nature of the industry would indicate whether the unemployed labor would be largely male or female.

In addition, we have published a handbook of trade unions which gives you the name and place of headquarters of every trade union in the United States, whether connected with the American Federation of Labor or not. It does not list the I.W.W. and for the reason that the I.W.W. is very flashingly organized. It has some organization at the top, but it is like a jumping tornado or cyclone. In Passaic, for instance, they had at one time some eight or ten thousand workers. At the start leaders jumped in and stirred things up and got them going. They are interested only in storms. When the strike was over the people who for a moment had joined the I.W.W. dropped out, until ten months after Passaic had ten thousand members, it did not have thirty. In other words, any such treatment of the I.W.W. as we have made of other unions would be worthless. By the time it had got through the printing office it would not be true.

Now we come to the efficiency of labor--the force that is continually squeezing out a certain proportion of the employees in all industries. They may drift somewhere else, that depends upon whether they can get jobs or not. We are making a study of the output per man in terms of the unit of the industry. While this is given for industries as a whole, the Bureau has a very considerable volume of information on the study of the efficiency of plants, a thing which I take it, would be of very great importance to you at a certain time. In the bituminous coal industry, for instance, it is very well understood that at least fifty per cent of the men engaged could be released at any time without any reduction of output. In boots and shoes, if all the plants were as efficient as the best ones,

sixteen and two thirds per cent of the men, if employed in the most efficient manner could produce all the boots and shoes now produced. Of the fifteen thousand (15,000) boot and shoe factories, twelve thousand (12,000) of them get out two pairs of shoes per man per day. If all the boots and shoes were made as efficiently as those made by Endicott and Johnson, I do not mean all, but if a certain number of plants were made as efficient as Endicott and Johnson where the production is twelve pairs of shoes a day, counting everyone in the plant from the superintendent to the yard men and the fellows who wheel the truck, if, in time of war you could operate only plants that could be made as efficient as Endicott and Johnson--and a large number of plants could be made so,--you could release eighty-three per cent of the men in the industry and yet make as many shoes as you are making now.

We are in a position to give you this information on a large range of industries, lumber, flouring mills, iron and steel, glass manufacture, copper, smelting, the manufacture of sugar, the manufacture of automobiles, and any number of things.

Our report of glass manufacturing shows that, against the old hand process, labor productivity has increased four hundred thousand and eight tenths per cent in the manufacture of four ounce bottles, and labor cost today is two and seven tenths cents out of each dollar that was formerly paid for labor.

I think that it is not the intention today to do more than mention the kind of labor we have and not to go elaborately into detail.

However, I wish to show you a chart of what has happened in the manufacture of pig iron. Nearly every industry will show the same general facts but not to such a radical extent as in pig iron.

We start at 1850 which represents one hundred. We had twenty thousand two hundred ninety-eight (20,298) employees in the manufacture of pig iron in 1850 that produced twenty-five tons of iron per man per year. In 1860 we had fewer men, practically sixteen thousand men employed. This was fewer men than there were employed in 1850, but they produced fifty-five tons of pig iron per man per year. By 1870 we had more men and produced sixty-seven tons per man per year and the output reached almost two million tons per year. Between 1870 and 1890 we cannot give you the number of employees because the census changed. In 1890, we went back to the old classification. In 1890 we had thirty-three thousand employees that produced two hundred sixty-five tons per man per year and the total output was practically nine million. The number of employees remained practically the same in 1900 and the output per man had increased to three hundred forty-seven tons per year, and the production was over thirteen and one half million tons. In 1904, employment had dropped but the output per man had gone to about four hundred and seventy tons so that with fewer men we produced about three million tons more of pig iron. In 1909, the total number of employees had increased slightly but the output had jumped to six hundred seventy-one tons per man and the output had almost doubled, reaching practically twenty-six million (26,000,000). In 1914 the number of employees dropped from thirty-eight thousand to twenty-nine thousand. The output was seven hundred ninety-five

tons per man. In 1919 the employees jumped to forty-three thousand and the output dropped. Now during the war period, particularly after we entered the war in 1917, but really before that, the output per man dropped in every industry in every country in the world and it was not until 1923 that we began to recover from that. I am not criticising anybody. I take it for granted that the things that were done had to be done under the circumstances and my opinion is that the cost plus contract plan by which the less the workman did the more the contractor made thoroughly demoralized the labor population of the earth and we were years getting over it. This is merely my honest conviction in the matter. In 1919, the output had dropped again. Now in 1921 the number of men had dropped from forty-three thousand to eighteen thousand six hundred and ninety-eight, and the output per man had dropped to three hundred and thirty tons per man. In 1923, the number of men had almost doubled - thirty-six thousand seven hundred and twelve and the output per man had jumped to one thousand tons per man per year and the total output to forty million four hundred thousand tons. In 1925, the number of men had again come down to twenty-nine thousand one hundred eighty-eight but the output per man jumped up to one thousand two hundred and fifty-seven and the production was thirty-six million seven hundred thousand tons. Take 1950 as you basis equal 100 the index jumps to eight thousand four (8,004). In other words there were seven thousand nine hundred and four (7,904) percent increase in the production per man per year. As I said before, all industries

do not show quite so large an increase as that, but this is the history of practically every industry in the United States today.

The Bureau does a considerable amount of special work some of which would be valuable under the circumstances but we cannot go into all the special things. For instance, we published an article in the "Monthly Labor Review" giving the number of persons in specific occupations. The range there is from 1850 to 1920. There were in 1920 eight thousand three hundred ninety-four carpenters and joiners per million of population. The value of this to you would be that you can tell how many carpenters there were in the United States. The Union membership is shown in this other book that I have told you about. The Union headquarters could tell you where most of their union men are out of work so that you could put your hands on them. The Union does know where the building industry is at its lowest ebb. There were eight thousand and six iron and steel workers per million of population and one thousand five hundred and seventy-two surgeons and physicians per million of population and so on down through all the professions. We can tell you where they are and be helpful in finding them.

The Bureau has a fund of information that has been published in the Monthly Labor Review and about all that I can say is that if at any time the War Department or this Organization wants information in any way connected with the industrial conditions of the country, from any slant, it will be wise to ascertain what information we might be able to give you on the point. I brought along a certain number of copies of the "General Report" which can be distributed

to those who are specially interested. Now, if it is not too late, I am more than willing to try to answer any question you raise.

Question.

This tendency of the shoe factory to increase in efficiency is a general one is it not? What is labor's outlook on that? Do they anticipate present unemployment?

Answer.

The reason for the present unemployment is two-fold. There is at present a slump in business which would throw people out of work. I do not think that more than two percent of the present unemployment is due to business conditions. It is due to the fact of increased efficiency in the established industries. Now that is a serious situation. When somebody asked William H. Taft, when he was a candidate for the Presidency, what a man who was out of a job and could not find one was going to do, he said, "God only knows". My answer to that question is - that is the only place you can look for an answer. Probably fifty (50) percent of the present unemployment is due to efficiency. Now let us pray that the workmen will never take the view which the old trade unions used to take that the faster you work the longer you fast. Unless we can answer that in some other way than other countries of the world have answered it, we may in self-defense put a check to this efficiency. I say may.

My belief is that instead of trying to cut down your income tax you should collect your income tax and build transcontinental roads.

Let us have good roads where they do not have them now. Instead of having enough schools for half the children, let us have school houses large enough and fine enough for all of them. I grant you that women in the textile mills and shoe factories are not going to make good road builders, but after all we can absorb a large percent of that labor cost.

I will say that an enormous percentage of this labor that is thrown out because of increased efficiency, is common labor. One concern advertised that its raw material from the point of first processing to the finished product traveled sixty three and one half miles. The government during the war told them to put their machines closer together and as a result of this the finished material now travels fifty and one half feet. The whole question of conveying and transporting material in the factory has been revolutionized by the War Department in its contact with the factories. Hence the labor displaced by efficiency is not to a great extent skilled labor. In most industries it is common labor which is being displaced.

Question.

How about the farm?

Answer.

Do you mean to sent these fellows back to the farm where they belong? The farmer is in a worse fix than the boot and shoe manufacturers. He is producing more than he can sell. The farm situation is the most serious of all. I do not know of any industry which from the labor point of view is so completely shot to pieces. There are more men on the farm than they need. There is no place for these men and the

situation is getting worse and worse. About one million boys leave the farm per year to go into the city. Not because they do not like the farm but because they are not needed on the farm. What is the use of talking about going back to the farm when we have one hundred seventy million bushels of wheat which we can't sell. For the three or four months of harvest the farmer takes on men. After the harvest is over these men have to take their chances in getting back to the city.

Question.

Have you any data on Europe in regard to production per man as compared with that in the United States?

Answer.

They know nothing over there officially. The few concerns that know anything keep it to themselves. Until very recently they did not know anything about the production of iron in Germany. Now probably about twenty-five (25%) percent of the concerns are keeping one man hour output. I tried to get this data but so far have failed. We used to have a man in Germany who could get almost anything but somehow or other we have never been able to get any machinery that would apply to the Appropriation Committee. The output per man there is decreasing very rapidly.

Question.

Can you tell us what becomes of the harvest forces after the harvest is over?

Answer.

Well to a certain extent the harvest gang is composed of a bunch of men who are organized through the Department of Labor. They start

in on the harvest in Texas and then go up through Dakota and Minneapolis where they stay until the logging season is over. This is not so well organized as the sheep shearers union which was organized in Australia. They shear the sheep in Australia and work up through South America then through the United States as far north as sheep are sheared and then go back and start over the same route a second time. I heard a man in Arizona say that the same boss had sheared his sheep for seven years. He told him what week the sheep would be washed and he was there at the appointed time and had been for seven years, and always brought enough men with him. We have not been able to organize with any such perfection as that. Unfortunately there is a class of men who never ought to be allowed to go to the city. They are generally broke within twenty-four hours after striking the city limits but at the same time they do a pretty fair share of the work.

Tell us something about the relative strength of the organized labor as compared to the unorganized during the war and since that time. Is it going up or down?

Answer.

That subject when discussed in round numbers is very misleading. If you take the carpenters in the United States, no more than one fifth of them are organized. Take a town of two thousand that has four or five carpenters in it. They are not organized, but that does not mean very much when you get into Chicago or New York. When you say that only one in seventeen workers of the United States are organized you are taking in the farm hands, the clerks, the domestic servants and all the labor which is very difficult to organize, or there has ever been any attempt to organize. Any general figures of that sort are

utterly worthless from your point of view. Now in Chicago, the carpenters would be one hundred percent organized. In New Orleans they would be thirty-five percent organized. In Charleston, South Carolina I should say, they would be fifteen percent organized so that even though we could give you the relative number of organized and unorganized in practically every trade it would not help you much in certain localities.

Question.

Have you any statistics classifying the different grades of men, such as metal workers to show tool makers and all around machinists?

Answer.

We classify the skilled man as a tool maker. A skilled machinist is a tool maker or a man who can take a blue print and give you the product. The semi-skilled man is the fellow who runs the drill press.

Question.

How about the real competent machinists are they greatly increasing or decreasing?

Answer.

Greatly decreasing.

In the case of tool makers, you have a man who must have a certain standard of ability. In other occupations it is pretty hard to say. The old time printer who set type knew the business from top to bottom. Some printers would tell you that he was an infinitely more skilled and more intelligent man than the linotype operator of today. I do not know whether he is or not. In certain industries now I think that we have to concede that mass production is demoralizing the workers. This is a serious matter, but it is true. Some say it is true in printing.

Certainly in the glass industry a man does not have to know very much to do the most skilled work in the industry today.

Question.

When we go into war production we have to wait a long time to get the machinery. In the old days we got into quantity production fairly quickly. Could we find men in time of war who could operate the machines and lay out the work by units instead of mass production?

Answer.

That skill is practically gone. Of course, after you get the machines and get them in operating order, there are plenty of men who can run them. The number of men who can plan your machines and make the tools to make the machines is growing less and less.

Question.

Relating to the control of labor during a war, could you draft it as some who have lectured here have led us to believe?

Answer.

Now gentlemen you are getting into a realm that is hardly statistical. My judgement is this, that if we went into a war with any good substantial arguments for justice on our side, the trade unions would come across just as well as any other class of citizens. Now of course you have to modify that to a certain extent. The fur workers and the amalgamated clothing workers are probably wighty-five percent opposed to any kind of war and would do their best to stay out, but the vast majority of trade unions are just as loyal as you and I. While I am not a member of any union and officially there is no connection between the Bureau of Labor Statistics and any union, I feel justified, after forty-six years of experiance in mixing up with

unions, that there would not be any trouble from that source unless it was an extreme case.

Question.

Dr. would you mind telling us of your contact with organized labor-how you gather your information and what is the attitude of the labor unions to the Department of Labor and its work?

Answer.

The last question is almost impossible to answer. I think the leaders for the most part are friendly. As far as our contact is concerned, we do not attempt to get any information from the American Federation of Labor simply because it has not got any. We send a man to a city like Chicago and he goes to the local secretary of the union and asks him for the wage agreement and gets it. If the secretary does not have this record because the Employer's Association printed it, then the record is secured from the latter organization. Thus as far as the Bureau of Labor Statistics and the unions that can get us any information is concerned, they are absolutely friendly.

Colonel Carr:

May we have a photostat of that chart and return it to you? All you have to do is to glance at that chart and you can see the efficiency of labor in the last war. The cost-plus contract has been done away with.

It is apparent that Dr. Stewart has a world of information that we need when we get to the point where we can take up that subject. It is very gratifying to know that we have access to this information. I am sure all are pleased to get the inside dope on the work of the Bureau of Labor Statistics.