

THE EFFECT OF UNEMPLOYMENT ON THE WAGE SCALE

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The subject suggests a combination of the obvious and the unknown. In modern industry, the man out of work is also out of wages. The effect of unemployment on individual income is clear. But the mass effect of recurrent irregularities in the size of the force, the frequent hiring and firing of individual workers, lock-outs and strikes, seasonal fluctuations in demand for labor, weeks or even months when men and machines ready for work are given no work, is unknown and, at present, indeterminate. Unemployment is so characteristic of the present industrial order that a discussion of its effect on wage standards, involving, as it should, a consideration of what wages would be if work were regular, seems a task rather of prophecy than investigation or interpretation of known facts. Nevertheless, discussion may serve a useful end if no other purpose be accomplished than to suggest a fruitful field for exploration and discovery.

At the outset it is well to recognize that unemployment is not in itself a cause, but the resultant of many causes, an infinitely complex condition about which we cannot think clearly or act wisely without analysis and discrimination. Differences must be recognized in different localities, and in different industries. A discussion of the effect of unemployment is really a discussion of the diverse effects of each of the manifold causes of unemployment. The man on strike, and the man in the hospital, the Wall Street stenographers laid off when the war caused the closing of the Stock Exchange, the Fifth Avenue milliner who makes no hats in June because the spring season is over and no one knows what the autumn styles will be, the makers of skirt braids who have no work because skirts are short and the once universal bindings no longer worn, the employees of John Smith, manufacturer of jewelry boxes, who met with reverses and went into bankruptcy, the bookbinders formerly em-

ployed by the firm which has just moved into the country, the long-shoreman who hangs around the docks idly waiting for the ship to come in, and then is not hired because too many others are ahead of him, the Italian subway digger out of work because the trade unionists have demanded the enforcement of the provisions of the law regarding the employment of alien labor, the man on line at the door of the municipal lodging house, who lost his job because of drink, his fellow-guest who lost his because he was getting old, the man next to him who had steady work as a waiter until hard times came and the restaurant cut its force in half, the carpenters, the stone-masons, the tailors, the plumbers, the straw hat makers, the department store clerks, the cloak and suit makers and the coal miners, out of work at different times in the year when the slack season comes in their industries, these are all unemployed, but no one formula can describe them all, no one remedy can meet their needs, no single measure remove at once all the causes of their industrial misfortune. This much, at least, has been accomplished by recent experiences in dealing with unemployment in many cities. Familiarity is banishing, forever, the vague generalizations which make a problem seem so simple when in reality it is infinitely complex.

What light do recent experiences and investigations throw on the effects of the recurrent condition of unemployment on the wage scale? Is it true, as it is sometimes asserted, that wage rates tend to be higher in industries in which seasons are shorter? Do we have already a kind of unemployment insurance in the form of a larger income in short season industries, so that all that is required is the teaching of thrift to enable the worker to save a surplus for use when he is out of work? Is loss of income through unemployment a common experience or is it rather an incident in the individual career and not necessarily characteristic of industry? For the sake of clearness, let us consider first certain data about industries rather than the facts about the workers and their income.

In the United States Census of Manufactures in 1905, data regarding weekly earnings were gathered from a large number of representative establishments and presented for different industries by states.¹ At the same time information was secured showing the greatest and the least number of wage-earners employed at

¹ U. S. Census, Manufactures, 1905. Bulletin 93. *Earnings of Wage-Earners*.

any one time during the year. It is obvious, of course, that since so many factors enter into the determination of wages, caution is needed in attempting to detect the presence or absence of any one of them or to measure its influence. Local differences, varying proportions of men and women employed, the methods of production, the use of immigrant labor, and many other conditions must be studied before conclusions can be put forward with any definiteness. Nevertheless, if wages tend² to be higher in trades which have the greatest seasonal fluctuations, it would be fair to expect that the census figures just mentioned would reveal higher median wages in those industries in which the fluctuations from maximum to minimum in the number of wage-earners are greatest. The following table shows the facts for the eight industries employing an average of 20,000 or more wage-earners in which the seasonal fluctuations are the most marked and the eight in which the variations between minimum and maximum are least.

In all manufacturing industries combined, the maximum number were at work in October and the minimum in January, and the minimum force was 65.4 per cent of the maximum. The median wage was between \$10 and \$12 for men and between \$6 and \$7 for women. Of the eight industries having the least marked fluctuation from maximum to minimum force, four paid to men workers wages above the average for all industries, and four below it. Two paid women wages above the average and six below it. Of the eight industries having the greatest variations in the numbers employed, five paid men wages above the average and three below it, while in only three of these markedly seasonal industries were women's wages above the average, and in five below.

If wages are on the whole highest in the industries in which the fluctuations of employment are greatest, the fact is not reflected in the best statistical information available on the subject. On the

² "The natural tendency is for the fact of seasonal fluctuation to be recognized as a normal incident of the industry and to be allowed for in the standard both of expenditure and of wages." Beveridge, W. H., *Unemployment, a Problem of Industry*, 1912, p. 36.

"A trade that has a natural tendency toward irregularity of employment is generally found with higher rates of wages given to compensate for this irregularity and thus enable the worker to keep his standard of living up to that of workers of corresponding position and ability in trades not so affected." Dearle, N. B., *Problems of Unemployment in the London Building Trades*, 1908, pp. 133-4.

MAXIMUM AND MINIMUM NUMBER OF WAGE-EARNERS EMPLOYED AT ANY ONE TIME DURING CALENDAR YEAR 1904,¹ AND MEDIAN AND AVERAGE WEEKLY EARNINGS,² IN EIGHT INDUSTRIES SHOWING LEAST, AND EIGHT INDUSTRIES SHOWING GREATEST FLUCTUATION OF ALL MANUFACTURING INDUSTRIES EMPLOYING 20,000 OR MORE WAGE-EARNERS IN THE UNITED STATES, 1905.

Industry	Greatest No. of wage-earners	Least No. of wage-earners	Per cent minimum is of maximum	Median wage group		Average weekly earnings	
				Men	Women	Men	Women
Bread and bakery products.....	90,937	76,657	84.3	\$12-\$15	\$5-\$6	\$11.77	\$5.46
Cotton goods.....	351,415	285,302	81.2	7- 8	6- 7	7.71	6.03
Felt hats.....	24,345	19,692	80.9	12- 15	7- 8	13.27	7.31
Printing and publishing, newspapers and periodicals.....	111,480	89,785	80.5	12- 15	5- 6	13.13	5.95
Liquors, malt.....	54,787	43,481	79.4	15- 20	5- 6	14.37	5.50
Carpets and rugs other than rag....	36,472	28,875	79.2	9- 10	7- 8	9.93	7.31
Hosiery and knit goods.....	116,869	92,537	79.2	8- 9	6- 7	8.90	6.01
Hardware.....	35,612	27,743	77.9	9- 10	5- 6	10.37	5.35
All Industries.....	7,017,138	4,599,091	65.4	\$10-\$12	\$6-\$7	\$11.16	\$6.17
Cars, steam railroad, not including operations of railroad companies.....	55,167	15,843	28.7	\$10-\$12	\$7-\$8	\$11.21	\$7.24
Coppersmithing and sheet iron working..	30,808	15,609	41.2	9- 10	5- 6	12.96	5.78
Canning and preserving, fruits and vegetables.....	172,026	71,388	41.5	9- 10	4- 5	9.14	5.40
Marble and stone work.....	54,157	25,015	46.2	12- 15	4- 5	13.21	4.94
Agricultural implements.....	62,979	29,513	46.9	10- 12	5- 6	10.97	5.75
Millinery and lace goods.....	37,280	17,573	47.1	10- 12	6- 7	12.45	7.25
Brick and tile.....	115,090	56,940	49.5	9- 10	5- 6	9.82	5.55
Women's clothing...	148,503	78,362	52.8	12- 15	6- 7	13.52	6.85

¹ United States Census, Manufactures, 1905, Part I, pp. 27-54.

² United States Census, Manufactures, 1905. Bulletin 93. *Earnings of Wage-Earners*. pp. 98 et ff.

contrary the census statistics seem to indicate that there is no consistent or significant difference in wages between the industries in which unemployment is least and those in which it is most prevalent.

Certain industries afford interesting contrasts. The census points out that watch-making is one of the industries paying the highest average weekly wages to both men and women. It shows decidedly less than the average fluctuation in force. The making of tobacco for chewing and smoking was rated as one of those reporting the lowest earnings. It shows greater fluctuations than the better paid branch of the tobacco industry. Canning and preserving is quoted in the census as an example of violent seasonal changes in demand for labor. Its showing in the wage columns is not enviable. The makers of women's clothing are more liable to unemployment than the makers of men's clothing and are also compensated at a slightly higher rate, apparently in conformity with the orthodox opinion, but it is not by any means clear that the comparative degree of unemployment has been a factor in determining the difference in wage rates. Millinery pays women more but men less than the slightly less seasonal trade of women's clothing. Paper box making pays men less and women more than the less fluctuating industry of confectionery.

If the risk of seasonal fluctuations is a factor in the wage bargain, it is certainly not sufficiently potent to counteract other tendencies which produce variations in standards in different industries. From the point of view of the workers, therefore, the degree of the influence exerted by the risk of unemployment on the comparative standards of wages becomes a matter of academic interest, since comparisons between industries reveal no invariable economic law of comparative compensation. Of course, this does not mean that no seasonal industry has a high enough wage standard to mitigate or even to eliminate distress in slack season. The straw hat worker in New York may have but six months' work in the year, but her earnings not infrequently amount to \$25 a week, and the problem for her is one of distribution of an irregular income over regularly recurring expenses, rather than one of making income equal outgo when the receipts in busy season are no more than sufficient for each week's expenditures. Distress is produced by the combination of unemployment and low wage rates, and this does not seem to be a combination to which economic laws are opposing effective obstacles. Indeed, the reverse seems to be true since the causes which are commonly accepted as most important in producing unemployment, industrial crises, irregular demand for

goods and oversupply of workers are the very causes which place the worker at a disadvantage in the wage bargain. More searching inquiry may bring evidence of a compensating tendency in industry, which may well be utilized and organized to produce unemployment insurance, but that at present it is not powerful enough to prevent distress is self-evident.

In discussing the effect of unemployment on the wage scale within an industry, we are on more certain ground because of the results of some recent investigations, all of which reveal the fact that the industries studied fall short of utilizing continuously the labor force which they buy at the height of the season. Their total wage scale is depressed far below its own capacity by the drag of irregular employment.

In the dress and waist industry in New York City, for example, after an exceptionally careful inquiry,³ based on a payroll study, this conclusion was reached: "Taking the wages paid out in the industry during the busiest week of the year, and expressing this as 100, the investigation has shown that the average weekly wage earned by all the workers during 1912 was equal to 73 per cent of that of the busiest week of the year." This statement applies to total wages, which represent, of course, the most accurate measure of the total labor force. Considering the cloak, suit and skirt industry, the Bureau of Labor Statistics reports⁴ that the seventy-five association shops investigated had a combined average weekly payroll of \$94,375 with a maximum of \$155,148 and a minimum of \$40,741. That is to say, the average weekly payroll was equal to only 61 per cent of the total paid out for wages in the busiest week of the year. The Factory Investigating Commission of New York State⁵ found that the average payroll in the millinery trade in New York City was but 63 per cent of the maximum in wholesale shops, 71 per cent in the smaller retail shops, and 79 per cent in the larger retail shops having also a wholesale trade. In an unpublished manuscript of the Committee on Women's Work of the Russell

³ U. S. Bureau of Labor Statistics, *Wages and Regularity of Employment and Standardization of Piece Rates in the Dress and Waist Industry*, 1914, Bulletin No. 146, pp. 18-19.

⁴ U. S. Bureau of Labor Statistics, *Wages and Regularity of Employment in the Cloak, Suit and Skirt Industry*, 1915, p. 17.

⁵ New York State Factory Investigating Commission. Proof of forthcoming fourth report. Appendix: *Wages in the Millinery Trade*, p. 60.

Sage Foundation outlining the results of a study of the millinery industry of which the inquiry into wages made for the Factory Investigating Commission is a part, the waste in labor force through irregular employment in millinery is estimated in another way. The total wages paid by the shops investigated in their maximum week was ascertained to be \$24,000, so that the total wages which would have been paid in a year of fifty-two maximum weeks would amount to more than a million and a quarter. The wages actually paid amounted to a little less than three-quarters of a million, or 57 per cent of the total estimated on the assumption that the maximum demand was continuous. In other words, the trade lost 43 per cent of the labor force which it would have utilized had it been able to hold throughout the year the level attained in its busiest week. Similar statistics are available regarding other industries described in the report of the Factory Investigating Commission just mentioned. Nor is it only private enterprises which are characterized by fluctuations in labor force. In Portland, Oregon, the number of laborers employed on street construction work by contractors for the city varied in twelve months from 885 on the last day of August, 1913, to 122 in March, 1914, with an average of 569, of which the minimum force was only 21 per cent.⁶ On sewer work for the city the men employed by contractors in seven months numbered 125 in January and 190 in June, with an average of 159, of which the minimum was 79 per cent. Data on wages paid were not reported.

Even these data, however, do not give the full measure of stability or instability in employment since they take no account of changes in personnel. On this point, also, recent investigations are eloquent, especially those made in New York State by the Factory Investigating Commission.⁷ In the millinery shops investigated, the maximum force employed was 2,550 but the number recorded on the payrolls during the year was 3,983. Concerning department stores, the Commission reported: "In eleven large New York City stores with an average total force of 27,264, there were added during the course of a year 44,308 persons and 41,859 left or were dropped. In other words, more than once and a half as many

⁶ O'Hara, Frank. *Unemployment in Oregon, a Report to the Oregon Committee on Seasonal Unemployment*, 1914, p. 19.

⁷ New York State Factory Investigating Commission. Proof of forthcoming fourth report.

people flowed through the stores as are usually employed in them at one time.”⁸ In nine paper box factories ordinarily employing about 792 hands, 2,295 persons were on the payrolls in a year.⁹ Although these figures do not relate directly to wages, it is obvious that such instability has its effect upon earnings. As the Factory Investigating Commission pointed out,¹⁰ “This shifting about naturally causes loss of time and wages between jobs.” It seems probable that it causes also some loss of productivity through the waste involved in the adjustment of a new worker to the conditions of the shop.

Violent fluctuations in the labor force and the still more marked changes in personnel, implying as they do, short terms of employment and frequent hunts for new jobs, must obviously result in decreased income for the workers. It is these inroads upon income which give a profound social significance to the facts which we have hitherto discussed as phases of industry rather than as individual misfortunes. Enough has been said, perhaps, to show that to avoid individual misfortune when the risk of unemployment is so characteristic a phase of industry requires something more than individual efficiency, thrift or character. We have been accustomed, perhaps, to observe first the unemployed when their distress forces them upon public attention, and then to think about the industrial causes. If we reverse the process and observe first the tendencies in industry, we may, perhaps, think more clearly about the unemployed. That loss of time, and consequent loss of income, is a common experience, has already been demonstrated in many careful investigations.

Consider, for example, the iron and steel industry in 1910, as it was described in the report of the United States government.¹¹ Of 90,757 employees in all the steel plants covered in the investigation, only 37.6 per cent were employed forty-eight weeks and over in the course of the year, while 12.5 per cent were on the payrolls less than thirty-six weeks.¹² In the same report figures¹³ are given to show the possible full time annual earnings for steel workers, if

⁸ *Ibid.*, p. 140.

⁹ *Ibid.*, p. 251.

¹⁰ *Ibid.*, p. 143.

¹¹ *Report on Conditions of Employment in the Iron and Steel Industry in the United States*. Senate Document No. 110, Washington, 1913.

¹² *Ibid.*, Vol. III, p. 213.

¹³ *Ibid.*, Vol. III, p. 220.

they had been employed during the entire time their plants were in operation in 1910. These figures show an average of approximately \$700 for full time work throughout the year. The maximum annual earnings of 63.4 per cent of the 86,590 workers reporting, however, were less than this amount.

In another report by the United States Government, containing the results of the investigation of the condition of woman and child wage-earners,¹⁴ detailed information is given about the number of days worked in the year by women and girls in the four industries of cotton, silk, glass and men's ready-made clothing. Moreover, in the discussion of living conditions, similar data are given for other wage-earners in these households. The average number of days worked in the year by women in the clothing trade was 241,¹⁵ in cotton manufacture in New England mills, 254, and in the South, 244,¹⁶ in glass-making, 231,¹⁷ in silk mills in New Jersey, 262, and in Pennsylvania, 238.¹⁸ The proportion of working days in the year among women in these four large industries varied then from 76 per cent to 83 per cent of the working year of 305 days, not counting Sundays or holidays. As to the unemployment of the fathers in the families of these women workers, the figures for the silk industry may be taken as illustrative. The average days idle for the silk weavers among them amounted to 65 in the year, for other skilled workers, 81, and for the unskilled 91.¹⁹ The average loss for all of the fathers at work totalled 74 days in the year, or 24 per cent of the normal working period. The investigators summed up the situation in this way: "If all the fathers had worked the time they were idle they would have earned enough to largely make up the deficit that would have been caused if the children under 16 had not worked."²⁰

After a careful analysis of existing data on the relation of irregular employment²¹ to the living wage for women, the conclusion is

¹⁴ *Report on Condition of Woman and Child Wage-Earners in the United States*, Senate Document No. 645, Washington, 1910.

¹⁵ *Ibid.*, Vol. II, p. 388.

¹⁶ *Ibid.*, Vol. I, p. 469.

¹⁷ *Ibid.*, Vol. III, p. 546.

¹⁸ *Ibid.*, Vol. IV, p. 280.

¹⁹ *Ibid.*, Vol. IV, p. 269.

²⁰ *Ibid.*, Vol. IV, p. 295.

²¹ Andrews, Irene Osgood. "Irregular Employment and the Living Wage," *American Labor Legislation Review*, June 1915, p. 311.

put forward that "all facts agree that actual earnings fall far short of possible earnings based upon rate of pay. At least for the workers here considered, the average girl or woman loses in wages an amount equal to no less than 15 per cent of her possible earnings. The younger, more irregular worker, loses an even greater amount."

No such careful estimate of losses by men wage-earners can be made without more data than are available at present, but certain illustrative material is significant. Facts regarding steel workers have already been cited. In Chicago, the Mayor's Commission on Unemployment reported in March, 1914, concerning its investigation of trade unions, that "None of the members of these unions would receive less than \$700 a year at their trades if they worked full time; but, actually, the average member in 40.9 per cent of those reporting received less than \$700 from his trade" (p. 15). In a forthcoming report, to be published by the Russell Sage Foundation, on Industrial Conditions in Springfield, part of the series resulting from the survey of Springfield, Illinois, in 1914, facts bearing on irregularity of employment among miners in that district are given which show an average number of days in operation ranging from 10 to 20 each month in the year and an average for the entire year of 174 days or only 57 per cent of the possible 305 days of a full working year. Thus the miner whose rate of pay is \$2.84 per day "could scarcely make \$500 a year provided he had full time work every single day of the year that his mine was in operation." His annual earnings on the basis of a full time 305-day year would be at least \$850. In a study of 100 families of wage-earners in various occupations included in this same report, it was found that two out of every five bread-winners had an irregular income.

Unemployment and irregular employment is a social problem obviously, because in affecting income, it affects at once the standards of living of the community. Its effect upon income is twofold: it reduces earnings below the real capacity of the worker as measured by the rate of his wages, and it makes his receipts uncertain, varying from week to week in such a way as to render thrifty management almost impossible. Recently the Committee on Women's Work of the Russell Sage Foundation made a study of Italian girls in industry, one section of which was an inquiry into actual earnings in 48 families, based on monthly visits extending over the period of a year, to secure the facts about the weekly wages of every worker.

The results are as yet unpublished, but the manuscript report contains some conclusions which are pertinent in a discussion of unemployment. The conclusions have added value for the reason that the investigator²² had been resident in the neighborhood for several years and knew the majority of these families as neighbors before she began the investigation. Moreover, the facts were secured not in one interview, but in several at frequent enough intervals so that as little as possible reliance need be placed on the memory of those who gave the information. Quotations from the report may serve to summarize the facts.

The only conclusion which we feel justified in putting forward is that the standard of living is not to be measured by the total income received in a year, but by its regularity. That management is an important factor in producing a wholesome standard is obvious. To be able to count in advance on a fixed amount of money is almost an essential prerequisite of efficient management.

When the investigator was asked to select the families which she would place in a group having the highest standard of living, she did not choose those having the largest income, or even the largest per capita receipts. She selected first, the one in which the income had been most regular throughout the year, although the total was only \$1,175 for six persons. How fluctuating was the income in some of the households is shown in a series of charts, one for each family. The first pictures weekly receipts which varied from \$6.50 to \$52.50 with a total for the year of \$1200.24 and an average of \$23.08 a week.

Unfortunately, very little information showing weekly income is to be found even in the comparatively few budget studies which have been made in this country. If more were available, we should probably find that the curves showing fluctuations in the labor force in industry are matched by curves revealing variations in family income, and that these relate themselves to the standard of living as causes of waste and friction precisely as irregularity in industry produces waste and friction tending to lower the capacity of plant and workman alike.

If it be true that variations in income are undesirable in their effect upon family standards, the fact deserves consideration when proposals are put forward to establish variations in wage rates as one remedy for unemployment. Wage rates do tend to vary now in some industries,²³ especially the unorganized, going down in slack

²² Miss Elisabeth Roemer of Richmond Hill House, a settlement in an Italian neighborhood in New York.

²³ Cf. Pigou, A. C., *Unemployment*, pp. 75-93.

season, and not always returning to their normal level in busy times. The proposal, involving as it does, a measure of bargaining between groups of workers and employers, would doubtless be an advantage in substituting a controlled effect of unemployment on the wage scale for the present uncontrolled effect. It should be clear, however, that this would demand not only equality of bargaining power between worker and employer, but a much more scientific knowledge than we now possess as to the relation of fluctuations in demand to wage rates, and more publicity about the proportion which wages form of the total cost. Otherwise the proposal to reduce wages for the same hours of labor in slack season involves the possibility of exploitation. No measure which endangers wage standards can cure the distress due to unemployment, for unemployment itself is but a phase of the wage problem.

Meagre then as is the available information about the total effect of unemployment on wage standards, the illustrative facts which have been cited are convincing on three points:

1. They indicate a general industrial tendency toward fluctuations in the labor force as it is measured in the total payroll.

2. They give evidence of a waste of productive power, both of industries and of men.

3. They show that wage rates, whether established by unions, by minimum wage boards, or by individual agreement, are no guarantee of an adequate income unless assurance be given also of some degree of continuity of employment.

Many measures are now being advocated to prevent unemployment by reducing the number of those who are most likely to become unemployed, by preventing child labor, by providing for the aged, by increasing individual efficiency, by developing and strengthening character, by inculcating thrift. All of these are important, and their accomplishment would undoubtedly lessen the distress which now prevails because wage-earners are out of work. Nevertheless a consideration of the relation of unemployment to the wage scale emphasizes primarily unemployment as a wage problem, and, therefore, a problem of industrial organization. As such we cannot hope to achieve results by any more rapid method than attacking it in each industry, in each locality and in each establishment. In some way the faith must be made general that unemployment and seasonal variations are not inevitable. Somehow men must be set

to thinking about it in the coal mines, in the steel mills, in the cotton mills, in the clothing factories and on the docks. The research work which is needed now is investigation through experiment. Perhaps the best result of unemployment insurance would be to make men think, and to place a premium upon regularity. The next step in industrial organization should be to demonstrate through actual experience what may be accomplished in getting rid of the present variations and irregularities in the payroll week by week.