



Wage Trends in Germany from 1929 to 1942

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The Review has dealt with the development of wage policy in National-Socialist Germany on several occasions.¹ The article printed below approaches the subject of wages from a different angle; it shows the actual trends of wage rates and earnings in Germany and analyses the factors influencing them, thus making it possible to judge to what extent the policy of wage stabilisation followed by the German Government has attained its purpose.

DURING the past few years the question of the changes that have taken place in the standard of living of German workers under the National-Socialist régime has been a frequent subject of enquiry.² The object of the present article is not to give a complete answer to this question, but to perform the more modest but essential preliminary task of analysing the trend of wages (both rates and earnings) in Germany from 1929 to 1942. The year 1929 has been chosen as the starting point in preference to 1933 so as to permit of comparison between the wages of German workers at two more or less comparable dates from the standpoint of the level of employment.

In considering the trend of individual wages, only the general averages have been taken into account, to the exclusion of variations in separate industries or occupations.³ A distinction must

¹ Cf. *International Labour Review*, Vol. XLVI, No. 2, Aug. 1942, pp. 136-165: "Wartime Developments in German Wage Policy", by René LIVCHEN, and references given there.

² Cf., for instance, OTTO NATHAN: "Consumption in Germany during the Period of Rearmament", in *Quarterly Journal of Economics* (Cambridge, Mass.), No. 3, May 1942, p. 349; HILDE OPPENHEIMER-BLUHM: "The Standard of Living of German Labor under Naz. Rule", in *Social Research* (New York), Supplement V, 1943; and R. LIVCHEN: "Niveau de vie des ouvriers allemands en 1927 et en 1937", in *Revue d'Economie Politique* (Paris), No. 1, Jan.-Feb. 1940, p. 85.

³ The data concerning the movement of wages in separate industries and occupations are very incomplete, and their presentation would burden this article unnecessarily without any substantial advantage to the reader.

also be made between the figures showing, year by year or month by month, the actual average of wages paid to all the workers covered, and those showing the wages of a typical worker at each date. Statistics of the first type take account not only of variations in individual wages, but also of changes in the composition of the working force covered, that is, its structure by age, occupation, degree of skill, and so forth. Although data of this type are presented in this article, it is the second type which is of particular interest, since it shows the changes from time to time in the wages of a worker who, by definition, has not varied as regards output, age, skill, and occupation.

One more preliminary remark is necessary. Although this study deals only with gross money wages, it should not be forgotten that to obtain a complete picture it would be necessary to consider the movement on the one hand of real wages, and on the other, of net wages after the deduction, for instance, of taxes and social insurance contributions.

HOURLY RATES OF WAGES

Let us consider first the trend of hourly rates as shown in table I.¹

The adjustment of these rates to changing business conditions is difficult because complicated and protracted negotiations are required for the conclusion of a new collective agreement. Consequently the rates did not begin to fall noticeably until December 1930. During 1931, the decline became very steep (over 17 per cent. on an average); it continued in 1932, although much less steeply (4.5 per cent.).²

At the beginning of 1933, this slower fall in rates had come to a stop, and the wage level was stable when the Government ordered the stabilisation of wages at the listed rates in force early in April 1933. It is a fact worth noting that the decline in the general wage level had ceased some months before the National-Socialist Government took steps to maintain this stability; and also that the wage-freezing policy was applied at a time when the curve of wage

¹ The rates shown are averages for the whole country (Germany's former territory without the Saar), based on collective agreements up to 1933, and after that date on collective rules, and covering 17 branches of activity (in mining, industry, railways, and the postal service). The rates are not minimum rates, but average standard rates listed in such agreements and rules for workers entitled to the highest listed rate by virtue of their length of service. Supplements of all kinds (such as family allowances and Christmas bonuses) are included in the rates to the extent to which they are provided for in the wage lists, but all extra pay for work done outside the normal time-table is excluded. Piece work rates are taken into account wherever they are included in the wage list.

² Cf. STATISTISCHES REICHSAMT: *Wirtschaft und Statistik*, 1933, pp. 16 and 303.

TABLE I. AVERAGE HOURLY WAGE RATES IN MINING, INDUSTRY, RAILWAYS AND THE POSTAL SERVICE, 1929 TO 1942

Date	Men			Women		All wage earners	
	Skilled	Semi-skilled	Unskilled	Skilled and semi-skilled	Unskilled	Amount	Index (1936 = 100)
	Rpf.	Rpf.	Rpf.	Rpf.	Rpf.	Rpf.	
1929	101.1	81.8	79.4	63.4	52.7	85.3	126.4
1930	102.8	83.3	80.7	64.6	53.6	86.8	128.6
1931	97.4	79.3	76.6	61.5	51.0	82.3	121.9
1932	81.6	68.8	64.4	53.1	43.9	69.7	103.3
1933	78.5	68.2	62.3	51.7	43.4	67.6	100.1
1934	78.3	68.2	62.2	51.6	43.3	67.5	100.0
1935	78.3	68.3	62.2	51.6	43.4	67.5	100.0
1936	78.3	68.3	62.2	51.6	43.4	67.5	100.0
1937	78.5	68.4	62.3	51.5	43.4	67.6	100.1
1938	78.8	68.6	62.5	51.5	43.7	67.9	100.6
1939	79.1	68.8	62.8	51.5	44.0	68.2	101.0
1940	79.2	69.0	63.0	51.5	44.1	68.2	101.0
1941	79.9	69.9	63.8	51.8	44.4	68.9	102.1
1942	80.3	70.4	64.1	52.3	44.6	69.3	102.7

Sources: STATISTISCHES REICHSAMT: *Statistisches Jahrbuch für das Deutsche Reich*, 1938, p. 339; REICHARBEITSMINISTERIUM: *Reichsarbeitsblatt*, 1941, No. 7, Part V, p. 130; 1942, No. 8, Part V, p. 156; 1943, No. 16, Part V, p. 264. Cf. also I.L.O.: *Year Book of Labour Statistics*, 1942.

rates was at its lowest. From 1937 onwards, the general level of hourly rates rose gradually, but to a negligible extent. Moreover, the rise was due not to a slight but general increase in listed rates as a whole, but to the effect on the general average of improved rates in certain branches.¹

Table I also shows the movement of wage rates by category of skill. The trend is substantially the same for all the groups, although over the period as a whole the rates for unskilled men and women show a slight tendency to rise in relation to those for skilled men and women.²

EARNINGS

Having dealt with rates of wages, we may now turn to the consideration of earnings, dealing first with hourly earnings and then with weekly earnings.

¹ Cf. *Wirtschaft und Statistik*, 1934, p. 118; 1935, p. 30; 1936, p. 25; 1937, p. 21; 1938, p. 108; 1939, p. 23; *Reichsarbeitsblatt*, 1941, No. 7, Part V, p. 130; 1942, No. 8, Part V, p. 155.

² The series showing the rates for all men and women workers reflects the stability imposed on each industry since 1933 by the labour trustees. In calculating average wage rates the German Statistical Office has used a fixed system of weighting, namely, the number of workers in the various branches of industry from 1928 to 1930. This system of weighting is the only reason why the average rates for industry as a whole do not show an increase, in spite of the considerable increase in the relative importance of industries producing capital goods, in which wage rates and the proportion of skilled workers are comparatively high. Cf. STATISTISCHES REICHSAMT: *Vierteljahrshefte zur Statistik des Deutschen Reiches*, 1931, No. 2, p. 94.

Hourly Earnings

Hourly earnings in Germany reached their peak in 1929. After a decline which lasted until 1933 they gradually rose again, without, however, again reaching the level of 1929 (at least until 1941). This is shown by the two series shown in table II.

TABLE II. HOURLY EARNINGS, 1929 TO 1941¹

Date	Statistics by undertakings ²		Special enquiries ⁴	
	Mines, industry		Mines, industry, transport	
	Amount	Index (1936 = 100)	Amount ⁵	Index (1936 = 100)
	Rpf.		Rpf.	
1929	*	*	94.9	129.5
1930	*	*	92.2	125.8
1931	*	*	85.2	116.3
1932	*	*	71.5	97.6
1933	*	*	69.3	94.6
1934	68.7	95.1	71.1	97.0
1935	70.8	98.1	72.1	98.4
1936	72.2	100.0	73.3	100.0
1937	73.7	102.1	74.8	102.1
1938	75.9	105.1	77.4	105.6
1939	77.8 ³	107.8 ³	79.6	108.6
1940	80.3	111.2	81.5	111.2
1941	—	—	85.3 ⁶	116.4 ⁶

Source: *Wirtschaft und Statistik*, 1942, p. 355.

¹ To facilitate comparison, all the original indices were converted to the base 1936 = 100. ² Monthly averages. ³ Including Austria and the Sudetenland. ⁴ Averages for Mar., June, Sept., and Dec. ⁵ Series calculated by the writer on the basis of the absolute amount of earnings for 1936, to which the indices were applied. ⁶ Mar., Sept., and Dec. only.

Statistics by Undertakings.

Statistics by undertakings, which are available only from 1934, show a steady rise in average hourly earnings, due in the first place to the increase in individual earnings in certain industries. At the beginning of the period covered by the statistics, the increase in earnings had been most considerable in such industries as the engineering, mining, and metallurgical industries; examples of industries below the average were the food industry, rubber, leather, and paper. At that period the reduction in the proportion of women in employment was one factor in the increase; it explains, in particular, the rise in average earnings in the pottery industry. About 1937, mining, the rubber industry, and the stone and earth industries, in particular, showed a marked rise in average earnings, due to the growing needs of the Army, road construction (motor highways) and substantial investments in the heavy industries.¹

¹ Cf. *Wirtschaft und Statistik*, 1938, pp. 186 and 309.

The statistics are influenced, however, not only by variations in individual wages, but also by the changing composition of the industrial labour force. An important factor is the proportion of workers employed in industries producing capital goods (who are relatively well paid) as compared with the proportion of lower paid (perhaps merely owing to the larger number of women employed) workers in consumption goods industries. The figures show that the proportion in industries producing capital goods has risen constantly: from 56 per cent. in 1932 to 68 per cent. in 1938 in respect of the number of workers employed, and from 55 per cent. to 69 per cent. in respect of the total number of hours worked. This tendency naturally continued after 1938.

Furthermore, account must also be taken of the increased productivity of each worker, and of the constant pressure of fixed delivery dates, reflected in higher piece work earnings and in output bonuses. The combined effect of all these factors more than made up for the effect of the increase in the proportion of women employed.¹

In 1938, and during the war, the causes leading to an increase in earnings, which will be described in discussing the special enquiries, also led to a rise in the figures obtained from the statistics by undertakings, a tendency which was only partly checked by the increase in the proportion of women and the influx of fresh labour forces.

Special Enquiries.

For an analysis of a series of figures showing average changes in earnings throughout industry from one year to another, instead of average actual earnings, the statistics obtained through special quarterly enquiries into earnings are more satisfactory. The relative importance of each branch of industry in 1936 is used as the basis for weighting the general average, but average earnings within each industry are still influenced by changes in the composition of the labour force.²

¹ Cf. *Wirtschaft und Statistik*, 1937, p. 843.

² This is due to the fact that for the purposes of these quarterly enquiries the employer is not required to make a return of the earnings of each of his workers, but only of his total wage bill for the last pay period, the average number of workers employed, and the total number of hours worked during the period. The average earnings in each branch of industry are obtained by dividing the combined wage bills of all the undertakings in that branch by the average number of workers, in order to obtain average weekly earnings, and by the total number of hours worked, in order to obtain average hourly earnings. These averages are then weighted by the relative importance of the different branches in 1936 in order to obtain the general averages. The latter are therefore of a composite nature, which makes them difficult to interpret. So long as the changes in the composition of the labour force are neither violent nor rapid, these averages may be taken as reflecting mainly the variations in the earnings of a "typical worker" who remains unchanged; but it follows that in wartime the statistics must be interpreted with reservations.

Hourly earnings reached their peak in 1929, although, as already stated, rates did not begin to fall until the end of 1930. The decline from 1929 onwards is due to the abolition of overtime, the decrease in employment opportunities and in normal hours of work, and the abolition of all rates higher than the wage list rates and of output and other bonuses. The lowest point was reached in 1933, the total fall in earnings having been 27 per cent. as compared with a fall of 21 per cent. in rates. The decline in hourly rates was greatest in the wood and building industries, and least in the consumption goods industries. The earnings of skilled workers seem to have fallen more than those of other classes.¹

In accordance with the wage policy of the National-Socialist Government, hourly earnings rose only slightly between 1933 and 1936 owing to the stability of rates. The index rose from 94.6 in 1933 to 100 in 1936. The increase in hourly earnings during that period was the result of changes in the sex and age composition of the labour force, increased individual output, and, lastly—although this affected hourly earnings less than weekly earnings—the disappearance of part-time work and the introduction of overtime.²

The total amount paid to the workers in wages at first increased proportionately to the expansion of employment, without any increase in individual wages. Quite soon, however, the expansion of economic activity brought with it a lengthening of hours of work, resulting in increased individual earnings, particularly weekly earnings. Later, other factors came into play; for instance, men who had formerly been unemployed, after working for a time as labourers, returned to their former occupation and regained their original skill and productivity, so that their hourly earnings increased because they passed into higher wage classes. The change-over from time rates to piece rates also had some effect, although less than at a later date.

From 1936 onwards more detailed figures are available, based on December 1935. These are shown in table III.

The increase in hourly earnings is due mainly to straight increases, in certain industries suffering from a shortage of skilled labour; but generally speaking, there were also improvements in earnings due to transfers to higher wage classes as a result of increased individual productivity. Output also rose under the piece work system, and more overtime was worked. The latter factor led to a proportionately greater increase in weekly earnings than in hourly earnings.³ In the spring of 1937 hourly earnings had risen

¹ Cf. *Wirtschaft und Statistik*, 1938, p. 157.

² *Idem*, 1936, p. 744.

³ *Idem*, 1937, p. 375.

TABLE III. INDEX NUMBERS OF HOURLY EARNINGS IN MINES, INDUSTRY AND TRANSPORT, ACCORDING TO SPECIAL ENQUIRIES

Base: December 1935 = 100

Date	Men		Women		All wage earners		
	Skilled and semi-skilled	Unskilled	Skilled and semi-skilled	Unskilled	Capital goods industries	Consumption goods industries	All industries
1935: Dec.	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1936	101.2	100.6	100.9	100.8	101.2	100.7	101.1
1937	103.6	102.2	102.0	102.6	103.5	101.6	103.2
1938 ¹	107.5	105.9	104.2	106.1	107.2	104.3	106.7
1939	110.5	108.6	107.8	110.0	110.1	107.7	109.8
1940 ²	114.4	111.6	113.1	113.7	113.6	112.4	113.6
1941 ² *	119.2	115.7	120.8	118.8	118.2	118.4	118.3
1939: Mar.	110.0	108.1	107.0	109.1	109.7	106.9	109.3
June	111.7	109.9	108.2	110.2	111.3	108.3	110.9
Sept.	109.4	106.6	107.3	109.8	108.6	107.2	108.5
Dec.	111.0	109.6	108.5	110.8	110.7	108.5	110.5
1940: Mar.	111.8	109.4	110.1	111.9	111.3	109.8	111.2
June	—	—	—	—	—	—	—
Sept.	114.6	111.6	114.0	113.7	113.7	112.8	113.6
Dec.	116.7	113.8	115.1	115.4	115.9	114.5	115.8
1941: Mar.	117.8	114.1	117.9	117.0	116.8	116.7	116.8
June	—	—	—	—	—	—	—
Sept.	119.6	116.2	120.6	119.3	118.6	119.0	118.7
Dec. ³	120.2	116.8	120.8	120.0	119.3	119.5	119.3
1942: Mar.	120.1	115.4	121.4	119.9	118.9	119.7	118.9
Sept.	121.9	116.2	122.9	119.9	120.3	121.3	120.3

Sources: *Statistisches Jahrbuch für das Deutsche Reich*, 1938, p. 338; *Wirtschaft und Statistik*, 1939, p. 520, and 1942, p. 355; *Reichsarbeitsblatt*, 1942, No. 16, Part V, p. 301, and 1943, No. 15, Part V, p. 248; INSTITUT FÜR WIRTSCHAFTSFORSCHUNG: *Wochenbericht*, Aug. 1942.

¹ Since Dec. 1938, including Austria. ² Mar., Sept., and Dec. only. ³ Since Dec. 1941, including the Sudetenland and the incorporated Eastern territories.

between 6 and 7 per cent. over the minimum of 1933. This improvement continued with increased momentum throughout 1937 and 1938, owing partly to a further lengthening of hours of work (increasing the influence of overtime earnings) and partly to improvements in individual wages. Workers who changed their occupation also obtained higher earnings, while there was a further expansion in piece work. At the end of 1938, hourly earnings had risen 13 per cent. over the 1933 minimum.¹

From the summer of 1938 to the summer of 1939 hourly earnings rose another 5 per cent. This steady upward trend was checked in September 1939 as a result of the War Economy Order of 4 September 1939, which abolished all extra payments for overtime, night work, and work on public holidays and Sundays. Between June and September hourly earnings fell by 2.2 per cent.

In November of the same year extra payment for night work, Sunday work, and work on public holidays was reintroduced, and this

¹ Cf. *Wirtschaft und Statistik*, 1939, pp. 235 and 520.

led to a fresh rise in earnings, although they did not again reach the level of June 1939. The figures for December 1939 also partly reflect the effects of the reintroduction, on 12 December 1939, of overtime payments for work in excess of ten hours daily. In March 1940 there was a fresh rise in hourly earnings, probably attributable to the introduction or increase of output bonuses in war industries.¹

The rising trend of hourly earnings was maintained throughout 1940 and 1941. In March 1942 hourly earnings fell, although very slightly, for the second time, the first being in September 1939, as mentioned above. This slight fall was due to seasonal variations in employment; some industries worked at full pitch during the holiday season and then suddenly restricted their activity immediately after, while a long period of frost cut down open-air work. It was also due, however, to the increased efforts of the labour trustees to check any rise in earnings, to the influx of new workers unable to earn as much as those whom they replaced, and to various other causes. Generally speaking, unskilled workers were those whose average earnings decreased, this being due to the influx of foreign workers with lower earnings.

Except at the end of the period under consideration, hourly earnings increased more rapidly in industries producing capital goods than in those producing consumption goods. This increase appears to have been greater still in the basic production goods industries, although figures to prove this are not available.² Examples of the first industries to record a substantial rise in hourly earnings are the metallurgical, wood, and building industries; in other branches, such as textiles, the increase occurred much later. Considering developments since the beginning of the war, the fall in September 1939 and the subsequent recovery were much greater in the capital goods industries than in the consumption goods industries, in which overtime earnings play a less important part.

Generally speaking, it may be said that the trend of women's earnings is more erratic than that of men's earnings. This is due to the fact that more women are employed in the consumption goods industries, which followed a more irregular course of development. Up to 1939, the hourly earnings of women had lagged slightly behind those of men; but they caught up in the course of 1939 owing to the increased demand for women, especially for unskilled work in the munitions industries, and to their employment on higher grade work.

¹ Cf. *Reichsarbeitsblatt*, 1940, No. 30, Part V, p. 530.

² Cf. *Wirtschaft und Statistik*, 1936, p. 744; 1938, pp. 157 and 1011.

If we now compare the indices of hourly earnings, shown in table II, resulting from the special enquiries and from the statistics by undertakings, we find that up to 1938 the increase is more marked in the statistics by undertakings, which cover only the larger industrial undertakings, whereas the special enquiries also relate to small concerns and some handicraft undertakings as well as to the transport industry. From 1938 onwards the increased number of women working whole or part time in large-scale industry counterbalances the influence of the variable weighting, so that the two indices show a parallel increase.

Lastly, with regard to the absolute figures of hourly earnings from the two sources, only the figures for 1936 are comparable because it was only at that date that the two methods of weighting coincided. It might be regarded as surprising that average earnings according to the statistics by undertakings, relating principally to large concerns, are lower than average earnings according to the special enquiries, covering a number of small and handicraft undertakings also; but it must be remembered that the special enquiries also cover transport workers, whose earnings are comparatively high, and furthermore, that whereas the statistics by undertakings embrace all the workers employed in the undertakings supplying monthly returns, the figures derived from the special enquiries do not take into account workers of either sex who are not engaged in productive activity (*e.g.*, cleaners and others, described as *Berufsfremde*), or apprentices and learners.

Weekly Earnings

Weekly earnings, like hourly earnings, reached their peak in 1929; but whereas hourly earnings fell to the lowest point in 1933, weekly earnings were at their lowest in 1932. Like the decline between 1929 and 1932, the subsequent recovery was also more marked for weekly than for hourly earnings. For the study of weekly earnings a third source is available in addition to the two used in analysing hourly earnings, namely, invalidity and old-age insurance statistics.

The figures from the three sources are shown in table IV.

Statistics by Undertakings.

The factors already noted as having contributed to the steady rise in hourly earnings also contributed to the rise in weekly earnings. There was one other factor: the lengthening of hours of work. This exercised only an indirect effect on hourly earnings, by increasing the influence of overtime paid at higher rates on the general average, but it had a direct effect on weekly earnings.

TABLE IV. WEEKLY EARNINGS, 1929 TO 1941¹

Date	Statistics by undertakings ²		Special enquiries ⁴		Invalidity and old-age insurance statistics ⁷	
	Mines, industry		Mines, industry, transport		Agriculture, mines, industry, transport, commerce, etc.	
	Amount	Index (1936 = 100)	Amount ⁵	Index (1936 = 100)	Amount	Index (1936 = 100)
	RM.		RM.		RM.	
1929	*	*	44.09	128.2	31.19	123.5
1930	*	*	40.61	118.1	30.57	121.1
1931	*	*	35.73	103.9	27.73	109.8
1932	*	*	29.51	85.8	22.88	90.6
1933	*	*	30.16	87.7	21.88	86.7
1934	30.50	92.0	32.36	94.1	22.83	90.4
1935	31.81	95.6	33.15	96.4	24.04	95.2
1936	33.17	100.0	34.39	100.0	25.25	100.0
1937	34.46	103.9	35.59	103.5	26.50	105.0
1938	36.03	108.6	37.31	108.5	27.82	110.2
1939	36.51 ³	110.1 ³	38.72	112.6	29.27	115.9
1940	37.67	113.6	39.89	116.0	29.82	118.1
1941	—	—	42.51 ⁶	123.6 ⁶	31.14	123.3

Source: *Wirtschaft und Statistik*, 1942, p. 355.

¹ In order to facilitate comparison, all the original indices were converted to the base 1936 = 100.
² Monthly averages. ³ Including Austria and the Sudetenland. ⁴ Averages for Mar., June, Sept., and Dec. ⁵ Series calculated by the writer on the basis of the absolute amount of earnings for 1936, to which the indices were applied. ⁶ Mar., Sept., and Dec. only. ⁷ Annual averages.

Special Enquiries.

As in the case of hourly earnings, the essential difference between the figures derived from the statistics by undertakings and those obtained by special quarterly enquiries into earnings is that, whereas the former represent actual averages, the latter are weighted averages with fixed weights for different industries and measure the variations in the earnings of a typical worker from one year to another rather than the actual average earnings.

Weekly earnings reached their peak in 1929; they began to fall in 1930, and reached their lowest ebb in 1932. In the case of weekly earnings at least, if not in that of hourly earnings, it is clear that the decline had ceased before the National-Socialist Government took power. As has already been seen, the same is true in regard to the listed wage rates.

The more detailed figures available from 1936 onwards are shown in table V.

By spring 1937 weekly earnings had risen by 15 per cent. over the minimum in 1932, as compared with a rise of 43 per cent. in employment and of 11 per cent. in hours worked. At the end of 1938, the increase had reached 30 per cent., and nearly 40 per cent. in the summer of 1939.

TABLE V. INDEX NUMBERS OF WEEKLY EARNINGS IN MINES, INDUSTRY, AND TRANSPORT, ACCORDING TO SPECIAL ENQUIRIES

Base: December 1935 = 100

Date	Men		Women		All wage earners		
	Skilled and semi-skilled	Unskilled	Skilled and semi-skilled	Unskilled	Capital goods industries	Consumption goods industries	All industries
1935: Dec.	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1936	102.7	101.8	104.1	100.5	102.1	104.3	102.5
1937	106.6	104.6	106.9	103.4	105.7	107.8	106.1
1938 ¹	112.2	109.4	112.2	106.6	110.6	114.3	111.2
1939	117.0	113.9	112.3	108.1	115.1	116.6	115.4
1940 ²	123.0	117.0	118.7	109.0	120.0	123.3	120.6
1941 ² *	130.0	122.8	125.2	113.4	126.3	130.8	127.1
1939: Mar.	115.3	110.6	116.7	109.2	113.1	118.6	113.9
June	118.8	116.4	116.9	109.6	116.8	120.7	117.4
Sept.	115.1	112.0	107.1	106.5	113.4	112.7	113.4
Dec.	118.7	116.5	108.6	107.2	117.1	114.2	116.9
1940: Mar.	117.7	112.3	111.2	106.4	115.4	116.3	115.7
June	—	—	—	—	—	—	—
Sept.	124.8	119.0	121.0	108.8	121.5	125.1	122.2
Dec.	126.4	119.8	123.8	111.7	123.1	128.6	123.9
1941: Mar.	128.3	121.1	123.7	112.0	124.7	129.1	125.4
June	—	—	—	—	—	—	—
Sept.	131.3	125.1	126.2	113.6	127.6	131.8	128.3
Dec. ³	130.5	122.3	125.6	113.9	126.7	131.5	127.5
1942: Mar.	130.4	120.0	124.3	111.7	126.1	130.2	126.7
Sept.	132.0	122.8	123.3	109.7	127.5	131.4	128.1

Sources: See table III.

¹ Since Dec. 1938, including Austria. ² Mar., Sept., and Dec. only. ³ Since Dec. 1941, including the Sudetenland and the incorporated Eastern territories.

The fall in weekly earnings in September 1939 is very marked, for apart from the prohibition of extra payments, the number of hours worked also decreased in September 1939 (from 49.4 in June to 48.6 in September) as a result of the curtailment of activity in certain non-essential industries through the restriction or closing down of undertakings.

The subsequent trend of weekly earnings was strongly affected by the legislative measures already referred to in connection with hourly earnings. The slight fall in weekly earnings in March 1940 was due to seasonal influences.

From September 1940 overtime payments were restored on the same scale as before the war (time and a quarter for all hours worked in excess of eight per day, and time and a half for work on Sundays and public holidays). This change was only partly reflected in the figures for September 1940, but exercised its full effect in December 1940. The number of hours worked was slightly

less in December than in September, however, and a larger number of women had been drawn into employment.¹

Nevertheless, the upward trend continued steadily until September 1941. In December 1941 and March 1942, on the other hand, there was a substantial decrease, due probably to the combined influence of seasonal factors and of changes in the composition of the labour force.²

These changes became more marked as time went on. Although they are reflected in earnings only within each industry, since the relative weighting of the various industries remains unchanged, they exert a substantial influence on the final average.³ The factors to which they were due included the calling up of men into the forces, or for various kinds of compulsory civilian service, the recruitment of less efficient substitute labour, and the shift of labour from non-essential to essential employment. The effects of these various factors on the general level of earnings are not all in the same direction. The call-up for the Army meant a smaller proportion of men in employment, which lowered the average of earnings; but on the other

¹ Cf. *Reichsarbeitsblatt*, 1941, No. 13, Part V, p. 227; No. 22, Part V, p. 382.

² Cf. *Wirtschaft und Statistik*, 1942, p. 354.

³ The difference in the final average obtained by the two different methods of weighting is shown in the four series of figures given below. In columns (1) and (3) the average actual earnings in the different industries have been weighted on the basis of the relative importance of the industries in 1936, while in columns (2) and (4) the weights are based on their relative importance from year to year.

Date	Hourly earnings (Rpf.)		Weekly earnings (RM.)	
	(1) Fixed weights	(2) Variable weights	(3) Fixed weights	(4) Variable weights
1933	69.3	67.5	30.16	29.11
1934	71.1	69.7	32.36	31.52
1935	72.1	72.2	33.15	33.00
1936	73.3	73.3	34.39	34.39
1937	74.8	75.9	35.59	36.13
1938	77.4	78.8	37.31	38.23
1939	79.6	80.8	38.72	39.24
1940	81.5	84.8	39.89	41.72
1941	85.3	90.3	42.51	45.31

The main feature of the period from 1933 to 1941 was the growing importance of the capital goods industries, in which average earnings are relatively high because of the long hours worked, output bonuses, and the large proportion of highly skilled workers, as compared with the consumption goods industries. In 1936 the method of weighting is the same in both cases, so that earnings are also the same. If, starting from 1936, the figures are studied backwards, those in columns (1) and (3) overestimate the importance of the capital goods industries and are therefore higher than the figures in columns (2) and (4), the difference widening as the distance from 1936 becomes greater. The position is reversed from 1936 to 1941: the figures in columns (1) and (3) underestimate the real importance of the capital goods industries, and therefore are lower than the figures for actual earnings in columns (2) and (4), the difference again increasing with the distance from 1936. The figures in columns (1) and (3) are taken from tables II and IV, and those in columns 2 and 4 are from *Wirtschaft und Statistik*, 1942, p. 355.

hand,¹ the proportion of lower-paid workers was reduced owing, in particular, to the almost complete suspension of building work. A number of other factors tended to increase average earnings: persons who had not previously been employed or had been employed in other industries were engaged in munition factories, where wages were comparatively high, and men in the forces who had been temporarily released for industrial employment during the winters of 1939-40 and 1940-41 were in the main highly skilled men who went to work in war industries. On the other hand, some of the newly recruited women worked as nurses, in the transport industries, or in offices, and were therefore outside the scope of the statistics; while the transfer of women from consumption goods industries to war plants normally involved an increase in their earnings, and thus helped to raise the general average. Generally speaking, therefore, it may be said that neither the reduction in the proportion of men employed nor the increased proportion of women has had as much effect in lowering the general average of earnings as might have been anticipated.¹

The index of weekly earnings in the consumption goods industries is higher throughout than in the capital goods industries. At first sight this may appear paradoxical, but it is explained by the unfavourable position of the consumption goods industries at the date taken as base, December 1935. At that date many of the consumption goods industries, in particular textiles and boots and shoes, were still working short time owing to the difficulty of obtaining raw materials from abroad because of the lack of foreign exchange; but after the introduction of the Four-Year Plan, which aimed at making Germany independent of foreign supplies, the provision of substitute raw materials enabled these industries to expand in harmony with the rest of the German economy.

The rationing of raw materials at the beginning of the war affected the consumption goods industries more than others, and this accounts for the steeper decline in weekly earnings in September 1939. Similarly, the re-establishment of the upward trend in the consumption goods industries also seems to have been slower than in the capital goods industries, in which average weekly earnings in December 1939 had already risen above the index for June 1939. By September 1940, weekly earnings in the consumption goods industries had resumed their previous rate of increase, after the less well-paid classes of workers had been transferred to other work and hours of work had been increased following the concentration of orders among a smaller number of workers, all of

¹ Cf. *Reichsarbeitsblatt*, 1941, No. 33, Part V, p. 602.

whom worked full time. Thus the rise in earnings in the consumption goods industries during the war is due partly to changes in the structure of their labour force, but partly also to the fact that in industries such as textiles, clothing, and food, orders for army supplies became an important factor and produced a trend similar to that in the capital goods industries.

Comparing earnings between the sexes, the increase was less for women, and especially for unskilled women, because of the influence of part-time work; moreover, the weekly earnings of many women, especially among skilled workers, were reduced by the restrictions imposed by the rationing of raw materials on the factories employing them. Skilled women, employed mainly in the consumption goods industries, benefited most from the employment shifts which occurred on the outbreak of war; their increased earnings are also explained by transfers to better paid work. The fact that the earnings of unskilled women, who are employed principally in the capital goods industries, did not increase more rapidly is due largely to the entry into employment of new and inexperienced workers, many of whom worked only part time.¹

The weekly earnings, like the hourly earnings, of skilled and semi-skilled (*angelernie*) workers rose more rapidly than those of the unskilled. This, of course, is largely attributable to the changes in the structure of the labour force due to the influx of inexperienced workers, and also to the fact that young workers (but not apprentices) are included in the statistics. The earnings of unskilled women are greatly affected by the inclusion of part-time workers, particularly in the case of weekly earnings.

Old-Age and Invalidity Insurance Statistics.

According to the old-age and invalidity insurance statistics, the weekly earnings of the workers fell by 30 per cent. from 1929 to 1933, as a result of the growing number of unemployed (whose contributions are paid by the Unemployment Insurance Fund, but on the basis of a lower income, and therefore reduce the average), the reduction in the number of hours worked, and the reduction in the listed wage rates. From 1934 onwards, however, the demand for skilled workers began to increase noticeably, and there was also a lengthening of hours of work. This movement continued and became still more marked in 1935. By 1936 employment had again practically reached the 1929 level; but there had been a shift from the lower to the upper wage classes, from the cities to the rural districts, and from the wage earning to the salaried classes. The

¹ *Idem*, 1940, No. 30, Part V, p. 530; 1941, No. 13, Part V, p. 227.

reasons for the expansion of the higher wage classes must be sought in factors such as the growth of activity in the capital goods industries, in which wages are comparatively high, accompanied by a greatly increased demand for highly skilled workers. Other causes are the disappearance of short time and the reduction in the employment of women due to the financial inducements to marriage offered in the form of marriage loans and heavier taxation of the unmarried. These shifts in employment continued throughout 1937. In 1938 the position was as follows: The total number of employed workers had increased by 6.2 million from 1932 to a total of 16,393,700, making 1,430,000 more than in 1929. The shift towards the higher wage classes was general, but was especially conspicuous in the rural districts, and the volume of employment in rural districts had increased. As a net result, average earnings in 1938 had not yet regained the 1929 level, having increased by slightly over 20 per cent. in all as compared with a fall of 30 per cent. between 1929 and 1933.¹

From 1938 to 1941 average weekly earnings continued to rise steadily in spite of the growing proportion of women and the recruitment of new and inexperienced substitute workers paid at lower rates than those they replaced. Not until 1941 did weekly earnings again reach the 1929 level.

The figures from the old-age and invalidity insurance statistics are affected by the changed composition of the labour force covered; consequently, they do not show the variations in the wage of a typical worker whose circumstances remain unchanged, but the actual average earnings of all workers at each date.²

Comparing the three series of figures derived from the three sources of information available on weekly earnings and shown in table IV, the following conclusions may be drawn. As already noted in respect of hourly earnings, the statistics by undertakings show a steeper rise in weekly earnings than the figures based on the special enquiries; this is because the larger undertakings were affected more by the depression, and also benefited more from the subsequent expansion of economic activity, than the medium-sized undertakings covered by the special enquiries. From 1939 onwards, however, the rise in earnings shown by the statistics by undertakings lags behind that shown by the special enquiries, the reason probably being the greater shifts in the composition of the labour force in large-scale industry, especially the increased proportion of

¹ Cf. *Wirtschaft und Statistik*, 1936, p. 326; 1937, p. 250; 1938, p. 653; and 1939, p. 297.

² The statistics of weekly earnings derived from sickness insurance returns give results which are practically identical.

women working both full time and part time. In comparing the special enquiries and the old-age and invalidity insurance statistics, the first point to be noted is that the index of weekly earnings calculated on the basis of the special enquiries starts at a higher point in 1929 (128.2 as compared with 123.5), and falls to a lower point during the depression (85.8 as compared with 86.7). From 1936 onwards, however, contrary to what might have been expected, the index of earnings based on the special enquiries lags behind that based on the old-age and invalidity insurance statistics. The explanation of the early part of this development must be that the variations in earnings are greater in mining, industry, and railway work, which represent the scope of the wage enquiries, than in the whole economic system, which is covered by the old-age and invalidity insurance statistics, and that the series derived from the special enquiries overvalues the importance of the capital goods industries, with their wide fluctuations in earnings. From 1936 onwards, however, the insurance figures, which show the average of actual earnings at each date, rose as a result not only of the increase in individual earnings, but also of the growing importance of the capital goods industries¹; the figures based on the special enquiries, with their fixed system of weighting, are not affected by this latter factor, and are therefore lower.

Turning finally to a comparison of the absolute figures of weekly earnings, it will be seen that on the basis of the statistics by undertakings they are only slightly lower than those calculated on the basis of the special enquiries; whereas the inclusion of the earnings of agricultural workers in the old-age and invalidity insurance figures has a substantial effect in lowering the average earnings of insured persons.

CONCLUSION

A comparison between the trend of wage rates, of hourly earnings, and of weekly earnings leads to a number of conclusions.

Taking hourly earnings first, it may be noted that the index of earnings from 1929 to 1933, as shown by the special enquiries, reflects more marked changes than the index of rates (from 129.5 to 94.6 in the first case and from 126.4 to 100.0 in the second). This

¹ The method used in these statistics to calculate average earnings has possibly also affected the results. Each annual average is obtained by multiplying the number of persons in each of the 10 contribution classes (graduated according to the weekly wages of the members) by a figure halfway between the upper and lower limit of each class; for the lowest and highest classes, this figure is an estimate. The more earnings increase, the greater is the significance of the estimate for the highest contribution class, and consequently the more problematical becomes the accuracy of the general average.

is due to the existence in 1929 of wages above the listed rates, which in periods of prosperity represent minimum rates, and to the working of overtime. From 1930 the index of earnings fell, whereas the index of rates remained at its previous level. With the expansion of industrial activity the index of hourly earnings resumed its upward trend, whereas the rates of wages were frozen at the current level by the wage stabilisation policy applied by the labour trustees.

Turning now to the absolute figures for hourly rates and earnings, we find that even in the depths of the depression hourly earnings remained higher than rates. It must be remembered, however, that it is weekly earnings that are directly influenced by variations in the length of the working week, and in 1932-1933 weekly earnings were in fact lower than hourly rates multiplied by the number of normal hours of work.

At the end of the period considered a position was reached where, as a result of the labour shortage, employers sought to attract workers by the offer of as many financial and material advantages as were permissible under the wage stabilisation orders, while workers sought to increase their earnings by changing jobs so far as was legally possible. The result of this twofold pressure was a further increase in earnings, which no longer bore any relation to the rates fixed by works regulations. The movement of earnings was different in different industries and for workers of different skill and sex, and even from one factory to another.¹ Thus, in the most recent period studied, earnings were to a great extent in a chaotic condition; semi-skilled or even unskilled workers on piece rates were earning more than highly skilled workers obliged to remain on time rates because of the nature of their work, with the natural result that the gaps in the ranks of the skilled workers could no longer be filled up because no one had any interest in serving a long apprenticeship.²

In order to restore some sort of order in the wage structure, but mainly to ensure the maximum use of the available supply of labour, the General Controller of Labour, Dr. Sauckel, decided to make a radical change in the classification of workers. Instead of three groups of workers—skilled, semi-skilled, and unskilled—eight wage groups were established, based exclusively on the value of the type of work done. This reclassification, which was introduced in the metal industries and then in the building industry and in home work, is to be extended gradually, beginning with factories in which

¹ For instance, it often happened that in a factory output bonuses, and even allowances for dirty work, were paid to all the workers employed there.

² Cf. DEUTSCHE ARBEITSFRONT, ARBEITSWISSENSCHAFTLICHES INSTITUT: *Jahrbuch 1940-1941*, Vol. I, p. 172; Vol. II, p. 8. *Soziale Praxis*, Feb. 1943, p. 70.

there is reason to believe that the labour force is not being fully used. The reclassification will not affect the employer's total wage bill. The gaps between the top and bottom of the different wage groups will be such that workers of lower skill will not be able to earn as much as highly skilled workers save in exceptional circumstances. At the same time as reclassification is carried out, piece work will be introduced wherever possible and existing piece-work rates will be scaled down.¹

Weekly earnings, being directly related to the length of working hours, show more pronounced variations than hourly earnings, which are affected by overtime only in so far as overtime pay increases the average earnings per hour. As already noted, weekly earnings as well as hourly earnings reached their peak in 1929, but whereas hourly earnings continued to fall until 1933, weekly earnings had already touched bottom in 1932. The extent of the decline was 27 per cent. in the case of hourly earnings (to 94.6 on the base of 1936=100) and 33 per cent. in the case of weekly earnings (to 85.8), the decline having been greatest in the capital goods industries. As a result of the lengthening of the working week, weekly earnings subsequently increased more rapidly than hourly earnings. In the summer of 1939, the increase was 40 per cent. over the minimum for weekly earnings as compared with under 20 per cent. for hourly earnings. During the war the fluctuations in weekly earnings were again more pronounced, being directly influenced by the restrictions on overtime pay in the early stages and by the increased importance of overtime working in the later ones. The fall in earnings at the very end of the period considered, due to the increased proportion of women in part-time employment and of foreign workers, was also more noticeable in the case of weekly than of hourly earnings.

The evidence upon which these findings rest is not all equally adapted to the task of showing the trends in nominal wage rates and earnings of German workers. Of the series used in this study none appears to correspond exactly to the purpose set forth at the outset, namely to ascertain the trend of the wages of an average German worker who was employed throughout the period. The series of statistics by undertakings shows the trend in average earnings year by year; it thus takes into account changes in the composition of the labour force in addition to the trend in wages; the data do not go back far enough to show the trend of earnings during the depression. The statistics of weekly earnings based on invalidity and old-age, or sickness, insurance returns, also show the

¹ Cf. *Deutsche Bergwerks-Zeitung*, 14 Nov. 1942.

trend of average earnings; though they give figures from 1929, they have the disadvantage of including allowances paid to the unemployed. The series based on the special quarterly enquiries shows within each industry the trend of average earnings as influenced by changes in the composition of the labour force as well as the changes in the earnings themselves, but, on the other hand, the trend of earnings for industry as a whole is not disturbed or distorted by changes in the importance of the different industries since the average earnings over all industries year by year are weighted averages with constant weights corresponding to the importance of the several industries in 1936. Nevertheless, the more rapid the changes in the composition of the working force (as in wartime), the more suspect for the purposes of this study are the data resulting from these special enquiries. Finally, the series showing hourly rates of wages is the most satisfactory, though it provides information on what is, from the point of view of wage trends, a relatively secondary aspect of the subject.

In conclusion, the data throw clear light upon the primary feature of German wage policy under the National-Socialist régime: hourly money wage rates have been kept substantially stationary. Weekly money earnings, on the other hand, have been affected by a number of factors some of which (notably shifts of workers to better-paying war and production goods industries on the one hand, and the increased employment of women on the other) have tended to cancel out, but the general trend has been upward as a result chiefly of the lengthening of the work week.
