

UNITED STATES DEPARTMENT OF LABOR
L. B. Schwellenbach, *Secretary*
BUREAU OF LABOR STATISTICS
Ewan Clague, *Commissioner*

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The Changing Status of Bituminous-Coal Miners

1937-46



Bulletin No. 882

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Letter of Transmittal

UNITED STATES DEPARTMENT OF LABOR,
BUREAU OF LABOR STATISTICS,
Washington, D. C., August 29, 1946.

The SECRETARY OF LABOR:

I have the honor to transmit herewith a report on the changing status of bituminous-coal miners, 1937-46. This report was prepared by Witt Bowden of the Bureau's Labor Economics Staff.

EWAN CLAGUE, *Commissioner.*

HON. L. B. SCHWELLENBACH,
Secretary of Labor.

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The Changing Status of Bituminous-Coal Miners, 1937-46

Workers in bituminous-coal mining made significant gains during the war and immediate postwar periods.¹ Only two advances in general wage rates occurred after 1937, each of these (1941 and 1946) averaging about 17 percent. Average earnings and hours of work, however, rose far more than basic rates, and important supplemental gains were made, notably paid vacations, pay for travel time in mines at established rates, and improved standards of safety, health, and welfare. Increases in earnings per hour caused a relatively small increase in wages per ton because of the rise in the output of coal per hour.

Between the two World Wars, the relative importance of coal had declined and workers suffered from part-time employment and relatively low weekly earnings, as well as the exceptional hazards of the industry. After 1932 these workers made relatively large gains in wage rates, but employment and average earnings were depressed by part-time operation of the mines, averaging less than 200 days per year.

If there is a return to the contractual straight-time workweek of 35 hours after the exceptional reconversion demands for coal are met, average weekly earnings would fall, on the basis of existing wage rates, far below current levels maintained by the lengthened workweek. The future of employment and earnings in the coal industry will be affected to an exceptional degree by the general level of business activity, on which depends the demand for coal as well as opportunities for transfer to employment outside of coal mining.

Wages and Hours Before 1941

Workers in bituminous-coal mining shared with factory workers and others the increases in wages during and soon after World War I. Hourly earnings (based on hours of work at the "face" or usual place of work) averaged about 85 cents in 1923 as compared with about 52 cents for factory workers. These averages were more than twice as high as those of 1914, even after slight declines from the early post-war peaks; consumers' prices were 70 percent higher.²

Extreme competition in mining and difficulties in maintaining the strength of the miners' organizations led to sharp declines in wages

¹ Sources used, in addition to regular reports and special studies by the Bureau of Labor Statistics, include publications of the U. S. Bureau of Mines and the National War Labor Board, the United Mine Workers Journal, and Industry Bulletins of the National Coal Association.

² As a result of a decline in hours of work, the gain was less in weekly earnings than in hourly earnings.

even before 1929, when hourly earnings averaged only about 68 cents, or 20 percent lower than in 1923. The hourly earnings of factory workers, in contrast, rose from 52 cents in 1923 to 57 cents in 1929, an increase of 10 percent. The average for bituminous-coal mining declined further, from 68 cents in 1929 to 50 cents in 1933, or 26 percent. Factory average hourly earnings fell from 57 to 44 cents, or 23 percent.

After 1933, workers in bituminous-coal mining made relatively large gains. Average hourly earnings rose from 50 cents in 1933 to 79 cents in 1936, or 58 percent, while the factory average rose only from 44 to 56 cents, or 27 percent. The year 1936 may be described in general as a wage "plateau," following the substantial post-depression gains and preceding the upturn beginning in 1937. In bituminous-coal mining, this upturn was reflected in the 1937 wage agreement.

The agreement of April 1937 extended to March 31, 1941, and covered a part of the crucial period of preparation for national defense. The agreement retained the 35-hour week of 5 days and 7 hours per day, which had been adopted in 1934 in mines employing almost three-fourths of the workers and which had been extended by 1935 to about 98 percent of the workers. The agreement for the Northern Appalachian areas provided for an increase of 50 cents per day, from \$5.50 to \$6 (or from 78.6 to 85.7 cents per hour). The corresponding increase of 50 cents in the Southern Appalachian districts was from \$5.10 to \$5.60 per day (or from 72.9 to 80.0 cents per hour). The agreement provided for equivalent increases for other groups, including the piece rates of tonnage workers. Outside of the Appalachian territories, regional differences were recognized, depending on such conditions as the nature of the coal seams, customary arrangements, and in some instances the economic status of mines. The 1937 agreement introduced premium pay for overtime at time and one-half.

The general increase in wage rates for the industry as a whole under the 1937 agreement is indicated approximately by the change in average hourly earnings. The averages for the years 1936 and 1940 are to be preferred as a measure of the rate increase because of similarities of employment and production levels and average hours of work during these years. Average hourly earnings rose from 79.4 cents in 1936 to 88.3 cents in 1940, an increase of 11.2 percent.

The 1939 agreement renewed the terms of the 1937 contract relating to wages and hours of work. Prolonged negotiations, accompanied by the shut-down of the mines, dealt largely with the demand for a union shop. This demand was ultimately conceded by most of the industry with the exception of the so-called "captive" mines (those operating primarily to produce coal for use by the owners, such as steel companies).

Adjustments in 1941

The contract negotiations of 1941 took place during the early stages of a sharp upturn in prices and wages. The demands, presented by the union in joint conferences in March, included a general wage increase of \$1 per day for "all regular classifications of inside and outside day men," with corresponding increases for other day workers and for tonnage men. Another important demand was the elimina-

tion of North-South differentials and of other differences in wages described as "inequitable." The North-South differentials and later the union shop in captive mines proved to be major causes of disagreement and ensuing work stoppages.

A separate agreement was signed by operators representing the Northern Appalachian area (Pennsylvania, Ohio, northern West Virginia, western Maryland, and Michigan). The agreement provided for an increase of \$1 per day or 14.3 cents per hour for basic day occupations, contingent upon the elimination of the North-South differential of 40 cents per day in basic occupations. Southern operators (representing southern West Virginia, Virginia, eastern Kentucky, and northern Tennessee) were unwilling to eliminate the differentials and therefore, on April 11, withdrew from the conference. At length, however, on July 6, an agreement was reached between the union and the southern operators for the elimination of the differential for day men but not for tonnage men. The increase for basic day occupations was \$1.40 per day or 20 cents per hour. The union shop was also extended to Harlan County, Kentucky. Each of the two agreements (for the Northern and Southern Appalachian areas) covered approximately 150,000 workers.

The union shop had not been extended to the captive mines, employing approximately 50,000 workers. About 95 percent of these workers were union members and they produced about 10 percent of the yearly output of coal. Demands were made in the fall of 1941 that the steel companies extend the union shop to the captive mines. On December 7, 1941, an arbitration board ruled in favor of the union.

The agreements of 1941 provided for considerable differences in the extent of increases in wages. The rise in the Southern Appalachian area, in particular, was relatively large because of the elimination of the differential for day workers. An estimate made for the National War Labor Board for the Northern and Southern Appalachian areas combined indicated an increase of about 18 percent. The change in average hourly earnings for the industry as a whole indicates that the 1941 agreements brought about a general increase of about 17 percent in basic rates. The Bureau of Labor Statistics figures of average hourly earnings during that period were affected only to a slight extent by factors other than changes in basic rates, such as premium payments for overtime.

Effects of the War on Production and Employment

An outstanding industrial achievement of the war was the very large increase in the tonnage of coal produced by a declining number of miners. The output of bituminous coal and lignite in 1939 totaled about 394,855,000 tons. This was less than the production of the years 1936 and 1937 but more than that of the years 1931 to 1935 and 1938. The expanded output after 1939 is shown below:

	<i>Output (in tons)</i>
1939-----	394, 855, 325
1940-----	460, 771, 500
1941-----	514, 149, 245
1942-----	582, 692, 937
1943-----	590, 177, 069
1944-----	619, 576, 240
1945-----	576, 000, 000

During prewar years there was normally a considerable seasonal variation in the output of coal, production declining in the spring and summer months. The seasonal peaks were less pronounced during the war. Major fluctuations in production during the war were caused by work stoppages. Thus, in April 1941 only 6,110,000 tons were produced, in contrast to the October peak-month output of 51,703,000 tons; and in June 1943, production fell to 34,540,000 tons as compared with the peak output of 56,203,000 tons in March. In prewar years, when the mines could normally supply all demands by operating less than 200 days per year, a work stoppage, especially in the spring months of slack demand, had no marked effect on aggregate production and employment during the year.

The production of coal between the two World Wars, although quite variable, had tended to decline, but to a smaller extent than employment. The largest amount of coal produced in any one year before 1944 was 579,386,000 tons in 1918. This volume of production was almost equaled in 1926, with an output of 573,367,000 tons. Production in 1944 reached a peak of 619,576,000 tons. The average number of wage earners employed in that year was only 354,000,³ in contrast to 542,000 in 1926. Thus, production in 1944 was 8 percent larger than in 1926 and average employment was 35 percent smaller. Employment reached a low point in 1932, with only 350,000 wage earners. The number rose to 461,000 in 1937 but declined to 371,000 in 1939. Following are the average numbers of wage earners employed during the war period:

	<i>Average number of wage earners</i>
1939	371, 000
1940	415, 000
1941	407, 000
1942	435, 000
1943	386, 000
1944	354, 000
1945	322, 000

Wartime Change in Hours, Wages, Productivity, and Labor Cost

It will be noted from the figures previously cited that there was a remarkable wartime rise in the production of coal. The amount increased 57 percent from 1939 to 1944. Still more noteworthy was the fact that the increased production of coal was accompanied by an actual reduction of about 5 percent in average employment. These trends are to be explained in part by the lengthened workweek and in part by a rise in productivity or average man-hour output.

Standard hours of work were reduced in 1934 and 1935 to 35 hours per week (a 7-hour day and 5-day week). In response to a request by the Government in September 1942 for measures to prevent a shortage of coal, the union and the operators agreed early in 1943 to a 6-day week of 42 hours, with premium pay for the sixth day. The agreements were followed by action by the Office of Price Administration to raise coal prices for meeting the additional costs.

³ These and the following Bureau of Labor Statistics figures of employment are the averages of the numbers on the pay rolls during 12 pay-roll periods, the averages thus being affected by the monthly variations accompanying mine shut-downs, work stoppages, labor turn-over, and other factors. Bureau of Mines estimates of employment, based on the numbers at work when the mines are actually operating as distinguished from shut-down periods, are significantly larger and are also less variable than the averages here given.

The 7-hour day was abandoned in the 1943 agreement, which provided for a 9-hour day underground for inside workers, including 15 minutes for lunch and an estimated average of 45 minutes for travel time. The daily shift of most of the outside workers was fixed at 8.5 hours, including a 15-minute intermission for lunch. The 1945 agreement modified the hours of work only to a slight extent. Inside workers retained the 9-hour day, figured from portal to portal, but the 15-minute lunch period was to be staggered. A workday of 8 hours and 15 minutes was established for outside workers, the shift to include "a staggered 15 minutes for lunch, and without any intermission or suspension of operations throughout the day." For certain outside workers, however, the agreement called for a shift of 8 hours and 35 minutes, including a staggered 15-minute lunch period. According to the Bureau of Labor Statistics survey made in the fall of 1945, work schedules varied widely. The usual shift of outside workers was 8 hours and 15 minutes, including the 15-minute staggered lunch period. The prevailing shift of outside workers on continuous operations (limited to relatively few mines) was 8 hours and 35 minutes, including the same staggered lunch period.

As a result of these changes, average weekly hours rose from 27.1 per week (excluding travel time of inside workers) in 1939 to 43.4 hours (including travel time) in 1944. The average fell to 42.3 hours in 1945 but rose to 45.9 hours in March 1946. Travel time of inside workers was assumed, under the 1943 agreements, to be about 45 minutes per day. The inclusion of travel time as working time would thus increase the length of the workday (or workweek) of inside workers about 9 percent. A study by a joint committee appointed by the President in 1943 indicated average travel time as significantly above 45 minutes per day, but it appears that the agreement to compensate workers for travel time has caused material reductions in the amount of time spent between the portal and the "face" or usual place of work.

Average weekly hours worked are materially below full-time hours per week, the averages being affected by such factors as part-time operation of mines, labor turn-over, and absences due to accidents and other causes. Part-time operation of the mines was less significant during the war than in earlier years, the average number of days of mine operation rising from 178 days in 1939 to 278 in 1944.

No changes in basic rates of wages were made between the agreements of 1937 and 1946 with the exception of the 1941 changes previously described. These changes averaged approximately 17 percent. Minor wage-rate adjustments were made from time to time, as for example, the equalization of rates of outside workers corresponding to the introduction of pay for travel time for inside workers.

The average earnings of bituminous-coal workers rose materially more than their basic rates. Average weekly earnings rose from \$23.88 in 1939 to \$56.84 after the 1945 agreement and the partial work stoppage in October (the average from November 1945 to March 1946). This rise was caused in part by the change in basic rates but mainly by the increase in hours and in premium pay for overtime and by supplemental gains such as pay for travel time.

The 1943 arrangement for travel-time pay, as approved by the National War Labor Board, called for the regular straight-time rate of

pay for productive time and for two-thirds of that rate for travel time up to 40 hours, and for two-thirds of the premium rate for travel time beyond 40 hours. This arrangement was viewed by the Board as necessary to meet the requirements of the Fair Labor Standards Act. The 1945 agreement reverted, however, to the original contract provisions for overtime rates for hours beyond 7 per day or 35 per week. Full portal-to-portal payment was approved by the Board on the basis of a United States Circuit Court of Appeals decision that travel time must be paid for as work time, a decision later upheld by the United States Supreme Court.

During the war, coal operators encountered serious difficulties in maintaining their production facilities and in replacing worn-out equipment. Efficiency of production was also impaired in a measure by the lengthened workweek.⁴ Nevertheless, substantial gains were made in average man-hour output. There was an increase in every year after 1938 with the exception of 1943. The increase between 1938 and 1945 was 29 percent. This rise (or inversely the decline in the amount of labor required per ton) slowed up the increase in unit labor cost (the amount of wages paid per ton) resulting from advances in the amount of wages paid per hour. Unit labor cost rose 22 percent between 1938 and 1945. Labor cost declined between 1938 and 1940 and remained about the same between 1944 and 1945.

The increase of about 22 percent in unit labor cost between 1938 and 1945 was accompanied by a rise of 58 percent, as estimated by the Bureau of Mines, in the value of coal per ton at the mines. These estimates relate to the industry as a whole. Costs (including nonwage costs) and profit margins as the basis of price increases have related to producing districts, kinds of coal, and in exceptional cases individual producers.

These comparisons of percentage changes are summarized below:

	<i>Percent of change, 1938 to 1945</i>
Output (in tons) per man-hour.....	+29
Man-hours required per ton.....	-22
Unit labor cost (amount of wages per ton).....	+22
Value per ton at mines.....	+58

The ending of emergency conditions in employment and production may be expected to improve the efficiency of production. A return to the normal workweek would presumably increase the intensity of work, thus tending to raise man-hour output; and the elimination of premium payments for overtime, as well as the rise in man-hour output, would tend to reduce the amount of wages paid per ton. When operators are able to replace worn machinery with improved equipment a rise in efficiency will naturally ensue. The possible elimination of some high-cost mines in operation during the war may also contribute to rising productivity.

Main Issues in 1946 Contract Negotiations

The National Bituminous Wage Conference, convening in Washington on March 12, 1946, carried on negotiations under conditions

⁴ This subject is discussed in relation to various metalworking industries in *Studies of the Effects of Long Working Hours*, by Max D. Kossoris (Bureau of Labor Statistics Bulletin No. 791, Parts 1 and 2, Washington, 1944).

of rising wages and prices somewhat similar to the situation during the 1941 negotiations.⁶ The United Mine Workers presented nine proposals described as "negotiable suggestions." These nine proposals related to a health and welfare fund; the unionization of supervisory, technical, and clerical employees; increase in wages and reduction of hours; adjustment of vacation, holiday, and severance compensation; improved safety standards, and compliance with mining, compensation, and occupational disease laws; adjustment of wage differentials and local "inequalities"; elimination of "inequities and abuses" of fining and penalty provisions; amendment of rules and practices "to promote mutual accord, increased efficiency and elimination of the small tyrannies of management;" and adjustment of the controversy over "unilateral interpretation of existing agreement by operators."

Representatives of the Operators' Negotiating Committee criticized the proposals as vague and indefinite. It was asserted that the delay in defining the several demands was in effect a "filibuster," and the proposals as a whole were described as "ethereal." On March 18, the operators presented for consideration four counter proposals. These included the limiting of premium pay to work beyond 40 hours per week. Proposals on March 25 included increases in wages consistent with public wage-price policy; study of a plan for a joint fund, to be independently administered, for mitigating hardships resulting from accidents; acceptance of optional as well as compulsory provisions of State workmen's compensation laws; joint study of State mining laws affecting safety; and strengthening of penalties against violation of agreements.

Major issues which deadlocked the conference included the proposed health and welfare fund and the changes in safety and related practices. The union's detailed proposal regarding a health and welfare fund, as outlined for the joint conference on May 13, called for a 7-percent pay-roll assessment, the fund thus created to be administered by the union. At the same meeting of the joint conference on May 13, the proposals regarding safety measures were analyzed. It was proposed that a safety committee of three union members at each mine should have authority to inspect the mine and order the men removed in any section of the mine where danger is threatened to life and limb. Operators, it was insisted, should comply with State and Federal mining laws and particularly with recommendations of Federal inspectors as to safety standards. State workmen's compensation laws, it was further demanded, should be complied with even though some of the laws are elective rather than compulsory.

The demand of the union for improved safety standards was supported by reference to the comparative records of deaths and injuries in coal mines and other industries. The record of bituminous-coal mining showed some improvement during the war, the number of disabling injuries for each million hours of work falling from 71.0 in 1939 to 64.4 in 1944, but it remained far above the record of 18.4 per million man-hours in manufacturing as a whole and 27.7 in construction.

⁶ For details of the course of the 1946 negotiations, see *Monthly Labor Review*, June 1946 (pp. 915-917).

The 1946 Agreement

The failure of the United Mine Workers and the Operators' Negotiating Committee to adjust their differences led, on March 26, 1946, to notifying the officials and members of the union that the agreement would terminate on March 31. The resulting work stoppages continued until May 13, when work was resumed for 2 weeks by authority of the union's policy committee.

It became apparent, however, that no agreement could be reached during the 2 weeks; and on May 21, the President instructed the Secretary of the Interior to take possession of the mines and to conduct negotiations with the union, subject to national stabilization policies. At the end of the 2-weeks' "truce" there was another work stoppage.

An agreement was signed on May 29, 1946, by the Secretary of the Interior as Coal Mines Administrator and the president of the United Mine Workers. Notices were then sent out by the union ordering an immediate return to work.

The terms of the agreement signed on May 29, 1946, were summarized by the Coal Mines Administrator as follows:

Hours.—Mines are to be operated 9 hours per day as heretofore, with overtime to be paid after 7 hours.

Wages.—A basic hourly increase of 18.5 cents, which, with overtime, means a daily increase of \$1.85.

Mine safety program.—Federal Mine Safety Code to be issued by Director of Bureau of Mines, Interior Department. Periodic inspections by Federal inspectors. Local unions to select mine safety committees at each mine to report violations.

Workmen's compensation and occupational disease laws.—Coal Mines Administrator will direct operating managers to comply with State laws, whether elective or compulsory.

Health and welfare program.—(1) A welfare and retirement fund financed by 5 cents a ton on coal produced for use or sale. To be used for payments for sickness, disability, death, or retirement. To be managed by trustees, one appointed by the union, one by the Administrator, and the third by the other two.

(2) A medical and hospital fund. Financed from deductions now made from miners' pay for such purposes. To be administered by trustees appointed by the president of the union.

(3) The two funds to be used to complement each other.

Survey of medical and sanitary facilities.—A comprehensive survey of hospital and medical facilities, medical treatment, sanitary and housing conditions in coal-mining areas to determine improvements necessary to bring these up to recognized American standards.

Supervisors.—Coal Mines Administrator to be guided by NLRB decisions.

The agreement was described by union officials as embodying "the greatest economic and social gains registered by the UMWA in a single wage agreement since the birth of the union in 1890." The statement emphasized the health and welfare and mine safety programs and indicated that the carrying out of these provisions of the agreement would "give to American coal-mining communities the economic and social parity they so richly deserve."

Earnings Under Normal Hours and Production

Average weekly earnings of bituminous-coal miners rose, as stated above, from \$23.88 in 1939 to \$56.84 preceding the 1946 agreement. The increase of 18.5 cents per hour under the 1946 agreement was

about 17 percent.⁶ Assuming a continuation, during the early period of operation of the 1946 agreement, of working time and other circumstances affecting earnings similar to those of the period from November 1945 to March 1946, weekly earnings under the new agreement would average about \$66.50.

These estimates of weekly earnings are averages of part-time as well as full-time earnings. They do not take account of certain supplemental gains, such as paid vacations, improved safety standards, and the welfare and retirement fund. Earnings of workers who are regularly able to work a full-time week exceed the general average for all workers.

Underground workers in basic day occupations, paid \$1 per hour under the previous contract and \$1.185 per hour under the 1946 contract at full time (54 hours per week, equivalent to 63.5 hours at straight time), would earn about \$75.25 per week. The 1946 agreement provided, however, for a 35-hour week as the standard straight-time workweek. If the demand for coal should fall and the supply of workers should remain comparatively large, it may be assumed that the workweek would be reduced to 35 hours. In that event, and in case there is no additional increase in wage rates, the full-time earnings of workers in basic day occupations would fall to about \$41.50 per week, a decline of 45 percent from the above estimate of \$75.25.

Although the full-time workweek before the war was 35 hours, the time actually worked averaged much below that figure. The 1939 average was 27.1 hours and the highest figure before that year and after the adoption of the 35-hour week was 28.8 in 1936. A major factor in the reduction of average hours of work below a full-time workweek of 35 hours was the part-time operation of the mines. The average number of days that the mines were worked in 1939 was 178, and between 1918 and 1940, as high as 200 in only the 4 years 1920, 1926, 1928, and 1929.

Postwar opportunities for the relatively adequate employment of workers will be affected by a number of circumstances, notably by demand for coal and the resulting volume of output. After the exceptional reconversion and early postwar needs for coal have been met, the levels of production, employment, hours, and weekly earnings will be dependent mainly on three possible developments. One of these will be the degree of success of the bituminous-coal industry in competing with other fuels and sources of energy. In 1913, according to estimates by the Bureau of Mines, bituminous coal supplied 70.3 percent of total energy (expressed in terms of British thermal units) from fuels and water power. Between 1918 and 1939 the ratio declined from 69.5 to 42.0 percent.⁷ Slight gains were made between 1939 and 1942, but part of the gains were lost between 1942 and 1944.

A second factor that may have a significant bearing on postwar opportunities for employment approaching full-time levels is the

⁶ Straight-time hourly earnings in the fall of 1945 averaged \$1.07, and on this base the 18.5 cents gives an increase of about 17 percent.

⁷ These percentages are based on a count of water power at a constant fuel equivalent of approximately 4 pounds per kilowatt-hour. When the fuel equivalent prevailing during the year is used (reflecting increasing efficiency of fuel-burning central electric stations), the estimates for bituminous coal are 44.9 percent for 1939, 51.4 percent for 1942, and 48.2 percent for 1944. The percentages on the basis of a constant fuel equivalent are 42.0 for 1939, 47.6 for 1942, and 44.6 for 1944.

course of labor productivity. In the event of substantially constant levels of production, increases in average man-hour output will entail displacement of labor, at least in terms of man-hours. Increased efficiency of production, however, may tend to strengthen the competitive position of the industry and make possible enlarged demand and production or at least check the decline of production.

Outstanding in importance in the future of opportunities for employment and earnings in coal mining will be a third factor: the general level of business activity and of opportunity for employment outside of coal mining. High general levels of production and employment will tend to maintain a large demand for coal and will at the same time enable surplus coal miners or miners displaced by increased productivity to find profitable work in other employments.