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Effect of unionism on cost of coal

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EFFECT OF UNIONISM ON COST OF COAL

By

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It is a pleasure to record the valuable cooperation received from many governmental agencies, various producers' and operators' organizations connected with the Bituminous Coal Industry.

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Introduction

Coal is not only the base of our civilization and a key to our continued high standard of living but it is also playing a leading part in the recovery of Europe and other backward nations of the world. Our dependency upon coal as a basic source of energy is growing greater and greater every day. Some day atomic power may be our principal source of energy but the list of technical obstacles that block the way for widespread and commercial use of atomic energy is a long one. Unlike its competitors, such as petroleum and natural gas, the reserves of which are extremely limited, the reserves of coal are ample for centuries to come. In fact as far as science knows today, excluding atomic power elements, 95.5 percent of the United States fuel resources still in the ground consists of coal. It is easy to realize, with the above facts in mind, how much the industrial civilization of the United States depends on an uninterrupted and 'cheap' supply of coal.

The purpose of this work is to examine the role of Unionism on the cost of coal. Since the objectives of unions are (1) increased wages, (2) progressive decrease of working hours, (3) safe working conditions, and (4) insistence of union shop and regulations regarding apprenticeship and helpers,[(1)] they might force us to conclude

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(1) Millis, Harry A., and Montgomery, Royal E., Organized Labor. New York: McGraw Hill Book Co., 1945. pp. 389-442.

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or at least observe with a prejudice that the existence of unions and industry wide collective bargaining stand in the way of a cheap supply of coal[2] and thus delay the comforts that are attainable through

(2) Coal, as mentioned in this investigation, means all Bituminous Coal produced in the United States except Pennsylvania Anthracite. Unless specified tonnages are expressed in short tons of 2000 pounds.

industrial progress whose foundation rests on an abundant and cheap supply of coal.

Although labor plays an important part in the production costs it is well to realize that other factors have a potent influence on the determination of total costs. They are (1) the abundance and accessability of coal deposits and the relative ease with which mines may be opened and reopened are ever present inducements to the coal lands to begin production at the first propitious opportunity, (2) the cost of holding undeveloped coal lands (taxes, and interest charges, as well as cost of supervision are continuously recurring items of expense and since there is no income until coal is marketed, these resources tend to be developed as soon as favorable opportunities present themselves), (3) decentralization and the wide geographic distribution of the mines, (4) highly centralized character of the industry's capital demand, (5) the great time required to develop new mine properties (takes two or three or even longer years), (6) increase in mechanization, (7) character and seasonability of demand, (8) decline in the rate of growth of important consuming industries, (9) competition from other sources of energy, and (10) economies in the use of coal.[3]

(3) Report of the Committee on Prices in the Bituminous Coal Industry prepared for the Conference on Price Research. National Bureau of Economic Research, 1938. pp. 12-21.

Some men like Fred W. Whiteside are of the opinion (4) "that the present high price of coal is due to no other agency than the high wages paid the miners and the dominating practices of those individuals who govern the coal miner's unions."

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(4) Secretary Treasurer, The Rocky Mountain Coal Mining Institute, Denver, Colorado; Personal communication.

A more moderate trend of thought is represented by Degen Boyd (5)

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(5) Arkansas Oklahoma Coal Operators Association, Fort Smith, Arkansas. Personal Communication.

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who writes that "unionism itself has not caused cost increases, but rather that the evils that seem to go with unionism has caused the increase."

How much of the foregoing conclusions are valid? It is the purpose of this work to measure the validity and truth of the foregoing statements. In conformity with Lord Kelvin's dictum that "when you measure what you are speaking about and express it in numbers you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind"', an exhaustive plan will be followed before reaching a balanced conclusion.

The scope of this work is first, to develop an historical perspective through a critical survey of the growth of unionism and subsequently to analyse the effects the attendants of unionism (higher wages, shorter working hours, and better working conditions that result in greater safety) has had on the production costs of bituminous coal. "It is difficult to determine what portion of these benefits accruing to the bituminous coal worker is due to unionism per se and what portion would have taken place even though no unions had existed. The improved conditions cannot all be attributed to the existence or the influence of unions."(6)

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(6) Dr. Walter L. Slifer, Chief, Research and Statistical Section, National Coal Association. Personal Communication.

Thus a dead end is reached, as in any social engineering study, when many intangibles have to be evaluated. The contradictory and sometimes immeasurable nature of the various points of view shows that any study of this kind cannot be summarized with a rigorous conclusion and by its nature ought to be largely functional rather than essentially evaluative. However a conscientious evaluation of the trends which are based on facts obtained by empirical research will be made and an interpretation of their positive and negative roles will be attempted.

Concerning the importance of undertaking this project the writer wishes to cite the remark made by W. Massey Foley,(7) General Counsel

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(7) Personal Communication.

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of Appalachian Coals, Inc., that "there could hardly be a more important or more timely one."

Most of the published works on 'Unionism and Coal Industry' measure the benefits gained by the worker because of unionism, and within the knowledge of the writer, no correlated study has been made until now to interpret the effect of unionism on the cost of coal. Hence this study.

Review of Literature

Many studies are available for the student who wants to investigate the working of collective bargaining and unionism.

John Mitchell (1) is probably the first to attempt a systematic

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(1) Mitchell, John. Organized Labor. Philadelphia: American Book and Bible House, 1903. pp. 435.

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and modern treatise on organized labor. His book sets forth many important conditions and assumptions upon the basis of which the union organizes, seeks recognition at the hands of employers, and proceeds in support of its interest in wages, hours, and working conditions.

During the twenties, when part of the bituminous coal industry was unionized, great confusion prevailed and consequently the United States Government set up a Coal Commission to investigate this 'troubled industry'. The members of the Coal Commission submitted their findings and set out their conclusions on how coal is mined, costs, prices, and profits, miner's wages, hours and earnings, and causes of strikes. (2)

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(2) Hunt, E. E., Tryon, F. G., and Willits, J. H., What the Coal Commission Found. Baltimore: The Williams and Wilkins Co., 1925. pp. 416.

When the National Recovery Administration was functioning they brought forth a book critically examining the conditions that existed before and under the Coal Code. (3) The chapter on labor prepared by

(3) Berquist, F. E., and associates, Economic Survey of the Bituminous Coal Industry under Free Competition and Code Regulation. Office of NRA, Division of Review. 1936. pp. 713.

Louis Levine and Charles E. Persons is especially very informative and sheds much light on the condition of the industry during the early years of this century.

Much information on the economic status of the coal miner and price of coal is found in the publication 'The Price of Coal'.[(4)]

(4) The Price of Coal. The Annals of the American Academy of Political and Social Sciences, Volume CXI. Philadelphia. 1924. pp. 387.

Dr. Waldo E. Fisher has contributed some of the outstanding studies in the field of collective bargaining in the bituminous coal industry.[(5)]

(5) Fisher, W. E., Economic Consequences in the Seven Hour Day and Wage Changes in the Bituminous Coal Industry. Philadelphia: University of Pennsylvania Press, 1939. pp. 130.
Fisher, W. E., Collective Bargaining in the Bituminous Coal Industry. Philadelphia: University of Pennsylvania Press, 1948. pp. 43.
How Collective Bargaining Works. (Chapter 5, Bituminous Coal). New York: Twentieth Century Fund Inc., 1942. pp. 986.

Russell Sage Foundation, with Mary Van Kleeck as the Director of its Department of Industrial Studies, have brought forth many valuable books.[(6)]

(6) Van Kleeck, Mary, Miners and Management. New York: Russell Sage Foundation, 1934. pp. 391.
Bloch, Louis, Labor Agreements in Coal Mines. New York: Russell Sage Foundation, 1931. pp. 513

Wieck, E. A., The American Miners' Association. New York: Russell Sage Foundation, 1940. pp. 330.

Wieck, E. A., The Miner's Case and the Public Interest. New York: Russell Sage Foundation, 1947. pp. 92.

Modern trends in organized labor is adequately explained by Millis and Montgomery.(7)

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(7) Millis, H. A., and Montgomery, R. E., op. cit.

A good account of the United Mine Workers with thumb nail sketches of many personalities in that organization is included in a publication by Mcdonald and Lynch.(8)

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(8) Mcdonald, D. J., and Lynch, E. A., Coal and Unionism. Indianapolis: Cornelius Printing Co., 1939. pp. 225.

Many cost figures regarding the industry has recently been published by the Southern Coal Producers Association.(9)

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(9) Facts Concerning Employee's Earnings, Cost, etc., Charleston: SCPA, 1944 - 48, (Vols. 1 to V).

Many other bulletins and pamphlets published by the Bureau of Mines and the Bureau of Labor Statistics help a worker in this field.

It was not possible to obtain accurate figures on union membership and related figures as "they are not complete and, therefore, would be of little significance in your study."(10)

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(10) Boyle, W. A., Assistant to the President, UMW of A., Personal Communication.

Growth of Unionism

"Collective bargaining is a device by which workers seek to minimize insecurity and inequality of treatment and to maximize earnings and opportunity. Its role varies in importance from plant to plant and from industry to industry. Its value varies directly with the degree of disorganization in the industry. It is needed most where competition is ruinous, profits are low, price wars are prevalent, wages have no floor, hours no ceiling, and working conditions no minimum standards. It was because these conditions prevailed in the Bituminous Coal Industry throughout so much of its history that labor organizations appeared so early and became a long established institution in a large portion of the industry."(1)

(1) Fisher, W. E., Collective Bargaining in the Bituminous Coal Industry. op. cit., p. 2.

1. Before 1898:

Unionism in the industry first appeared midway in the nineteenth century. Irish, Welsh, English, and Scotch men who had been active in the miners' unions in the British Isles were not slow to preach the gospel of unionism to the coal miners. In 1849 local coal unions came into existence in some isolated places, great efforts for their organization having been taken by John Bates. He demanded higher wages and better working conditions for the miners. A strike ensued but it proved unsuccessful.(2) However, following this lead many

(2) Mcdonald, D. J., and Lynch, E. A., *op. cit.*, p. 16.

unions were formed in Illinois, Indiana, Ohio, and Pennsylvania regions. Men like Thomas Lloyd and Daniel Weaver were constantly preaching the benefits of unionism, and urged the miners to rally around the standards of labor unions. This bore fruit on January 28, 1861, when the Illinois and Missouri miners established the American Miners Association, the first attempt to form a national union in this industry.(3) The association resolved to send organizers to adjacent coal

(3) How Collective Bargaining Works. op. cit., pp. 230 - 231.

fields and publish a newspaper, 'Weekly Miner'. As this was during the Civil War, the demand for coal was great and prices went up. The association demanded and obtained higher and higher wages for the miners. Soon after the Civil War ended, the demand for jobs rose in direct proportion to the slackening of the need for coal, and the seeds of a depression were sown. Wage cuts followed the post war deflation and bitter and unsuccessful strikes in 1867 and 1868 marked the disappearance of the association.

Soft coal miners organized local unions in Illinois, Indiana, Pennsylvania, Maryland, Michigan, Kentucky, and West Virginia in the next fifteen years. At the same time they sought state legislation for shorter hours and safer working conditions and were partially successful in Ohio and Pennsylvania. John Siney, President of the Workingmen's Benevolent Society, studied the economics of the coal industry and did much to promote healthy unionism in this period. He headed a delegation of five miners which negotiated the first wage agreement on record with an association of coal operators in Pottsville, Penn., on July 29, 1870. He called a convention of all local unions and associations of coal miners. Out of this emerged, on October 1873, the Miners' National Association of the United States of America. This also did not last very long and Siney 'sorrowfully locked the door of their national office in Cleveland, Ohio, and went home never to return, in 1876.'(4) The 1873 depression and the conse-

(4) McDonald, D. J., and Lynch, E. A., op. cit. p. 20.

quent wage cuts which led to strikes and discharge of union members and the employment of strike breakers caused the dissolution of the association. However, in 1875, when it was on the peak of power, it counted 35,354 members in twelve states and the Indian territory.

Delegates and local union members from Ohio, Pennsylvania, and Maryland, under the guidance of John McBride assembled in Pittsburgh on May 15, 1883, and formed a national union known as the Amalgamated Association of the Miners of the United States.(5) Immed-

(5) McDonald, D. J., and Lynch, E. A., op. cit. p. 20

iately after, it found itself enmeshed in a bitter strike in the Hocking Valley, Ohio. Throughout the year 1884 the struggle against wage cuts continued until "on a gloomy March day in 1885 the strike was declared at an end and the spectre of defeat again settled on the shoulders of the miners."(6)

(6) McDonald, D. J., and Lynch, E. A., op. cit. p. 20.

"Determination rose from the gray ashes of a lost cause." Despite the many difficulties the miners of Illinois, Indiana, Ohio, Pennsylvania, West Virginia, Iowa, and Kansas formed the National

Federation of Miners and Mine Workers in 1885, and named Chris Evans, their executive secretary. The convention passed a resolution instructing their office bearers to invite the coal operators of America to meet them in joint conference for the purpose of negotiating a wage agreement. An agreement with the coal operators of America, the first interstate wage contract in history, was signed after some delay in Columbus, Ohio, on February 24, 1886. Basic wages were established for Pennsylvania, Ohio, Indiana, Illinois, Iowa, and West Virginia. The reasons that goaded the operators to accept the wage contract were many. Especially after 1878 there was a general decline in wholesale prices accompanying many shutdowns. There were temporary interruptions to the general downward trend in 1879, 1881, and 1887. During these years occurred the depression of 1883-85, the r ecession of 1888 and 1890, and the four years of business stagnation that followed the panic of 1893. During this time soft coal production increased by leaps and bounds and under the most adverse conditions. The industry was in a state of abnormal over-production far in excess of demand. An endless succession of price wars, wage reductions with irregular operation, much unemployment, and low hourly earnings characterized this period. Such conditions were very fertile for union activity but already immigrants from south and central Europe entered the industry in large numbers and undermined the solidarity of the English speaking workers. The Knights of Labor stepped in and began to organize the coal industry and negotiated wage contracts. But the wage contract was not destined to live long because many operators did not cooperate. Much that happened during these years were not beneficial either to the miners or operators.

In 1888, seemingly for no particular reason the national federation decided to call itself the National Progressive Union of Miners and Mine Laborers and affiliated itself with the infant American Federation of Labor under the presidency of Samuel Gompers.

Gompers had worked hard to advance his principles of trade unionism as opposed to the industrial union philosophy of the Knights of Labor. The Knights of Labor, which as late as 1888 had enrolled the majority of coal miners, were very uncooperative, and in fact sometimes undercut existing union scales to secure recognition of its own organization. Having lost heavily in the collapse of the interstate agreement, it sought a conciliation with the national federation. Realizing the need for a solid labor front, in September 1889, the National District Assembly 135 of the Knights of Labor (the miners division) and the National Progressive Union decided that time had come to end their warfare. They assembled in Columbus, Ohio, and, on January 1890, formed the United Mine Workers of America with John B. Rae as president. This new union preserved the essential features of both the organizations. This condition continued until 1898 when the organization representing the Knights of Labor in the Bituminous Coal Industry was dissolved. The United Mine Workers reorganized and soon dominated the industry.(7)

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(7) How Collective Bargaining Works, op. cit., p. 236.

The initial years for this union were very disheartening. It failed to reestablish the interstate agreement. Many of its strikes for higher wages and shorter hours proved unsuccessful and consequently discredited the organization with both operators and miners. Conditions were bad during the depression of 1893-98. In some places coal was sold for 25 cents per ton. Drastic price reduction compelled operators to sell their coal far less than their cost of production. The national union sought to protect the miners' falling standard of living by a series of strikes. Later it called out miners to reduce the coal surplus so that with higher prices the operators could pay more wages. In the spring of 1894, 125,000 miners called a strike. This spread to adjacent areas. The operators conferred and agreed to postpone a pending wage reduction and brought temporary adoption of the agreed wage scales at some mines.

Further attempts to reestablish the interstate agreement failed and the union which now commanded the faith of miners ordered a strike in July 1897 to bring back interstate agreements. 150,000 miners responded. This strike lasted 12 weeks. The operators realized that frequent wage cuts usually led to corresponding reductions in price with competition just as ruthless as before. The union promised to organize and bring under contract the non-union mines south of the Ohio River. The central competitive field was negotiated. The operators of Illinois, Indiana, Ohio, and Western Pennsylvania, after considerable negotiations, established in 1898 the basic eight hour day, uniform wage scale for daymen and tonnage rates as basic points in each area and for the men who actually mined the coal. As one official expressed it, "the prime goal sought, at least in theory, was uniform costs in fields with common markets, and to hold selling prices up to reasonable rates or levels" (8) The central competitive field agree-

(8) How Collective Bargaining Works, op. cit., p. 238.

ment remained in effect for 29 years.

Thus this period until 1898 can be characterized as the struggle for the establishment of unionism. No significant success can be ascribed and the two events of importance were the founding of the UMW of A and the Central Competitive Field agreement which was negotiated in 1898.

2. 1898 - 1927.

(a) Central Competitive Field.

Before 1904, wage agreements were made annually; from 1904 to 1916 biennially; and thereafter, until the collapse of the central competitive field compact in 1926, for periods ranging from seven months to three years. The attitude of the miners and operators towards each other was very friendly. The general system adopted was one of conciliation and collective bargaining and not a system of arbitration. The driving force behind the negotiations was the desire to keep the mines running.

The restriction of its jurisdiction to basic points and to factors that affected the composite position of the member fields greatly simplified the job of interstate conferences.

After the interstate agreement of 1898, except when the miners took a five percent reduction in 1904 under the advice of John Mitchell, wage rates gradually moved upward. In almost all places the eight-hour day was recognized. The 'run of mine' basis of payment was adopted in 1916 in the central field and removed a major source of irritation.

Most stoppages, during this period, grew out of biennial wage contract negotiations and were suspensions awaiting a new contract rather than an actual strike. The suspensions which occurred in the even years when wage contracts expired from 1900 to 1912 were all similar in character. Even under the conditions like the dispute of 1910, which arose when the miners asked for a ten cent increase per ton for tonnage rates, spot delivery prices rarely rose above 25 to 50 cents per ton. The decline in business activity of 1913 effected the coal industry unfavorably.

The World War saved the industry from going 'on the rocks' and from then on miners negotiated and got successive wage increases. The passage of the Liver Act on August 10, 1917, gave the President powers to fix prices, take over and operate plants and maintain control over production, distribution, and consumption of necessities. Even more significant was the creation of the Fuel Administration on August 13, 1917. Stabilization in labor conditions in 1918 was greatly influenced by the Government Fuel Administrator by anticipating and adjusting grievances. In August, 1918, the miners appealed directly to the Fuel Administrator for an increase in wages because of the continued rise in the cost of living. This was denied on the grounds 'that dealing with wages in each industry separately is inevitably and constantly to increase the cost of living.' (9) Dissatisfaction was evident among the miners when war ended in 1919 and the Fuel Administration was abolished. They demanded, in the UMW convention of September 1919, (1) a 60% increase in tonnage and yardage rates; (2) a six

(9) Berquist, F.E., and associates, op. cit., p. 162.

hour day and a five day week for day men; (3) time and a half for overtime and doubletime for sundays and holidays; (4) abolition of the penalty clause; (5) no sectional settlements; (6) all new contracts should expire on the same date. The operators opposed, stating that: (1) production costs were already excessive; (2) decrease in working time would cut production and further increase costs; and (3) strike threats were being used as a weapon to force a new agreement. No agreement was reached at the joint conference on October 9, 1919, and the UMW issued a strike call to take effect November 1. The Government intervened on the strength of the Liver Act. Acting under the decision of Justice A. B. Anderson of the Federal Court, the UMW issued cancellation orders but the strike preparation went ahead. The industrial dispute involved 418,279 men or 67.2% of the total number employed in the industry and at its peak tied up 71% of the coal producing capacity. The strike was very effective and President Wilson issued a public statement on December 6, 1919 urging strike settlement. After a conference with Government officials, the labor representatives announced that miners would return to work with a 14% wage increase. The Government appointed a Bituminous Coal Commission on December 19, 1919 to report on the conditions of the industry. This report was to be accepted as a basis of a new wage agreement.

The Commission reported its findings on March 10, 1920, and a joint conference held in New York formulated an interstate agreement incorporating the Commission's recommendations. Despite the joint agreement, considerable dissatisfaction prevailed, many operators, especially those of Illinois, Indiana, and Ohio, declined to abide by the agreement and many strikes resulted. Another joint meeting was held in Cleveland and it adjourned without agreement. The UMW authorized separate agreements.

Depressed economic conditions following the boom of war prosperity resulted in two trends. (1) Operators' demands for wage agreements revision with Union refusal, and (2) in many areas agreements with UMW were broken. John L. Lewis, who was then President of the UMW, announced a policy of 'no wage reduction and no step backward.' Apart from this, competition from the non-union South was increasing. In many places without union sanction, wage levels reverted to the 1919 scale. This led to many strikes and much violence. The operators refused to attend a joint conference convened at Pittsburgh in January 1922. This was followed by a strike call on March 20, to be effective March 31. The strike was one of the greatest in history and although many southern areas did not participate fully, many non-union northern areas joined in. The transportation situation in 1922 added greatly to the effectiveness of the strike. Fear of coal shortage and the violence which attended the strike led the Government to intervene. The workers returned to work and the Union made it possible for any group or individual operator to enter into agreements. The Central Field could no longer be regarded as a basic unit. A wage contract was signed which provided for the continuation of the wage rates in the previous agreement until 1924.

A conference with the northern operators was held at Jacksonville, Florida, and this renewed the previously existing wage rates until March 31, 1927. This was the 'Jacksonville Agreement'. Soon afterwards non-union operators reduced the rates first to those of 1919 and then to 1917 or lower. This made the position of union operators very unsatisfactory and many union fields were shut down. In 1927 the miners and operators met in joint conference. For the miners the time was inopportune because coal prices and wages in important non-union districts were moving downward. The operators demanded a 'wage scale that would be continuously competitive with the southern area and urged a sliding scale.'(10) The union representatives re-

(10) How Collective Bargaining Works, Op. cit., p. 261.

jected this and proposed renewal of the present scale for two years and interim meetings at which the joint conference could discuss the industry's problems and attempt to obtain stabilizing legislation. When operators refused the confreres deadlocked. A general strike involving about 175,000 men in mine states was called on April 1, 1928. Despite the efforts of Secretary of Labor, Davis, and the Governors of the states involved, no basis for a general strike settlement was reached. On July 18, 1928, the UMW cancelled the strike order and instructed the district leaders to call the men to return to work on the best terms they could get.

(b) Outside the Central Competitive Field.

The central field was the union's stronghold. It also represented a significant percentage of the country's coal production. But gradually its importance waned and the southern coal mines increased in prominence, most of which were outside the dominating influence of the Union. However, a second center of unionism was the Southwestern Interstate Field lying between Iowa and North Texas and consisting of Arkansas, Missouri, Kansas, and Oklahoma. Their bargaining system resembled those of the central field. Other areas in which collective bargaining has had a long history are Central Pennsylvania, Montana, Michigan, Washington, Western Kentucky, and Wyoming. Certain portions of Alabama, and West Virginia were also under contract for varying periods. Although they were district entities, the outlying union fields were largely governed by events in the central field. Their joint conferences were usually after the central field agreement had been signed.

In the late twenties union organizers penetrated Alabama, West Virginia, and subsequently Kentucky and Tennessee. After more than 25 years of almost continuous strife the southern coal fields were still unorganized. 'This bitter struggle supplies some of the blackest pages in the history of American industrial relations.' (11) Both the oper-

(11) How Collective Bargaining Works, op. cit., p. 264.

ators and the unions spent vast sums of money in the fight for supremacy and resorted to extreme measures to gain their ends. The Union made many gains during the World War, only to lose them during the post war depression.

The importance of the southern coal fields was rapidly increasing so that by 1925 only 40% of the coal was produced under union contracts.

This period in the growth of unionism is well described by Tryon, F. G., as a growth with a 'central mass of union territory surrounded by a broken crescent of non-unionism.' (12)

(12) The Price of Coal, op. cit., p. 86.

3. 1927 - 1933.

The collapse of interstate agreement was the signal for a bitter struggle for markets. The price war began in earnest and wages were slashed both in the North and South. Throughout the industry, except for agreements with the individual or small group of operators, wages and other terms of employment were negotiated through individual bargaining or employee representation plans or company unions.

An important segment of the bituminous field had come under the financial control of steel, railroad, and automobile companies which mined directly for their own use. These companies took advantage of the situation presented by the weakness of unions, proclaimed an open shop policy in the captive mines and thus tore from the union's grasp another area of coal production.

The low wages, irregular working time, and loss of status led to dissension within the union and caused much discontent among the workers. Many rival unions, like the National Miners Union, were formed. In 1930, the district union officials of Illinois mines held a convention at Springfield, Illinois, to reorganize the national union. Out of this confusion The Progressive Mine Workers of America was organized in September 1932. 'Its achievements have been inconsequential' and its agreements cover only a very small fraction of the total bituminous coal miners'.(13)

(13) How Collective Bargaining Works, op. cit., p. 267.

By 1932 the once powerful UMW had become a skeleton. The Union reported a membership of 300,000 but dues paying membership was probably half of that figure. In the meanwhile under left wing leadership revolutionary tactics were employed by the miners who belonged to the splitter unions and who were dissatisfied with the passive attitude of the UMW. They sponsored a number of strikes, and to counteract this violent labor upheaval the mine operators turned to the UMW. Labor in the industry as a whole was completely demoralized by the (1) breakdown of the Jacksonville Agreement, (2) reopening on an open shop basis, (3) increase of non-union operations, and (4) decline of membership and funds.

Fisher, W. E., terms this period as the period of 'return of ruthless competition.' (14) Union membership, activity, and strength was indeed at a very low ebb. The percentage of the total tonnage of coal

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(14) Fisher, W. E., Collective Bargaining in the Bituminous Coal Industry, op. cit., p. 26.

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produced under union contracts in 1933 was less than 20% instead of 72%, the proportion under the union negotiated contracts at the height of its power. The situation looked very black indeed for the miners. In 1933, a new administration took over in Washington, and organized labor came out of its 'slough of despondency.' For the first time unionism and the right to bargain collectively came under strong government protection and encouragement. This new policy was not so much an innovation as a revival and extension of previously ennunciated principles.

4. 1933 to the Present.

Many operators realized that the competitive struggle in which wage cuts followed price reductions in a downward spiral was demoralizing. Both the miners and operators sought some other remedy to the situation. The operators formed the Appalachian Coals, Inc., — an organ of voluntary regional selling agencies. The union leaders became convinced that economic organization was inadequate to protect workers in a decentralized, over-developed industry in which many employers fought unionism and refused to bargain when unions were established. The union decided to work for the reintroduction of the Davis - Kelly Coal Bill (15) and for a federal law limiting hours

(15) This bill, drafted with the collaboration of the miners' union, was introduced in Congress in 1930 but failed to reach a vote. The essential features of this bill was to encourage the organization of operators to regulate the market without interference by the anti-trust laws, while guaranteeing to labor the right of collective bargaining and enforcing both these measures by a licensing system.

to six-a-day and thirty-a-week. The Congress on January 16, 1933, passed the National Industrial Recovery Act which stated in explicit terms in the famous section 7(a) Labor's right in code industries to organize without employer interference and to bargain collectively. This served as a 'catapult for rapid organization of labor.' Organizers and volunteers scurried through the coal fields to carry the news that the Government guaranteed all workers the right to join unions of their own choosing. Union membership grew by leaps and bounds even in strong non-union areas. Six weeks after the passage of theact the UMW claimed that their membership included more than 90% of the coal miners. Union officers and operators met and were able to draft a code which provided for minimum prices, prohibited certain unfair trade practices, and guaranteed the miners the right to bargain collectively through their own unions, to select checkweighmen, to trade where they wished, and to live in other than company houses. Many industrial disputes occurred after the code became effective and thus characterized the stress and strains which had to be adjusted after years of chaos and disorganization. Once these were settled production forged ahead.

The NIRA had helped Lewis to rebuild UMW and to achieve what no other union in this industry had been able to accomplish — acceptance of collective bargaining by the great majority of southern operators.

All went well until 1935 when falling prices made operators unwilling to negotiate contracts with wage increases. A general suspension of work by the miners was postponed at the request of the President. The Supreme Court invalidated the NIRA in May 1935, and the new Bituminous Coal Conservation Act was declared unconstitutional on May 18, 1936. Convinced that some form of governmental participation was necessary to insure collective bargaining in the industry, the Union helped very much in getting the Bituminous Coal Act of 1937 passed.(16)

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(16) This assured the right of employees to bargain collectively, non intervention of the employers, freedom of the worker to join any association for collective bargaining. The act also authorized cooperative marketing agencies, etc.

In March 1939, the miners asked for a six-hour day and thirty-hour week, a wage increase, vacation with pay, a guaranteed 200 working days per year, improved recognition clauses, and certain improvements in working conditions. The Appalachian operators insisted that the prevailing wage level was already too high for profitable operation and stood firm against further concessions. Realizing that no wage increase could be obtained they insisted on a union shop clause. After a peaceful one-day stoppage a two-year contract was secured. This was called the 'Appalachian Agreement'.

In 1940 the UMW celebrated its golden jubilee. This convention proposed to replace regional contracts with a national agreement. It also urged President Roosevelt ' to call a conference to formulate a conservative national program designed to cure the evil of unemployment' and it asked for liberalization of the existing social legislation.

Partial realization of one of these aims came in 1941 with the abolition of wage differential. After much negotiation, strike, and intervention of the National Defense Mediation Board, the southern operators signed an agreement almost idential with the one northern operators had accepted. In the fall of 1941, the UMW demanded that the steel companies sign a union shop agreement. The companies refused to sign and the dispute went to the National Defense Mediation Board. The Board's eventual rejection of the Union's demand was followed by a strike. Union victory finally came on December 7, 1941, when an arbitration board, created through the persuasion of Roosevelt, ruled that the union shop should prevail in the captive mines.

By this time the United States was involved directly in the global war. The miners and operators started negotiations on March 10, 1943, for the next agreement. No agreement was reached and Secretary of Labor Perkins announced on April 22, that she had certified the dispute to the National War Labor Board since coal is essential for the prosecution of the war. 'Wildcat' strikes started throughout the entire industry. On May 1, the President signed an executive order empowering Secretary of Interior Ickes to seize the mines which he did that day. The WLB issued a directive order on May 29, that the demand for a general wage increase be denied. The union ignored this order and production ceased on June 1. After intermittent operation, negotiation and strikes, the Government again seized the mines on November 17, 1943, and work was resumed.

The Ickes-Lewis Agreement signed December 17, 1943, effective up to March 31, 1945, was the first portal-to-portal contract. It established a workday of 8-¼ hours for outside, seven hours of which were paid for at the straight rate and 1-¼ hours at time and half. Northern operators signed this contract on December 17, 1943, and southern operators on June 16, 1944. There was no general strike in 1944.

Negotiations for a new agreement in 1945 'bogged down' and government seized the mines April 10, 1945; terminated June 23, 1945. The agreement was signed April 11, 1945, with termination indefinite. This was called the National Bituminous Agreement of 1945. It carried forward the terms and conditions contained in all joint wage agreements effective April 1, 1941, to March 31, 1943. It provided a workday of nine hours from portal to portal including a staggered 15 minutes lunch period for all inside employees.

As the result of the efforts of the UMW to organize them, strikes of supervisory and technical forces started in Pennsylvania and northern West Virginia during the week ending September 29, 1945. This spread all over the industry and closed most of the mines. The government intervened and finally on October 17, Lewis ordered the miners to resume work on October 22, 1945. No oncessions were made.

The Krug-Lewis Agreement signed on May 29, 1946, established a welfare fund of five cents per ton, a mine safety program, and some wage increases. The mines were in government possession for a long time. On October 21, 1946, the union requested a joint conference and it was convened on November 1. On November 15, the UMW notified that the contract would terminate November 20, 1946. On November 1946, Federal District Court Judge Goldsborough issued a temporary restraining order against contract termination. Strike began on November 20. Lewis and the Union were found guilty of contempt on December 2, and the UMW was fined $3,500,000 and Lewis $10,000 on December 5. Lewis ordered the miners to resume work on December 6, 1946.

The National Bituminous Coal Wage Agreement made on July 7, 1947, is famous for the clause 'during such time as such men are able and willing for work.' The agreement of 1948 made on June 25, 1948, carried forward all agreements from April 1, 1941 to June 30, 1948, and amended the 1947 agreement to increase the welfare fund to 20 cents a ton and some wage increases. The agreement expired on June 30, 1949, and from then on miners were working three days a week. As no contract existed the southern operators declined to pay for the welfare fund with the slogan 'no contract, no welfare fund'. Lewis retaliated by advising a stoppage of work with the slogan 'no welfare fund, no work'. This is the condition at the time of this writing.

It is evident how fast and strong the UMW has grown under government protection. It made rapid strides and by 1940, the entire bituminous coal industry was completely unionized 100 per cent — the only other comparable industry is the railroads.

The Government itself felt this and a vigorous attempt to curb union power was undertaken by industrial leaders. This attempt was aimed in three directions: (1) An attempt was made to curb union policies designed to limit output or to require the employment of unnecessary union workers (Lea Act of 1946), (2) Aggressive action was taken against so-called labor racketeering (Hobbs Anti-racketeering Law of 1946), and (3) A drive for the amendment of the National Labor Relations Act was begun to give employers rights as well as duties, and to give union leaders and workers duties as well as rights (Taft Hartley Law of 1947).[17]

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(17) Bye, R. T., and Hewett, W. H., Applied Economics. New York: Appleton-Century-Crofts Inc., 1947. p. 219.

The comments of Hoxie, R. F., on unionism[18] seem to fit well with

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(18) McConnell, D. W., Ayres, A., Friedrich, A. A., Atkins, W. E., and others, Economic Behaviour -- An Institutional Approach. New York: Houghton Mifflin Co., 1939. p. 606.

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the growth of the UMW of America. He states that unionism 'aims chiefly at more here and now for the organized workers of the craft, or industry, in terms mainly of high wages, shorter hours, and better working conditions regardless for the most part of the welfare of the workers outside the particular organic group, and regardless in general of political and social considerations, except in so far as these bear directly upon its own economic ends.... It regards unionism mainly as a bargaining institution and seeks its end chiefly through collective bargaining, supported by such methods as experience from time to time indicates to be effective in sustaining and increasing its bargaining power'.

An examination of these qualitative traits of unionism and their quantitative effect on the cost of coal leads us to the next section.

Wages and Other Factors, and Cost

Wages. Wages paid to the miner for his labor is an important factor in the cost of coal. Even as early as 1876 'wages were as much as 80% of total costs'.[1] Throughout it stood around 60 to

(1) How Collective Bargaining Works. op. cit., p. 231.

70 percent and at present the cost is divided as follows:[2]

(2) Bituminous Coal, Washington, D. C.: Bituminous Coal Institute, 1948. p. 135.

Labor	60 percent*
Supplies and power	15 " "
Royalties, depletion, and depreciation	8 " "
Sales and administration	6 " "
Taxes and all labor insurance	4 " "
Margin	4 " "
Insurance, rentals, amortization, etc	3 " "

* Wages for all employees at mines (including supervisory) Payroll amounts to 1,094 million dollars.

Unlike most of the other costs, being fixed and small and beyond the power of the producer to change, wages played and still play a prominent part. According to Marx, the law of wages is a corollary of the law of value. Labor, like other goods, sells at a price equal to its cost of production. The wage rate is determined by the cost of necessities required to bring up the quota of children who are to perpetuate the race of laborers. He said 'goods are exchanged for each other in ratios which measure the relative amounts of labor incorporated in them. Various exceptions are acknowledged, and it is admitted that market prices may depart from norm of labor theory of value. But on the whole it is labor cost, including in this concept a proportional part of the labor cost of providing capital instruments and raw materials used in production which controls value.'(3)

(3) Fairchild, F. R., Furniss, E. S., and Buck, N.S., Elementary Economics. New York: The McMillan Co., 1939. p. 620-721.

A study of the bituminous coal industry shows the struggle of the workers, who, consciously or unconsciously try to achieve this and of the producers to accumulate profits, which is opposed to the marxian principle. Generally in the unionized parts of the industry, in the twenties and thirties, wages were high, and when the collective bargaining machinery broke down, although prices were cut drastically, wages astonishingly enough maintained an almost equal percentage of the total costs. After the passing of the NIRA the entire industry was organized. Wage differentials existed for a while between the North and the South but they were eliminated.

The yearly increase in wages, (both in union and non-union areas), is presented in tables 1(a), and 1(b). Most of the data for the years before the Coal Code of 1933 and especially for the non-union areas are 'fragmentary'.

However, Fisher, after detailed study(4) concluded that during

(4) Fisher, W. E., Collective Bargaining in the Bituminous Coal Industry. op. cit. p. 5.

the period 1912 - 22 "it is apparent that the union workers received substantially higher rates of pay. At the beginning of this period the differential between union and non-union rates was 11 cents per hour. In 1920 the differential was reduced to about 9 cents, and the average for the 11 year period was 13 cents per hour." These are in the case of trackmen. In the case of inside day laborers the average wage differential was 17.8 cents. When business fell drastically in the depression of 1922, union rates continued at the 1921 level and the non-union operators, because of their flexible wage policy, were able to lower wages in many cases to about 30 to 40 cents. The process continued until 1933 when the NIRA was passed.

After this period wage information is clear (refer table 1(b)).

TABLE 1(a)

Rates of Pay Provided in Bituminous Joint Wage Agreements, 1892-1932

S = Screen Coal (miner paid only for coal which would pass over a screen with hole sizes indicated).

M.R. = Mine Run (miners paid for all coal mined).

Year	Inside Day Wage	Hours Per Day	Pick Mine Per Ton S	Pick Mine Per Ton M.R	Loading Per Ton S	Loading Per Ton M.R.	Basing Area and District
			1.75"		1.75"		
1892	$2.00	10	$0.50		$0.38		Central Field
1893	2.00	10	.50		.38		Hocking Valley, O
1894	1.75	10	.4271		.33		" "
1895	1.62	10	.3943		.305		" "
1896	1.77	10	.4357		.335		" "
1896	1.80	9	.54		.25		Central Field, Ind.
1897	1.65	10	.40		.31		" " , Pa.
1897	1.80	9	.65	.39	.32	.19	Central Field, Ind.
			1.25"		1.25"		
1898	1.75	8	.66	.4266	.33	.2133	Central Field, Pa.
1899	1.75	8	.66	.4266	.33	.2133	" "
1900	2.10	8	.80		.3968	.2565	" "
1901	2.10	8	.80		.3968	.2565	" "
1902	2.10	8	.80		.3968	.2565	" "
1903	2.56	8	.90		.4560	.2948	" "
1904	2.42	8	.85		.4264	.2756	" "
1905	2.42	8	.85		.4264	.2756	" "
1906	2.56	8	.90		.4560	.2948	" "
1907	2.56	8	.90		.4560	.2948	" "
1908	2.56	8	.6429		.5135		Central Field, O.
1909	2.56	8	.6429		.5135		" "
1910	2.70	8	.6785		.5470		" "
1911	2.70	8	.6785		.5470		" "
1912	2.84	8	.7143		.5850		" "
1913	2.84	8	.7143		.5850		" "
1914	2.84	8		.6760		.40	" "
1915	2.84	8		.6760		.40	" "
1916	2.98	8		.6764		.4260	" "
1917	3.60	8		.7764		.5110	" "
1917	5.00 Nov.	8		.8764		.5960	" "
1918	5.00	8		.8764		.5960	" "
1919	5.70	8		.9864		.69	" "
1920	6.00	8		1.1164		.80	" "
1920	7.50 Aug	8		1.1164		.80	" "

Year	Inside Day Wage	Hours Per Day	Pick Mine Per Ton	Loading Per Ton	Basing Area and District
			S M.R.	S. M.R.	
1921	$7.50	8	1.1164	.80	Central Field, O.
1922	7.50	8	1.1164	.80	" "
1923	7.50	8	1.1164	.80	" "
1924	7.50	8	1.1164	.80	" "
1925	7.50	8	1.1164	.80	" "
1926	7.50	8	1.1164	.80	" "
1927*	7.50	8	1.1164	.80	Ohio
1928	7.50	8	1.1164	.80	Illinois
1928	5.00 Sept	8	.8764	.60	Ohio
1928	6.10 Sept	8	.87 to .91	.87 to 1.20	Illinois
1929	5.00	8	.8764	.60	Ohio
1929	6.10	8	.87 to .91	.87 to 1.20	Illinois
1930	6.10	8	.87 to .90	.87 to 1.20	"
1931	6.10	8	.87 to .90	.87 to 1.20	"
1932	5.00 Aug.	8	.64 to .68	.64 to .97	"

*From April 1, 1927 until Sept. 22, 1933, no basic agreement existed. District agreements were made in Indiana and all states to the west. 72 per cent of Bituminous Coal production was non-union. Wages were $1.25 to $2.84 for a nine or ten-hour day.

TABLE 1(b)

Appalachian and National Wage Agreements, 1933-1949

Effective Dates	Hrs/Day	Basic Day Wage Inside: North	Basic Day Wage Inside: South	Additional Provisions
10-2-33 - 3-31-34	8F*	$4.60	4.20	
4-1-34 - 3-31-35	7F	5.00	4.60	
10-1-35 - 3-31-37	7F	5.50	5.10	
4-1-37 - 3-31-39	7F	6.00	5.60	Time and one-half over 35-hour week
5-12-39- 3-31-41	7F	6.00	5.60	Union Shop
4- 1-41- 3-31-43	7F	7.00	7.00	Wage differential removed. $20.00 pd. vacation.
1-29-43- 3-31-43 (supplemental)	7F	7.00	7.00	Time & $\frac{1}{2}$ for 6th day.
6-18-43- 11- 2-43 (Nat'l. War Labor Board)	8F	8.50	8.50	$1\frac{1}{2}$ hourly rate for 8th hr. $50.00 paid vacation.
11-3-43 - 3-31-45 (Ickes - Lewis)	9P**	8.50	8.50	Portal to portal, time and $\frac{1}{2}$ over 40-hour week
4-1-45 - 3-31-45 (National Bituminous Coal Wage Agreement)	9P	10.00	10.00	$75.00 paid vacation Shift differential, time and $\frac{1}{2}$ over 35-hour week; paid lunch period (15 min)
5-22-46 - 6-30-47 (Krug - Lewis)	9P	11.85	11.85	$100.00 paid vacation 0.05/ton welfare fund Federal Safety Code
7-1-47 - 6-30-48 (National Bituminous Coal Wage Agreement)	8P	13.05	13.05	Paid lunch period (30 min.) 0.10/ton welfare fund, time and $\frac{1}{2}$ over 40-hr wk.
7-1-48 - 6-30-49	8P	14.05	14.05	0.20/ton welfare fund

* Face to Face

** Portal to Portal

Tables 1(a) and 1(b) were derived from "Coal and Unionism", Bituminous Coal, 1949 Edition, Bituminous Coal Data, 1935-1948, Wage Chronology No. 4, Bituminous Coal Mines, published by the Bureau of Labor Statistics, and Labor Relations in Coal Mines by C. O'Neill.

<u>Hours and Days</u>. The desirability of the shorter day as tested by consideration of general moral and social welfare is now granted by most people. If we review the last seven decades we find that a decline of about two hours in the average day has been accompanied by a rise of real wages for all groups of workers; but this cannot be attributed merely to the shortening of the work day, since other forces, particularly the improvement of machinery, were operating to increase labor's productivity. This progressive reduction of hours will have the incidental advantage of retarding the spread of technological unemployment.(5) When the number of hours was reduced from

(5) Fairchild, F. R., <u>et</u>. <u>al</u>.... <u>op</u>. <u>cit</u>., p. 502.

eight to seven during the coal code regulation, it was found that (1) the number of men employed per million tons produced fell to a level considerably below that which prevailed immediately preceding the introduction of the seven hour day; (2) there was a sharp increase in the number of mechanical loading devices (it is not possible to say how much of the very rapid rise in mechanical loading was due to the wage and hour adjustments and how much to other factors such as the improved financial conditions, a more optimistic attitude among operators); (3) there was a gradual drop in man days worked per million tons of coal mined; (4) there was a steady increase in the output per man per day; and (5) there was further material increases in per capital income of full-time wage earners per 200 days worked.(6)

(6) Fisher, W. E., Economic Consequences of the Seven-hour Day and Wage Changes in the Bituminous Coal Industry. <u>op</u>. <u>cit</u>., p. 98.

In most cases as time and half is demanded after the 40-hour week and on the sixth day of the week by the union contracts, working on the sixth day increases the cost of production of coal. Slifer, W. L., after a study of 50 mines, concluded that the effect of idle time in bituminous coal mining operations on the cost of producing a ton of coal is as follows:

Number of days in week mines operated	Index of cost per ton
1	185.0
2	129.6
3	118.1
4	110.0
5	100.0 *
6	102.5

*Cost per ton at five days operation per week equals 100.

Strikes, which frequently take place at the end of agreements, extract a heavy toll both from the miners and operators. Miners lose their pay and operators lose their production and also maintenance costs.

There seems to be a direct relation between shorter working hours and degree of unionization in the industry. "Why the second and fourth decades of the century should have been so much more productive of increased leisure for employed workers than the first and third decades is by no means clear. Certainly the forces operating during the first world war were very different from those present during the great depression. But the result in both periods was increased unionization--during the war because of the shortage of labor and the enhanced bargaining power of the working force; during the depression because of the governmental policies followed after 1933. To be sure it may be doubted, especially with regard to the thirties how far labor union action was responsible, in any exclusive sense, for the reduction in hours that occurred. Partly under the influence of a movement to 'share the work' there were numerous initiatives of a governmental or quasi-governmental character which tended to shorten the workday, notably the NIRA and the 'wage and hour act' of 1928."(7)

(7) Barger, H., and Schurr, S. H., The Mining Industries. New York: National Bureau of Economic Research Inc., 1944. p. 73.

In Table 2 is assembled data regarding weekly hours, earnings, production, strikes, etc.

Better Working and living Conditions. There is a tendency in union circles to justify any and all demands of labor with the remark "there is too much blood in coal", thereby indicating the hazardous conditions. Both the union and management strive to maintain safe conditions. 'The improvement in safety is a result of the cooperation of state and federal agencies, the producing companies, and labor.'(8)

(8) Slifer, W. L., Personal communication.

Data regarding fatal and non-fatal injuries until the early thirties are very sketchy and there is reason to assume the average in the twenties for the rate per million man hours (fatal) to be 1.98. Data for non-fatal injuries is not available. The rate per million man tons is 3.55. As years progress there is a distinct improvement in safety conditions. (Please see Table 3).

TABLE 2

Number of Men, Number of Days Worked, Weekly Hours, Earnings, Production, Number of Strikes and Number of Man Days Idle.

Year	Number of Men	Annual No. of Days Worked	Aver. Weekly Hours	Aver. Weekly Earnings	Aver. Prod. Per Man Day	Tons per Man Hour	No. of Strikes	No. of Man Days Idle
1935	462,403	179	26.4	$19.58	4.50 net tons	.560	42	2,971,449
1936	477,204	199	28.8	22.71	4.62	.567	38	533,314
1937	491,864	193	27.9	23.84	4.69	.576	54	1,924,951
1938	441,333	162	23.5	20.80	4.89	.603	27	132,885
1939	421,788	178	27.1	23.88	5.25	.623	25	7,302,556
1940	439,075	202	28.1	24.71	5.19	.643	34	153,296
1941	456,981	216	31.1	30.86	5.20	.652	75	6,747,986
1942	461,991	246	32.9	35.02	5.12	.658	96	264,468
1943	416,007	264	36.6	41.62	5.38	.672	400	7,510,397
1944	393,347	278	43.4	51.27	5.67	.679	792	1,056,341
1945	383,000	261	42.3	52.25	5.78	.705	598	5,007,000
1946	396,434	214	41.6	58.03	6.30	.733	485	19,500,000
1947	419,182	234	40.6	66.86	6.42	.807	415	2,190,000
1948	438,000	210	38.0	72.57	6.50	.830	561	9,560,000

(Derived from many tables from (1) Bituminous Coal, Washington D. C. and (2) Bituminous Coal Data, 1935 - 1948, National Coal Association.

TABLE 3.

Number of Fatal and Non-fatal Accidents in Mines, 1935-48.

Year	Fatal	Non-fatal	Rate per Million Man-hours		Rate per Million Tons	
			Fatal	Non-Fatal	Fatal	Non-Fatal
1935	968	47,529	1.46	71.47	2.60	127.64
1936	1098	50,514	1.43	65.62	2.52	115.73
1937	1198	52,847	1.54	68.05	2.68	118.21
1938	880	36,794	1.52	63.47	2.52	105.26
1939	867	38,544	1.36	60.53	2.19	97.18
1940	1204	43,994	1.68	61.28	2.61	95.37
1941	1072	46,637	1.35	58.93	2.08	90.42
1942	1245	53,193	1.41	60.21	2.14	91.44
1943	1225	51,067	1.39	57.79	2.06	86.05
1944	1124	51,253	1.23	56.02	1.81	82.49
1945	925	46,194	1.10	54.93	1.60	79.97
1946	800	44,000	1.10	60.27	1.50	82.41
1947	990	45,700	1.27	58.50	1.57	72.47
1948 (1)	870	41,715	1.22	58.28	1.46	70.23

(1) Subject to revision.
Source: U. S. Bureau of Mines.

(Derived from Table 103, Bituminous Coal Data)

It is difficult to ascertain the cost of maintaining safe conditions in coal mines. The Bureau of Mines does not keep any record of the cost to the mine operators nor do they know of any other Federal agency that maintain such records.(9)

(9) Fene, W. J., Assistant Chief, Health and Safety Division, USBM, Personal Communication.

It cannot be refuted that the UMW had a great deal to do with the improved safety conditions. The 1946 agreement embodied unusual features related to safety in the mines and provisions for health and welfare. In both of these areas the UMW took the initiative in strengthening or establishing provisions commonly believed to be the responsibility of the public through labor legislation and social insurance. A mine safety program was evolved and included a Federal Mine Safety code, to be issued by the Director of the USBM. The agreements gave the Coal Mines Administrator power to take action against the operating manager, if correction of violation should be delayed. In a press conference, citing figures based on a letter from the Director of USBM, Lewis told that of the 1723 mines inspected during July 29, 1946 and March 25, 1947 only two mines had been found by inspectors to be complying completely with Safety Code provisions.(10)

(10) Wieck, E. A., The Miner's Case and the Public Interest. op. cit. p. 37 - 44.

In the Health and Welfare program was included a welfare and retirement fund, and a medical and hospital fund, which will be used to enable miners and their dependents and survivors to meet needs resulting from sickness or temporary disability, for permanent disability, death, or retirement, or other related welfare purposes. Defending this program, Lewis enunciated six reasons:(11)

(11) Lewis' Statement on Welfare Fund, New York Times, May 15, 1946.

(1) To furnish adequate and modern medical service to the coal miners and their dependent families with a choice of physicians, which in many areas, especially in the South, they do not now have.

(2) To give adequate hospitalization under proper standards.

(3) To provide insurance, for the miners which they cannot purchase. Life Insurance cost the miner about 277% of what it costs people in sedentary occupations. Obviously he cannot purchase it at that price. So he has no insurance, his family is unprotected in case of death by violence in the mines or from natural causes. The program will provide insurance on a mass basis much more cheaply.

(4) To provide rehabilitation for the injured and disabled miners.

(5) To give economic aid in distress and hardship cases.

(6) To furnish cultural and educational work among the miners.

He concluded by saying that 'the coal industry mangled these people (the miners) and the UMW want the right to alleviate their agony and distress.' He also pointed out that nearly every country in the world has such funds for its mine workers including England, Spain, and India.

One more important provision is the holiday clause. From $20.00 paid vacation in 1941 the figure now stands at $100.00 for a two weeks paid vacation for all mine workers.

Cost. Cost as here considered denote the average value f.o.b. mines. It consists of the following elements:

(1) Producing Costs

(a) mine labor
(b) mine supplies
(c) other mine expenses
(d) other operating charges

(2) Administrative Expenses.

(3) Selling Costs.

How the non-union South dominated the coal market before 1933 is well illustrated in Table 4. In this table Alabama, Kentucky, and Tennessee will be taken to be compared with three northern fields Ohio, Illinois, and Pennsylvania. It is striking to note that when the whole industry was unionized and the wage differentials were removed the value of coal in the southern fields has gone up very high.

Before the Coal Code, the southern areas, in order to remain in business, sold their coal in a competitive market without any profit. The troubled conditions were brought out by Taplin, F., President of the Pittsburgh Terminal Coal Corporation, in a letter dated June 27, 1931.[12] "For the past four years these operators who have dispensed with union agreements have had plenty of time to view the experience of running without any fixed wage scale or without having any labor organizations to deal with the union. It must be admitted that the situation is even worse than when we dealt with the Union. Many operators try to keep their properties operating by cutting prices to ridiculous figures, then go back and cut the wages of the miners, and this continues till the level of miners has been brought down so low in some places as to be a disgrace to the country. Personally I would much prefer to deal with the UMW than with these ruthless price cutting, wage cutting operators who are a detriment to the industry."

An examination of the net income of Corporations engaged in Bituminous Coal Mining justifies this idea. After the NIRA and the complete

(12) Bituminous Coal Code Hearings, August 10, 1933, Vol. 2., p. 278.

TABLE 4

Average Value Per Ton on Bit. Coal F.O.B. Mine

Year	Alabama	Kentucky	Tennessee	Ohio	Illinois	Penn	U.S. Total
*1920	$3.65	4.11	4.02	3.82	3.08	3.77	3.75
*1930	2.03	1.49	1.64	1.40	1.74	1.77	1.70
*1935	2.15	1.62	1.80	1.66	1.56	1.88	1.77
1936	2.13	1.63	1.85	1.61	1.60	1.89	1.76
1937	2.40	1.84	1.99	1.76	1.73	2.06	1.94
1938	2.42	1.82	2.01	1.78	1.71	2.07	1.95
*1939	2.30	1.74	1.95	1.63	1.64	2.03	1.84
1940	2.33	1.85	2.00	1.71	1.69	2.04	1.91
1941	2.71	2.17	2.34	1.99	1.81	2.28	2.19
1942	2.87	2.36	2.54	2.10	1.91	2.48	2.36
1943	3.45	2.70	2.83	2.42	2.13	2.82	2.69
1944	3.97	2.93	3.26	2.65	2.23	3.15	2.92
1945	4.19	3.00	3.43	2.79	2.34	3.29	3.06
1946	4.81	3.41	3.84	2.99	2.61	3.66	3.44
1947	5.48	4.42	4.77	3.50	3.15	4.23	4.16
1948	6.09	5.42	5.62	3.96	3.66	4.96	4.95

*excludes selling costs.

Source: U. S. Bureau of Mines

Derived from Table 73, 'Bituminous Coal', 1949 unionization, the industry is recovering and it reported a profit (after federal taxes) after 13 years.(13) Here are some figures to illustrate:

(13) Source, Statistics of Income, Part II, U.S. Bureau of Internal Revenue.

1921.	Profit of	$18,329,750
1925 - 1939	Losses	
1940.	Profit of	$ 3,667,000
1941.	Profit of	$19,239,000
1942.	Profit of	$31,129,000
1943.	Profit of	$44,819,000
1944.	Profit of	$41,920,000
1945.	Profit of	$31,228,000
1946.	Profit of	$45,201,000

If allowance is made for changes in general prices from 1890 to the present, the real mine price (the prices which would be realized if the general price level was constant) of coal fell slowly, reaching its lowest level in 1916, started increasing and in 1945 was 89% higher than in 1916.(14) To offset the high labor cost which for over

(14) The Economics of Coal in the United States, The Economist, London, September 7, 1946.

50 years has remained at about three-fifths of the realized mine price, producers turned more and more towards mechanization. 'But the reduction in manual labor per ton has been more than offset by rising labor costs. The real labor cost per man-hour increased by 177% from 1917 to 1944 offsetting the reduction in manual labor per ton. Consequently the real labor cost per ton has increased by 75%. The industry as a whole, has turned over to labor more than the whole of the advantage arising from mechanization.(15)

(15) The Economics of Coal. op. cit.

Other Conditions.

Compared to the United States, what is the value of coal in other major coal producing countries and how effective is the unionization of the industry? Hunter, T. W., Chief, Coal Economics Branch, USBM.,(16)

(16) Personal Communication.

writes: "With the exception of a few countries, data on value of coal at the mines in foreign countries are extremely sketchy and, to some extent, unreliable. There is no doubt, considerable difference in the present values and those prevailing in 1937. The recent devaluation of currency in many countries has undoubtedly had some effect on the value of coal at the mines. Various reports indicate that mine workers' unions in the coal industries of Great Britain and France are quite strong. Little information is available on coal miners unions in other countries ...., however it can be assumed that they are non-existent or 100 percent impotent in the countries behind the Iron Curtain."

Table 5.

Average Value per Ton F.O.B. Mines of Bituminous Coal in Certain Countries

Country	Year	Aver. Value/Ton	U.S. Dollars
Germany.	1937	11.00 Rm.	4.46
Great Britain.	1937	145.11½ d.	3.72
Great Britain.	1947	395.5½ d.	7.85
Russia and Finland	----	n.a.	----
Poland	1936	11.67 Zloty	2.20
France	1937	119.33 Franc	4.83
Czechoslovakia	1937	98.92 Koruna	3.97
France	1945	512.63 Franc	10.10
Japan	----	n.a.	----
India	----	n.a.	----

n.a. Not available.

Country	Year	Aver. Value/Ton	U.S. Dollars
United States	1937	----	1.94
United States	1947	----	4.16
United States	1948	----	4.95

When the comparatively low standard of living in Europe is taken into account, the value of coal seems to be high.

How does the cost of coal compare with the cost of other mineral fuels?

Figures for 1948 reveal that Bituminous Coal value per million B.T.U's is 18.9 cents, Anthracite is 29.7 cents, Coke is 45.2 cents, Natural Gas is 6 cents, and Crude Petroleum is 43.2 cents. Coal and Coke are valued at $4.95 and $11.47 per ton respectively. Natural Gas is 6.4 cents per thousand cubic feet. Crude Petroleum is $2.59 per barrel.

How is the consumer price index? See table 6.

Table 6.

Consumer Price Index

Year	Bituminous	All Items*
1935	97.1	98.1
1936	98.9	99.1
1937	101.0	102.7
1938	101.8	100.8
1939	101.1	99.4
1940	102.3	100.2
1941	109.6	105.2
1942	115.5	116.5
1943	120.3	123.6
1944	124.8	125.5
1945	127.7	128.4
1946	135.4	139.3
1947	159.8	159.2
1948	190.1	171.2

*Includes all family living essentials — food, clothing, etc. (1935-39 Average = 100)

With all these factors it can be stated that at present "the union lost nothing and gained everything, the producer lost something and gained something else, but the consumer gained nothing and lost almost every advantage," which is very different from the conditions that existed in pre-complete unionization days when only "the consumer benefited......since the price for his coal was much lower than it would otherwise have been."[17]

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(17) Fisher, W. E., Collective Bargaining in the Bituminous Coal Industry. op. cit., p. 26.

Table 7, and the accompanying graphical chart has been compiled to show the steep rise in labor earnings and the value of coal f.o.b.

Table 7

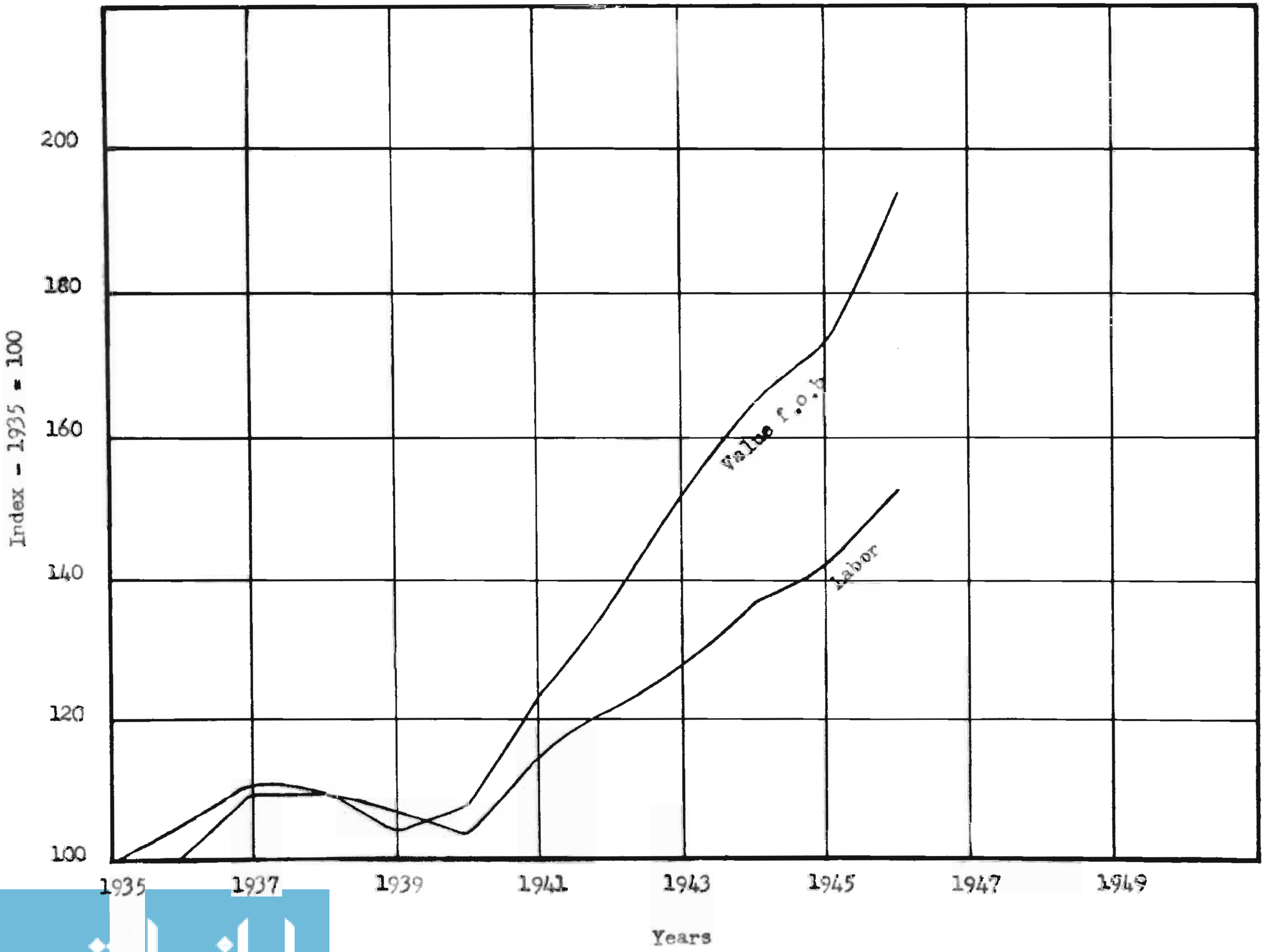
Earning by Labor for a Ton of Coal and F.O.B. Value of Coal

1935	Labor Earning/Ton	Index	Value F.O.B.	Index
1935	$ 1.16	100	$1.77	100
1936	1.22	105	1.76	100
1937	1.29	111	1.94	109.5
1938	1.27	109.5	1.95	110
1939	1.24	10 7	1.84	104
1940	1.20	103.5	1.91	108
1941	1.33	115	2.19	124
1942	1.41	121.5	2.36	137
1943	1.49	128.0	2.69	152
1944	1.59	137	2.92	165
1945	1.64	141.5	3.06	173
1946	1.77	152.5	3.44	194

(1935 = 100)
Derived from Table 95 and 73, Bituminous Coal Data and Table on Page 110, Bituminous Coal - 1948 edition.

The triple threats to the coal miner are: (1) mechanization, (2) competitive fuels, and (3) more efficient utilization. The UMW must decide whether to seek a higher standard of living for a stead-

Earning by Labor for a Ton of Coal
and F.O.B. Value of Coal



ily declining number of workers or the economic well-being of all employees attached to the industry. It has bargaining power to reduce wages, lower hours and probably to increase annual earnings. In all likelihood such action would encourage mechanization, more efficient consumption, and great substitution of competing fuels — all of which tend to more unemployment and smaller payrolls. Effective handling of these economic conditions demands a higher order of industrial statesmanship.(18)

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(18) How Collective Bargaining Works. op. cit., p. 277.

Effect of Unionism on Cost

"The art of economics consists in looking not merely at the immediate but at the longer effects of any policy; it consists in tracing the consequences of that policy not merely for one group but for all groups."(1)

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(1) Hazlitt, H., Economics in One Lesson. New York: Pocket Books Inc., 1948. p. 5.

Most people in our society would probably agree and justify 'that industrial peace is preferable to industrial warfare, that a high standard of living of our people is better than a low one and that freedom from government intervention is more desirable than government control which interferes with individual initiative.(2)

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(2) Pollak, O., Social Implications of Industry-wide Bargaining. Philadelphia: University of Pennsylvania Press, 1948. p. 3.

The disagreement arises only about the relative weights to be attached to these phenomena in their interrelation with each other.

The need for unionization was great in the coal industry. Being very competitive in nature, with highly fluctuating profits and partial unionization he had a natural desire to see the plants of his competitor also unionized(3) so that there may not be any competitive

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(3) Feller, A., and Hurwitz, J.H., How to Deal with Organized Labor. New York: The Alexander Publishing Co., 1937. p. 141.

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upsets. Complete unionization and consequent industry-wide collective bargaining eliminated attack by the so-called chiseling minority, enforced effective inspection of working conditions in general by stipulating the right of access to the place of employment by union representatives.

In a highly competitive industry such as bituminous coal, control of trade practices through self regulation is almost impossible. The union is a valuable police agency 'well worth its costs in terms of wage and other concessions'; thus we come to the realization that labor wants industry wide collective bargaining for equalization of labor conditions and employers want the same for protection against competition in labor costs and for equalization of strength in negotiations. So employers and employees have followed the method of combination and self-limitation as the obvious way out of the trials and tribulations of the competitive process. Cartels, trusts, and gigantic business concentrations and the spectacular rise of unions and union power are only dual expressions of the same trend. Hence this method of collective bargaining is not the accentuating factor in the conflict between labor and capital. It may present, however, a serious item of social cost from the point of view of consumer interest.

The social gains and costs that attend complete unionization are ably summarized by Pollak, Otto.[4]

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(4) Pollak, O., op. cit., p. 45 - 61.

Significant advantages in terms of increased unity and social integration between employers and employees are (1) increase in the area and degree of cooperation; (2) the promotion of recognition on both sides, of their mutual interdependence and of the services which they can render each other, can be seen in the policing system which unions can furnish employers in their fight against chiselers among their ranks and in the regulation of competition in general; (3) the increased share of labor in the tasks of management and their consequent identification with the enterprise and a corresponding decrease of a purely antagonistic attitude on the part of labor against management; (4) common fear of government intervention and the experience of success in exerting concerted pressure upon the government in the interest of the welfare of the industry have been shown to strengthen the recognition of mutual interdependence; (5) can help in establishing collective planning.

The disadvantages are (1) the emergence of monopolistic combinations between employers and employees with resulting price fixing and restricted production; (2) limitations of free access to workers and therefore an increase in unemployment; (3) unnecessary costs of production; (4) a shift from price competition to promotion competition and adverse affect on investment; (5) from the realization of a common interest in limiting cut-throat competition, there is of course only one step to the recognition of a common interest of capital and labor in cartelization, at the expense of the consumer.

With this in the background, if the conditions in the bituminous coal industry are examined it is found that (1) costs and wages were very bad in the pre- and partial-unionization days; (2) the employers themselves wanted and strove for complete unionization; (3) the strength of the UMW reached its peak with the aid and intervention of government regulations and measures like NIRA, National War Labor Board; (4) the government in recent years 'highly conscious of the political importance of the labor vote has been influenced in its intervention', has employed the power of authority to enforce settlement practically accepting the terms of the union (coal strike of 1946); (5) the strategic skill and almost hypnotic influence that John L. Lewis has had upon the federal government; (6) spectacular gains were made in a period of war and shortage of coal production; have all contributed to the power of the UMW today.

True, the cost of coal has sky-rocketed today but in contradistinction with the pre-union days the producers are not losing money. They are making considerable profits. Thus although union had a direct and adverse effect on the cost of coal the producers do not suffer. It is the consumers who pay for the enjoyment and entertainment of the producers and miners.

The industry being completely unionized, the employers find it possible to pass on increased labor costs to the consumer and thus have no interest in resisting wage demands too strenuously. They avoid conflict and reach a mutually satisfactory arrangement by passing on the costs to a third party (the consumer).

It is thus prudent to wait and see whether Hazlitt's theory (5)

Hazlitt, H. op. cit., p. 133 - 134.

"that unions, do not, in the long run and for the whole body of workers, increase real wages at all" and the consequent decrease in cost of coal will prove true. Then the present high cost of coal may be disregarded as a passing phenomenon.

BIBLIOGRAPHY

Barger, H., and Schurr, S.H. The Mining Industries, National Bureau of Economic Research, Inc., New York, 1944. 447 p.

Berquist, F. E., and associates. Economic Survey of the Bituminous Coal Industry-wide Free Competition and Code Regulation, Office of National Recovery Administration, Division of Review, 1936, 713 p.

Bloch, L. Labor Agreements in Coal Mines, Russell Sage Foundation, New York, 1934. p. 513.

Bye, R. T., and Hewett, D.W. Applied Economics, Appleton-Century-Crofts, Inc., N. Y., 1947. pp. 215 - 225.

Douglas, P. H. Real Wages in the United States, Houghton Mifflin Co., Cambridge, 1930. pp. 142 - 165.

Fairchild, F. R., and others. Elementary Economics, The McMillan Co., New York, 1939, pp. 618 - 626.

Feller, A., and Hurwitz, J. H. How to Deal with Organized Labor, The Alexander Publishing Company, N. Y., 1937. pp. 139 - 143.

Fisher, W. E., Economic Consequences of the Seven-hour Day and Wage Changes in the Bituminous Coal Industry, University of Pennsylvania Press, Philadelphia, 1939. 130 p.

Fisher, W. E., Collective Bargaining in the Bituminous Coal Industry, University of Pennsylvania Press, Philadelphia, 1948. 43 p.

Hazlitt, H. Economics in One Lesson, Pocket Books, Inc., N.Y. 1948. 193 p.

Hunt, E. E., Tryon, F. G., and Willits, J. H. What the Coal Commission Found, The Williams and Wilkins Co., Baltimore, 1925, 416 p.

MacDonald, D. J., and Lynch, E.A., Coal and Unionism Cornelius Printing Co., Indianapolis, 1939. 225 p.

McConnell, D. W., and others. Economic Behavior, Houghton Mifflin Co., N.Y., 1939. pp. 590 - 607.

Millis, H. A., and Montgomery, R.E., Organized Labor, McGraw-Hill Book Co., N.Y., 1945. pp. 389 - 442.

Mitchell, J. Organized Labor, American Book and Bible House, Philadelphia, 1903. 435 p.

Pollak, O. Social Implications of Industry-wide Bargaining, University of Pennsylvania Press, Philadelphia, 1948. 72 p.

Van Kleeck, M. Mines and Management, Russell Sage Foundation, N. Y., 1934. 391 p.

Wieck, E. A. The American Miners' Association, Russell Sage Foundation, N. Y., 1940. 330 p.

Wieck, E. A. The Miner's Case and the Public Interest, Russell Sage Foundation, N. Y., 1947. 92 p.

How Collective Bargaining Works, Twentieth Century Foundation, Inc., N.Y., 1942 (Chapters 1 and 5) pp. 3-28; 229-279.

Report of the Committee on Prices in the Bituminous Coal Industry, National Bureau of Economic Research, Inc., N.Y., 1938. pp. 12 - 21.

The Price of Coal, American Academy of Political and Social Sciences, The Annals, Vol. CXI, Philadelphia, 1924. 387 p.

Bituminous Coal Data, 1935 - 1948, National Coal Association, Washington D. C., 1949. 150 p.

Bituminous Coal, Bituminous Coal Institute, Washington, D. C., 1948 and 1949 Editions.

Facts Concerning Employee's Earnings, Cost, Realization, and Margin, etc., The Southern Coal Producer's Association, Charleston, Volumes 1 to 5, 1944-1948.

The Economics of Coal in the United States, Economist, London, September 7, 1946.

Handbook of Labor Statistics, United States Department of Labor, Bureau of Labor Statistics, Washington D. C., 1947 Edition, 221 p.

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