

ON LABOR'S RIGHT TO STRIKE

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This paper first shows that, under certain conditions, strikes benefit capital at the expense of union labor in the aggregate. It is then argued that observed variations in strikes and labor's right to strike are largely explainable by variations in the profitability of strikes to capital and not explainable by popular alternative hypotheses purporting to explain the existence of strikes. Finally, an explanation is offered for the persistence of labor's right to strike over time and across various political systems.

Labor's right to strike is traditionally viewed as a right which benefits the striking laborers at the expense of the industry hiring them. It must be observed, however, that the bargaining power of labor is severely limited. Industry-wide bargaining with a labor union by all of the firms in an industry was permitted legislatively *pari passu* with the strong pro-union legislation of the 1930's. This Depression legislation essentially established a bilateral monopoly between organized labor and business.

Following the bargaining theory of Schelling (1963) and Thompson-Faith (1980), one party in a bilateral monopoly obtains essentially all of the surplus, the party which makes the first price commitment. Several reasons exist to support the view that industry typically wins over labor in the competition to make a prior wage commitment. One stems from the fact that the current members of a labor union, in contrast to the current owners of a firm, are unable to capture all of the future returns of a distributional victory over business in a contest to see which is first to establish a viable organizational form capable of making fixed wage commitments. More directly, the democratic organizational structure imposed on the great majority of union negotiators puts them at an extreme disadvantage in dealing with business leaders (who do not have to present union contracts to the stockholders for ratification) in that the union members can easily overturn any attempt at a fixed wage commitment by the union negotiators. (For an elaboration and related application of the inability of democracy to effect substantial commitments, see Thompson (1979).)¹ Empirical evidence for the conclusion that manage-

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1. The case of unions selling labor to government agencies or heavily regulated industries appears to be particularly complex. Here, there is no longer a good reason to believe that workers will lose the bargaining game to their employers. For the sensitivity of public employers to both the interests of the laborers (Rees, 1977, Ch. 12) and to democratic forces substantially reduces their abilities to make fixed wage commitments unfavorable to the laborers. Perhaps this is why strikes against public agencies are often prohibited by law.

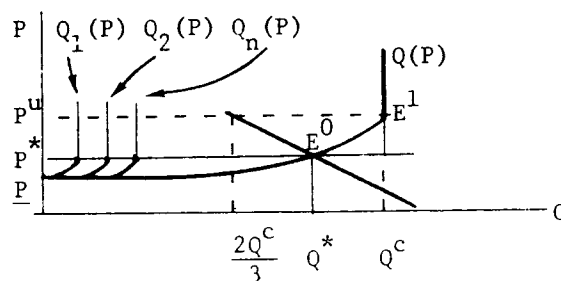
ment usually wins is provided by the studies of union influence in the classic book of H. Gregg Lewis (1963) and in a recent paper by Farber (1978). Finally, a striking bit of recent evidence is found in the U.S. coal industry, commonly acknowledged to face one of the strongest unions in the Country (Lewis' estimates have it the most effective union of those studied). In 1974-75, after the producers' average price of coal had just jumped, apparently permanently, by at least 300%, coal miners won (with lengthy negotiation and a prolonged strike) less than a 17% wage increase for the succeeding year, whereas the wage increase which would have been achieved if the coal miners had a textbook labor monopoly would have exceeded 300%! Indeed, total coal mining profit had jumped by over 500% from its average '72-'73 level to fiscal year 1976.²

Why then have labor strikes persisted over the last several decades in most of the free world? The answer proposed here is that strikes persist primarily for the benefit of the unionized industry. The industry, by initially offering sufficiently low payments to labor, induces a strike decision by a union. The lower level of industry output during the strike may easily induce a greater industry capital value through higher prices of the outputs produced in non-strike locations or time periods.

I. THE UNDERLYING ECONOMIC THEORY

If the short-run competitive outputs of the firms are sufficiently close to full capacity, and the product has a sufficient degree of intertemporal demand substitutability to its owners, then an industry-wide strike will increase profits. Figure 1 illustrates an extreme case in which there are (1) perfectly inelastic short-run marginal cost curves for all firms once outputs are sufficiently above the competitive equilibrium outputs and (2) infinitely elastic marginal cost curves at a certain cost, \underline{P} , which is

FIGURE 1.



2. Industry profits were estimated by taking the total earnings of the top eight coal producers having more than 60% of their 1975 earnings coming from coal sales. The source was Standard and Poor's (1976), and the exact percentage increase in earnings was 569%.

slightly below the competitive equilibrium price. P^* and Q^* are stationary, competitive equilibrium prices and quantities of the product per period, $Q_i(P)$ describes the one-period supply curve of the i th firm, $i = 1, \dots, n$, and $Q(P)$ describes the corresponding industry supply curve. The industry's capacity rate of output is Q^c , which we assume to be less than $3Q^*/2$. We also assume that there are three periods in the model. The extreme case of an infinite elasticity of intertemporal substitution implies that if we reduce the quantity supplied in one period at a given price, we will correspondingly add the same absolute change to the sum of the quantities demanded in the other periods. Now consider a reduction to zero in the quantity supplied by the industry in any single period. At the same set of relative prices, this implies an increase in the *sum* of the demands in other two periods by an amount equal to Q^* . Since the cumulative demand for the commodity at P^* is still $3Q^*$ while the cumulative supply is now only $2Q^*$, and since arbitrage will keep the price constant in all three periods, price must rise in all three periods until the sum of the quantities demanded at the new set of relative prices equals the cumulative quantity supplied. On Figure 1, this is shown by a decrease in average output per period to $2Q^c/3$ and an increase in price to P^u . The attendant change in total profits is two times the area $P^uP^*E^0E^1$, minus the smaller area, P^*PE^0 .

The resulting monopoly-type gain that accrues to the industry gives it an incentive to support labor's right to strike and periodically offer initially below-competitive wages at wage-bargaining sessions in order to induce strikes. To the extent that workers suffer net economic losses during the strike periods, the industry must compensate them with above-competitive payments in order to maintain the union. That is, the total surplus received by labor must be at least at a competitive level (which is above the level that would be established by an industry monopoly or monopsony) in that it would otherwise pay the union to reject collective bargaining altogether and allow labor market competition to rule. (To interpret the above graph so that our theoretical result holds despite the existence of such work-preference effects, interpret the industry cost curve as that which applies when each worker receives, in addition to the industry wages that call forth the employment levels yielding the chosen set of industry outputs, an amortized lump-sum designed to maintain his initial competitively determined lifetime utility.)

A similar argument applies to industries that are negotiated with and struck on a firm-by-firm basis. The strike-induced reduction in the output of a single firm in the industry will, when the other firms have sufficiently inelastic short-run supply curves at above-competitive outputs and there is sufficient substitutability in demand between the outputs of the various firms in the industry, raise industry prices to where total industry profits are increased. While the other firms will generally have to compensate the struck firm, say by allowing themselves to be struck in the future, such cooperative behavior is not illegal. In the U.S. airline

industry, where such interfirm cooperation appears in an explicit, observable form, the frequency and duration of strikes is highly correlated with the existence of such cooperation (Hagburg and Levine (1978)). Informal cooperation may well be suspected in several other industries, like the auto, rubber, and electrical equipment industries, where industry-wide bargaining is not explicit but strikes occur on a revolving firm-by-firm basis.³ While direct empirical analysis is difficult here, we shall, in the analyses below, find several tests of our general cartelization hypothesis that do not require observations on the nature of interfirm cooperation. Before specifying these tests, it is well to distinguish our theory from an alternative, more familiar theory (see, e.g., Simons) of how an industry might use a union for cartelization purposes.

II. AN ALTERNATIVE THEORY OF INDUSTRIAL CARTELIZATION THROUGH UNIONIZATION

An alternative method of industrial cartelization via a union, one that does not require strikes is contracting to pay significantly above-competitive hourly wage rates — thereby raising each union firm's variable costs and inducing cartel-like output decreases — while collecting correspondingly high lump-sum payments from the workers. It is doubtful, however, following the theory of Stigler (1964), that sufficient policing information is practically available to enforce significantly above-competitive hourly wage rates. Moreover, if union wages were so set, then we would observe significant lump-sum payments from union workers or unions to industry. But we observe the opposite. Union pension and medical plans and other fringe-benefit payments are typically substantially independent of hours worked. Lump sums go from industry to unions.⁴ And this is exactly what we would expect if our strike-cartel theory were correct and the negotiated hourly wage represented an ineffective price control, one whose real effects are insignificant because of competitive quality changes and non-pecuniary payments. For, with hourly union wages representing an ineffective price control, union

3. Informal cooperation and firm-by-firm bargaining are probably better for the firms than formal cooperation and industry-wide bargaining in large industries with only a few firms. This is because of the unfavorable attention generated by industry-wide strikes in such markets and the corresponding possibility of government injunctions against such strikes. (Evidence for the effectiveness of informal cooperation among a few firms is given in Thompson-Faith (1979).) In fact, in large industries with few firms, bargaining typically proceeds on a firm-by-firm basis while in small scale industries with several firms, explicit industry-wide, multiemployer bargaining is the rule (see, for example, Reynolds, Chapter 18, or Rees, Chapter 7).

4. While an agreed-upon under-payment for non-overtime hours of work would represent a possible form of lump-sum payment to industry, such an under-payment, when not entirely subverted by non-pecuniary wage adjustments, could also represent an essentially competitive technique for rewarding unusually productive workers and varying the average money wage rate in response to industrial fluctuations occurring within the contract period. In any case, collectively bargained overtime wage patterns in the U.S. have not substantially deviated from the federal standard of time-and-a-half for overtime beyond forty hours per week set by the Fair Labor Standards Act of 1938 and therefore have left the typical union laborer with a normal marginal nominal wage equal to his non-overtime, intramarginal nominal wage (e.g., Beal and Wickersham (1963), Rees (1977), Hagburg and Levine (1978).)

workers in our strike-cartel theory would have to be compensated for their strike time with lump-sum payments rather than higher hourly wages.

If it is conceded that the union's hourly wage level is an ineffective price-control and also that the union-shop has succeeded in replacing the restrictive, closed shops of the past with an essentially free-entry device, then the hypothesis that unions of *non-striking* laborers have no independent monopoly influence of any kind must also be immediately conceded. This is because, whatever the contract of the non-striking union laborers, entry into the union shops and nonpecuniary wage variations would always work to assure a free market solution.⁵

III. TESTS AND ALTERNATIVE HYPOTHESES

A. *Explaining Variations in Unionization and the Right to Strike.* If labor's right to strike were a source of indirect cartel benefits to industry as we are hypothesizing, and industry were more aware of this than labor (as is rationalized in Section IV), then the right would be relatively strong when and only when laws against direct cartels were relatively strong.⁶ In fact, strike power to unions in large, oligopolistic industries did not arise in the United States until after the establishment of effective anti-trust laws in the 1910s and 1920s (Thompson-Faith (1979)). That is, large oligopolistic industries did not concede the right to strike to labor unions (and regulatory power to government bureaucrats) until the 1930s, when anti-trust laws had ruled out what had been, for them, superior forms of cartel organization. In naturally competitive industries — where firms are too small to make oligopolistic communication practicable even in

5. Recent papers by Maloney, McCormick, and Tollison (1978) (1979), written subsequent to, but apparently independently of, the original, narrowly circulated, 1976 draft of this paper, also emphasize the possibility of cartelization through strikes. But their papers in contrast to ours, provide neither: (a) a correct demonstration of the possibility, (b) tests of the theory's empirical relevance, nor (c) a theory of the distribution of the cartel gains between business and labor. Regarding (a), they argue that the result requires that labor be paid above-competitive wages during non-strike periods. If this were so, the general result would amount to little more than an implausible, Simon's-type, shared-monopoly argument such as that outlined above. In fact, striking laborers need only be compensated with lump sums. No systematic shift in non-strike marginal cost curves is implied by strikes. Nor is such a shift required to produce profitable strikes under a correct formulation of the problem. Regarding (b) and (c), most of our tests do not bear on the issue of the distribution of cartel gains between capital and labor and therefore lend empirical support to their general hypothesis as well as our more specific one.

Their papers also differ from ours in that they argue that strikes may be theoretically superior as a cartelizing device to a simple labor monopoly because strikes appear at the final stage of production and therefore succeed in internalizing the total effect of all input and output restrictions on the total economic surplus to both labor and capital. But this argument ignores the fact that a simple labor monopoly can, theoretically, internalize the entire monopoly effect without the inconveniences of strikes by having labor pay lump-sums and charge high variable wages (depending on non-labor inputs as well as labor inputs for a perfect solution). The advantage of strikes as a cartel device rests solely on the inability to control the real wage level of union workers.

6. We are assuming here, and will assume at several points in the remaining discussion, that business and labor interact politically to evolve laws that are Pareto optimal from the standpoint of their individual preferences, preferences which may well be based on substantially differing perceptions of the world. Support for this assumption on the nature of political interaction is found, for example, in Thompson (1979).

the absence of statutory anti-trust laws — the antitrust laws of the early twentieth century had little effect. If our hypothesis is correct, then some of these naturally competitive industries — namely those with substantial short-run capital constraints — would have evolved striking labor unions even before the 1930s. In fact, the successful unions in the private-sector prior to the 1930s were concentrated in notoriously competitive industries (see e.g., Peterson (1963), or Rees (1977, Ch. 4)). These were the garment, construction, coal, entertainment, and printing industries. Further consideration of the list of industries will reveal them all to be industries with substantial short-run capacity constraints.

Our theory can be similarly used to explain the observation that trade unions in these competitive industries experienced their most rapid growth during the mid-19th century, immediately following the shift away from state-provided mercantile protection (e.g., Macdonald (1976), Peterson (1963)). This observation would be extremely difficult to explain without our theory because the intellectual justification for the rejection of mercantilism was, as we all know, a rejection of all of concentrations of economic power and thus of labor unions and the trade associations that immediately arose to “meet the challenge” of the new unions (Macdonald). Moreover, the acknowledged leader in the move toward *laissez faire* thought and policy, England, was also the leader in pro-union legislation (Macdonald).

Along cross sectional lines, our theory helps explain the traditional success of unions in skilled occupations producing durable goods relative to unskilled or professional occupations (e.g., Reynolds, Ch. 14), strikes of such skilled workers being more likely to close plants than strikes of other kinds of workers (Farber). The theory may also help explain the marked tendency for union *bargaining* to proceed along narrow industrial, rather than broad, occupational, lines by unions that are already organized along occupational lines (e.g., craft unions) and therefore already set up to threaten strikes across several related industries (see, for example, Reynolds, Chs. 14 and 18). Under our theory, this is to be expected because there is little reason to believe that a strike benefiting one industry will also benefit other industries using the same labor input; and even when such benefits do exist, it would severely strain credulity to assume that it is practical for firms in the different industries to cooperate, even tacitly, in a labor negotiation. In contrast, under the standard labor monopoly hypothesis, it would generally benefit a craft union to bargain with groups of industries in order to internalize the effects of higher wages in one industry on their wages in other industries. It is paradoxical within this standard view that craft unions do not threaten strikes against groups of industries. Our theory similarly explains the tendency of national unions selling labor to related, but locally or regionally specialized, industries to split up and bargain separately with the producers in each separate region. (See, for example, Reynolds, Ch. 14.)

The above tests concern variations in unionization, labor's right to strike and the size of bargaining groups. More direct tests involve variation in actual strike frequencies.

B. Explaining Variations in Strike Frequencies. From Section I, if our hypothesis was true, we would expect observed strikes to be concentrated in industries in which there is (1) either a high intertemporal rate of substitution for the products of the industry or a high interfirm rate of substitution along with firm-by-firm strikes and (2) a normal rate of plant operation which is close to the maximum possible rate. The classic study of Kerr and Siegel (1954) of 1919-1950 data showed that the industries with the highest propensities to strike were in mining, shipbuilding, longshoring, lumber, and textiles, while the industries with the lowest strike propensities were found in regulated industries, agriculture, and hotel and restaurant service industries. It is quite apparent that there were very high degrees of intertemporal demand substitutabilities and substantial capacity limitations in the high-strike industries. Also, the low degrees of intertemporal substitutabilities in the agriculture and hotel and restaurant service industries, together with the impracticality of firm-by-firm strikes in these industries due to their large numbers of firms, allows us to explain the infrequencies of strikes in these industries. The historic infrequency of strikes in regulated industries can be explained with our theory because from cartelizing regulation is obviously a substitute for cartelizing strikes.

As we shall detail later on in the discussion, the pattern of striking and non-striking U.S. industries appears to have remained about the same since 1950. Large, mainly domestic, durable-goods industries (in particular, the auto, coal, steel, machinery, refined oil products, rubber and construction industries) normally produce near what is commonly measured as "full capacity" and normally have very strong frequently striking unions (the steel industry, discussed later, is the prominent exception.) Private service industries in which demand "pents up" and there is a fixed capital equipment limitation on the short-run supply of the services, e.g., private transportation and cosmetic services, also contain relatively high strike frequencies. Conversely, it is difficult to find any regularly striking union in the United States whose product does not have the required characteristics required by our strike-cartel theory: As Professor Rees points out (1977, p. 32), almost all modern-day strikes in the private sector occur where substitutes to the lost output during the strike are readily available either from inventories or nonstruck plants.

Our theory also easily explains the relative infrequency of strikes in the wholesale and retail trades by the fact that these industries rarely operate at anything close to full capacity and so gain relatively little from a concentration of demand.

A recent study of Faith and Lentz (1980), by indicating that profits in a sample of heavily struck industries increase in and around strike periods,

provides even more direct evidence for our implication that observed strikes come in industries which benefit from the strikes.

A straightforward implication of our theory is that state-owned enterprises, which must share their profits with the public at large, would have relatively little to gain from strikes. Hence, our theory goes a long way toward explaining the relative infrequency of observed strikes in relatively socialistic countries. For example, the study of Ross and Hartman reveals a dramatic post WWII reduction in the extent of strikes in Britain, Germany, and the Scandinavian countries.

Our theory can also be used to explain why parts of the agricultural industry have recently been developing striking unions. Owing to recent cost reductions in refrigerated transportation units, the cumulative demand for certain farm products over an entire production season or longer, has come to replace the weekly demand as the relevant determinant of farm prices. Thus, an agricultural strike in one week of the season will reduce the season's cumulative supply without altering its cumulative demand and significantly raise agricultural prices to the benefit of the farmers.

Another implication of our hypothesis is that strikes would be more likely in times when industry generally is relatively close to full capacity. Thus, if our theory is correct, strikes — and even the success of unions — would be procyclical. This observation is borne out in reality, as indicated, for example, in the studies of Rees, 1952, and Ashenfelter-Johnson, 1969. Plausible alternative hypothesis do not appear to exist. The standard argument by the authors of these studies, that labor's bargaining power increases with the demand for labor in an upturn, implies only higher money wages, not a higher frequency of strikes. Indeed, applying the standard imperfect information theory of the basis of cyclical unemployment (Lucas (1972), Thompson (1973)), workers in a boom, believing that slightly above-normal increases in money wages mean above-normal increases in real wages, consider the above-normal money wage increases offered in a boom to be particularly attractive and should, therefore, absent our theory, strike with abnormally *low* frequency during booms.

Ashenfelter and Johnson have also found that relatively high past growth rates of aggregate real wages reduce the aggregate frequency of strikes in current labor negotiations. They attempt to rationalize this result by arguing that laborers who have recently achieved relatively large wage increases pare down their otherwise unrealistic wage demands, such demands being the sole cause of strikes. But the opposite expectational hypothesis appears to be at least as plausible an assumption. Why shouldn't past successes breed expectations of future successes? Perhaps the most satisfying assumption would be the rational expectations assumption that the extent of worker overvaluation of employer demand prices for labor is invariant to the past rate of growth of real

wages. For rational workers, aware of the actual correlation between past and future growth rates of real wages, would not allow a mere increase in the historical growth rates of real wages to mislead them into making systematically erroneous wage demands. For example, the higher inflation rates of recent years has not created a systematic underestimate of current inflation rates. Under either of these latter two expectations assumptions, there would not be a negative correlation between current strike frequencies and past growth rates of real wages given the Hicks-type hypothesis of Ashenfelter and Johnson that strikes are based on the overoptimism of the striking workers. An alternative rationalization of this negative relationship is provided by our theory: A weakening in the employers' ability to collectively bargain with labor, signified by an increase in the growth of aggregate real wages (see section IV), will indeed decrease the frequency of strikes under our theory.

Farber (1978) has recently tested the Hicks-Ashenfelter-Johnson theory by attempting to explain a measure of the length of strikes with various measures of labor's independent willingness and financial ability to strike. None of these variables were statistically significant. The only significant explanatory variables were a government anti-strike policy variable and a measure of the potential effectiveness of the strike in shutting down operations, the latter being positively associated with the length of strikes. The study thus provides both added confirmation of our theory and added doubt to the Ashenfelter-Johnson version of the Hicksian theory wherein strikes occur because of unrealistic wage expectations by laborers at the beginning of labor negotiations.

Another manifestation of our theory is found in the common observation that contract expirations concentrate during busy seasons of the year, when, we have seen, strikes are most profitable. At the same time, the observation is further evidence against the general Hicksian hypothesis (1966) that strikes are based on the misperceptions of the bargainers, the latter hypothesis suggesting that the bargainers would agree to concentrate their costly bargaining errors into periods of slack demand.

We have one more test of our theory against Hicksian theories of labor strikes, theories which allege that strikes are the result of temporary information differences between workers and firms regarding the demand and supply prices of labor or regarding the ability of the union to carry out a strike threat. If a Hicksian theory applied, the frequency of strikes in a stable union environment following a period of rapid unionization would decrease over time as the information gained from earlier strikes would serve to reduce subsequent information differences. In contrast, our theory suggests that strikes are a planned occurrence and will occur even when each of the bargaining parties has accurate information about the other. Hence, our theory suggests no decrease over time in the frequency of strikes in a stable union environment. In fact, we have had a

fairly stable union environment in the past 25 years in the U.S., and the frequency of striking relative to working hours over this period displays no evidence of secular decline.⁷ Furthermore, the relationship holds up extremely well under disaggregation. A perusal of the U.S. Department of Labor's 1978 *Handbook of Labor Statistics* indicates that the industries with by far the largest ratios of work stoppage hours to total hours of employment in the base years of 1956-1960 (viz., the primary metals, rubber and miscellaneous plastics, machinery, transportation equipment, glass and clay products, petroleum refining, fabricated metals, mining and construction industries) were — with the exception of primary metals — virtually identical to the industries with by far the largest ratios in the 1972 to 1976 period, the ratios in the later period typically exceeding those in the earlier period.

And even the exception reinforces our theory. The primary metals industry — mainly the steel industry — which struck with much greater magnitude than any other industry in the '56-'60 period and thereby induced a rather unique political response to the corresponding steel price increases, a response that set up a mechanism that has continued on to the present. The government responded by threatening to punish the steel industry for price increases, mainly by allowing increased foreign imports or imposing various regulatory punishments. This policy has greatly reduced the cartel profit from steel industry strikes, and, as our theory would predict, a dramatic reduction in steel strikes has ensued.

C. Labor Errors and Strikes Reconsidered. We would not deny that laborers make several kinds of systematic errors that are correctable with informed economic policy. Such errors are probably at the heart of observed correctable fluctuations in unemployment (Lucas (1972), Thompson, (1973)), and also at the heart of labor's political acceptance of the right to strike despite its failure to benefit them as a group (see Section V). So we would not deny that laborers also sometimes err in correctable ways in labor negotiations. But the evidence has indicated that such errors have not produced a significant number of industrial strikes. The reason is presumably that most significant initial information differences between labor and management representatives are largely closed during pre-contract negotiations. Indeed, we have found nothing in the empirical literature to contradict this presumption. Even Ashenfelter and Johnson accept the pre-strike closing of information differences between union and management negotiators and rely instead on an assumption that the typical union representative in attempting to enhance his union reputation as a vigorous bargainer, allows the rank and file to become overoptimistic about their wage opportunities. There is a theoretical difficulty in this argument in that the rank and file, if they can perceive at least as well as anyone else whether or not a strike has given

7. *Ibid.* Also see Rees (1977, p. 31).

them positive net benefits, will punish rather than reward their representative for their overzealous misguidance. And if the rank and file are unable to so measure their net benefits from a strike, it is likely that they will attempt to hire representatives who are above such deception. As an absence of conflicting interests between actual union representatives and their constituents has been emphasized by several discerning authors (e.g., Rees, Reynolds, and Beal and Wickersham), the information differences assumed by Ashenfelter-Johnson, while possibly substantial in magnitude, are probably empirically unimportant, as a source of strikes.

Moreover, regardless of the nature of these information differences, if the standard presumption that strikes injured all concerned were also true, it would be doubtful that labor and management would agree to a strike deadline in the first place. That is, Hicksian assumptions do not really imply strikes in the first place! If labor had to occasionally "punish" industry in order to teach industry of its resolve to receive higher wages, there is little reason to believe that the punishment would take the form of a self-denying withholding of labor services. On-the-job shirking or semi-legal theft or sabotage is probably a cheaper and more effective punishment. Legal harassment by the union would also not involve foregoing current wage income. Nor would threats of personal violence against industry negotiators, the availability of such violence to labor evinced by its observed use against uncooperative fellow workers. If the strike is a simple demonstration of resolve not to tolerate the current wage, union retraining of its most qualified workers for competing occupations would be more convincing and would also not involve the wholesale loss of wages involved in a strike. All of the above threats and demonstrations of resolve are regularly observed in non-union bargaining situations. Why would labor unions concentrate on the dubious technique of withholding its labor services? Other bilateral monopolies, say those which arise when equipment and office leases expire or when a professional athlete's contract expires, have input owners that normally maintain the supplies of their services while bargaining proceeds and other, more efficient, punishment and communication devices are employed. Bargaining errors and demonstrations of resolve simply do not imply the existence of strikes. Strike deadlines and substantially over-optimistic expectations about wage possibilities only make sense when strikes generate net gains to the bargaining parties.

D. The Role of Unions. While our argument amounts to a rather critical view of labor's right to strike, it implies nothing critical about labor unions per se. Indeed, the above theoretical and empirical argument systematically indicates that labor unions do not obtain monopoly prices for their members.

Additional evidence against the standard theory of unions as labor monopolies is that there are numerous, nonunionized occupations that we would expect to be heavily unionized according to this view of unions.

These are occupations with highly inelastic short-run demands and supplies — including engineers, draftsmen, secretaries, and, so we like to think, professors. Furthermore, labor unions are known to provide substantial legal and information services to their members, and substantial information to industry regarding worker quality. Unions also help to enforce wage scales in an industry and thus help reduce the otherwise significant bilateral monopoly bargaining costs resulting from the firm-specific training of workers and the absence of long-term labor contracts. Statistical support for the hypothesis that our strike model does not provide anything close to a general theory of union behavior is found in the low ratio (approximately 1/100)⁸ of striking relative to working hours in U.S. unions. Nevertheless, the relatively high ratio (approximately 1/10)⁹ of striking relative to working days of the striking workers during a typical year does give support to our strike model when applied to unions which actually use the strike weapon in any given year.

IV. LONGER RUN ALLOCATIONAL AND DISTRIBUTIONAL ISSUES

The long-run benefits to industry of labor unions' right to strike appear to be fairly low, as investment and entry would squeeze out much of the short-run monopoly rents. Even so, the unionized industry's long-run structure, which has the industry producing a lower average output with a greater capital input than would simple competition, would still be permanently altered by the short-run profit opportunity. The long term effects of labor's right to strike are, rather than monopoly pricing, equivalent to the effects of a subsidy to excess capacity.

Since laborers are also consumers, the insignificant gains they make by having the right to strike in a particular industry according to the above theory is generally more than offset by their consumer losses through the short-run cartelization (and long-run subsidization) of other industries induced by the general right to strike. Hence, according to the above theory, the right to strike generally redistributes away from labor in the aggregate despite a widespread belief to the contrary. But what accounts for this widespread belief? That is, if the evidence favors the hypothesis that labor's right to strike benefits industry rather than labor, then why has the hypothesis so long escaped specialists in the field of labor economics?

The popular view that labor's right to strike benefits labor apparently stems in large part from the observation that individual firms strenuously resist the unionization of their shops. However, since *individual* firms prefer to remain outside a cartel in their industry in order to reap the benefits of the higher prices without sharing in the industry's output cut-backs (Stigler), this observation is also implied by a theory in which

8. Source: U.S. Department of Commerce.

9. *Ibid.*

unions serve only to create cartel benefits for the industry. Another common observation responsible for the popular view is that industry leaders have always expressed strong political opposition to pro-union legislation in the early stages of observed union movements. However, since a strike hurts the unionized firms when they do not add up to a large part of the industry, this observation is also consistent with our strike-cartel theory. Moreover, our theory can explain why the political resistance of business to pro-union institutions largely dries up once a union matures to where it covers a large part of the unionized industry.

Because of the overvaluation of the right to strike by laborers and their intellectual leaders, our general argument does not imply that business as a political interest group has seen that labor's right to strike generates *positive* net benefits to the industries being struck. It suffices for our argument that business's expected losses from labor's right to strike are below labor's erroneously expected gains from the right. Since business probably perceives the existence of significantly positive effects of strikes on corresponding output prices more accurately than does labor, business probably does regard the right to strike in industries receiving net cartel benefits from strikes as less harmful to them than labor regards it even when both groups believe that the right transfers the same amount of income from business to labor at given output prices. Nevertheless, the overvaluation of the right to strike by laborers and their intellectual leaders is apparently the *raison d'être* of the right. If there were sufficiently accurate perceptions of its distributional effects, the right to strike, again combining our strike-cartel model with a political theory developed elsewhere (Thompson (1979)), would not survive our democratic political process. Hence, labor's right to strike, like depression unemployment, may well be a temporary inefficiency which is eventually corrected by sufficient growth in labor's awareness of the economic realities of the situation.

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