

A NOTE ON LABOR'S RIGHT TO STRIKE

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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 [7] and Thompson-Faith [10], 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 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 [12].)^{1/}
 Empirical evidence for the conclusion that management usually wins is provided by the studies of union influence in the classic book of H. Gregg Lewis [3]. 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/}

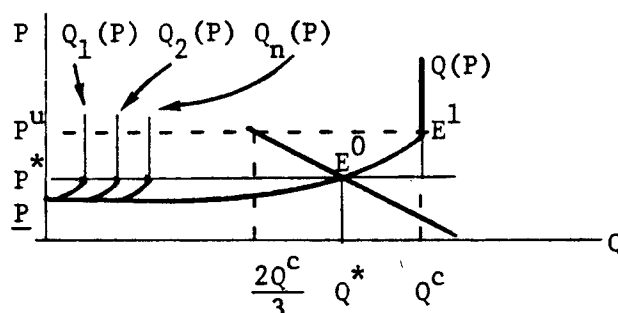
A question then arises as to why strikes by labor have persisted over the last several decades in most of the free world. The answer proposed here is that strikes exist primarily for the benefit of the unionized industry. The reason is that the industry, by initially offering sufficiently low wages, can induce a strike decision by a union. The lower level of industry production during the strike induces a concentration of industry demand and production during the periods immediately preceding and following the strike.

^{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 [4], 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.

^{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 [8], and the exact percentage increase in earnings was 569%.

If the short-run marginal cost curves of the firms are sufficiently close to full capacity, and the product has a sufficient degree of intertemporal substitutability to the purchasers, then the strike will increase profits. Figure I 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 slightly below the competitive equilibrium price.

FIGURE I.



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 to the purchasers 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 the middle 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 I, 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 $P^u P^* E^0 E^1$, minus the smaller area, $P^* \underline{P} E^0$.

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 may be above the level that would be established by an industry monopoly or monopsony) in that it would otherwise pay the union to disband and allow competition to rule. However, under our above assumption on cost-curves, with labor supply prices built into the curves, this presents no problem.

A similar argument applies to industries which 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 larger outputs, 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 itself to be struck in the future, such cooperative behavior is not illegal and apparently frequently observed.

Another possible method of industrial cartelization via a union is to contract to pay significantly above-competition hourly wage rates but collect correspondingly high lump-sum payments from the workers. While we may be observing some of this in the form of very high overtime wage rates, it is doubtful, following the theory of Stigler [9], that there is sufficient policing of effective wage rates for this cartel agreement to have much real effect. More generally, it is doubtful that there is sufficient policing information to ever enforce significantly above-competitive hourly wage rates. In this case, union workers in our strike-cartel theory would have to be compensated for their strike time with lump sum payments rather than higher hourly wages. This we do quite clearly observe in the form of union pension and medical plans and other such "fringe benefit" payments which are unrelated to hours of work. Such payments also cast further doubt on the alternative cartel theory.

If it is conceded that the union's hourly wage level is an ineffective price-control, that fringe benefits, while significant, are not certainly large enough to represent a monopolistic rent extraction by labor, and that the union-shop has succeeded in replacing the restrictive, closed shops of the past with an essentially free-entry device, then our original conjecture that labor unions have no independent monopoly influence is substantially reinforced. For even if unions were to bargain above-competitive nominal wages, entry into the union shops would induce an excess supply of union labor and non-pecuniary wage decreases would clear the market.

But why did industry wait so long to concede labor organizations the right to strike if strikes were a source of benefit to industry rather than labor? A plausible answer lies in the fact that it was not

until the early twentieth century that anti-monopoly policy became an effective government policy (See Thompson-Faith [11]). In response to the establishment of effective anti-trust laws in the 1910's and 1920's, industry may well have conceded, in the '30's and '40's, strike power to labor unions (and regulatory power to government bureaucrats) to acquire at least some, second-best, source of monopoly profit. This would only apply to oligopolistic industries -- where sufficiently practical communication existed between the firms producing most of the industry's output that the antitrust laws imposed binding constraints (Thompson-Faith [11]). In naturally competitive industries -- where firms are too small to make oligopolistic communication practicable -- the antitrust laws of the 1910's and '20's had little effect. If our hypothesis is correct, then some of these naturally competitive industries -- namely those with substantial short-run capital constraints and high degrees of intertemporal substitutability of demand -- would have evolved striking labor unions even before the 1930's. In fact, the successful unions in the private-sector prior to the 1930's were concentrated in notoriously competitive industries -- i.e. the garment, construction, coal, entertainment, and printing industries (See, for example, Rees [4], Ch. 4). Further consideration of this list of industries will reveal them all to be industries with substantial short-run capacity constraints and high degrees of intertemporal substitutabilities in demand.

Similarly, if our hypothesis is true, we would expect observed strikes to be concentrated in industries in which there is (1) a high intertemporal rate of substitution for the products of the industry and (2) a normal rate of plant operation which is close to the maximum possible rate.

The classic study of Kerr and Siegel [2] 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 substantive capacity limitations in the high-strike industries, and extremely low degrees of intertemporal substitutabilities in the agriculture and hotel and restaurant service industries. The infrequency of strikes in regulated industries is similarly explained either by their general inability to capture the extra profit potential resulting from a concentration of demand or by their ability to use regulation to achieve closer to a first-best monopoly solution. The relative unprofitability of strikes to regulated industries would also go a long way towards explaining the relative infrequency of strikes in more 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.

The pattern of striking and non-striking industries appears to have remained the same since 1950. Modern day durable-goods industries normally produce near what is commonly measured as "full capacity," e.g., the auto, steel, coal, and construction industries, and seem to all have very strong, frequently striking unions. 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 seem to contain exceptionally strong labor organizations. Indeed, it is difficult to find any regularly striking union in the United States

whose product does not have these characteristics. As Professor Rees points out ([4], 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 non-struck plants. Conversely, our theory easily explains the relative weakness of modern unions 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.

Regarding the standard theory of unions as labor monopolies, there are numerous nonunionized occupations which 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.

Another implication of our hypothesis is that strikes would be more likely in times when industry generally is relatively close to full capacity. That is, if our theory is correct, strikes -- and even the success of unions -- would be procyclical. This observation is, of course, borne out in reality (See Rees [5] and Rees [4], Ch. 1). Plausible alternative hypotheses do not appear to exist. The standard argument that labor's bargaining power increases with the demand for labor in an upturn (Rees [5]) implies only higher money wages, not a higher frequency of strikes. Indeed, the standard theory of unemployment suggests that workers in a boom, believing that slightly above-normal increases in money wages mean above-normal increases in real wages, will consider wage offers in a boom to be particularly attractive and strike with lower frequency than during normal times.

According to our theory, the agricultural industry should currently be developing strong unions. Owing to recent cost reductions in refrigerated transportation units, the cumulative demand for agricultural products over a production season is not significantly altered by a change in the rate of production in any one month of the season. Thus, an agricultural strike in one month 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.

The long-run benefits to industry of labor unions as a monopoly device appear to be insignificant, as investment and entry would apparently squeeze out almost all of the monopoly rents. If 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 low ratio (approximately $1/100^{\frac{3}{4}}$) of striking relative to working hours in U.S. unions overall indicates that the above argument fails as a general theory of unions as organizations of laborers. Labor unions are known to provide substantial legal and informational services to their workers 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. Nevertheless, the relatively high ratio (approximately $1/10^{\frac{4}{4}}$) of striking

³Source: U.S. Department of Commerce.

⁴Ibid.

relative to working days of the striking workers during a typical year does give support to the theory when applied to unions which actually use the strike weapon in any given year.

We have one, final, test of our theory. The standard Hicksian theory [1] of labor strikes alleges that they are the result of information differences between workers and firms regarding the demand and supply price of labor or regarding the ability of the union to carry out a strike threat. The strike ends when sufficient information is produced. If this were the case, the frequency of strikes in a stable union environment following a period of rapid unionization would decrease overtime 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.⁵

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 cartelization of other industries induced by the general right to strike.

⁵Ibid. Also see Rees [5], p. 31.

Hence, according to the above theory, the right to strike general 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 so clearly 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 cutbacks (Stigler), this observation is also implied by a theory in which unions serve only to create cartel benefits for 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 their 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.

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