# Monopsony and Countervailing Power in the Market for Nurses

## *By Roger D. Blair and Christina DePasquale*[1]

## Introduction

In recent years, there have been a number of antitrust suits filed by registered nurses (RNs) alleging that their wages and other terms of employment have been depressed through collusion among the hospitals in their local market.[2] In most of these cases, the issue involved collusive monopsony, which is unlawful as discussed in the Supreme Court's *Mandeville Island Farms*[3] decision. There have, however, been some new wrinkles recently. In *Fleischman v. Albany Medical Center*,[4] for example, the defendant hospital argued that its compensation package for RNs was determined through collective bargaining with the nurses'

union and, therefore, was protected by the nonstatutory labor exemption.[5] No doubt, this poses some interesting legal issues at the interface of antitrust and labor law, but we leave those to legal scholars. Instead, we focus our attention on the relevant economic issues that arise when one confronts monopsony and countervailing (monopoly) power.[6]

In section II, we begin by explaining the economic objection to collusion among hospitals in the market for RNs. We also explain that the depressed wages are not apt to be passed on to health insurers or patients in the form of lower prices for hospital services. We close the section with a brief discussion of damages in a collusive monopsony case. In section III, we introduce countervailing power in the form of a nurses' union. We explain how this dramatically alters the economic results and creates a thorny antitrust policy problem. In section IV, we conclude with a brief consideration of the implications for antitrust policy.

---

[1] Department of Economics, University of Florida and Ross School of Business, University of Michigan, respectively. Neither of the authors has an interest in any past or pending litigation involving the nurse labor market.

[2] *See, e.g.*, Reed v. Advocate Health Care, 2009 U.S. Dist. LEXIS 89576 (N.D. Ill. 2009). The Court declined to certify the proposed class of RNs alleging collusion among hospitals in the Chicago area to suppress wages. Since 2006, antitrust class action lawsuits have also been filed by nurses in Detroit, Memphis, and San Antonio. Cason-Merenda v. Detroit Med. Ctr., No. 06-15601 (E.D. Mich.); Clarke v. Baptist Mem'l Healthcare, No. 06-2377 (W.D. Tenn.); Maderazo v. Hospital Corp. of Am., No. 06-535 (W.D. Tex.).

[3] Mandeville Island Farms v. Am. Crystal Sugar Co., 334 U.S. 219 (1948). The Court found that Section 1 of the Sherman Act protected sellers, as well as buyers, from the ill effects of collusive restraints of trade.

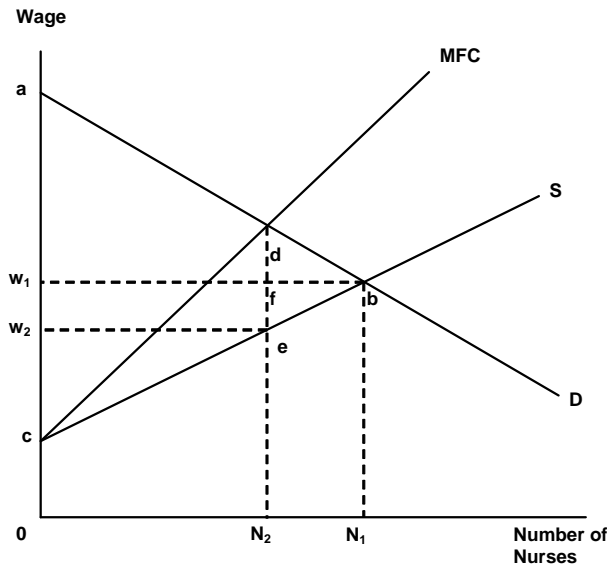[4] 2010 U.S. Dist. LEXIS 73220 (N.D.N.Y. 2010).

[5] *Id.* at *8.

[6] There is some extant literature on the subject. *See, e.g.*, Richard D. Friedman, *Antitrust Analysis and Bilateral Monopoly,* 1986 WIS. L. REV. 73 (1986); Roger D. Blair & Kristine Coffin, *Physician Collective Bargaining, State Legislation, and the State Action Doctrine,* 26 CARDOZO L. REV. 173 (2005).

*Figure 1*



hospital willing to pay the competitive wage can employ RNs. The demand extends beyond the equilibrium and, therefore, some hospitals would hire more RNs if the wage were lower. Like the unemployed nurses, however, they have no antitrust complaint because $w_1$ was determined in a competitive market.

### *Collusive Monopsony*

Now suppose that the hospitals agree among themselves to act together as though they were a single employer (i.e., a monopsonist).[8] By acting collusively, the hospitals can depress the wage, but must curtail employment to do so. In order to maximize their collective profits, the hospitals must restrict employment to the point where the marginal value of employing an additional nurse is equal to the marginal cost of the additional nurse.

The marginal value is demonstrated in Figure 1 by the height of the demand curve. The marginal cost is a little more complicated. The total wage bill for RNs is the product of the wage paid and the number of RNs employed: *wN*. In order to hire an additional nurse, the wage must rise to induce the additional supply. Absent wage discrimination, however, the hospital cannot pay that increased wage to only the additional nurse that it hires, but must pay the higher wage to all previously employed nurses as well. Therefore, the marginal impact on the wage bill equals the wage paid to the added nurse plus the increase in the wage paid to all of the nurses previously employed. The sum is the marginal factor cost, which is shown in Figure 1 as MFC. In this scenario, the

## Collusive Monopsony: Economic Consequences

Under competitive conditions in the market for RNs, supply and demand determine the number of RNs employed and their wages.[7] Figure 1 depicts the competitive solution where demand (*D*) and supply (*S*) are equal. At that point, the competitive wage is $w_1$ and the number of RNs employed is $N_1$. In this competitive equilibrium, every nurse willing to work at the competitive wage will be employed. The supply curve extends beyond that point so there will be RNs who are willing to work, but only at a wage above $w_1$. Thus, these RNs will not be employed as nurses. They may be frustrated because wages are not higher, but they have no valid antitrust complaint because market competition has determined the wage. Similarly, in the competitive market, every

---

[7] For ease of exposition, we refer only to the wage, but recognize fully that there is more to the compensation package than just the wage rate.

---

[8] For an extensive treatment of monopsony, see ROGER D. BLAIR & JEFFREY L. HARRISON, MONOPSONY IN LAW AND ECONOMICS (2010). For a compact treatment, see Roger D. Blair & Christine Piette Durrance, *The Economics of Monopsony, in* ABA SECTION OF ANTITRUST LAW, ISSUES IN COMPETITION LAW AND POLICY 393-408 (2008).

colluding hospitals will employ $N_2$ nurses and pay the wage on the supply curve at $N_2$, which is $w_2$. Thus, collusive monopsony leads to lower wages for the nurses and reduced employment and higher profits for the hospitals.

### *Welfare Implications of Collusive Monopsony*

The effect of collusive monopsony on economic welfare is illustrated in Figure 1. The hospitals' buyer surplus[9] is the difference between their willingness to pay, as reflected in the demand, and the wage the market requires. The buyer surplus in a competitive market is the area $abw_1$. For the nurses, supplier surplus[10] is the difference between the minimum wage at which the nurses will work, as reflected in the supply curve, and the wage that the market dictates. In a competitive market, the supplier surplus is the area $w_1bc$ in Figure 1.

The economic foundation for an antitrust policy that promotes and protects competition is the maximization of social welfare that results from competition. Competition in this market leads to the maximum sum of buyer and supplier surplus, which is area $abc$ in Figure 1. No other wage and employment level will generate a larger total surplus. The sum of buyer surplus and supplier surplus is a measure of social welfare.

Collusive monopsony adversely affects nurse welfare and social welfare because this form of profit maximization by the colluding hospitals results in a reduction in supplier surplus from

$w_1bc$ to $w_2ec$. Part of this reduction, area $w_1few_2$, is converted into buyer surplus (or profit) and part of it is simply lost. The net effect on social welfare is a loss equal to the triangular area $dbe$. As shown in Figure 1, the social cost of hiring the nurses between $N_2$ and $N_1$, as demonstrated by the height of the supply curve, is below the value that these nurses provide, which is demonstrated by the height of the demand curve.[11] From a social perspective, hospitals employ too few nurses. The collusive monopsony solution is allocatively inefficient due to under-employment. This allocative inefficiency is what causes the reduction in social welfare.[12]

### *Impact on Hospital Costs*

Since there is widespread concern over burgeoning health care costs, one might suppose that the reduced wages will reduce the hospitals' costs and thereby benefit patients. This, however, is not the case. It is consistent with our intuition that the reduced wages will reduce the average cost of producing acute care hospital services. This average cost reduction improves hospital profits and thereby provides an incentive for collusion. But monopsony raises marginal cost because the monopsonist's marginal factor cost (MFC) exceeds the competitive wage.[13] Since marginal cost drives price and output decisions, any increase in marginal cost leads to both *reductions* in the hospitals' outputs and *higher* hospital charges.

---

[9] Usually, we refer to *consumer* surplus, but here we use *buyer* surplus since the hospitals are employers rather than final consumers. The concept is the same: the cumulative difference between the willingness to pay and the expenditure that market forces require.

[10] Usually, the term would be *producer* surplus, but we have modified the term because nurses supply services rather than produce goods. Again, the concepts are the same.

[11] The gap between the marginal value of the nurses' services at $N_2$ and the wage $w_2$ is referred to as monopsonistic exploitation. *See* JOAN ROBINSON, THE ECONOMICS OF IMPERFECT COMPETITION (1933).

[12] The welfare loss due to collusive monopsony is analogous to the more familiar welfare loss of monopoly.

[13] This result is developed analytically in Blair & Durrance, *supra* note 8, at 393-408.

Thus, collusive monopsony has no welfare-redeeming virtues.

### *Collusive Monopsony and Antitrust Damages*[14]

Assuming that collusion among hospitals is impermissible, the nurses will have standing to sue for damages under Section 4 of the Clayton Act.[15] In a collusive monopsony case, the measure of damages is the undercharge suffered by the victims of the conspiracy (i.e., the nurses). Consequently, the appropriate measure of the aggregate amount of damages suffered by employed nurses ($\Delta_i$) is the difference between the actual wage ($w_a$) and the competitive wage (the wage "but for" the collusion ($w_b$)), multiplied by the number of nurses actually employed:

$$\Delta = (w_a - w_b)N_a$$

Figure 1 shows that the damage will be equal to the difference between $w_2$, which is the actual (collusive) wage, and $w_1$, which is the "but for" (competitive) wage, multiplied by $N_2$, which is the actual number of nurses employed. Shown in Figure 1, the damage is equal to the rectangular area $w_1few_2$.

There are nurses who would have been employed but for the collusion—in fact, there are $N_1 - N_2$ of them. They have suffered antitrust injury because the competitive wage ($w_1$) exceeds their reservation wages. They are essentially priced out of the market, but the

unemployed nurses usually do not have standing to sue.[16] The major problem is proving that one would have been willing to work at the competitive wage. In addition, the damage for these nurses would be the difference between the competitive wage and the reservation wage, which is the height of the supply curve. This gap narrows as one slides along the supply curve to point b in Figure 1. Proving (or disproving) each nurse's reservation wage along that segment of the supply is ordinarily not feasible.

Proving the amount of damages for those nurses who are actually employed can be an econometric challenge because an estimate of antitrust damages requires a reliable estimate of the "but for" wage. To determine the "but for" wage, we must reliably estimate both the supply of, and the demand for, nurses. These are typically difficult, but not impossible, to estimate. In the absence of reliable estimates, however, we are left with speculation and guesswork. These do not provide the necessary foundation for admissible estimates of damages.[17]

## Countervailing Power of Unions

If the nurses organize into a union, they will acquire monopoly power in the nurse labor market. If the buying side of the market is competitive, the exercise of that power will result in the usual sort of welfare losses for the employers and for society that accompany monopoly.[18] But that is not necessarily the case

---

[14] This section relies on Christina DePasquale, *Collusive Monopsony and Antitrust Damages*, 54 ANTITRUST BULL. 907 (2009). *See also* IIA Phillip E. Areeda et al., ANTITRUST LAW ¶ 395e (3d ed. 2007) (discussing collusive monopsony and antitrust damages).

[15] 15 U.S.C. § 15 ("[A]ny person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue…and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee.").

[16] When a cartel of sellers raises price above the competitive level, consumers who are priced out of the market typically lack standing to sue.

[17] For an examination of the evidentiary standards, see Roger D. Blair & William Page, *"Speculative" Antitrust Damages*, 70 WASH. L. REV. 423 (1995).

[18] In the case of labor, there is a presumption that they need to organize due to the superior bargaining power of

when the hospitals behave collusively in the nurse labor market. Under those circumstances, the formation of a nurses' union creates a bilateral monopoly, which is a market with one buyer (the hospital cartel) and one seller (the nurses' union).[19] Bilateral monopoly has superior economic properties relative to a market structure with competitive sellers and monopsonistic buyers.[20] This case, however, demands some careful economic and policy analysis.[21]

### *Economic Impact of Unionization*

The economic consequences of unionization in the presence of collusive monopsony can be analyzed in Figure 1. The collusive monopsony solution in Figure 1 results in a wage of $w_2$ and an employment of $N_2$. The sum of supplier surplus and buyer surplus is equal to the area *adec*. When the nurses unite, there is monopoly on the selling side and monopsony on the buying side of the nurses' labor market. In the resulting bilateral monopoly, the usual marginal analysis fails us. Neither the monopolist nor the monopsonist can exploit its market power in the usual way.[22] Normally, a monopolist exploits

its power by restricting its output, thereby raising price above the competitive level. The monopsonist curtails its purchases and thereby reduces price below the competitive level. It is clear that these efforts are in conflict. Unilateral efforts to maximize profits will be futile. The solution is cooperation rather than conflict. The buyer and the seller will cooperate to maximize their combined profits and then bargain over the shares.

It is clear from Figure 1 that the total surplus will be maximized by employing $N_1$, rather than $N_2$, nurses. The total surplus will be equal to the triangular area *abc*. Because no other employment level can generate more total surplus, no other employment level makes economic sense. The parties should agree on that employment level and then negotiate over the sharing of the resulting surplus.[23] In a bilateral monopoly, the wage is not a rationing device as it is in a competitive market. In other words, it does not lead to increases or decreases in employment. The number of nurses employed ($N_1$) is determined before the maximized surplus is divided between the parties. The wage is then only a means of sharing the jointly maximized surplus. One wage that achieves this is $w_1$, but there are many other wages that can be used to divide the surplus. In the case of nurses who were previously being exploited by a collusive monopsony, one would expect the wage to rise, but, if the goal of the antitrust laws is allocative efficiency, that is of no competitive concern because the wage will not influence the output level of acute care hospital services; it merely

---

large employers. This is the economic rationale for the nonstatutory labor exemption.

[19] This term does *not* refer to the case of a monopolist in the output market that is a monopsonist in an input market.

[20] The correct analysis of bilateral monopoly can be traced at least to A.L. Bowley, *Bilateral Monopoly*, 25 ECON. J. 651 (1928). *See also* Roger D. Blair, David L. Kaserman & Richard E. Romano, *A Pedagogical Treatment of Bilateral Monopoly,* 55 S. ECON. J. 831 (1989) (correcting a common mistake found in many microeconomics textbooks).

[21] For a good analysis, see Friedman, *supra* note 6.

[22] Technically, the monopolist has no supply function, so the monopsonist cannot move along what is not there. Similarly, the monopsonist has no demand function, so the monopolist cannot move along what is not there. *See*

---

JAMES M. HENDERSON & JAMES E. QUANDT, MICROECONOMIC THEORY 222-26 (3d ed. 1980).

[23] When the negotiations fail, we have a strike or a lock out. Neither outcome makes any sense as surplus is lost forever.

allocates the surplus between the employers and the nurses.

Precisely the same analysis applies when formerly competing hospitals form a cartel to confront a monopoly union.[24] Prior to the cartel formation, the union imposed higher wages and caused losses in social welfare. Cartel formation then results in bilateral monopoly and an improvement in social welfare. In this case, one would expect the negotiations to result in somewhat lower wages for the nurses, but, once again, this is of no competitive concern.

As we have shown, the bilateral monopoly solution involves no allocative inefficiency. Whatever market power the union has in supplying nurse services is offset by the monopsony power of the hospital cartel. Similarly, whatever monopsony power the hospital cartel enjoys is offset by the monopoly power of the union.

Unable to exert market power in the usual way, the parties cooperate to maximize the sum of supplier and buyer surplus. As the figure shows, supply and demand in a bilateral monopoly are equal, which means, in the case of nurses, that the socially efficient number of nurses is being employed. The fact that the wage is left to bargaining simply means that the distribution of the combined surplus is indeterminate, but the size of the surplus is fully determined. Consequently, there is absolutely no competition policy concern here—that is to say, there is nothing that needs fixing.[25]

---

[24] This assumes, as before, that the hospitals' collusion does not extend to the output market. If it did, that would indeed be a competitive concern.

[25] As an economic matter, the distribution of the surplus is irrelevant. This is not to say that the parties and the courts are uninterested in the distribution, but economics has little to offer in this regard when the surplus is maximized.

*Antitrust Policy Implications*

The antitrust policy implications of the foregoing analysis are disconcerting. In the presence of a lawful monopoly, the formation of a buying cartel has procompetitive consequences as quantity expands. In the presence of a lawful monopsonist, the formation of a seller cartel has procompetitive consequences as quantity expands. In both cases, the cartel formation is apt to be per se unlawful.[26] This means that the usual antitrust treatment of collaboration among competing buyers or sellers is inconsistent with the promotion of social welfare. But endorsing the formation of cartels does not come easily.

There is a presumption in the nonstatutory exemption for labor unions that unorganized labor is vulnerable to the monopsony power of large employers. The union is a lawful collusive monopoly. Endorsing a hospital cartel could be dangerous, since their cooperation in the nurse labor market could extend to the output market.

The analysis of bilateral monopoly should not be extended too far. For example, one might use this economic analysis to argue in favor of collusion among sellers to offset unlawful collusion among buyers. The theoretical argument still holds, but the obvious antitrust response is to defeat the unlawful buyer cartel. In this way, competition is restored and we can be sure that social welfare will be improved.

---

[26] In the case of labor unions, this does not apply due to the nonstatutory labor exemption.