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The Death of Labor Market Competition Has Been Greatly Exaggerated

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Abstract
I critique recent theoretical and empirical research that suggests that labor markets are not nearly as competitive as has generally been assumed. I argue that no-poaching agreements and covenants not to compete may reduce the number of competitors and thus the wage, but firms are still wage takers. This means the minimum wage will not increase employment.

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Introduction

Monopsony has been rediscovered in the last several decades. One detailed analysis, in a book by Manning (2003), argues that monopsony is pervasive in labor markets. The vastness of modern labor markets suggests that Manning's claim is implausible, although Krueger and Ashenfelter (2022) argue that agreements not to poach the employees of competitors offer an explanation for monopsony. Other recent research suggests that the level of monopsony power in US labor markets is significant.

An additional issue is whether labor market monopsony explains the finding that the effects of the minimum wage on employment are non-negative (Card 2022). H. Gregg Lewis, the father of modern labor economics (Hamermesh 2020), argued decades ago that monopsony is only invoked in discussions of the minimum wage and is the sole argument for the minimum wage (Lewis n.d.).[1] Today monopsony is invoked to explain low earnings of some groups.

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[1] Lewis (n.d.) is a set of lecture notes from the graduate labor-economics course Lewis taught at the University of Chicago. The individual who compiled the notes is unknown to me. They are likely from the late 1960s.

I consider several questions that have not been addressed by those who argue that monopsony is pervasive in US labor markets. The answers cast doubt on their claim.[2] First, do measures of labor market concentration reflect the level of monopsony power? Second, do no-poaching agreements or covenants not to compete imply upward-sloping supply of labor to firms, even if they result in lower wages?[3] Third, should one expect minimum wages to not decrease employment? Finally, are estimates of firm-level labor supply elasticity meaningful, given that they do not include nonmonetary compensation?[4]

II. Measures of Market Concentration

Krueger and Ashenfelter (2022) adopt the model of oligopolistic competition developed by Dansby and Willig (1979) and apply it to the labor market. Krueger and Ashenfelter use an index of monopsony power that is related to measures of employer concentration. They find that no-poaching agreements between hiring firms increase concentration and thus increase monopsony power.

Berry, Gaynor, and Morton (2019) note that the structure-conduct-performance approach to product markets has long been discredited in the industrial organization literature. They note that similar concerns should apply to using concentration as a measure of competition in labor markets. Demsetz (1973) argues that, absent entry barriers, product-market concentration results from superior firm performance. Syverson (2019) reasons that concentration is an outcome and not a determinant of competition in a market. Soares, Bourne, and Miron (2022) suggest that concentrated labor markets may reflect lower productivity and thus lower wages.

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[2] Krueger and Ashenfelter (2022) consider three approaches to measuring monopsony. Two of those approaches, based on Manning (2003), use search frictions and the quit rate to justify the monopsony claim. Kuhn (2004) casts doubt on those analyses by Manning. Kuhn notes that, for search models to yield monopsony, a firm must find it harder to recruit a single worker the larger the number of individuals it employs. Also, Manning claims that a quit-rate elasticity with respect to the wage that is less than infinite implies monopsony. Kuhn argues that a firm can be competitive ex ante, with firm-specific human capital explaining the quit-wage relationship. Card (2022) repeats Manning's argument regarding quit rates without mentioning Kuhn's paper.

[3] Wages can fall if no-poaching agreements or covenants not to compete reduce market labor demand when market labor supply slopes up.

[4] I do not consider all of the problems with the argument that monopsony power is pervasive in US labor markets. For additional analysis, see Soares, Bourne, and Miron (2022).

Foster, Haltiwanger, and Tuttle (2022) find that increased markups in product markets are due to observable changes in technology. Atalay et al. (2023) find that markups have increased since 2006 but that such markups are heterogeneous within and between product markets and that ownership consolidation explains little of the increased markups. Finally, Conlon et al. (2023) find little correlation between markups and prices between 1980 and 2018. The results for product-market markups have implications for labor market markdowns, which will be considered in section 5.

Krueger and Ashenfelter might have considered a book coauthored by Willig a few years after his 1979 paper (Baumol, Panzar, and Willig 1982) in which contestable markets imply that an industry with few firms may behave competitively in the product market. Kirov and Traina (2021) find a weak relation between employer concentration and monopsony power (that is, reduced wages). They also note that in product markets, the threat of entry may force incumbents to charge competitive prices even if the firms appear to not be price takers.

Similar behavior could occur in the labor market. Wages forced down by monopsony power of incumbents could result in new entrants that offer higher wages and force incumbents to raise their wages. Krueger and Ashenfelter focus on quick-service restaurants, for which neither entry nor exit should be too costly, making these labor markets contestable.[5] Thus, contestability is another reason why a concentrated labor market might not imply monopsony.

Bunting (1962) finds that labor markets are relatively unconcentrated. He argues that concentration is the most important factor in the cost of collusion by employers.[6] Rinz (2022) argues that if labor market concentration is related to monopsony, it is concentration in local labor markets that matters. He finds that such concentration declined between 1976 and 2015, causing a small reduction in labor market inequality. Similarly, Berger, Herkenhoff,

[5] Soares, Bourne, and Miron (2022) make a similar argument.

[6] Lewis (n.d.) mentions Bunting's study in terms of the likelihood of collusion: if only a small number of firms dominate a labor market, it is *possible* they could collude. Bunting argues that concentration per se is not important. If there are many jobs outside a local labor market that are excellent substitutes for workers in that labor market, then concentration in that market is of no consequence. Only if there are not good substitutes for those workers in outside labor markets does concentration in this market matter—again because collusion is easier the fewer firms there are in a market.

and Mongey (2022) find declining local labor market concentration between 1977 and 2013, which they find added to labor's share of national income by 4 percentage points.

In sum, there appears to be no clear relation between concentration and labor market monopsony. There is some evidence that increased concentration leads to lower wages. However, local labor market concentration has apparently declined since the middle of the 1970s.

III. No-Poaching Agreements and Covenants Not to Compete

It has been argued that no-poaching agreements and covenants not to compete increase monopsony power and lower wages. Balasubramanian et al. (2022) find that banning covenants not to compete raises wages of new hires by about 4 percent. Gibson (2021) finds negative effects on wages of approximately 5 percent from no-poaching agreements in Silicon Valley. In contrast, Starr, Prescott, and Bishara (2021) find that those informed of a covenant not to compete before accepting a job offer earn 10 percent more, whereas for those informed of a covenant not to compete after receiving a job offer, there was no effect on wages. Lipsitz and Starr (2022) find that a ban on covenants not to compete in Oregon in 2008 may have increased the wages of those who were bound by covenants not to compete by 14 to 21 percent. Many no-poaching agreements involve members of a franchise not hiring from other locations of the same franchise. Krueger and Ashenfelter (2022) suggest that no-poaching agreements *within* a franchise may lead to no-poaching agreements *between* franchises but offer no evidence that the latter restrictions have occurred.[7]

Bishara and Starr (2016) argue that many questions remain about the effects of covenants not to compete. A recent analysis (Scholars of Law and Economics 2023) suggests that concerns about covenants not to compete still remain, particularly whether studies are causal or correlational. Finally, Meese (2022) claims that covenants not to compete mainly exist to capture benefits from training and trade secrets by preventing competitors from free riding.

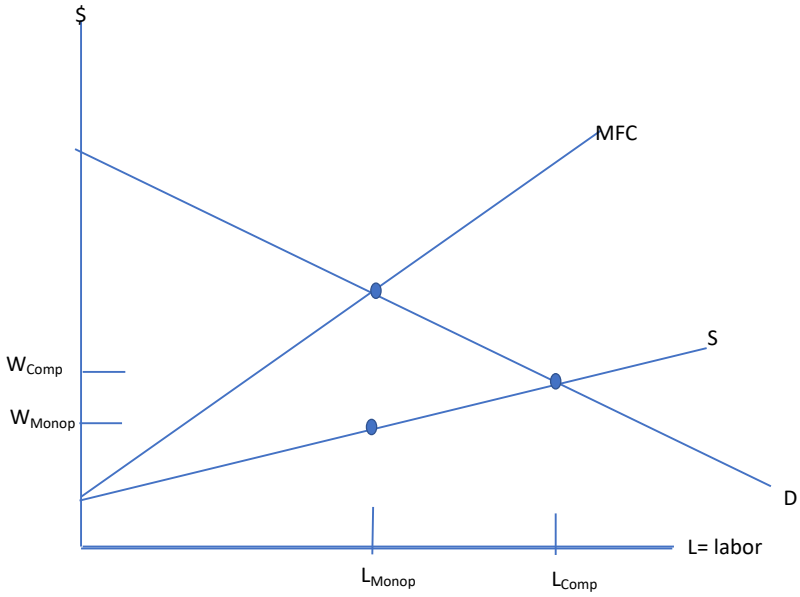
It is plausible that no-poaching agreements and covenants not to compete increase wages for new hires, which is consistent with the findings of Starr, Prescott, and Bishara (2021) but not those of

[7] Note that franchises are not separate firms. Many firms do not allow one part of the firm to poach workers from another part.

Balasubramanian et al. (2022), and that reduced competition for experienced workers subject to such agreements results in lower wages for them.

I ignore the possibility of higher wages for new hires. I do so to focus on whether no-poaching agreements or covenants not to compete imply monopsony power in the sense of firms facing elasticity of labor supply that is less than infinite. This possibility has implications for the effects of a minimum wage. Thus, suppose no-poaching agreements and covenants not to compete lower wages. Can wages be reduced by such agreements if firms are wage takers?[8]

Figure 1. A labor market with monopsony



Let ℓ represent a firm's employment level, L the total number employed in a labor market, and w the wage, and assume upward-sloping market labor supply. Figure 1 illustrates a monopsony. With competition (supply equal to demand), the wage and employment levels would be w_{comp} and L_{comp}, respectively. With a monopsony—firms colluding to set the wage and hiring levels—the monopsonist cartel hires to the point at which marginal revenue product (MRP_L; market

[8] I ignore for now nonmonetary compensation (discussed in section 4), so total compensation is the wage.

demand) equals marginal factor cost, paying the wage required by market labor supply. Thus, we have w equal to w_{monop} and L equal to L_{monop}. The hiring cartel sets the wage and hiring levels for each firm. Profit-maximizing behavior suggests each firm hires according to its demand (or MRP_ℓ) as a fraction of market demand, implying that the elasticity of supply of labor to each firm at its employment level is the same as the elasticity of market labor supply.[9]

There is no wage fixing with no-poaching agreements or covenants not to compete. Firms in such agreements simply limit the workers they try to hire. Let $\xi^S_{\ell,w}$ equal the elasticity of labor supply to a firm and $\xi^S_{L,w}$ equal market elasticity of labor supply. With wage setting, $\xi^S_{\ell,w} = \xi^S_{L,w} < \infty$. Without wage setting, effectively there are fewer firms hiring, but, as suggested in the previous section, this does not necessarily imply monopsony power in the sense of $\xi^S_{\ell,w} < \infty$. Instead, no-poaching agreements and covenants not to compete effectively mean lower demand for labor.[10] If the market supply of labor slopes up, the effect of a no-poaching agreement or a covenant not to compete is to lower the wage.

Analogously, suppose price-taking firms in a product market earn positive profits. Entry would normally occur to force price to the point at which profit is zero. If entry is restricted by the government and there are no good substitutes, as in some cities with taxicabs prior to the existence of Uber and Lyft, price remains above the long-run (zero profit) level. There are fewer sellers relative to the free-entry long-run equilibrium, but firms are still price takers.

This analysis raises two questions. First, if no-poaching agreements or covenants not to compete result in a lower wage, and a labor market is contestable, why do not firms enter, offer a higher wage, and ultimately drive the wage to the competitive level (that is, the wage

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[9] A firm's elasticity of labor supply equals $\frac{\partial \ell}{\partial w}\frac{w}{\ell}$, and the elasticity of market labor supply equals $\frac{\partial L}{\partial w}\frac{w}{L}$. If the firm's share of market demand is z, $0 < z < 1$, then $\frac{\partial \ell}{\partial w} = z\frac{\partial L}{\partial w}$ and $\ell = zL$, so $\frac{\partial \ell}{\partial w}\frac{w}{\ell} = \frac{\partial L}{\partial w}\frac{w}{L}$.

[10] With a no-poaching agreement or a covenant not to compete, some firms will not hire some workers. Essentially a firm with a no-poaching agreement or a covenant not to compete is off its MRP_ℓ schedule. If the wage would equal w_1 with no no-poaching agreement or covenant not to compete, it now equals $w_0 < w_1$. If employment by a firm with no no-poaching agreement or covenant not to compete would equal ℓ_1, it now equals $\ell_0 < \ell_1$. The firm gains $(w_1 - w_0)\ \ell_0$ and loses $\int_{\ell_0}^{\ell_1}(MRP_\ell - w_1)d\ell$ with the no-poaching agreement or covenant not to compete, so such a policy *can* be profitable.

without a no-poaching agreement or a covenant not to compete)? Suppose existing firms would pay w_c without a no-poaching agreement or covenant not to compete, and the agreement results in $w = w_a < w_c$. Suppose further that potential entrants have higher cost than existing firms, possibly because the latter are franchisees of a company and have advantages for that reason, and the former are independent firms. If the independent firms cannot compete with the franchisees unless $w < w_i$, with $w_i < w_c$, as long as $w_i < w_a$ the franchisees with a no-poaching agreement or a covenant not to compete can succeed in lowering the wage without attracting independent firms.

Second, why does it matter whether no-poaching agreements or covenants not to compete lower wages via reduced demand or because firms have monopsony power—that is, $\xi^S_{\ell,w} < \infty$? The answer involves the effect of a minimum wage. Manning (2021) argues that employment might not fall with a minimum wage if monopsony exists. Azar et al. (2019) find that a higher minimum wage causes increased employment in highly concentrated labor markets.

As is well known, a minimum wage could increase employment in a monopsonistic labor market. This is because firms who collude and set wages face an upward-sloping supply of labor. As I argued above, no-poaching agreements and covenants not to compete could reduce market labor demand, thereby lowering wages when *market* labor supply is upward-sloping, with firms still being wage takers. In that case, an effective minimum wage lowers employment.

IV. Estimates of the Elasticity of Supply of Labor to Firms

Recent research finds the elasticity of supply of labor to firms is not large. Some estimates of supply elasticity range from one (Bachmann, Demir, and Frings 2022) to four (Bassier, Dube, and Naidu 2022). Manning (2021) discusses some of the recent estimates of labor supply elasticity to a firm, $\xi^S_{\ell,w}$. He discusses job *amenities* and suggests that idiosyncratic taste for amenities implies that $\xi^S_{\ell,w} < \infty$ because only a small number of firms offer a particular package of wages and amenities. Manning views the level of amenities as a supply shifter when one measures labor as a function of monetary benefits, w.

However, estimates of labor supply as a function of wages do not yield good estimates of the extent of labor market competition. It is not necessary that many firms offer the same package of amenities. The issue is whether firms are forced to offer a given level of *compensation*, the sum of monetary and nonmonetary benefits.

Estimates of labor supply as a function of w do not reflect the response of labor to compensation.

Nonmonetary compensation appears to be important. For example, Helliwell and Huang (2010) estimate the value workers place on being able to trust management and coworkers. They find that using an index of trust, moving from 75 percent to 100 percent trust is equivalent to a 48 percent wage increase. Locational amenities are another form of nonmonetary compensation.

Workers also may value the product they produce. For example, Beta Technologies in Burlington, Vermont, attracts aerospace talent for a much lower wage than traditional aerospace firms. Part of the reason is location, but many who join Beta are particularly attracted to the company's product: an electric, vertical-takeoff airplane—that is, an airplane with zero pollution and no runway required. These individuals are concerned about carbon emissions and are willing to sacrifice earnings to help achieve lower emissions. Blair Newton, the chief operations officer for Beta Technologies, took a 65 percent pay cut to join Beta (Howe 2022).

Estimates of labor supply to firms are based on easily measured forms of monetary compensation. However, if nonmonetary compensation is important, wage elasticities of supply may significantly understate *compensation* elasticities of supply. Suppose a worker's total compensation equals y and $y = w + n$, where w equals monetary compensation and n equals nonmonetary compensation. The econometrician may have a good measure of w and may have some measure of amenities but is not likely to be able to measure much that goes into n.

Estimates of labor supply elasticity, $\xi^{S}_{\ell,w}$, do not consider compensating differentials—how n and w are related. The idea is that competition forces either w or n to change when the other changes. Since I am interested in estimates of the wage elasticity of labor supply, I consider changes in w so n is then a function of w. Let ℓ = the number employed at a firm. Differentiate y w.r.t. ℓ:

$$\frac{\partial y}{\partial \ell} = \frac{\partial w}{\partial \ell} + \frac{\partial n}{\partial w}\frac{\partial w}{\partial \ell} = \frac{\partial w}{\partial \ell}\left(1 + \frac{\partial n}{\partial w}\right) \quad (1)$$

The key term is $\frac{\partial n}{\partial w}$, with $\frac{\partial n}{\partial w} < 0$ and, presumably, $-1 < \frac{\partial n}{\partial w}$. A firm can offer a low w if n is sufficiently high. Thus, $\frac{\partial n}{\partial w}$ is the real measure of how competitive the labor market in which the firm operates is. If $\frac{\partial n}{\partial w} = -1$, a change in the wage is completely offset by a change in n:

$\frac{\partial y}{\partial \ell} = 0$—the firm is a *compensation* (not wage) taker. In that case, using eq. (1), the magnitude of $\frac{\partial w}{\partial \ell}$ is irrelevant, which means the magnitude of $\xi^{S}_{\ell.w} = \frac{w}{\ell \frac{\partial w}{\partial \ell}}$ is irrelevant.[11]

Now suppose $-1 < \frac{\partial n}{\partial w} < 0$, so the firm is not a perfect compensation taker. Consider how $\xi^{S}_{\ell,w}$ differs from $\xi^{S}_{\ell,y}$, the elasticity of ℓ with respect to *y*. Let $\xi_{n,w}$ equal the elasticity of *n* with respect to *w*, with $\xi_{n,w} < 0$. Solve eq. (1) for $\frac{\partial w}{\partial \ell}$:

$$\frac{\partial w}{\partial \ell} = \frac{\frac{\partial y}{\partial \ell}}{1 + \frac{\partial n}{\partial w}} > 0 \quad (2)$$

Manipulating eq. (2):

$$\frac{\ell}{w}\xi^{S}_{\ell,w} = \frac{1 + \frac{\partial n}{\partial w}}{\frac{\partial y}{\partial \ell}},$$

$$\xi^{S}_{\ell,w} = \frac{w + n\xi_{n,w}}{\frac{y}{\xi^{S}_{\ell,y}}} = \frac{\xi^{S}_{\ell,y}}{y}\left[w + n\xi_{n,w}\right] \quad (2')$$

Using eq. (2'), $\xi^{S}_{\ell,w} < \xi^{S}_{\ell,y}$ for two reasons. First, ignoring the term $n\xi_{n,w}$ for the moment, consider the term $\frac{w}{y}\ \xi^{S}_{\ell,y}$. The larger is nonmonetary compensation as a fraction of total compensation, the smaller is $\xi^{S}_{\ell,w}$ relative to $\xi^{S}_{\ell,y}$. Second, the larger is $|\xi_{n,w}|$, the further $\xi^{S}_{\ell,w}$ is reduced below $\xi^{S}_{\ell,y}$. To see the effect of a change in *n*, let $n = n(w,\theta)$, with $\frac{\partial^2 n}{\partial w \partial \theta} = 0$ and $\frac{\partial n}{\partial \theta} = 1$. Thus, θ is a pure shift variable. Now, for simplicity, assume $\xi^{S}_{\ell,y}$ and $\xi_{n,w}$ are constants. Then,

[11] Sockin (2022) finds a positive relationship between monetary and nonmonetary compensation. I believe his results are due to more productive individuals' receiving greater amounts of both monetary and nonmonetary compensation. Sockin's evidence supports my conjecture. In this paper, I am interested in compensation given an individual's MRP_{ℓ}. A firm must offer a given level of total compensation to an individual based on the individual's MRP_{ℓ}. Then monetary and nonmonetary compensation are substitutes. Also, Sockin argues that inequality is understated when only monetary compensation is considered because of the positive relation across individuals of monetary and nonmonetary compensation. Similarly, I argue that estimates of labor supply to a firm are understated when only monetary compensation is considered.

$$\frac{\partial \xi^{S}_{\ell,w}}{\partial \theta} = \frac{\xi^{S}_{\ell,y}\,\xi_{n.w}}{y} < 0. \quad (3)$$

An exogenous increase in nonmonetary compensation, given $\xi_{n.w}$ and $\xi^{S}_{\ell,y}$, implies a lower measured elasticity of labor supply. An area with more amenities or a firm producing something that is valued by employees (such as nonpolluting airplanes) would have a lower measured elasticity of demand.

For evidence of how greatly $\xi^{S}_{\ell,w}$ may differ from $\xi^{S}_{\ell,y}$, let $k \equiv (1 + \frac{\partial n}{\partial w})$. Thus, k is a measure of labor market competition. As $k \to 0$, the market becomes extremely competitive: individuals are fully compensated for wage changes through adjustment in nonmonetary compensation. The replacement rate of wages with nonmonetary compensation is $1-k$. Further, let $w = \alpha y$, with $0 < \alpha < 1$.Then, inverting eq. (1),

$$\frac{\partial \ell}{\partial y} = \frac{1}{k}\frac{\partial \ell}{\partial w},$$

$$\frac{\ell}{y}\,\xi^{S}_{\ell,y} = \frac{\ell}{kw}\,\xi^{S}_{\ell,w},$$

$$\xi^{S}_{\ell,y} = \frac{1}{k\alpha}\,\xi^{S}_{\ell,w}. \quad (4)$$

Some examples are in table 1. Note that the value of a particular location, or, as in the case of Beta Technologies, the value to the employees of the product they produce, can yield values for α that are far below one. Also, a large value for k implies that firms could lower wages significantly and not compensate workers. The values for k in the range used in table 1 still imply nontrivial deviation from a competitive market.[12]

From table 1, even if wages represent 80 percent of compensation, and individuals are only compensated for 80 percent of a lower wage via increased nonmonetary compensation, the elasticity of labor supply with respect to compensation is more than six times the elasticity of labor supply with respect to wages. A 90 percent replacement rate for wages (k =0.1) implies that the elasticity of labor supply with respect to wages is less than 10 percent of the elasticity of labor supply with respect to compensation, even if wages represent 90 percent of compensation.

[12] I use k of 0.1 and 0.2, meaning either a 10 or 20 percent deviation from competitive compensation. These percentages are comparable to the effects Lewis (1963) finds that labor unions have on wages in the other direction, about 15 percent on average.

Table 1. The ratio of the elasticity of labor supply with respect to compensation (*y*) and the elasticity of labor supply with respect to the wage (*w*)

α	k	$\xi^{S}_{\ell,y}/\xi^{S}_{\ell,w}$
0.9	0.2	5.56
0.8	0.2	6.25
0.7	0.2	7.14
0.6	0.2	8.33
0.5	0.2	10
0.9	0.1	11.11
0.8	0.1	12.5
0.7	0.1	14.29
0.6	0.1	16.67
0.5	0.1	20

Note: $k \equiv (1 + \frac{\partial n}{\partial w})$ and $\alpha = \frac{w}{y}$.

V. Further Discussion of Monopsony

Recent papers have found wages below MRP_ℓ, implying monopsony power. Lamadon, Mogstad, and Setzler (2022) claim that workers earn rents, and, although they are paid more than what they could earn elsewhere, they earn less than their MRP_ℓ at their employers. However, Becker (1962) showed that such a situation occurs in a competitive market with firm-specific human capital.[13] Noncompetitive behavior is not required for rents to occur.[14] In an interview (Daly and Hunter 2017), Edward Lazear argues that higher-skilled workers are in idiosyncratic positions in which match-specific rents occur but workers are not exploited: they earn more than elsewhere.

Lamadon, Mogstad, and Setzler (2022) claim that different values by workers for the same amenities imply the existence of rents for

[13] Lazear (2009) considers a skill-weights approach to what he calls specific human capital but admits it is more like general human capital. With firms weighting skills differently, workers *may* lose earnings if they are forced to switch employers, which always occurs in Becker's (1962) model of specific human capital unless firms pay all of the training cost.

[14] Similarly, Yeh, Macaluso, and Hershbein (2022) claim MRP_ℓ exceeds the wage in US manufacturing. In addition to the point above that this may reflect firm-financed specific human capital, Yeh, Macaluso, and Hershbein find some puzzling results. They find that the gap between MRP_ℓ and the wage decreased between the late 1970s and early 2000s and increased significantly thereafter. They admit that these results are inconsistent with a continuous increase in labor market power. The question then is why they believe they have found monopsony power.

inframarginal workers. They then conclude that the supply of labor to a firm slopes up. To see the problem with this claim, assume a very large number of firms hiring in a labor market, none of which hires more than a small percentage of the total number hired in this market. That is, assume a textbook competitive labor market. If the *market supply* of labor slopes up, then all those hired in this labor market except those who are indifferent to working there or elsewhere are inframarginal and earn some rent. Following Lamadon, Mogstad, and Setzler, one would believe these firms all face upward-sloping labor supply schedules—that is, they have monopsony power—even though all have a trivial impact on the market wage. Only if all workers in a labor market have identical preferences for amenities and identical alternative earnings—so market labor supply is horizontal—would no rents occur. Thus, the presence of inframarginal rents tells one nothing about how competitive a labor market is.

A second paper that purports to find evidence of wages below MRP_ℓ is by Kirov and Traina (2021). They claim that in US manufacturing, production workers had $\frac{MRP_\ell}{w}$ of around one in 1972 but that this ratio was around two by 2014. In forty-some years, these workers supposedly went from being paid their MRP_ℓ to being paid only half their MRP_ℓ.

Markups of price over marginal or average cost and markdowns of wages below MRP_ℓ are similar in that they are often suggested to be evidence of a lack of competition. Albrecht (2022) argues that markups (and implicitly markdowns) are residuals that are a return to the firm, for what it is unclear. For example, economists who have found markups might not have correctly measured a firm's opportunity cost of capital.

For one who would argue that Kirov and Traina (2021) have found evidence of monopsony, consider their results. First, there is no claim that nonproduction workers in manufacturing are not paid their MRP_ℓ. Second, technological change, which Kirov and Traina emphasize, has generally been believed to have been labor saving for production workers and labor augmenting for nonproduction workers in recent decades. Thus, one would expect that the ratio $\frac{MRP_\ell|\ nonproduction}{MRP_\ell|\ production}$ has increased in the period studied by Kirov and Traina. Third, Kirov and Traina find that in 1958 in manufacturing, nonproduction workers

earned 3.5 times what production workers earned and that ratio had only risen to 3.81 by 2014.[15]

Since wages have risen for both production and nonproduction workers, markdowns have likely grown for both types of workers. As discussed in section 2 regarding product markets, technological change may have driven these changes in markdowns. As Albrecht (2022) notes, these markdowns are not evidence of anything.

VI. Summary

Bunting (1962) finds little evidence of monopsony in the US. In what is supposed to be a classic case of monopsony, coal-mining towns in the US a century ago, Boal (1995) finds little evidence of monopsony. In their survey of monopsony, Boal and Ransom (1997) conclude that monopsony effects were small on average.

With one caveat, why should one expect that labor markets are less competitive today than decades ago despite improvements in communication (to find out about job opportunities) and transportation (to commute or move to a new job)? The caveat is that no-poaching agreements and covenants not to compete may have become more common over time. Such agreements should be looked at skeptically if (as some evidence suggests) they lower wages. Although similar to the effect of monopsony in terms of wages, such agreements should not imply that firms no longer are wage (or compensation) takers (see section 3). Rather they may simply face lower wages.

David Card argues that "many—or even most—firms have some wage-setting power."[16] Of course firms may vary the *wage* they pay if, by the wage, one means monetary compensation. That fact does not imply monopsony power. Rather, it reflects the different *compensation* packages firms offer.

I end with a quote from Peter Kuhn in 2004: "It strikes me as unlikely that *any* individual firm in a labor market as large the U.S. or U.K. faces an upward-sloping supply curve for labor of a given quality *in the long run*."[17]

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[15] I cannot tell the ratio of nonproduction to production wages in 1974 from the diagram in Kirov and Traina (2021, p. 15), but it appears to be a bit higher in 1974 than in 1958, which strengthens my argument that follows.

[16] Card (2022, p. 1075).

[17] Kuhn (2004, p. 376).

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