Theory and Evidence on Employer Collusion in the Franchise Sector

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I. Introduction

- Economists have long been interested in the extent to which employers use market power or collusive actions to suppress pay and restrict competition in the labor market.

- This interest extends back at least to Adam Smith (1776), who maintained that employers "are always and everywhere in a sort of tacit, but constant and uniform combination, not to raise the wages of labour above their actual rate."

- Smith, however, noted a critical impediment to subsequent studies of the extent of collusive behavior on the part of employers that has hindered research:

"We seldom, indeed, hear of this combination, because it is the usual, and one may say, the natural state of things, which nobody ever hears of."

- In this paper we seek to shed light on the extent of employer collusive action to restrict competition in the labor market by examining the prevalence of covenants in franchise contracts that restrict the recruitment and hiring of employees from other units within the same franchise chain.

- An example of such a covenant is in McDonald's standard franchise agreement:

Interference With Employment Relations of Others. During the term of this Franchise, Franchisee shall not employ or seek to employ any person who is at the time employed by McDonald's, any of its subsidiaries, or by any person who is at the time operating a McDonald's restaurant or otherwise induce, directly or indirectly, such person to leave such employment. This paragraph 14 shall not be violated if such person has left the employ of any of the foregoing parties for a period in excess of six (6) months.

II. Data on Franchise "No-Poaching" Agreements

A. Information on Employees' Franchise Employment History

III. Theoretical Analysis of No-Poaching Agreements

A. Unilateral Anti-Competitive Behavior

- One obvious explanation is that the goal of the no-poaching franchise clause is to reduce the likelihood that a worker leaves a specific franchisee outlet.

- By agreeing, against a franchisee's unilateral best interest, to forego hiring of other franchisee's workers, all franchisees in a chain reduce competition in their labor market and decrease the likelihood of a worker departing for another franchisee's job offer.

- This is equivalent to a reduction in the elasticity of labor supply faced by individual franchisees and, in the usual models of monopsony (or oligopsony, see Joan Robinson), reduces the wage relative to the marginal product of labor.

- In these models, the unilateral optimality condition for hiring, where the value of the marginal product of labor (VMP) equals the wage (W), VMP-W=0 is replaced by

$$(1) \qquad (\text{VMP-W})/\text{W} = 1/\varepsilon_{Lw},$$

where ε_{LW} is the elasticity of labor supply to the firm.

- A lower labor supply elasticity leads to a larger gap between the marginal product of labor and the wage.

- For the i^{th} firm, profits are maximized when:

$$(2) \qquad (VMP_i - W_i)/W_i = s_i\,(1+a_i)/\,\varepsilon_{Lw},$$

where S_i is the i^{th} firm's share of employment, ε_{LW} is now the industry labor supply elasticity, and a_i represents the firm's perceived effect of its hiring on all other employer hiring (sometimes called an employer's conjecture).

- Dansby and Willig show that an aggregate measure of monopsony power using (2), which is also a measure of the potential for regulatory action to improve welfare, is

(3) $$M = (1/\varepsilon_{Lw}) \left[\Sigma s_i^2 (1+a_i)^2\right]^{1/2}.$$

- An especially interesting case is the standard Cournot assumption about behavior, where the $a_i = 0$ except when $i = j$.
- In this case (3) simplifies to

$$M^* = H^{1/2} / \varepsilon_{Lw}, \quad (4)$$

where H is the Hirschman-Herfindahl index of competition, $H = \sum s_i^2$.

B. Framework for Measuring the Effect of No-Poaching Agreements on Labor Market Competition – the Effect on H

C. An Empirical Example: Quick Service Restaurants

D. The Potential for Explicit Collusion among Employers

E. Dynamic Monopsony

- To focus on a firm's employment dynamics, let $q(w)$ represent the quit rate if the wage is wand $R(w)$ represent the number of new workers who are recruited and hired by the firm in a given period.
- We assume $q'(w) < 0$ and $R'(w) > 0$.
- If the employment level, denoted $L(w)$, is constant over time, firm-level labor supply is determined by

(5) $$L(w)\, q(w) = R(w)\,.$$

- By taking logarithms of each side of (5) and differentiating with respect tow, Card and Krueger (1995) show that the labor supply elasticity to the firm (ε_{LW}) can be expressed as the recruitment elasticity (ε_{RW}) less the quit elasticity (ε_{qw}):

$$\varepsilon_{Lw} = \varepsilon_{Rw} - \varepsilon_{qw}. \quad (6)$$

- Manning (2003) further shows that in a basic version of the Burdett and Mortensen (1998) search model, the recruitment elasticity is the negative of the quit rate elasticity, $\varepsilon_{RW} = -\varepsilon_{qw}, SO \varepsilon_{LW}$ can be written as:

(6') $$\varepsilon_{Lw} = \varepsilon_{Rw} - \varepsilon_{qw} = -2\varepsilon_{qw} .$$

- To understand the role of no-poaching agreements, consider the firm-level quit rate equation in a wage posting search model, such as Burdett and Mortensen (1998):

$$q(w) = \delta + \lambda[1 - F(w)], \tag{7}$$

- It follows that the quit elasticity with respect to the wage rate is:

(8)
$$\varepsilon_{qw} = \frac{-\lambda f(w)w}{\delta+\lambda[1-F(w)]} \ .$$

- A no-poaching agreement is intended to reduce λ by preventing job offers from franchises in the same chain.
- To see the effect of reducing λ on the labor supply elasticity, note:

$$\frac{\partial \varepsilon_{Lw}}{\partial \lambda} = 2\frac{\delta f(w)w}{(\delta+\lambda[1-F(w)])^2} \geq 0. \quad (9)$$

F. Specific Human Capital, No-Poach Agreements, and Bargaining Shares

IV. Correlates of No-Poaching Agreements

V. Conclusion

Table 1a: Number of Franchise Chains by Industry and No-Hire Agreement

Industry	No-Poach Agreement: No	Yes	Total
Automotive	2	4	6
Baked Goods	1	3	4
Beauty-Related	4	4	8
Business-Related	0	5	5
Child-Related	2	1	3
Decorating & Home Decorating	0	2	2
Education-Related	1	0	1
Frozen Desserts	3	3	6
Health & Fitness	5	6	11
Lodging	12	2	14
Maintenance Services	5	8	13
Personnel Services	0	2	2
Printing	2	0	2
Publications	1	0	1
Quick Service Restaurants	8	32	40
Real Estate	6	1	7
Restaurants (Sit-Do..	0	5	5
Retail Food	3	3	6
Retail Stores	7	4	11
Services-General	2	4	6
Travel	1	2	3
Total	65	91	156

Pearson chi2(20) = 44.6 P-value = 0.001

Table 1b: Percent with No-Hire Agreement by Industry

Industry	No-Poach Agreement	
	No	Yes
Automotive	33.3	66.7
Baked Goods	25.0	75.0
Beauty-Related	50.0	50.0
Business-Related	0.0	100.0
Child-Related	66.7	33.3
Decorating & Home D..	0.0	100.0
Education-Related	100.0	0.0
Frozen Desserts	50.0	50.0
Health & Fitness	45.5	54.6
Lodging	85.7	14.3
Maintenance Services	38.5	61.5
Personnel Services	0.0	100.0
Printing	100.0	0.0
Publications	100.0	0.0
Quick Service Restaurants	20.0	80.0
Real Estate	85.7	14.3
Restaurants (Sit-Do..	0.0	100.0
Retail Food	50.0	50.0
Retail Stores	63.6	36.4
Services-General	33.3	66.7
Travel	33.3	66.7
Total	41.7	58.3

Table 2: No-Poach Clause Logit Estimates

		Has Agreement=1			
Explanatory Variable	Mean [SD]	(1)	(2)	(3)	(4)
Constant		-1.069*	-1.543*	3.694	-2.311
		(0.622)	(0.939)	(3.513)	(4.340)
New Hire Rate	28.2	0.051**	---	---	0.072*
	[9.5]	(0.020)			(0.040)
Mean Log Hourly Wage Rate	2.39	---	-1.543*	---	1.318
	[0.24]		(0.939)		(1.665)
Mean Years of Schooling	12.89	---	---	0.260	-0.195
	[0.93]			(0.260)	(0.254)
Pseudo R-sq		0.039	0.024	0.011	0.042

Notes: Sample size is 156 franchisors. Mean of dependent variable is 0.58. New hire rate is percentage of workers in industry with 1 year or less of tenure. Standard errors allow for clustering at the two-digit CPS industry level. ** statistical significant at the 5% level; * statistical significant at the 10% level.

Table 3: No-Poach Clause Loglt Estimates

Franchise and Industry Characteristics

		Has Agreement=1				
Explanatory Variable	Mean [SD]	(1)	(2)	(3)	(4)	(5)
Constant		0.238	0.420	-0.026	-1.687*	-1.524
		(0.298)	(0.467)	(0.278)	(0.956)	(1.045)
Age of Franchisor	32.4	0.003	---	---	---	-0.005
	[16.1]	(0.008)				(0.009)
Franchise Chain Share	7.58	---	-0.13	---	---	-0.002
(Percent of Establishments)	[14.0]		(0.018)			(0.002)
Industry-Franchise Share	33.9			0.011	-.011	-.011
(Percent of Employment)	[26.7]			(0.007)	(0.011)	(0.011)
New Hire Rate	28.2	---	---	---	0.085**	0.085**
	[9.5]				(0.041)	(0.042)
Pseudo R-sq		0.0004	0.006	0.014	0.061	0.062
Sample Size		156	150	150	150	150

Notes: Mean of dependent variable is 0.58. Franchise chain share is total of franchisor's units as a percent of the number of establishments in 6- digit NAICS industry. Industry-Franchise Share is percent of workers in 6- digit NAICS industry employed by a franchise. New hire rate is percentage of workers in industry with 1 year or less of tenure. Standard errors allow for clustering at the two-digit CPS industry level.