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The Persistence of Organized Crime in New York City Construction: An Economic Perspective

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THE PERSISTENCE OF ORGANIZED CRIME IN NEW YORK CITY CONSTRUCTION: AN ECONOMIC PERSPECTIVE

CASEY ICHNIOWSKI and ANNE PRESTON*

This study explores the strengths and weaknesses of economic reasoning in explaining, and suggesting remedies for, the stubborn presence of racketeering in New York City construction. In this industry, the authors argue, transactions cannot be conducted efficiently either between a large number of firms or within a few large firms. Consequently, criminals can "sell," and profit from, their ability to impose organization on the industry. Criminal activity can persist because of barriers to entry in certain markets within the industry and because of industry characteristics such as constant changes of, and restricted access to, work sites. The role of unions as a monopolizing institution may also facilitate criminal control. These and other economic hypotheses are relevant to policy making, the authors maintain, even though they cannot be adequately tested with available data.

> In almost every branch of the many activities that enter into building construction we found . . . combinations rampant and unchecked and competition completely throttled. The result was accomplished by all manner of devices, from the flagrant matching of bids and illegal combinations between employers and employee associations, to the surreptitious agency of the apparently innocuous Luncheon Club under cover of which production was regulated, territory apportioned and prices fixed between ostensible competitors.
>
> —Intermediate Report of the Lockwood Commission, 1922

THE existence of widespread illegal activity in the New York City construction industry has been recognized at least since the release of the Lockwood Commission's report in 1922. Despite periodic public outcries for more than sixty years, however, the pattern of corruption has persisted. The most recent public report on the problem is the Interim Report of the New York State Organized Crime Task Force (OCTF), "Corruption and Racketeering in the New York City Construction Industry" (OCTF 1988).[1]

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[1] The OCTF is a New York state agency established in 1970 by New York Executive Law 70-a to investigate and prosecute multi-county organized criminal activity. On June 25, 1985, Governor Mario Cuomo requested the OCTF to investigate allegations of corruption in the New York City construction industry.

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One section of that report lists and describes 31 separate court cases initiated since 1980 that involve criminal charges and convictions in construction in the New York metropolitan area. This list is not exhaustive. Rather, it selectively cites cases to illustrate the various distinctive forms of illegal activity in this industry—among them, extortion, bribery, theft, fraudulent billing, pension fund fraud, tax fraud, sabotage, bid rigging, and crimes of violence, including murder.[2]

Several New York City construction unions have been involved in this illegal activity. The OCTF (1988:70–73) reports "criminal investigations that have revealed La Cosa Nostra control over or influence in" at least 13 construction locals in New York City. Corruption and illegal activity are by no means confined, however, to construction unions. The OCTF's Interim Report contains numerous examples of criminal activity by general contractors and specialty subcontractors, as well as by government officials.

In this study, we examine the persistent pattern of crime in New York City construction using the tools and perspective of economics. We attempt to identify fundamental economic questions and issues relevant to this criminal activity, and we suggest how economic principles can, in theory, explain the observed patterns. Furthermore, we evaluate how well the theoretical explanations can be tested with available data and describe the kinds of additional data that would permit more thorough analysis. Our examination shows that some insights can be gained from an economic approach to this difficult problem,[3] but it also reveals limitations of that approach.

The Structure of the New York City Construction Industry

> CRIME FIGURE: Close the door, friend, we got a problem . . . you got to understand something, all right? This guy was being set up [to get a contract award], okay, by very, very heavy people, including myself, okay? The prices were all inflated okay? If you weren't in there, I want to tell you what kind of ball game you're in, okay? The lowest price . . . was a million dollars more than what you were asking for . . .
>
> CONTRACTOR: You're laughing because you're in a lot of hot water.
>
> CRIME FIGURE: I'm laughing because you're in a lot of hot water.
>
> —Intercepted conversation between crime figure and contractor (OCTF 1988:83)

Like the contractor in the conversation, an economist who is faced with explaining the persistence of criminal organization in New York City construction, and the barriers to entry encountered by employers who refuse to participate in corruption activities in that industry, is in some hot water. An examination of the nature of construction activity can, however, provide some explanations of why criminal organization has supplanted the rules of competitive markets in some parts of the industry.

The construction process is a vertical chain of sequential transactions. As in any other industry, transactions may be conducted primarily between firms in a market or between agents or employees of a single firm. Markets involve many potential buyers, with terms of exchange given by market prices; economic activity conducted inside a firm involves fewer parties negotiating the terms of exchange (Coase 1937). The nature of an industry's transactions is an important determinant of whether production and exchange in that industry are organized primarily in the market or within the firm (see especially Williamson 1975:8–10). In the construction industry, however, there are barriers *both* to the formation of large, vertically integrated firms and to the formation of efficient markets. These barriers create an opportunity for orga-

[2] Other investigations that have documented extensive illegal activity in New York City construction include investigative reports in the *New York Times* in 1982 (Oreskes 1982a, 1982b; Raab 1982) and the "sting operation" of the Federal Bureau of Investigation and the Organized Crime Strike Force for the Eastern District of New York, code-named LILREX (OCTF 1988:10).

[3] An earlier version of this paper was prepared for the OCTF. Throughout, we rely on examples, cases, and investigative work reported by the OCTF in its Interim Report (1988).

nized crime to coordinate economic activity in parts of the industry.

Barriers to Market Formation

Three basic characteristics of construction transactions and production make it costly and inefficient to conduct economic activity through markets with many relatively small firms. Instead, these factors encourage the development of a vertically integrated construction process within each firm.

First, the production process involves a series of sequential transactions. Extensive coordination is needed to avoid delays, which can be quite costly in this industry. Idle inputs are one major component of the costs of delay. Furthermore, because large construction projects are commonly financed with multi-million-dollar loans, one extra day of delay causes thousands of dollars of interest charges. As the number of firms in a given stage of production increases, costs and uncertainty in coordinating a construction project will also increase.

Second, the sequential nature of the production process, coupled with its inherent complexity, makes construction markets susceptible to "moral hazard." Moral hazard occurs when a participant in a transaction behaves opportunistically after the contract is implemented. In construction, the costs of production and the quality of the product at any stage depend on the quality of work in previous stages. Because it is costly for one firm to monitor the work of another, and difficult for someone with one specialty to evaluate the quality of output of workers with many different specialties, opportunistic subcontractors may not deliver promised quality to the developer or to the contractor in the next stage of the construction process. Internal organization of transactions can reduce the occurrence of such opportunistic behavior by instituting a monitoring process and internalizing the costs of poor workmanship across stages of production within a single firm.

Third, capital and human assets required in many phases of construction are highly specialized. Construction workers often invest in very specialized training. Much of the capital equipment used in construction is designed for specific tasks, with limited value in alternative uses. As resources become more specialized and their versatility decreases, the number of potential buyers and sellers for any transaction becomes smaller and the market-determined terms of exchange less well defined. In addition, contracts negotiated through markets cannot anticipate all possible contingencies. Unforeseen events may cause contracts to be renegotiated or possibly even cancelled. If parties void the initial transaction, both the owners and employers of expensive specialized assets incur considerable costs as those assets lie idle and complex production processes are delayed. In such cases, internal organization of transactions in firms allows for more flexible and adaptable contracts, and thus becomes a more efficient means of production (Williamson 1981:1548–49).

Barriers to Large Firms

Although there are forces discouraging external market organization of transactions in the construction industry, there are also forces discouraging firms from internalizing transactions. A firm is limited in how far it can grow and how many transactions it can subsume.

First, due to the long duration of a single construction project and the many processes involved in it, a developer-contractor who is integrated vertically across all stages of production cannot guarantee full-time work for each type of worker and continual use of all specialized equipment. Thus, costs of idle resources could be even higher after vertical integration than they are when separate firms conduct transactions.

Second, construction activity is highly cyclical, and firms face high risks of bankruptcy during economic downturns. Because of the specialization of capital assets and limits on resale of equipment, exit from this industry is more costly than it is from many other industries. A vertically integrated construction firm would likely suffer much higher losses

than other construction firms during downturns.

Third, antitrust regulation places direct legal limits on the extent to which firms can expand vertically or horizontally. Although expansion may reduce many transaction costs, the accumulation of market share is visible and potentially illegal. In addition, in public construction projects in New York City, the Wicks Law prohibits officials from letting construction contracts to a single contractor for all construction tasks.[4] This regulation makes a legal combination between a general and a subordinate contractor impractical.

Opportunities for Crime

There are considerable economic and legal barriers to both the formation of markets and the growth of vertically integrated firms in the construction industry. The high potential profits in the industry, however, are a strong incentive for forming some system to organize economic activity. Since New York City is an international center for trade and commerce, it is reasonable to assume that the demand for office and housing space is both high and relatively inelastic. At the same time, there are geographic limits on space and technological limits on high-rise construction, so expansion of the supply of space is costly and limited. The price of space is therefore high and probably well above unit input costs of construction net of the costs of coordinating and executing transactions.

In the absence of another alternative for coordinating and executing economic transactions across the sequential stages of production, firms would grow to the limits imposed by diseconomies of internalizing transactions and by legal regulations. Markets would mediate transactions across firms despite the costs of this form of economic organization if market prices were sufficient to cover these costs. The potential profits in construction have, however, attracted a third organizing structure to the industry—organized crime.

Like the legal firm, organized crime is a "governance structure" for internalizing transactions where markets are a costly method for conducting exchange (Schelling 1967). Criminal law obviously prohibits activities such as extortion, bribery, and theft, which too often characterize New York City construction. The record leaves no doubt, however, that legal deterrents have not been completely effective. A probable reason for this record is that the cost of enforcing criminal law is higher in construction than in other industries. One factor that may make law enforcement efforts especially costly is the mobility of resources and work locations in construction, where a work site exists only for the length of a given project. Such mobility seems to be an important characteristic of other industries that are plagued by crime. For example, Taft (1958:34) identified "trucking, sections of the amusement industry, and distributive trades and services," in addition to the building trades, as industries in which racketeering has persisted over long periods.

Further hampering law enforcement efforts is the restricted access to construction work sites that is legally required as a safety precaution. Outsiders who venture onto a work site are conspicuous, and contracting firms and their employees can often detect and evade those who try to police transactions. Similarly, if barriers to the formation of markets have kept the number of firms small, organized crime needs to monitor and control fewer economic agents.

These characteristics of construction that make the detection of illegal activity relatively difficult reduce the costs and

[4] The Wicks Law, which was enacted in the 1930s, applies to all public construction projects in New York State with anticipated costs over $50,000. The law requires government agencies to select separate contractors for each of four categories of work: plumbing and gas fitting; electrical; heating, ventilation, and air conditioning; and remaining work. The legal interpretation of the law has required that the government agency letting the construction contract supervise and coordinate the separate contracts. The law was designed to protect the public from collusive practices of general contractors. In practice, however, most industry participants feel that the law promotes inefficiency and makes the industry more susceptible to racketeering (OCTF 1988:108–10).

risks of crime. The "supply" of criminal activity will therefore be correspondingly high.

Demand for the alternative governance structure provided by organized crime arises because there are valued services that firms cannot provide legally without significant costs. The services that organized crime can promise to provide or threaten to withhold include coordinating activity across stages of a construction project, monitoring opportunistic behavior, and rationing business to "member" firms during downturns.[5]

The organization of economic activity in this industry through criminal means is therefore partly a response to the barriers to the growth of legal firms and partly a response to the high cost of detection of criminal activity. There is also a third principal economic motivation for illegal activity in construction. Government regulation of urban construction activity is considerable. These regulations are attempts to reduce external costs imposed on uninvolved individuals due to decreased access to streets, light, and other amenities and increased probabilities of construction-related accidents. As pointed out in "The Report of the Mayor's Blue Ribbon Panel on Building Plan Examination and Review" (Shinn et al. 1986), permits are required in New York City at virtually all stages of the construction process to obtain approval of the placement of equipment in streets; the closing of sidewalks; the operation of heavy equipment; the ways in which a new building will change the pattern of sunlight; and any effects on historic sites. Obtaining permits and site inspections prior to a construction project is itself a multi-year process, according to the Shinn Report. Furthermore, building inspectors must approve the quality of workmanship at each stage of production.

Any regulations that raise private costs to contractors to minimize the social costs of construction create further opportunities for someone to profit from illegal behavior. For example, in 1986, the Brooklyn manager of electrical inspections was convicted of taking bribes from electrical contractors to speed up paperwork and overlook code violations. Such bribes are not rare: during a three-month undercover investigation in 1985, a city building inspector was offered bribes in return for favors by 28 owners and contractors (OCTF 1988:22).[6] Generally, if the purpose of such bribes is to secure the approval of relatively shoddy construction, consumers of the office or housing space, or even uninvolved third parties, will bear the costs of repairs and material failure and any added risks of unsafe construction. In short, regulations that shift external costs to private contractors provide contractors with an incentive to bribe those administering the regulations.

Specific Sources of Monopoly Power

Construction in the New York City SMSA involved 12,304 business establishments in 1982 (U.S. Bureau of the Census 1982a:20), a figure apparently supporting the usual characterization of construction as a highly competitive industry. Because construction requires the production of a great variety of intermediate goods in its sequential production process, however, these thousands of firms are not all competing with one another. To the economist, therefore, construction is a maze of subindustries. To analyze the

[5] Although organized crime's control of the construction process may reduce transaction costs through improved coordination of operations, it does not necessarily decrease total costs of construction. Beneficiaries of the coordination pay extortion fees. The difference between the extortion fee and the value of the improved coordination determines the effect of organized crime on costs of construction.

[6] There are many other regulations that create these kinds of opportunities for bribery. Regulations that restrict the weight of concrete mixing trucks below a truck's full load give drivers the opportunity to ignore the regulation for a fee. These bribes may speed up the construction process and minimize costly delays, but they do not necessarily improve efficiency. If full trucks damage Manhattan streets, bribes to overlook these regulations increase the costs of road repairs and the probability of motor vehicle accidents.

specific sources of monopoly power in construction, the three general principles discussed above—barriers to markets across stages of construction, barriers to vertical integration by firms, and opportunities for criminal organization of economic activity—must be borne in mind when examining each stage and each intermediate good involved in the construction process.

The forces that impose barriers to the formation of efficient markets, impede vertical integration by firms, or reduce the costs of criminal organization naturally vary across specific subindustries of construction activity. Therefore, some subindustries are more susceptible to crime than others. All subindustries that are criminally controlled must, however, display some signs of market power. Market power implies the barriers to entry that inhibit markets, that create and protect monopoly rents, and that keep the number of firms small and monitoring and enforcement costs low. An exploration of the specific sources of monopoly power helps in understanding the locus and nature of criminal activity in the industry.

First, some forces that keep the number of firms small and the size of firms large in certain subindustries of construction occur naturally. Regional markets in which assets are immobile, and the minimum efficient scale of operations is large relative to demand within the region, will have a relatively small number of firms. In addition, in subindustries where assets are highly specialized and industry exit is costly, the cyclicality of the market may encourage a relatively monopolistic industry structure. In such subindustries, monopoly profits during upturns will be used to sustain the firm during downturns. Therefore, regional markets in these subindustries will have monopolistic tendencies.

For example, according to unpublished information on construction contractors provided by the Anti-Trust Division of the U.S. Department of Justice, the Anti-Trust Division initiated criminal prosecutions in 22 cases of bid-rigging involving utility construction contractors in 6 states between 1982 and 1987; 70 cases in 12 states and the District of Columbia involving electrical contractors between 1983 and 1987; and 337 cases in 23 states involving road construction contractors between 1979 and 1987. These three subindustries therefore may have natural monopolistic tendencies.

Government regulations that attempt to remedy the problems of externalities are a second source of monopoly power. For example, to ensure safety in underground work, New York City sewer installation and repair companies have the exclusive legal right to work in the holes they have opened. This unusual form of monopoly power gives the sewer company sole authority to move utility lines that are in the way of operations. As a result, the sewer companies could charge utility companies monopoly prices for these services.

A third and obviously important source of monopoly power is the threat of harm and sabotage, which elevates entry barriers beyond natural levels. Such threats are probably not effective at creating entry barriers where none exist; in healthy competitive markets, violent threats to all competing firms are not credible because of the magnitude of the activity threatened. In cases where entry barriers naturally keep the number of competing firms small, however, threats may elevate existing entry barriers, since they become more credible when directed at a small number of firms. Finally, another important tool that organized crime has found to control firms and markets is the labor union.

The Labor Union as a Source of Market Control

> Now, as the [Employers'] Association, we control the [employers]. When we control the men we control the [employers] even better because they're even more fuckin' afraid. Do you understand me? When you got an [employer] who steps out of line, you got the whip. You got the fuckin' whip. This is what he [one of the crime bosses] tells me all the time.
>
> —Intercepted conversation of crime figure (OCTF 1988:79)

The labor union is an effective tool of control because it is a monopolizing institution that can control critical labor

resources in all phases of a construction project. Not all labor unions in New York City construction are corrupt, of course. In some unions the leadership and members are free of any taint, and in other cases there are efforts by members to reform their own unions internally. Organized crime unquestionably controls unions in some subindustries of New York City construction, however; and supplanting entrenched corrupt unions with new "clean" ones is difficult. For example, the efforts of apparently honest men to gain positions of leadership in New York carpenters' union locals have repeatedly been thwarted. As a dramatic example, after a life-threatening campaign in 1975, Willie Nordstrom, who appears to have been free of criminal connections, was voted in as business manager for Carpenters Local 488 in the Bronx—and in 1978 he was murdered (OCTF 1988:33–34).

The corrupt labor union can use threats of sabotage and work stoppages to extort payments from employers and to discipline firms that do not play by the criminals' rules:

> But we gotta have the strength so that when a fucker comes along and bids [on a contract which is supposed to be limited to members of a Cosa Nostra Family-sponsored cartel] tomorrow he's got four Gold Tooths[7] in front of him saying "Now that [you've got the contract] where are all the workers?" (Intercepted Conversation of Crime Figure, OCTF 1988:79)

Extortion payments are commonly paid to ensure uninterrupted work. In a recent civil suit against Local 6A of the Cement and Concrete Workers, organized crime figures are alleged to have extorted one percent of the contract price from all ready-mix concrete contractors in return for labor peace (OCTF 1988:19).

Union members can also destroy work of contractors whose actions are diminishing the market power of the criminal organization. For example, in 1971, officials of Local 1087 of the Painters were convicted of using acid to destroy the windows of contractors who used nonunion workers to install window glass.

Alternatively, a corrupt union official can extract rents from employers in return for "privileges." For example, a union official may allow a contractor, for a price, to hire specific workers with a proven track record rather than adhering strictly to contractual hiring hall provisions. In some instances corrupt union officials may even grant the contractor permission to use nonunion labor, but this privilege also has a price. A business agent of Local 608 of the Brotherhood of Carpenters and Joiners is currently being prosecuted for allegedly demanding payoffs from undercover agents posing as representatives of a building owner in return for the owner's use of nonunion carpenters (OCTF 1988:17).

Similarly, corrupt union officials may accept bribes for not enforcing other costly provisions of the labor contract. For example, the LILREX "sting operation" initiated in 1976 by the Federal Bureau of Investigation and the Organized Crime Strike Force for the Eastern District of New York uncovered a practice by some contractors of paying certain workers the union hourly rate but not listing them on employment records. This practice saved the employers the cost of the pension and welfare contributions that were required by the union contract. The workers did not object because the contractors certified them as eligible for unemployment insurance (OCTF 1988:28).

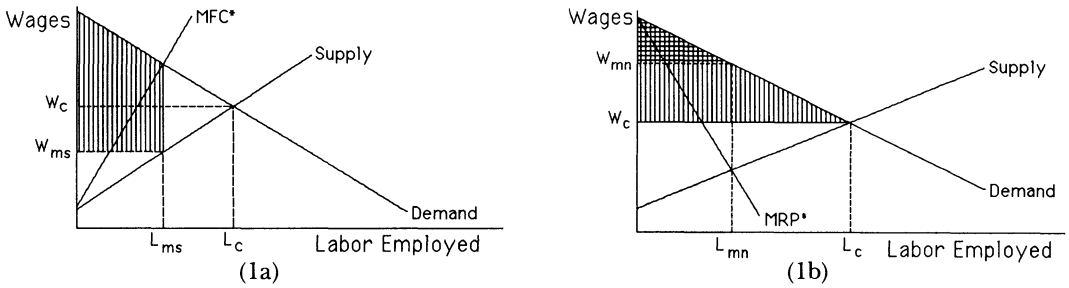
A Corrupt Union and the Distribution of Rents Among Contractor, Employee, and Criminal Actor

Once the criminal organization has monopoly power at some point in the construction process, it will try to appropriate economic rents. The redistribution of economic rents from developers, contractors, and employees to the criminal organizer depends on the market forces governing the particular transactions and the strategy of the criminal organizer.

Because there is no long-standing rela-

[7] Gold Tooth: nickname of a Lucchese-controlled union delegate.

Figure 1. The Surplus Accruing to Employers, Labor, and the Union in Different Market Situations.



* MFC and MRP are the marginal factor cost curve and the marginal revenue cost curve, respectively.

tionship between the firm and most employees in this industry, construction unions are often in the unusual position of allocating both jobs to workers and workers to employers—a position that offers the corrupt union official the opportunity to exploit both parties to the employment transaction. The extent of exploitation that can occur will vary across subindustries, however, depending on the union's power in each case.

The corrupt union official presumably seeks the strategy that maximizes the potential rents available for extortion. Consider first the extreme case in which the union acts as both monopsonist (allocating all jobs to all workers) and monopolist (allocating all workers to all employers). In that case, the union official, when faced with the demand and supply curves displayed in Figure 1a, will choose the monopsonist wage and employment levels, W_{ms} and L_{ms}, both of which are lower than the corresponding competitive levels, W_c and L_c. This strategy maximizes the employer surplus (the shaded area in Figure 1a).

The corrupt union official will then charge the employer a fee equal to some portion of the employer's surplus to ensure delivery of the labor services. Although the sum of wage payments and employer surplus equals the value of labor employed, extortion of the full surplus might well reduce the contractors' profits below minimum levels necessary for market survival. If the employer does not pay, the union official has the power to impose delays or work stoppages and to organize sabotage of the construction process.[8]

It is highly unlikely, however, that any union has the absolute power portrayed in Figure 1a, particularly in a labor market such as New York City, where workers have the opportunity to work in many different industries and occupations. More likely, the corrupt union official will be forced to negotiate at least a competitive wage to attract workers. In this case the strategy that maximizes the potential extortion fee is to negotiate the competitive wage and employment levels, W_c and L_c, of Figure 1b, and extort some portion of the employer surplus given by the shaded triangle.

Perhaps most likely, even corrupt union officials in an urban labor market will

[8] An extortion fee equal to the employer surplus in the labor market transaction is similar to the introduction of a two-part tariff in the product market. This tariff or fee in a product market transaction transfers some or all of the consumer surplus from consumer to monopolist. Oi (1975) used the example of Disneyland to illustrate how the monopolist benefits from charging an admission fee as well as unit prices for each service consumed.

The labor market and product market cases are not, however, entirely analogous. The employer's surplus in the labor market transaction does not correspond directly to profits. For example, in the short run, if labor is the only variable factor, the employer surplus in the labor market transaction must be used to pay for fixed costs. Therefore, as noted in the text, a strategy that extorts the full employer surplus in this case will be self-defeating, resulting in negative profits in the short run and driving the firm out of the industry in the long run.

usually find that they must negotiate a contract wage equal to some monopoly wage rate (W_{mn}). Although construction unions enjoy the advantages of exclusive jurisdiction over certain production tasks, different unions with their own exclusive jurisdictions often employ workers with similar skills. If an honest union and a corrupt union representing workers with similar skills negotiate separate labor contracts, the agreement of the honest union may constrain the strategy of the corrupt union. Even in undemocratic unions, that is, membership dissatisfaction can impose some pressures on union officials.

Therefore, negotiations between corrupt unions and employers may result in the monopoly wages, W_{mn}, shown in Figure 1b. In this case the maximum fee the corrupt union official can extort from the employer, in return for delivery of employment services, is the employer surplus associated with monopoly wages (the checkered area in Figure 1b). Again, this fee may be further constrained since it must remain below the level that would drive contractors out of the industry and deprive crime bosses of their income. Under this third scenario, the existence of organized crime in a union may not yield contract wage payments lower than those negotiated by honest unions, but it still transfers some profits from the developer-contractor to the corrupt union officials.

The three preceding scenarios show that wages and extortion fees will depend on the level of monopsonistic control of the corrupt union official. Other things equal, the more monopsonistic the power of the union, the lower the wages paid to union workers and the higher the potential extortion fee for the union official. Extortion fees can persist, however, only if they are financed by monopoly profits in the product market or if contractors can pass on increases in labor costs in the form of higher prices. Because it may be more profitable for the corrupt unions to bargain with employers who can extract monopoly profits by exerting market power of their own, a corrupt labor union may employ strategies that extend its monopoly power into the employing firms' market.[9] For example, labor unions could withhold services from certain contractors while colluding with others to reduce the number of contractors in the market. If the contractor market can be made more monopolistic, potential extortion fees will be greater.

The preceding analysis makes no reference to the effect of criminal control of the union on unreported or "under-the-table" wages. When the strategies described above are employed, workers either are unaware of the illegal activity between the corrupt official of their union and the contractor or experience no disutility from working in a corrupt organization. More likely, at least some workers will be aware of any illegal activity and will demand extra compensation in return for the disutility of working in such a union. A corrupt union official faced with worker demands for extra compensation—bribes—in return for ignoring illegal activity can respond by increasing either the workers' reported earnings or their unreported earnings.

If employees do require bribes, the labor supply curve that includes these bribes (S_b in Figure 2) will be above the original labor supply curve that does not incorporate bribes (S_{nb}). The union official, deciding whether or not to engage in illegal activity, must recognize that his illegal activity can shift the supply curve in this manner.

Under the S_b supply curve, the union

[9] There need not necessarily be monopoly power in the product market in order for a corrupt union official to practice extortion. The union can charge extortion fees to firms in a perfectly competitive product market if the product market demand curve is downward sloping and the union extorts from all of the competing firms. In this case the extortion fee is a fixed cost that all firms must pay. Prices rise in the product market to cover the increased average costs, and total output falls.

The transaction costs associated with extortion probably increase dramatically, however, as the number of firms paying extortion fees increases. Therefore, the transaction costs involved in charging an extortion fee to all firms in a competitive market are probably so high that such a strategy would not be profitable. These costs are another incentive for the corrupt union official to try to reduce the number of contractors in the product market.

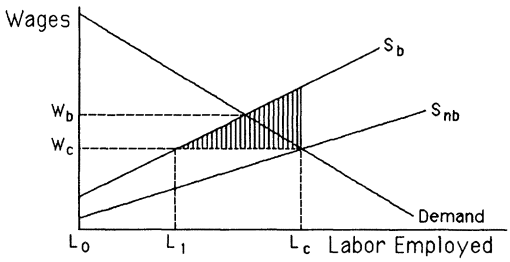


Figure 2. Bribes to Workers and the Labor Supply Curve.

official has two strategies. First, he can simply take the S_b curve into account, when negotiating a wage, instead of the S_{nb} curve. For example, if the union official were negotiating a competitive wage, he would negotiate W_b instead of W_c. However, the increase in the negotiated wage above W_c reduces the available extortion fee.

Alternatively, the corrupt union official can negotiate wages according to the original S_{nb} curve and then use the extortion fee to bribe workers only when necessary. The union official engages in this alternative strategy only if he can offer separate bribes to each worker. For example, if the union official negotiates W_c, the competitive wage associated with the S_{nb} curve, those workers between L_0 and L_1 on the S_b curve in Figure 2 will not demand a bribe. W_c is sufficient to cover the "bribe" these workers require before they agree to work in this market. Workers on the S_b curve between L_1 and L_c, however, will demand a bribe in excess of W_c. If the union official can offer separate bribes to each worker, the value of the bribes will be equal to the shaded area in Figure 2.

Separate bribes negotiated between individual workers and their union official are plausible since the illegality of the bribe prevents workers from making their "under-the-table" payment known to other workers. This alternative strategy will be chosen by the union official if the resulting extortion fee, surplus less bribes, is larger than the extortion fee associated with the strategy of negotiating the higher wage, W_b.[10] In general, the extortion fee associated with the strategy of selective bribery will be larger the smaller the number of workers demanding a bribe in excess of the competitive wage and the lower the average bribe payment.[11]

Unreported earnings or bribe payments may come in a variety of forms. The union official may personally make cash transfers to union members, or he may give these workers "no show" jobs or shifts in which paid hours are greater than hours worked.

Testing the Economic Hypotheses

We have hypothesized that some features of construction activity make certain subindustries of construction particularly susceptible to crime. We have also suggested ways in which market forces constrain the attempts of organized crime to profit from sources of market power. Unfortunately, the available data do not permit a rigorous test of those hypotheses. In this section we review published statistics on product market and labor market characteristics in the construction markets of the New York City SMSA and other large SMSAs, and consider to what extent these data support the theoretical propositions of the previous sections. Since the data consistently leave many, if not most, important issues unresolved, we also dis-

[10] Depending on the placement and shape of the relevant demand and supply curves, the rent-maximizing strategy may also take some intermediate form in which negotiated wages are between W_b and W_c and some bribe payments exist.

[11] If the union official negotiates a monopoly wage according to S_{nb}, the union premium may already cover the bribe required by the marginal worker. Therefore, corrupt activities will not affect the negotiated wage. If, however, the union wage premium leaves earned wages below levels that would compensate the marginal worker for working in a corrupt union, the union official will again have to decide between two strategies. He will either negotiate a higher wage that covers the bribe demanded by the marginal worker or keep wages at monopoly levels and bribe only those workers who demand further compensation for working with corrupt unions. A comparison of the resulting extortion fees will guide his decision.

cuss what kinds of data would permit more thorough analysis.

Product Market Comparisons

Above, we argued that market power is a necessary attribute of any criminally controlled subindustry in construction. If that argument is correct, an examination of the size distribution of firms in the various subindustries across cities should give some indication of which construction processes may be controlled more easily by organized crime. These statistics should also suggest whether the locus of monopoly control in New York City differs from that in other cities. Unfortunately, detailed information on the size distribution of firms at the municipal level is not available. The only relevant published information is average firm size, not the size distribution around the average. Specifically, the U.S. Bureau of the Census (1982b) reports number of establishments and receipts-per-establishment by SMSA for 27 detailed construction subindustries. These data yield a measure of average firm size in each SMSA for each detailed industry, as measured by receipts-per-establishment expressed in New York City dollars.[12] This statistic is at best a very crude proxy of market power.

An examination of these data reveals that in eight of the 27 industry groups, the average firm size in the New York City SMSA exceeds the average firm size across the next ten largest SMSAs, across the 26 Northeastern SMSAs reported by the Census of Construction Industries (CCI), and across all 86 SMSAs reported by CCI. Specifically, relative to the average adjusted receipts-per-establishment figure for the next ten largest SMSAs, the average New York City contractor receives revenues that are 27.6% greater in industry 1542—nonresidential buildings other than industrial buildings and warehouses; 358.8% greater in industry 1622—heavy construction other than highways, bridges, tunnels, and elevated highways; 8.3% greater in industry 1623—water, sewer, and utility lines; 22.1% greater in industry 1721—painting and paper hanging subcontractors; 27.1% greater in industry 1741—masonry and plastering; 73.5% greater in industry 1742—plastering, drywall, and insulation; 37.4% greater in industry 1771—concrete; and 82.2% greater in industry 1796—special trade contractors for installation of miscellaneous building equipment.

The OCTF (1988) reports many examples of criminal activity in most of those eight subindustries in which New York City firms are, on average, relatively large. The detail of the criminal schemes described by OCTF suggests, however, the inadequacy of examining firm size as a signal of criminal activity. Statistics that describe the dispersion of firm sizes more completely, such as four- or eight-firm concentration ratios, would be much more likely to reflect these schemes than would average firm size.

For example, in 1985, federal prosecutors proved that a "Club" of contractors in the concrete industry, one of the eight industries with relatively large firms in New York City, controlled any concrete contract with a value over two million dollars. Non-club contractors who attempted to serve this market were threatened with physical harm and problems with supplies and labor (OCTF 1988: 82–84). The CCI reports that in 1982 receipts in the New York City SMSA concrete market were $347 million (Bureau of the Census 1982b, Table 12, NY-18), suggesting there was enough business in this subindustry to attract many firms other than the club members, and thus create the need for the few club members to "discipline" those not in the club. If the "Club" in New York City did exert more monopoly power than the large concrete firms in other cities, however, detailed concentration ratios across cities would reflect the Concrete Club's arrangements more directly than would average firm size.

Although the problems of measuring

[12] The *Dodge Digest of Building Costs and Specifications* (1983) gives a cost index for 184 cities in the United States and Canada. These cost data were used to convert all receipt figures to New York City dollars.

monopoly power are considerable, they are relatively minor compared to the task of measuring criminal activity. Even if proxies for criminal activity, such as the amount of resources devoted to criminal prosecution in a specific industry, existed, such proxies would be of little use. Criminal activity may be most prevalent where it is least documented. If crime is particularly profitable, criminals may take the strongest precautions to keep their activity concealed.

Labor Market Comparisons

We have argued that construction unions can be an important source of monopoly power. According to merged data for the 12 monthly Census of Population Surveys (CPS) for 1984 presented in Table 1, this potential source of monopoly power is particularly pronounced in New York City. 55.5% of all construction workers in the New York City SMSA are union members, and 63.3% are covered by a labor contract. The extent of unionization in the New York City SMSA is about twice that across the next ten largest U.S. SMSAs or across all U.S. SMSAs. In fact, the New York City SMSA has the highest unionization rates of all U.S. SMSAs. It is also reasonable to assume that within New York City itself, the percentage of construction workers who are members of a union or who are covered by a collective bargaining contract is considerably higher than in the entire New York City SMSA.

The 1984 CPS data allow a comparison of reported wages between union and nonunion workers in different metropolitan areas. The theoretical arguments we have outlined suggest that a corrupt union official has an incentive to keep legal wages as low as possible. Empirical estimates from wage regressions can provide limited tests of whether union officials in New York City have kept union wages relatively low compared to union wages in other metropolitan areas.

The following reduced-form wage equation for construction workers is estimated:

$$(1)\quad \ln(W_i) = a + bX + b_{\mathrm{NYC}}(\mathrm{NYC}) + e$$

X contains a set of variables affecting the supply or demand of construction labor. NYC is a dummy variable for construction workers in the New York City SMSA.

The demand for construction workers underlying this reduced-form equation is a function of the skill level, education, and experience of workers. The supply of workers to the regional industry will be affected by wages in labor markets competing for workers with similar skills. In addition to determinants of the supply of and demand for construction workers, wages will also depend on institutional forces, most notably unionism, that affect the operation of the construction labor markets.

Estimating the reduced-form construction industry wage equation yields the parameters in column 1 of Table 2. Since the alternative wage variables that measure difference in the cost of living are SMSA-level variables, the

Table 1. Extent of Unionization of Construction Workers in New York City and Other SMSAs, 1984.

Data Description	*N.Y. City SMSA*	*Next 10 Largest SMSAs*[a]	*All SMSAs Other Than NYC*[b]	*All U.S. Other Than N.Y.C*
Observations	167	1,332	4,903	9,432
1. Union Member	55.5%	28.7%	26.7%	23.8%
2. Covered by Union Contract	63.3%	30.7%	28.3%	25.3%

Source: 1984 Census of Population Survey data tapes—merged sample of all construction industry workers in twelve monthly files. All statistics are calculated using CPS sampling weights.

[a] The ten largest SMSAs other than New York City in 1984 were: Los Angeles—Long Beach; Chicago; Philadelphia; Detroit; San Francisco—Oakland; Washington, D.C.; Boston; Nassau and Suffolk Counties; Pittsburgh; and St. Louis.

[b] The CPS identifies 44 separate SMSAs in its 1984 data files.

Table 2. Determinants of Reported Hourly Wages of Metropolitan Construction Workers, 1984. (Standard Errors in Parentheses)

Variable	*All Construction Workers (1)*	*Union Members Only (2)*	*All Construction Workers (3)*	*Union Members Only (4)*
Experience	.027***	.019***	.027***	.019***
	(.002)	(.004)	(.002)	(.004)
Experience Squared	−.00047***	−.00036***	−.00047***	−.0004***
	(.00004)	(.00004)	(.00004)	(.0001)
Region:				
Northeast	−.059***	−.147***	−.061**	.137***
	(.023)	(.037)	(.026)	(.041)
North Central	−.027	−.025	−.030	−.012
	(.024)	(.038)	(.028)	(.043)
South	−.026	−.139***	−.027	−.147***
	(.027)	(.049)	(.027)	(.051)
Blue-Collar	−.182***	.086	−.182***	.087
	(.023)	(.053)	(.023)	(.053)
Female	−.364***	−.162*	−.364***	−.161*
	(.028)	(.085)	(.028)	(.086)
Black	−.178***	−.241***	−.177***	−.241***
	(.026)	(.038)	(.026)	(.038)
Married	.133***	.144***	.133***	.144***
	(.017)	(.029)	(.017)	(.029)
Alternative Wages:				
Craftsmen	.561***	.758***	.638***	.837***
	(.157)	(.259)	(.172)	(.290)
Manufacturing	.269*	−.166	.270*	−.175
	(.148)	(.253)	(.148)	(.254)
Operatives	−.216*	−.213	−.250**	−.232
	(.115)	(.188)	(.117)	(.190)
Union Member	.347***	—	.348***	—
	(.017)		(.018)	
Percent Union	—	—	.0002	−.001
			(.0010)	(.002)
New York City	.003	.015	.0002	.033
	(.038)	(.051)	(.0419)	(.058)
Observations	2,882	930	2,882	930
R^2	.402	.207	.402	.208

* Significant at the .10 level; ** significant at the .05 level; *** significant at the .01 level (two-tailed tests).

sample for analysis is restricted to those individuals who reside in one of the 44 SMSAs indentified in the CPS data files.

The results in column 1 reveal wage patterns in metropolitan construction labor markets that are similar in many respects to those observed in wage equations estimated for broader ranges of industries. The returns to experience are positive, but the positive return declines with more experience. Better-educated workers are more highly paid. Negative wage differentials for women and blacks exist in U.S. construction labor markets. As expected, the wages paid to craftsmen in industries other than construction appear to be the best measure of an alternative wage for construction industry workers.

The coefficient on the union member variable in this 1984 construction industry sample is .347, indicating a somewhat larger cross-section estimate of the union/nonunion wage differential than exists in

many other industries. According to the theoretical arguments advanced in this study, this relatively large union wage premium is inconsistent with pervasive corruption in construction unions nationwide. Specifically, if construction unions throughout the country were dominated by corrupt union officials, the strategy for the corrupt union officials of keeping wages as low as possible would produce union wages comparable to nonunion wages.

Furthermore, the coefficient on the New York City variable in line 10 is not significantly different from zero. Therefore, after controlling for the effects of regional and local area wage differentials, and occupational, demographic, and unionization characteristics of workers, there is no significant pay differential associated with working in the New York City SMSA. When the wage regression is reestimated in column 2 for the sample of union workers, the coefficient on the New York City variable is again insignificant.[13]

This result could be interpreted as evidence against widespread corruption in New York City construction unions. That is, theory suggests that if New York City construction unions were dominated by corrupt union officials and unions in other metropolitan areas were not, union wages in New York City would be, other things equal, below union wages in other metropolitan areas.

The insignificant coefficient on the New York City variable in the column 2 equation for union workers could, however, still be evidence of relatively low union wages for New York City workers. Since wages generally increase with the degree of unionization (Freeman and Medoff 1981), and since the New York City SMSA is the most highly unionized SMSA in the country, the coefficient on the New York City dummy variable in the column 2 model should be both positive and significant. The insignificant New York City coefficient therefore could indicate downward pressure on wages by corrupt union officials.

To explore this possibility more directly, the column 1 and 2 wage equations are reestimated after including the percentage of the SMSA construction labor market that is unionized as another possible determinant of construction workers' earnings. The column 3 specification includes all construction workers in the sample, whereas the column 4 specification keeps only union members in the sample. In the column 3 model, the coefficient on the percent union variable measures a premium enjoyed by both union and nonunion workers. It is also useful to measure the effect of the percent union variable on the earnings of union members exclusively (column 4) because percent organized has a larger effect on union wages than on nonunion wages (Freeman and Medoff 1981:567).

The results in columns 3 and 4 do not show construction wages increasing with percent organized. In neither the all worker sample nor the union worker sample is the coefficient on percent union significantly different from zero.

Furthermore, this finding is not simply a result of the failure of New York City unions to use their potential labor market power to increase the wages of their members as much as they could have. Since New York City has the highest level of construction unionization of any SMSA, unusual wage-setting behavior by New York City construction unions may have a large impact on the estimated linear effect of percent organized on wages. Specifically, there may be a significant positive relationship between percent organized and wages across the metropolitan markets other than New York; but if New York City unions use their unusually great labor market power to keep wages well below the level that could be attained, the

[13] The patterns of wage determination revealed in Table 2 remain when alternative subsamples of workers are analyzed. If one is particularly concerned about illegal activity in certain craft unions, the analysis should focus on union construction workers. Wage equations similar to the column 1 and 2 models in Table 2 were estimated for the sample of construction craft workers (that is, detailed occupational category no. 34) and the sample of unionized construction craft workers. In neither case were the coefficients on the New York City SMSA variable significantly different from zero.

inclusion of New York City construction workers in the sample could reduce the estimated percent organized coefficient.

That possible effect, however, is not the reason for the insignificant coefficient on percent organized. In models not reported in the table, New York City workers are excluded from the samples for the columns 3 and 4 wage equations. In these models, the coefficients on the percent organized variable are again virtually zero. Other things equal, greater labor market power, as measured by extent of unionization, did not increase wages or the size of the union wage premium for construction workers in *any* city in 1984.

Taken together, the insignificant coefficient on percent organized in all models and the insignificant coefficient on the New York City variable indicate that corruption among union officials in New York City is not so pervasive that it leads to relatively low wages for New York City construction workers. On the other hand, there is also no evidence that, other things equal, union wages are any higher in New York City than they are in other metropolitan areas, despite the higher degree of unionization in New York City, thus refuting the hypothesis that corrupt union officials "buy off" their members with higher legal wages.

Although there is no evidence that union wages in New York City construction systematically differ from those in construction elsewhere, that finding by no means proves that criminal activity in New York City construction unions is no higher than in construction unions in other cities. In particular, although we suggested that corrupt union officials might negotiate a monopoly wage comparable to the wage negotiated by honest unions, we also pointed out that criminal activity results in extortion fees and, possibly, "under-the-table" bribe payments to a subset of workers.

Attempts to empirically gauge differences in unreported earnings or extortion fees face insurmountable data collection and measurement problems. One possibility for future research would be a comparative study of labor costs of firms, rather than individuals, across regional construction markets. Firm-level data may measure differences in legal and illegal payments to labor more accurately than individual—level data. The success of such a study depends, however, on whether extortion fees paid to union officials are reported as labor costs; and even if such fees are reported, it is not clear how they would be categorized. The analysis could, alternatively, focus on the difference in total costs of firms across regional construction markets. However, that approach would not be without difficulties either, since elevated construction costs in a certain metropolitan area could indicate criminal schemes by corrupt firms or government officials rather than by corrupt union officials. In fact, the OCTF (1988:30) reports that the cases in which construction contractors have inflated invoices and cost figures to reduce tax liability are "too numerous to catalogue."

Conclusion

Devising effective strategies to fight organized crime in New York City construction will clearly require building more knowledge about the systematic forces that have made it such a long-standing feature of the industry. The economic principles and hypotheses that can be brought to bear in addressing this difficult problem remain largely untested and untestable without a greater knowledge base. Policy makers must, however, formulate remedies and evaluate alternatives using whatever evidence and ideas are available.

The economic principles and hypotheses suggested in this study, although inherently difficult to test, do raise a set of questions that should be considered in the dialogue on possible remedial strategies. In particular, this study suggests that proposed policy initiatives should be evaluated in terms of whether they improve the coordination and reliability of the construction process, thereby reducing the demand for criminal activity; raise the expected costs of illegal activity by increasing both the size of penalties and the probability of detection; increase competi-

tion and weaken monopoly control over specific markets and transactions; and make more efficient the regulations pertaining to the externalities of construction activity.

Obviously, the odds are against any proposed new remedy succeeding where others have failed for many decades. One problem is that often a policy aimed at eliminating one criminal activity may do so only at the cost of opening the way to others. For example, remedies aimed at introducing more competitors into specific construction markets—such as measures to increase nonunion competition—will also, by their very nature, reduce the ability of construction contractors to coordinate activities and lead to an even less reliable construction process, increasing the demand for criminal organization. Similarly, expedited arbitration of labor disputes and work stoppages might reduce delays in the construction process. Organized crime would have a strong incentive to gain control of the centralized decision-making institution thereby created, however, since centralized processes tend to make criminal activity less costly. Furthermore, if a system without arbitration has served organized crime well, the criminal organization might attempt to sabotage a newly installed arbitration system by clogging it with trivial and fabricated cases, which could make the system slow, costly, unresponsive, and possibly more time-consuming than the current approaches to labor disputes.

Again, any strategy that increases competition in labor markets may make the labor allocation process more inefficient. Since there is no long-standing employment relationship between most workers and firms in the construction process, the union plays a central role in the allocation of labor across firms. Part of the price of this service is greater union control over the employment transaction. Proposed alternatives that would replace or supplement union hiring halls with nonunion hiring methods, such as community hiring halls or employer-administered hiring programs (OCTF 1988:101), have their own drawbacks. Employer-administered hiring programs would probably carry higher search and hiring costs; and if hiring decisions shifted to community hiring halls, organized crime would focus its resources on controlling that new institutional mechanism for allocating labor.

Empirical studies that determine whether criminal control of construction is prevalent in metropolitan areas other than New York City may be helpful in designing policy. In particular, many of the economic factors that might promote criminal organization of construction activity are not confined strictly to New York City. For example, the sequential nature of transactions and the specificity of assets in certain construction markets naturally lead to the formation of large firms with monopolistic control. If criminal activity in certain construction subindustries occurs in many metropolitan areas, policies should focus on these subindustries, and on the economic conditions that make them attractive to organized crime.

If, on the other hand, criminal activity in certain construction subindustries is specific to New York City, then the economic forces that promote criminal organization are those that are particularly pronounced in New York City. For example, the problems of coordinating construction projects may be especially difficult in New York City because of the scarcity of space and the density of the residential and commercial population. For the same reasons, the regulations governing New York City construction may be more extensive and complex than those governing construction in other cities. In this case, policies specific to New York that address these local economic and legal factors would be more appropriate.

In summary, an analysis of organized crime that uses the tools and perspective of economists has certain strengths and weaknesses. Theories of product markets, labor markets, and the organization of the firm identify economic forces that attract organized crime. Since at least part of the motivation for criminal control of New York City's construction industry is economic, this theoretical perspective is an important part of a comprehensive examination of the

causes, persistence, and effects of organized crime. As is generally the case with theories concerning criminal control of industry, however, the hypothesized relationships cannot be rigorously tested; they can only be supported with anecdotal information. Despite these inherent limitations, the theoretical considerations do raise fundamental issues and questions that can help inform policy discussions.

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