

Market Power in the Market for Business Locations and Firm-Specific Incentives in the U.S.

Dmitry Shishkin
Georgia Gwinnett College

This paper proposes a transactional framework for understanding firm-specific incentives, highlighting the interplay between firms and communities in the market for business locations. This framework allows us to show how by exploiting price discrimination the firms in possession of significant market power can extract communities' surpluses by means of various firm-specific incentives. The findings align with previously reported empirical results that demonstrate that large firms are more likely to secure firm-specific subsidies. Future research should explore the determinants of large firms' market power and why communities prioritize attracting them over smaller firms.

Keywords: student performance, business data management and information systems, motivation factors, distraction factors, self-perceived factors, prior ability factors, gender and age

INTRODUCTION

In this work, firm-specific incentives refer to the various instruments that state and local governments use to attract business firms to their jurisdictions. These instruments include, but are not limited to, tax credits, cash grants, property tax abatements, workforce training assistance, and infrastructure development support. Firm-specific incentives differ from broader incentives that governments use to attract entire industries or categories of firms. The significant scale of these incentives often draws attention from economists, policymakers, and the media. Indeed, the sheer magnitude of resources allocated to firm-specific incentives can be staggering, raising concerns about their impact on public budgets and the trade-offs with other public expenditures.

Another concern stems from the intense competition among state and local governments as they vie to attract large firms. This competitive behavior—along with concerns about the massive allocation of public resources and the trade-offs with other public expenditures—has led to periodic calls to limit or eliminate such practices through constitutional powers granted to Congress (Burstein & Rolnick, 1995), state cooperation (Farmer, 2019), or punitive federal taxes on the revenues derived from targeted local tax incentives (Markell, 2017; Summers, 2019).

While previous studies have explored various explanations for firm-specific incentives, this work proposes an alternative way to understand their role. I argue that these incentives can be viewed from a transactional perspective, in which localities and firms are seen as parties engaged in various transactions within the market for business locations. Because firms and communities engage in diverse types of transactions—and because firms vary significantly in terms of what they can offer to a community and what they can extract from it—it is natural to observe wide variability in the tax treatment of firms.

Although examining the general variability in tax treatment is an important topic, this work focuses on one critical factor: firms' market power. I show that when firms possess sufficient market power and can engage in effective price discrimination, they can successfully compel competitive communities to transfer their entire surplus to the firm through firm-specific incentives. These transfers often occur through mechanisms such as tax credits, cash grants, and other forms of direct or indirect subsidies.

This perspective is consistent with numerous examples of large, high-profile companies receiving preferential treatment from state and local governments. It also aligns with empirical findings in the literature, such as those reported by Slattery and Zidar (2020), which document the tendency for large, profitable firms to benefit disproportionately from firm-specific incentives.

LITERATURE REVIEW

When it comes to analyzing the rationale behind firm-specific incentives, there is a wide range of perspectives. Some authors deny these incentives any economic rationale altogether and argue that such incentives are based on a misleading intuition “analogous to famous optical illusions such as the Muller-Lyer, the Ebbinghaus, and the Café Wall illusions” (Ellis, Hayden, & Rogers, 2014). Others insist that these incentives exist primarily for political reasons, as politicians cater to their (presumably ignorant) constituencies either claiming success, if the firms choose to locate in the community, or claiming that they at least tried, if the firms choose to locate elsewhere (Jensen & Malesky, 2018). Also, some evidence suggests that the driving force behind economic development incentives is not the achievement of their declared or implied goals but rather the enhanced political support they provide to incumbent politicians through the concentrated benefits they generate (Sobel, Wagner, & Calcagno, 2024).

On the other side of the spectrum, a number of authors seek to justify this practice on the grounds of efficiency. Oates and Schwab (1991) demonstrate that under condition of perfect competition on both sides of the market for business locations, local taxes function as user fees for goods and services provided by communities to business firms and that the resulting outcome ensures that interjurisdictional competition fosters efficiency.

Garcia-Mila and McGuire (2002) extend this inquiry by asking why some firms receive special treatment from state and local governments while others do not. They build on the framework of Oates and Schwab (1991) to show that tax breaks and other instruments of firm-specific incentives serve as a means of internalizing the positive externality of agglomeration economies and if firms vary in the amount of agglomeration benefits they generate, it makes sense for governments to offer selective tax breaks to reflect these differences. In addition to the agglomeration economies argument, Glaeser (2001) identifies four other potential explanations for governments might offer firm-specific incentives:

1. differences in the magnitude of consumer and producer surplus generated by firms.
2. variations in firms' exposure to potential ex-post appropriation by governments.
3. tax discrimination by the governments aimed at individual firms (also discussed by Slattery and Zidar (2020).
4. corruption and influence.

Slattery (2024) advances the analysis of firm-specific incentives by collecting a dataset on discretionary subsidies and modeling the bidding process using an open-outcry ascending auction. This approach allows her to assess the distribution of both firms' profits and localities' welfare. Her findings indicate that as states compete for firms, they transfer all their surplus to the firms, creating an incentive for firms to locate where they generate the greatest overall surplus—measured by both firms' profits and localities' welfare. She also concludes that banning discretionary subsidy competition, thereby preventing states from transferring their surplus to firms, would result in an efficiency loss of approximately 5 percent.

Interestingly, while the literature discusses tax discrimination by governments targeting individual firms and the extraction of surplus by firms from communities, one critical issue remains overlooked—the role of large firms in driving tax discrimination by pitting communities against one another in bidding wars. In the following section, I explore this possibility by developing a model of community-firm interaction,

illustrating how a firm with significant market power can capture a community's surplus through various incentives typically offered to attract firms.

A Model of Community-Firm Interaction

My model of community-firm interaction is inspired by the frameworks presented in previous works by Fischel (1975), Oates and Schwab (1991), Courant (1994), and Garcia-Mila and McGuire (2002). Like most economic models, these models focus on exchanges—in this case, exchanges between communities and firms.

Fischel (1975) introduces a model in which firms pay communities an entry fee in the form of direct payments or property taxes, to compensate for environmental damage. Oates and Schwab (1991) develop a model of exchange where communities offer firms lower taxes and provide public inputs, such as infrastructure, police, and fire protection. In return, communities benefit from increased capital stock, which leads to higher wages for residents. Although their model does not directly address firm-specific incentives, it serves as a foundation for Garcia-Mila and McGuire's (2002) analysis.

Courant (1994) uses a model of capital demand and supply within a community to show that community-provided capital subsidies lead to inefficiency. His model parallels the standard demand and supply framework for a subsidized good or service without positive externalities, where subsidies result in overproduction and deadweight loss because the cost of the subsidy outweighs its benefits. Similarly, Garcia-Mila and McGuire (2002) extend Courant's model by introducing the possibility of positive externalities, such as agglomeration effects. In their model, the presence of positive externalities justifies subsidies, as they can enhance overall market efficiency.

In my model, I adopt similar assumptions about the communities' side of the market, treating it as perfectly competitive—whether it represents the supply or demand side. However, my main modification relates to the firm side of the market. I assume that firms possess significant market power, enabling them to engage in perfect price discrimination and capture the entire social surplus generated in a given market. In this setting, a single firm interacts with multiple competitive communities. Depending on whether the firm is on the supply or demand side of the market, it will act either as a monopoly (if it is a net seller) or as a monopsony (if it is a net buyer).

Consider the exchanges that take place in the market for business locations when firms are on the supply side. Firms can provide capital to communities by creating jobs or generating positive externalities such as agglomeration economies (Garcia-Mila and McGuire, 2002) and consumer or producer surpluses (Glaeser, 2001).

When firms are on the demand side, possible exchanges include: (1) firms demanding public services from communities and (2) firms utilizing environmental amenities that are exhausted in their production processes. Oates and Schwab (1988) link such environmental amenities to polluting waste emissions, treating them as non-purchase inputs. This can be seen as a specific example of firms generating negative externalities.

Whether a firm behaves as a net seller (monopoly) or a net buyer (monopsony) in the market for business locations depends on the interaction of these elements. A capital-intensive firm that generates significant agglomeration economies, while placing minimal strain on the environment and requiring few public services, is likely to be a net seller. Conversely, a firm that heavily burdens the local environment, brings little capital investment, and offers limited spillover benefits to other firms is likely to be a net buyer.

Firms acting as monopolies or monopsonies can behave in two ways:

1. Single-price monopoly/monopsony: The firm sets a uniform price—charging all customers the same or paying all suppliers the same amount. This behavior leads to underproduction and a loss of efficiency.
2. Price-discriminating monopoly/monopsony: The firm charges customers or pays suppliers based on their willingness to pay or lowest acceptable amount, respectively. This behavior can result in an efficient outcome, but the firm captures the entire surplus.

Regardless of whether the firm acts as a net seller (monopoly) or a net buyer (monopsony), its market power allows it to either charge higher prices or reduce payments, depending on its role in the market.

Given numerous reports of firms instigating bidding wars among communities and empirical evidence showing that firms can capture the entire community surplus (Slattery, 2024), this work focuses on the case of a price-discriminating monopoly or monopsony. The analysis of single-price monopolies or monopsonies is left for future research.

A DIAGRAMMATIC APPROACH

Accordingly, I illustrate these scenarios with two diagrams: 1) a price discriminating monopoly, 2) a price discriminating monopsony. To make things more concrete, I am referring to the model of demand and supply of capital to illustrate the case where the firm is acting as a monopoly, and to the model of demand and supply of public services provided to the firm by communities to illustrate the case where the firm is acting as a monopsony.

Monopoly

FIGURE 1
DEMAND AND SUPPLY OF CAPITAL IN THE MARKET FOR BUSINESS LOCATIONS -
THE CASE OF MONOPOLY

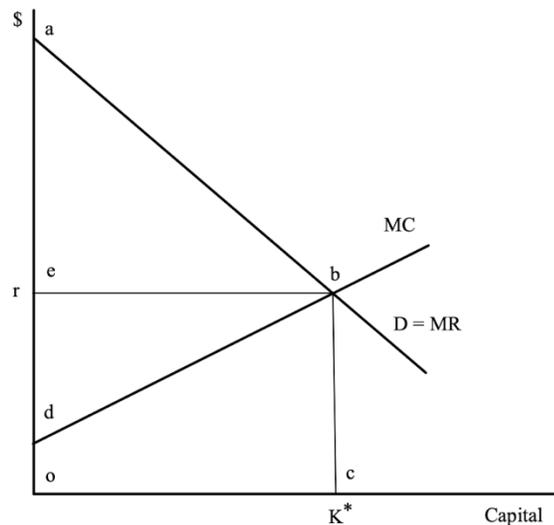


Figure 1 illustrates the demand and supply of capital, where demand is represented by numerous communities and supply is provided by a single firm. This firm holds significant market power, operating as a monopoly, and engages in price discrimination when interacting with the communities. The model builds on the framework of Oates and Schwab (1991). Similar to Oates and Schwab's diagrammatic interpretation of their model, my model also ignores the local public good that enters the firm's production function, as its effect is offset by the benefit taxes the firm must pay to the communities. However, I also make some important modifications to their model. One modification is that instead of multiple firms on the supply side, there is only one firm that act as a monopoly that supplies capital and engages in perfect price discrimination. Also, instead of considering just one community as Oates and Schwab do, I consider all the communities in a society to reflect the fact that the firm deals with communities rather than workers when engaging in price discrimination. Other than that, this model closely resembles the Oates and Schwab (1991) model.

There is a society that consists of n jurisdictions. The firm's branches in each jurisdiction produce a private good (Q), which is sold in a national market. Production requires private capital (K) and labor (L). I assume that the production function for the private good exhibits constant return to scale. I also assume

that the firm's marginal cost curve (MC) is upward sloping, reflecting increasing costs as output expands. Given diminishing marginal returns, the demand curve (representing the marginal product of capital, MPk) is downward sloping. Since the firm engages in perfect price discrimination, it will continue allocating capital to the communities as long as $MP_k > MC$ and the market will clear when the marginal product of capital equals r . Consequently, the equilibrium capital stock at the community will be K^* .

The communities will produce goods valued at $abco$ (represented by the area under the marginal product of capital curve all the way from o to K^*). Due to the firm's ability to engage in perfect price discrimination, it will capture the entire income from the sale of these goods, extracting the entire surplus abe that in a scenario of perfect competition on both sides of the market would instead accrue to labor.

This redistribution of surplus from the communities to the firm observed in this model highlights how a firm's significant market power and ability to engage in perfect price discrimination enables it to secure firm-specific incentives that other firms are not able to get.

Monopsony

FIGURE 2
DEMAND AND SUPPLY OF PUBLICLY PROVIDED GOODS AND SERVICES IN THE
MARKET FOR BUSINESS LOCATIONS - THE CASE OF MONOPSONY

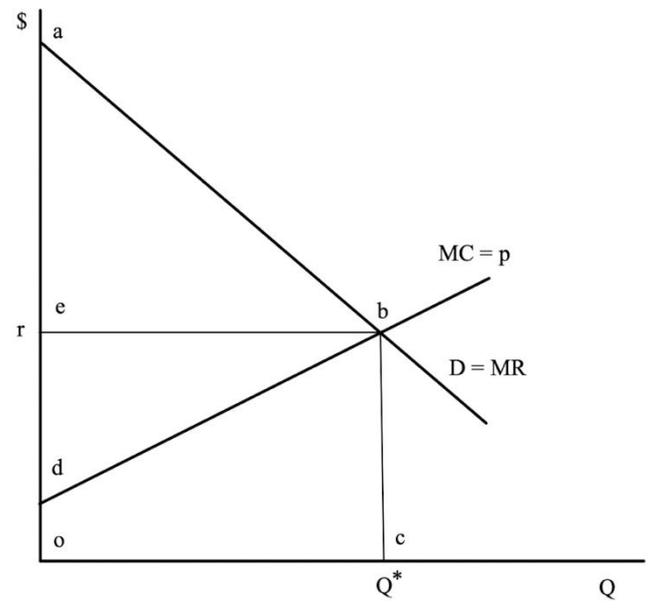


Figure 2 illustrates the demand and supply of public services, where supply is represented by numerous communities and demand by a single firm. As in the previous case, the firm possesses significant market power that makes it a monopsony and allows it to engage in price discrimination when negotiating with the communities. To maximize its profit, the firm focuses on its marginal revenue product (MRP) of the public inputs provided by the communities while facing the marginal cost (MC) of these inputs. The MC curve aligns with the price (P) curve, as the firm, acting as a price-discriminating monopsony, can push the prices it pays to the communities down to the lowest level that each community is willing to accept. As a result, the firm is able to extract the entire surplus ebd , which would otherwise belong to the communities if the demand side of the market were perfectly competitive.

As in the case of monopoly described above, this redistribution of surplus from the communities to the firm observed in the model illustrates how a firm's significant market power and ability to engage in effective price discrimination allows it to obtain firm-specific incentives that other firms are not able to get.

Both monopoly and monopsony scenarios presented above, illustrate that a firm in possession of market power that allows it to price discriminate against numerous communities it is negotiating with at the market for business locations while exchanging goods, services and environmental amenities is able to pay less when acting as a buyer and get paid more when acting as a seller. The transfer of the surplus from communities to the firm is likely to take the form of various incentives that communities employ to attract the firm in hope to keep whatever surplus will be left to them.

CONCLUSION

In this work, I advance the idea that firm-specific incentives can be understood through a transactional framework, viewing localities and firms as parties engaged in various transactions within the market for business locations. As I examine the variability in firms' characteristics and communities' responses, particularly regarding the tax treatment of firms, I focus on one key characteristic—firms' market power—and consider two scenarios where a single firm negotiates with numerous competitive communities. In the first scenario, the firm is on the supply side of the market, acting as a price-discriminating monopoly. In the second scenario, the firm is on the demand side of the market, acting as a price-discriminating monopsony. My analysis shows that if the firm can engage in perfect price discrimination (with prices equivalent to benefit taxes), then, as expected for a price-discriminating monopoly or monopsony: (1) the outcome is efficient, and (2) the firm benefits from its market power by either charging more as a monopoly or paying less as a monopsony. We can expect these benefits to be realized through common firm-specific incentives such as tax credits, cash grants, and property tax abatements.

This insight helps explain why some firms receive special treatment from state and local governments, while others do not. It also sheds light on the empirical findings of Slattery and Zidar (2020), who, using Slattery's (2019) dataset, report that large, profitable firms are more likely to receive firm-specific subsidies. The explanation here—that large firms' market power enables them to capture the communities' surplus through subsidies—complements Slattery and Zidar's (2020) hypotheses that state and local jurisdictions are trying to attract large, productive firms that will generate surplus and spillovers, affect the location decisions of other firms, and increase demand for both labor and services.

Further research is needed to understand what defines large firms' market power and why communities do not simply focus on attracting a large number of smaller firms, instead of pursuing high-profile, "celebrity" firms with such eagerness.

REFERENCES

- Burstein, M., & Rolnick, A.J. (1995). *Congress should end the economic war between the states*. Minneapolis: Federal Reserve Bank of Minneapolis Annual Report.
- Courant, P.N. (1994). How Would You Know a Good Economic Policy If You Tripped Over One? Hint: Don't Just Count Jobs. *National Tax Journal*, 48(4), 863–81.
- Ellis, S., Hayden, G., & Rogers, C. (2014). A Game Changer for the Political Economy of Economic Development Incentives. *Arizona Law Review*, 56(4), 953–76.
- Farmer, L. (2019). With Amazon Out of New York, Some Lawmakers Seek Multistate Ban on Corporate Tax Breaks. *Governing*.
- Fischel, W. (1975). Fiscal and environmental Considerations in the Location of Firms in Suburban Communities. In E. Mills, & W. Oates, *Fiscal zoning and land use control* (pp. 119–139). Heath and Company.
- Garcia-Mila, T., & McGuire, T.J. (2002). Tax Incentives and the City. *Brookings-Wharton Papers on Urban Affairs*, pp. 95–114.
- Glaeser, E.L. (2001). *The Economics of Location-Based Tax Incentives*. Retrieved from Scholars at HARVARD: <https://scholar.harvard.edu/files/glaeser/files/hier1932.pdf>
- Jensen, N.M., & Malesky, E.J. (2018). *Incentives to pander: How politicians use corporate welfare for political gain*. Cambridge University Press.

- Markell, J. (2017, September 21). Let's Stop Government Giveaways to Corporations. *New York Times*.
- Oates, W.E., & Schwab, R.M. (1988). Economic Competition among Jurisdictions: Efficiency Enhancing or Distortion Inducing? *Journal of Public Economics*, 35, 333–54.
- Slattery, C. (2024, September 10). *Berkeley Haas*. SSRN. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3250356
- Slattery, C., & Zidar, O. (2020). Evaluating State and Local Business Incentives. *Journal of Economic Perspectives*, 34(2), 90–118.
- Sobel, R.S., Wagner, G.A., & Calcagno, P.T. (2024). The political economy of state economic development incentives: a case of rent extraction. *Economics and Politics*, pp. 104–151.
- Summers, L.H. (2019, October 9). We No Longer Share a Common Lived Experience. *Washington Post*.