

The Fallacy of Regulatory Symmetry: An Economic Analysis of the ‘Level Playing Field’ in Cable TV Franchising Statutes

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ABSTRACT *Formal regulatory parity can entail counterintuitive effects. In a series of state statutes, municipal governments have been directed to issue cable TV franchises to new competitors only after (a) formal hearings considering the ‘public interest’ in competition; and (b) imposing terms and conditions which are at least as burdensome as those contained in the incumbent’s franchise. While billed as ‘level playing field’ laws, economic theory, an important case study in Connecticut, and a probit analysis of Ameritech’s cable franchise acquisition strategy suggest that these statutes actually tilt the field against entrants.*

1. Introduction

In Dade County, Telesat got stopped dead in its tracks by a state law known as the ‘level playing field’ act. In theory, it was designed to ensure that the second cable franchise wouldn’t get more favorable treatment than the incumbent. But in the ten states where such legislation has been enacted, many cable newcomers contend it has enabled incumbents to manipulate the franchising process. Often at the established company’s urging, local governments hold public hearings and conduct extensive studies on the impact of so-called overbuilders. In the end, communities frequently end up imposing more burdensome financial obligations and construction schedules on second cable systems. Dade County proved no exception.²

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2. Robichaux, Mark. Cable Firms Say They Welcome Competition But Behave Otherwise, *Wall Street Journal*, 24 September 1992, p. A1. We count eleven states as having passed LPF laws (see Table 1).

In cable television markets an intriguing regulatory creature appeared in the 1980s: the ‘level playing field’ (LPF) law.³ Such statutes mandate that municipal governments not license a second cable TV operator in their community without imposing franchise requirements as ‘burdensome’ as those levied on the first entrant, and typically require formal public hearings to determine the impact of new rivalry.

Economists, as a rule, like symmetric regulation. Treating different firms in the same market according to different regulatory standards can yield perverse incentive effects and inefficient outcomes. Mark Schankerman (1994) states the case as follows:

In general terms symmetric regulation means providing all suppliers, incumbents, and new entrants alike, a level playing field on which to compete—the same price signals, restrictions, and obligations. Full symmetry must encompass all stages of market participation: entry, post-entry competition, and exit ... The basic economic rationale for regulatory symmetry is to maximize technical efficiency ... The regulator cannot distinguish between more and less efficient suppliers, and must therefore not be in the position of ‘picking winners’ either at the stage of entry or post-entry competition. *But all forms of asymmetric regulation contain an intrinsic bias toward some firms or technologies and therefore create the potential for very large technical efficiency losses.* In principle this holds for regulations that favor incumbents and entrants.⁴

Regulation treating competitors differently has inspired criticism; note the response to the regulatory approach taken by the Federal Communications Commission to AT&T’s ‘dominant’ market position.⁵ Some have also expressed concern regarding ‘asymmetric deregulation’, although the pressure generated by such a phenomenon appears to have led to an acceleration of policy liberalization and enhanced competitive forces.⁶

State cable franchising laws reveal a neglected aspect of the symmetry paradigm: rules that ostensibly mandate fairness can create barriers to entry. These barriers impose opportunity costs faced by an entrant but not an incumbent.⁷ This result is driven by the fact that financial burdens resulting from nominally identical franchise requirements are affected not only by mandated taxes or cross-subsidies, but by the magnitude and volatility of the cash flows anticipated from the regulated business.

We begin by presenting a simple model of entry barriers. We then review the language of the Florida LPF cable statute, a key measure enacted in 1987 and

3. The ‘level playing field’ concept is not, of course, specific to cable television markets. It is utilized in regulatory proceedings, including tariff negotiations by the U.S. Trade Representative.

4. Schankerman (1994), pp. 2–3. Emphasis in original.

5. Haring (1984); Haring & Levitz (1989). The Federal Communications Commission eventually reversed its ‘asymmetric’ policy, declaring that AT&T would no longer be treated as a dominant carrier (FCC 95–427 [23 October, 1995]).

6. Noam (1994).

7. Demsetz (1982).

then copied in other states, and explain its asymmetric results. We next examine the experience of an entrant applying for franchises under the Connecticut LPF statute. Finally, to test whether the entry-detering effects of the LPF statutes apply generally, we present the results of an econometric model that measures the general impact of LPF statutes on competitive entry in cable markets. We conclude with a summary that attempts to generalize our findings.

2. An economic theory of ‘symmetric’ entry barriers

An impressive body of theoretical literature has emerged over the past two decades examining the incentives for incumbent firms to deter entry through strategies such as expanding output and investment in the pre-entry period, threatening aggressive post-entry responses, and raising the cost of the actual or potential rival. These models show, in general, that incumbent firms can increase barriers to entry and have a motive for doing so; however, they can accomplish this only at a cost, either in the form of a direct outlay or sacrificed profit opportunity. While these models typically view entry deterrence as a consequence of market actions, entry deterrence can be enhanced by the incumbent’s strategic efforts to alter the social, political, and legal arrangements governing firms in the marketplace.⁸ In fact, investments in the nonmarket environment, such as securing passage of a level playing field law, can leverage entry-detering actions.

Typically, strategic behavior toward entrants is evaluated using various representations of an incumbent versus entrant game in which one firm, the incumbent, accumulates a quantity of ‘capital’⁹ sufficient to limit or preempt the entry of other firms by making entry unprofitable.¹⁰ This preemptive capital investment has taken many forms, including excess capacity,¹¹ intensive advertising,¹² overprovision of product variety,¹³ raising rivals’ costs,¹⁴ and rent-seeking activity.¹⁵ The entry deterring ‘capital’ expenditure must be sunk to create a binding, credible commitment by the incumbent and render a first-mover advantage.¹⁶

8. Baron (2000), p. 3.

9. Because deterrence creates intertemporal relationships in the profit function, such strategies can be viewed as ‘capital’. If the deterrence instrument is binding, it is an ‘irreversible investment’. See Salop (1979), pp. 335–338.

10. The typical cable TV market exhibits just this alignment: one firm supplies the market, yet a prospective duopolist entrant would likely earn positive profits absent strategic behavior, including franchise barriers. See Hazlett (1995a).

11. Spence (1977); Ware (1984); Gilbert (1986).

12. Salop (1979).

13. Schmalensee (1978).

14. Salop and Scheffman (1983).

15. Hillman (1989); Boudreaux (1988).

16. The success of preemptive investment requires that the strategy be not only desirable, but credible. In dynamic models of entry-deterrence, the incumbent must convince potential entrants that the excess capacity would be employed upon entry. See Riordan et al. (1999). Discrimination by geographical sub-market has also been a part of the incumbent’s response to entry, and the uniform pricing provision of the 1992 Cable Act was aimed at this selective price cutting (1992 Cable Act, Sect. 623[e], 47 U.S.C. 543).

These entry models show that if entry requires sunk costs, prior existence makes the entry process *intrinsically asymmetric* and this asymmetry exists even if the entry costs borne by the entrant and incumbent are identical.¹⁷ In fact, the matching of the sunk entry costs, as required by LPF laws, is vital to the entry-detering potency of such investments. To illustrate, consider a simple incumbent versus entrant game. In the first stage of this three-stage game, the incumbent franchised cable operator, before the entry decision of a second firm, can earn a positive present discounted value of profits M . In the second stage, an entrant decides whether or not to enter. Upon entry, the entrant must incur an initial sunk entry cost of E that is exogenous to the behavior of the incumbent. In stage three payoffs accrue with the incumbent earning the duopoly profit D and the entrant $D-E$.¹⁸ Note that entry occurs only if $D-E \geq 0$; duopoly profit is less than monopoly profit and both are positive ($M > D > 0$); and the condition on joint-profit is $M > 2D-E$.¹⁹ The subtraction of entry costs (E) from the entrant's profits illustrates the asymmetry between incumbent and entrant. The entry cost E is relevant to the marginal decisions of the entrant, but to the incumbent E is a bygone.

If the entrant deems entry profitable ($D-E \geq 0$), the real advantage of incumbency arises in that prior existence provides the incumbent the opportunity to make an entry deterring investment. If the incumbent can make a sunk investment of R that the entrant must match, then the entry condition becomes $D-E-R$, which is more difficult for the entrant to satisfy. The entry-detering investment is $R = D-E$. Although incurring the cost R also reduces the profits of the monopolist (to $M-R$), the investment will be made if competitive entry is profitable absent the investment ($D-E > 0$) but negative otherwise ($D-E-R < 0$), and if $M-R > D$, the latter of which holds given the condition on joint-profit maximization. In other words, the incumbent has more incentive to deter entry than the entrant has to enter.²⁰

The simple analytics of the entry process reveal the paradox of regulatory attempts to level the playing field. Labeling nominally symmetric obligations borne by entrants and incumbents as 'equal' burdens ignores the greater likelihood that the residual profits anticipated by the entrant will be insufficient to cover fixed costs, relative to the incumbent that entered without rivals.

Because the potency of entry-detering investments depends on a number of factors, incumbent firms will not always choose to make such investments.²¹ In some cases, the entry-detering investments are not effective because the entrant

17. As the proportion of sunk cost to total cost increases, the strategic advantage of the first mover is augmented. See Schmalensee (1981); Ware (1984).

18. We restrict, for now, our attention to the entry game. D represents the outcome of a reduced form, hypothetical post-entry game (Cournot-Nash, Bertrand-Nash, Stackelberg leadership). The entrant and incumbent are assumed to be equally efficient.

19. Tirole (1995), p. 348.

20. Tirole (1995), Ch. 8.

21. Tirole (1995), Ch. 8, provides a number of reasons why entry deterring investments may be unprofitable. Interestingly, LPF statutes make these investments more effective in each instance.

is not required to match them. The combination of municipal franchising in cable television and the LPF statute, however, ensures such investment will be made and then be potent barriers to entry. Since the LPF law mandates the matching of any franchise-related capital expenditures, the general result of the LPF law is that incumbents and franchise authorities can force entrants to incur sunk costs considerably in excess of what free market conditions would imply.²²

In general, the LPF statute raises entry costs in three ways. First, consider the incumbent's decision whether to deter entry by undertaking fixed, nonsalvageable investments. In cable television, the franchising process prompts rivals to bid to acquire a monopoly franchise.²³ When combined with an LPF statute, these appropriated rents are converted to entry deterring investments, because the newcomer must shoulder the same economic burdens as the incumbent. Moreover, a given fixed cost will constitute a higher proportion of expected profits for an entrant than for the incumbent (i.e., the 'equal' burden is amortized over fewer subscribers paying lower prices, the result of the entrant expecting a duopoly market while the incumbent has served as a monopoly). This proportionally higher entry cost not only lowers the entrant's net present value, perhaps below zero, but also increases default risk.²⁴

Second, consider the effect upon entry of universal service requirements (USRs), a common feature of cable franchises imposed on new competitors under LPF rules.²⁵ Where USRs mandate service to unprofitable areas they raise the cost of entry. Even where competitive entry is still calculated to have a positive net present value, a pre-entry commitment to universal service reduces the operator's degrees of freedom, raising the risk premium on a cable overbuild investment. Additionally, the universal service requirement raises the credibility of post-entry price cutting by the incumbent, further reducing the prospects for entry.²⁶ Since the incumbent's (and entrant's) profits will fall most dramatically in the instance where entry occurs everywhere (due to both falling prices and lost market share),²⁷ universal service requirements motivate the incumbent to deter

22. Level playing field statutes require that the entrant's franchise contract 'shall not contain more favorable terms or conditions than those imposed on the existing franchise'. (Connecticut Statute 16-33(6)(i).) This feature of the LPF law, of course, powerfully leverages the entry deterring investment.

23. Posner (1971); Williamson (1976). These are not dollar bids, but regulatory commitments (like universal service) and in-kind payments (such as construction of a public access television production facility). Dollar bids are capped by federal law at 5 per cent of revenues.

24. This effect is intensified by the additional uncertainty of prices in a duopolistic, as compared with a monopolistic, market. In fact, overbuilders face higher capital costs. See Hazlett (1995b).

25. Interestingly, cable TV universal service requirements are neither 'universal' nor do they mandate 'service'. The standard universal service requirement commits the franchisee to build-out a given area franchise over a number of years. Low-density areas—neighborhoods where there are fewer than, say, thirty homes per square mile—are exempted. Moreover, the cable company need not provide actual service to customers, but merely make service available to subscribers for a standard connection fee.

26. Tirole (1995), p. 351.

27. See Beard and Ford (1999).

entry in the pre-entry stage.²⁸ This, in turn, bolsters the incumbent's credibility in discouraging new franchise applicants.²⁹

Third, consider the effect of cross-subsidy commitments. Municipal cable regulation has not eliminated monopoly pricing, rather 'municipal authorities have required cable franchisees to pay substantial fees, in money and kind, to the municipal government'.³⁰ Municipal authorities have impeded competitive entry to promote subsidies funded by rents from the cable franchisee.³¹ In turn, these cross-subsidy commitments then raise future barriers to entry under LPF terms. Not only do they require the entrant to match the incumbent's expenditures dollar for dollar,³² they target a class of beneficiaries who will reliably apply political pressure on behalf of monopoly, as competitive entry reduces the pool funding cross-subsidies.³³ This constituent support for the regulation of entry is

28. Gilbert (1986) shows that if the minimum efficient scale (MES) were small relative to the capacity of the incumbent, preemptive investment to deter entry will generally be ineffective. Similarly, Gelman and Salop (1983) observe that if entry can occur on a small enough scale, the incumbent may prefer to 'offer' the residual demand to the entrant rather than match the entrant's price. In both cases, if the entrant is small enough to have a negligible impact on output and prices, profits earned via successful preemption are less than those earned with entry. For example, in the early days of cable television it was common for a cable operator not to contest entry by SMATV (satellite master antenna TV) operators in private developments not yet wired for cable service. These systems were often integrated into the cable system at a later date (Johnson (1994), p. 177). However, the LPF law prohibits such small-scale entry by cable systems, forcing the entrant to match the excess capacity investment of the incumbent.

29. Baumol, Panzar, and Willig (1982) argue that high legal costs and entry delays are likely to be associated with greater opposition by incumbents, and that this opposition will rise with the anticipated scale of entry.

30. Posner (1971), p. 33.

31. Comanor and Wilson (1972); Posner (1971); Williamson (1976); Hazlett (1991, 1996, 1997); Hazlett and Spitzer (1997). For example, Besen and Crandall (1981) note 'there are hotly-contested franchise battles taking place in many of the major cities with the competitions being judged on the technical characteristics of the systems, the fees to be charged, and especially, the services, including access channels, to be offered. With the rewards to a successful franchise application being potentially very large, there is a growing tendency for applicants to offer very extensive packages of services. It seems clear that many of the services being proposed are designed as much to attract the attention of the franchising authorities as that of the public'. A recent example of a competitive franchise contract illustrates the point. Ameritech, the regional Bell Operating Company in Wisconsin, recently acquired competitive franchises in its service area. In addition to its 80-90 channels of video programming provided over a hybrid fiber-coax network, Ameritech promised to provide the city of Greendale, Wisconsin the following: (1) franchise fees of 5 percent of gross revenue; (2) two annual payments of \$5,000 each to assist the city in using Ameritech's cable service; (3) an additional 0.75 percent of gross revenue to the city for support of community access programming; (4) three channels of community access and educational programming; (5) free connections and basic service to all municipal and education buildings plus two other connections specified by the city; and (6) wiring all high-school classrooms at no cost to the city. Further, to minimize disruptions to community, Ameritech offered to use a new technology that drills holes under resident's yards rather than digging trenches. Ameritech Press Release, 10 December 1995.

32. The entrant's costs may even exceed the incumbent's. To gain the local franchising authority's assistance in meeting its burden of proof on the issue of 'equal burdens' under the LPF statute, the entrant may be prodded to include a premium above what the incumbent franchisee has expended.

33. Ironically, while restrictions on entry are intended to protect cross-subsidies, cross-subsidy schemes are incompatible with the sustainability of monopoly prices: cross-subsidies invite entry into the 'cross' (as opposed to the 'subsidy') submarket. Baumol, Panzar, and Willig (1982, p. 472) argue that this feature of sustainability is attractive in that it forces social goals to be financed more efficiently and 'provided openly and as a consequence of deliberate decision rather than ... as the result of covert pressures, and as a by-product of the pursuit of other objectives'.

likely to be an important factor in a municipal government's decision to franchise—or deny—a potential entrant.³⁴ Independent from the self-interested monopolist, they provide political 'cover' for anti-competitive decisions.

3. 'Level playing field' statutes for cable TV franchising

At least eleven states have enacted level playing field laws for cable TV franchising (see Table 1). These measures regulate franchises granted to cable television systems seeking to enter markets already served by an incumbent operator ('overbuilders'). In 1992, as many as 103 cable companies in fifty local markets participated in some level of head-to-head rivalry, and passed about 933,000 homes, slightly over 1 per cent of U.S. TV households.³⁵ Despite the stated goal of the 1992 Cable Consumer Protection and Competition Act to facilitate direct competition between cable operators, there was no noticeable trend in this direction following its enactment.³⁶ Following the 1996 Telecommunications Act, however, large scale overbuilders began to emerge.³⁷ While LPF laws were primarily enacted on the heels of the boom in cable system values in the late 1980s, recent interest in such statutes has revived. They have not met with legislative success, but suggest a clear causal relationship with the equity market. We will return to this topic momentarily.

TABLE 1. States with 'level playing field' cable TV franchising statutes

State	Year enacted	Code/source
Alabama	1982	Code of Ala. @ 11-27-2 (1994)
California	1989	Cal Gov Code @ 53066.3 (1995)
Connecticut	–	Conn. Gen. Stat. Sec. 16-331
Florida	1987	Fla. Stat. @ 166.046 (1994)
Illinois	1989	65 ILCS 5/11-42-11 (1995)
Kentucky	–	Reveal & Mott 1989
Minnesota	1988	Minn. Stat. @ 238.08 (1994)
New Hampshire	1989	RSA 53-C:3-b (1994)
Oklahoma	–	11 Okl. St. @ 22-107.1
Tennessee	1988	Tenn. Code Ann. @ 7-59-203 (1995)
Virginia	1989	Va. Code Ann. @ 15.1-23.1 (1995)

34. Hillman (1989); Boudreaux (1988).

35. Paul Kagan Associates, *Cable TV Franchising*, 30 April 1992.

36. FCC (1994), par. 60.

37. FCC (1998); Hazlett (1999).

The Florida law (1987)

According to trade press accounts, the first LPF law was adopted by the state of Florida, and went into effect 1 October 1987.³⁸ It was sponsored by the Florida Cable TV Association, the trade group representing incumbent cable operators.³⁹ The proximate cause of the legislation was concern generated by Telesat Cablevision, Inc., a subsidiary of Florida Power & Light Group Capital, then the fastest growing U.S. overbuilder.⁴⁰ Reporting on cable competition in 1992, the *Wall Street Journal* noted: 'By far the bloodiest battleground, even by the industry's sanguinary standards, is in Central Florida where Telesat Cablevision Inc. has gone up against some of the nation's most powerful cable operators'.⁴¹ Telesat had about 35,000 subscribers in 1987, and would peak at about 60,000 subscribers in 1991.⁴²

A spate of copycat laws appeared in other states in 1988 and 1989. Because of its role as a model for LPF statutes in other states, the 'anti-Telesat' law⁴³ is of special interest. It contained the following provisions:

- (1) No municipality or county shall first grant a franchise for cable service to a cable system within its jurisdiction without first, at a duly noticed public hearing, having considered:
 - (a) the economic impact upon private property within the franchise area;
 - (b) the public need for such franchise, if any;
 - (c) the capacity of public rights-of-way to accommodate the cable system;
 - (d) the present and future use of the public rights-of-way to be used by the cable system;
 - (e) the potential disruption to existing users of the public rights-of-way to be used by the cable system and the resultant inconvenience which may occur to the public;
 - (f) the financial ability of the franchise applicant to perform;
 - (g) other societal interests as are generally considered in cable television franchising;

38. Fla. Stat. Ann. Sec. 166.096 (1988). A Lexis search, however, turns up an Alabama statute which appears to date from 1982. The authors have not as yet determined why the industry would tout the Florida as a unique development if the Alabama law had already been enacted some years before. There is little doubt, however, that the Florida statute received widespread attention and became the model for cable TV associations in other states.

39. 'The Florida legislature, under intense pressure from the state's franchised cable operators, has passed a law aimed at reducing the instances of second companies overbuilding all or part of existing cable systems'. John Wolfe, Florida Operators Gain Weapon in Fight Against Overbuilders. *Cablevision*, 15 June 1987, p. 50. The FCTA won a prize from the National Cable TV Association for gaining passage of the legislation, which was hailed by National Cable Television Association Chairman James Mooney: 'I am filled with admiration for what the Florida association has been able to do'. Jeanine Aversa, Florida Law Sets Rules for Overbuilds. *Multichannel News*, 8 June 1987.

40. 'The law was the top legislative priority of the Florida Cable TV Association and is aimed primarily at Telesat Cablevision ...'. John Wolfe, Florida Operators Gain Weapon Against Overbuilders. *Cablevision*, 15 June 1987, p. 50.

41. Mark Robichaux, Cable Firms Say They Welcome Competition But Behave Otherwise, *Wall Street Journal* 24 September 1992, p. A1.

42. Telesat was eventually sold to a group of cable television operators in 1994.

43. This was its popular appellation in Florida cable circles. See Telesat (1990).

- (h) such other additional matters, both procedural and substantive, as the municipality or county may, in its sole discretion, determine to be relevant.
- (2) No municipality or county shall grant any overlapping franchises for cable service within its jurisdiction on terms or conditions more favorable or less burdensome than those in any existing franchise within such municipality or county.

Two inequities are observable in the nominal requirements of the statute. The first is that the law does not mandate equal franchise requirements. A new, competitive franchise could lawfully contain more costly burdens than those contained in an existing franchisee's agreement. Hence, the legislation adopts the rule that all burdens be equal *unless* the incumbent franchisee gets the 'more equal' deal.

Secondly, the law mandates asymmetric requirements for cable franchises vis-à-vis other firms accessing public rights-of-way (ROW). As demonstrated below, cable operators—specifically, second entrants into cable markets—are singled out for licensing in a manner that is distinct from the procedure employed to permit other firms to access public rights-of-way.

LPF statutes shift regulation from the general to the specific. Whereas market failure is ostensibly mitigated via rules to control public disruption (externalities) or to expand access to essential facilities (monopoly), the formal LPF hearings focus on the fairness of obligations shouldered by incumbents and entrants. Hence, LPF provisions conflict with general regulatory goals in the following ways.

Economic impact on private property. Either entry will be successful (and so reduce prices by expanding outputs) or it will not (i.e., the competitor will fail). Either way, there is no adverse economic impact except to incumbent suppliers' rents. Attorneys representing cable operators in Florida, however, claimed that this latter issue was the relevant legal question under the statute: 'Will the current operator's system be significantly devalued?'⁴⁴ The legislative director of the Florida Cable TV Association argued that this economic impact would be substantial, as 'competing franchises would have a dramatic effect on existing system values ... a 15–25 percent deflationary effect on system values just because of the threat'⁴⁵

Public need. Because any firm franchised to compete will yet have to meet a market test for survival, the public 'needs assessment' is only binding in the case where it blocks entry.

Capacity of public rights-of-way. There is no physical capacity constraint. Utility poles and underground conduits (the typical cable grid is about 70 percent

44. Bienstock and Cunningham (1988), p. 31. See also Telesat (1990), p. 11.

45. Comments of Tom Alexander, president of Alexander and Associates (a cable brokerage firm), in Wolfe, Florida Operators Gain Weapon Against Overbuilders.

aerial, 30 percent buried) are always expandable. The policy question is: who pays? The standard regulatory answer is a rule requiring entrants to pay incremental costs. Firms utilizing public ROW, including utilities (gas, electricity, water, telephone) and construction firms (which must cut across streets and underground conduits, sometimes installing new conduits), then face profit incentives to align expected social costs against expected social benefits.

Present and future uses of rights-of-way. Again, the process for non-cable suppliers works on the basis of general liability rules. To determine, in a formal administrative procedure, which line goes where now and in the future, is to place a uniquely high burden on the cable entrant.

Public disruption. Public disruption is harmful from whatever source; symmetric regulation of cable entrants would again suggest using the general rules and obligations used by non-cable firms.

Financial ability. Cleanup costs should not be shifted to taxpayers, town residents, or local businesses. Such problems are again of general concern, and are typically mitigated via bonding requirements.

Other societal interests. This leverages municipal police powers to deny a cable entrant the right to do business on vague criteria.

Anything else. This expands regulatory discretion to a maximum.

Faux symmetry

The Florida LPF law creates burdens and obligations for entrants that are not borne by its rivals. The franchising authority possessed by local governments derives from municipal police powers governing access to easements and public rights-of-way. The franchising process leverages authority over access to ROW to a negotiation over access rights to cable TV subscribers. Ironically, public ROW easements created to mitigate hold-up problems potentially posed by private landowners, are themselves employed to extract benefits from potential entrants.⁴⁶

This institutional twist is explained, in part, by the theoretical model discussed in Section 2. Incumbent operators strategically compete in the political realm to create legislation that protects rents of established operators. Rather than remedying supra-competitive pricing, state and local regulators are persuaded to scrutinize the applications of potential overbuilders. The fledgling entrant is made to shoulder a burden of proof in the pre-entry regulatory proceedings. It must formally demonstrate that its burdens are 'equal' to those imposed on its established competitor. The incumbent gains from delays, delays that can be generated by infusing the franchising process with voluminous studies, consulting reports, and pointed allegations. And since the LPF statute mandates both

46. See McChesney (1997).

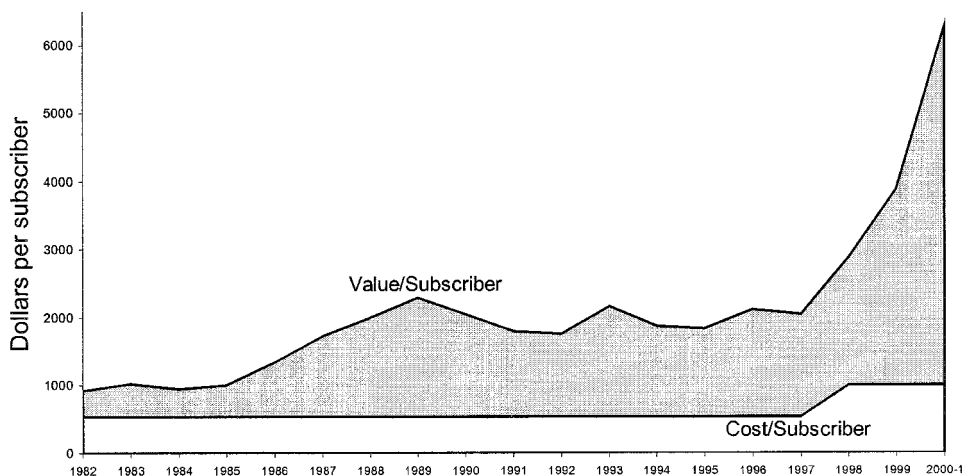
formal procedures and an elusive franchise burden equality, litigation to challenge competitive franchise awards under the LPF law is an additional entry-deterring tactic.⁴⁷

In sum, the incumbent's preemptive investment may produce a relatively large increase in E and R , the entrant's sunk cost of gaining access to the market. First, raising questions is easier than answering them. Initial answers may also be challenged at low cost, raising costs for the entrant still further. Second, the incumbent is likely to be more knowledgeable about market-specific issues. This includes familiarity with regulators. Third, the incumbent gets to play defense, merely blocking the initiative (franchise application) of the entrant. The entrant assumes the burden of affirmatively proving that its franchise application satisfies both state and local law. The LPF statute directly increases this burden. Hence, an incumbent's defensive (and unproductive) investment R may be leveraged at greater than a one-to-one ratio.

Cable asset values and LPF laws

It appears that LPF laws may be correlated with important changes in financial markets. The spate of LPF laws passed in the late 1980s came just as cable systems were increasing markedly in value. As seen in Figure 1, cable system

FIGURE 1. Cable TV system market values and capital costs



Note: 2000-1 = Jan.–June 2000.

Sources. Values: Hazlett & Spitzer 1997, p. 22; FCC 1998, Table B-9; FCC 2001, Table B-8. Costs: FCC 1994b, Table I-1; FCC 1999, Chart 2.

47. The Dade County application of Telesat is a case in point. '[A] six-month, \$100,000 study into the feasibility of competition led to one delay after another in the processing of Telesat's application for a franchise. At every county meeting, Mr. Cushing, Telesat's president, says the incumbents prodded the county to ask for more data before taking any action. Finally, after two-and-a-half years of waiting, Telesat withdrew its application. Among other reasons, it cited in its FCC filing 'no hope of overcoming incumbent opposition with close political ties to commissioners'. Later that year, the Dade County cable administrator who recommended doing a feasibility study was hired by (incumbent cable operator) Telecommunications, Inc. ... Robichaux, Cable Firms Say They Welcome Competition But Behave Otherwise.

values climbed to four to five times the replacement cost of capital in 1987–89. Market values then stayed flat for several years, before increasing markedly again in the 1997–2000 period (in response to new revenue streams, primarily from cable modem service).

The recent run-up in asset prices has invited a new round of competitive entry.⁴⁸ In fact, the incidence of overbuilding is far in excess of what has been seen previously.⁴⁹ Yet the constraints of the 1992 Cable Act and the 1996 Telecommunications Act, both of which imposed federal limits on anti-competitive actions by franchising authorities, make anti-overbuilding legislation more difficult to enact than in the earlier period.⁵⁰ Still, states such as Iowa are tempted to consider new law. As reported in the trade press, the motive is clear:

Iowa cable operators aren't going to wait for the overbuild craze to reach their state. The Iowa Cable Telecommunications Association has instead backed legislation that would ensure a city could not grant a private operator a franchise that is 'more favorable, or less burdensome' than the agreement it has with the incumbent.⁵¹

4. Case study: FiberVision as cable TV entrant in Connecticut

A market experiment in competitive cable entry was conducted pursuant to an application by FiberVision (FV) to serve four major Connecticut markets, involving 450,000 homes, in New Haven, Hartford, Bridgeport, and New Britain.⁵² FV began planning its system in 1990, and formally applied for franchises beginning in July 1993. (In Connecticut, cable TV franchises are issued by the state Department of Public Utility Control [DPUC].) All four franchises were approved by the DPUC, but were then challenged in lawsuits brought by cable TV incumbents. All litigation was eventually resolved in favor of the entrant, and the franchises officially awarded. No construction ever commenced, however, and all four franchises were relinquished on 24 September 1997 (see Table 2).⁵³

In the final state proceeding involving the overbuild, the DPUC 'accept[ed] FiberVision's request to relinquish its CPCNs [certificates of public convenience

48. Leslie Cauley, *Defending their Turf: Cable Companies are Taking the Offensive Against Upstarts Offering Competing Video Services*. *Wall Street Journal*, 18 September 2000, R16.

49. Hazlett (1999).

50. The 1992 Cable Act specifically prohibits a locality from 'unreasonably' denying a competitive cable franchise. See Hazlett (1995). Section 253 of the 1996 Telecommunications Act gives the FCC the authority to preempt any state or local requirement that 'prohibit[s] or ha[s] the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service'. The FCC used this authority to preempt a 'level playing field' provision in the Texas Public Utility Regulatory Act of 1995. See Memorandum Opinion and Order, FCC 97-349, 1 October 1997.

51. Joe Estrella, *Iowa Ops Back 'Level Playing Field'*. *Multichannel News*, 26 February 2001, p. 40.

52. Carl Weinschenk, *Financial Backing: Telecommunication s Firm Supporting Connecticut Overbuild Proposal*. *Cable World*, 18 October 1993, p. 38. The proposed project called for an investment of \$94 million, and would have then constituted the largest cable overbuild in U.S. history.

53. State of Connecticut, DPUC, Docket No. 97-07-05, 24 September 1997.

TABLE 2. FiberVision's franchise application process in Connecticut

	Application filed	Public hearings	Franchise granted	Post-franchise litigation?	Construction commenced?	Franchise relinquished
New Britain	5 Oct. 1993	10 Feb. 1994	23 Nov. 1994	Yes	No	24 Sept. 1997
New Haven	5 Oct. 1993	15 Feb. and 1, 22 March 1994	20 Dec. 1995	Yes	No	24 Sept. 1997
Bridgeport	5 Oct. 1993	9, 16 Feb., 7, 20, 22 March and 6, 17 April 1994	8 Nov. 1995	Yes	No	24 Sept. 1997
Hartford	8 July 1993	20 Sept. 1993; 7, 8, 18 Oct. 1993 and 9 Feb. 1994	16 Feb. 1994	Yes (Resolved by CT Supreme Ct., 22 Aug. 1995)	No	24 Sept. 1997

Source: DPUC documents and Louise Ricard, DPUC.

and necessity] ... The Department is aware that FiberVision's ability to proceed with construction was initially delayed by years of litigation as the incumbent cable operators challenged the competitive CPCNs'.⁵⁴ One of the lawsuits filed was litigated all the way to the Connecticut Supreme Court before the entrant prevailed. But the delay and litigation took their toll: 'FiberVision's letter dated 17 September 1997, cites "the passage of time and the obvious changes in the cable industry since FiberVision originally applied for its franchises in 1993" as reasons for its decision not to move ahead with construction'.⁵⁵ FV had difficulty raising capital because it, in its words, 'remained in a regulatory and legal morass'.⁵⁶ By the time the dust settled, the Telecommunications Act of 1996 was law. That statute permitted telephone companies to obtain cable franchises, creating further uncertainty for FiberVision's investors.

The attempted entry went as follows:

- July–October 1993: four franchise applications.
- September 1993–April 1994: franchise hearings.
- February 1994–December 1995: four franchises granted.
- 1994–1996: four franchise awards litigated.
- 1997: Southern New England Telephone obtains statewide cable franchise.
- September 1997: FiberVision relinquishes all four franchises.

Two public decisions were key in eliminating competitive entry by FiberVision. First, by forcing FV to obtain four separate franchises, Connecticut state policy gave cable incumbents a target-rich environment. While the entrant prepared a business plan to compete across all four franchise areas (indeed, to obtain franchises it had to demonstrate that it was prepared to compete in each), franchise and litigation battles had to be fought and won in disparate markets. This dual mode—doing business globally while fighting for franchises locally—itsself proved a barrier to entry. DUC documents show that 'the Company [FV] also states that large corporations active in telecommunications ventures have not been interested in financing one system and have been reluctant to get involved until knowing how many franchises the Department would issue to FiberVision ... Although FiberVision has not given up trying to finance the four franchises individually, it has concentrated its efforts on large corporate entities that would finance the four systems simultaneously'.⁵⁷

Second, the federal decision to allow telephone companies to deliver subscription video service considerably altered the profit calculation for FiberVision. While a pro-competitive reform, its impact on the entry decision by a potential cable TV system reveals the sensitivity of such risky investments to policy shifts. Moreover, the State of Connecticut elected to award SNET with a statewide

54. *Ibid.*, p. 3.

55. *Ibid.*

56. DUC, Docket Nos. 93–07–04, 93–10–06, 93–10–07, 93–10–08, 6 March 1996.

57. *Ibid.*

cable television franchise, thus lowering entry costs. (Perhaps the experience with FiberVision proved a valuable lesson.)

The principal supporters of FV entry were the public agencies charged with regulating competition in various markets, the Office of Consumer Counsel (OCC) and the Attorney General of the State of Connecticut (AG). Both offices consistently filed papers supporting FV's application, with some minor disagreement on the terms thereof.⁵⁸ This bolstered the FV application considerably, and created ideal political conditions for competitive entry.

The opposition to FV's application came from cable TV incumbents Tele-Communications, Inc. (TCI), Storer, and Cablevision Systems. These firms operated in markets FV applied to overbuild. Their responses to the various filings at the Connecticut Department of Public Control were lengthy, articulate, and hard-hitting, tenaciously opposed to granting a second franchise. These arguments did not carry the day in even one opinion issued by the DPUC. Most fortuitously, however, the filings created a highly informative public record detailing the sorts of issues the LPF law in Connecticut formally invites into the franchising process. The fact that incumbents have been given standing to make such contributions to the administrative process reveals much, we believe, about the system's underlying dynamics.⁵⁹

Connecticut cable incumbents presented a wide range of arguments against issuing FiberVision a franchise. We lump these objections into four categories, noting substantial overlap.

Protecting against excessive competition

As in the licensing of professions, cable franchising has the potential to be used by industry incumbents to block competition.⁶⁰ Cable incumbents opposing FV's application in Connecticut professed the professional analogy to be apt, in fact. The filing of Cablevision opposing FV's application for a license stated:

In granting a Certificate of Public Convenience and Necessity, the DPUC performs the same role as any other licensing authority in the state. As with doctors, lawyers and plumbers, before a cable television company can be licensed to provide services in Connecticut the state ... must determine that it is competent to provide that service. The state does not license doctors, lawyers or plumbers solely because more doctors, lawyers and plumbers in the marketplace creates more competition and is therefore preferable.⁶¹

58. For example, the OCC argued that FV should not be given a fifteen-year franchise, as it argued, but only a twelve-year franchise.

59. Even where the probability that a given argument will be persuasive, after rebutted, is zero, the incumbent will rationally advance the argument if it raises the rival's costs sufficiently to help deter entry.

60. Maurizi (1974); Benham (1980).

61. DPUC, 29 April 1994, p. 3.

Predatory conduct

Predation is associated with actions taken by firms that are only profitable under the expectation that they will end competition and thereby raise prices. Demonstrating what has been called 'predation by government processes',⁶² incumbent cable firms staked out positions that make economic sense only on the expectation that they will deter entry.⁶³

An example is the following claim by Cablevision: 'FiberVision has no real plans for providing service to the franchise area'.⁶⁴ A profit-maximizing incumbent would not, of course, be opposed to insufficient entry in its output market. Nor would the possibility that a franchise go unused be any more than a self-correcting problem.

Another example of predation is rendered by Cablevision's supporting argument that, while Cablevision welcomes competition from a truly viable competitor, FiberVision is not viable. This lays the predicate for the argument that FV should be denied market access so as to leave conduit space on telephone poles for better rivals to later emerge:

Furthermore, as a result of the limited room for competition among cable television companies and FiberVision's affiliates' attempts to prevent any other competitors from entering their marketplaces ... the presence of FiberVision in the Bridgeport franchise area would actually discourage truly viable competitors with better resources and more expertise from seeking franchises.⁶⁵

In that a 'truly viable' competitor in place of FiberVision would not be in the profit-maximizing interest of the cable incumbent, this line of argument again suggests predatory abuse of the franchising process.

Administered markets

Arguments to administratively predetermine the feasibility of entry reveal strategic behavior by incumbents. TCI complained that the potential entrant had not undertaken a 'needs assessment', for example, and should be denied its franchise application until it had done so. This would force FV to prove that the community actually desired more competition.⁶⁶ Of course, needs-assessment studies are of questionable accuracy in predicting consumer demand or market outcomes. Interestingly, TCI readily conceded this:

Needs assessments are a throwback to the 'blue sky', competition frenzy of the CATV industry's history in the late 1970s. They were supposed to work in the context of initial competitive

62. Bork (1978).

63. McChesney (1987) discusses 'cost-predation' as a strategy by firms to use regulation to burden competitors, thus deterring competition and increasing rents.

64. DPUC, 29 April 1994, p. 8.

65. DPUC, 29 April 1994, p. 1

66. See TCI Brief filed with DPUC, 3 November 1993, p. 10.

franchise proceedings. In fact, they served no useful purpose in that context and are even less valuable in the context of franchise renewals.⁶⁷

Nonetheless, TCI, appealing to the requirements of Connecticut's LPF law,⁶⁸ claimed that the entrant was required to produce such a study. This raises the entrant's fixed costs and offers to create a drawn-out debate, as such studies are fertile grounds for controversy. Cablevision previewed its arguments as follows:

... such a needs assessment is legally required, but even if it were not, FiberVision should welcome such a needs assessment as a means to at least begin its own research. Its resistance to the timely performance of a needs assessment is a further indication of both how ignorant FiberVision is of the franchising process and how uncaring it will be about the needs of its subscribers ... FiberVision cannot meet its market's needs if it does not know or care what those needs are, and its application therefore must be rejected.⁶⁹

Cablevision condemns consumer choice, and touts franchise barriers, throughout its comments. It begins by scoring 'the shaky premise that any competition is good',⁷⁰ and notes that 'there is not an unlimited number of cable competitors that the market can absorb. Potential subscribers will not entertain offers to provide service from several carriers; it simply becomes too confusing'.⁷¹

Raising rivals' costs

The franchising process can be used by incumbents to delay entry and to impose costly conditions on rivals once entry occurs. Many of these costs are front-loaded, incurred by potential entrants prior to gaining detailed information about the nature of supply and demand in the market in question. This is when the entrant is most vulnerable and best deterred.

One entry barrier is created by withholding a franchise until after the entrant has successfully raised its capital. (FiberVision's total capital requirements amounted to \$94 million.) FV argued that it could not actually get its capital committed until it had a lawful right to enter the market, as investors would logically desire to know that the venture was legally viable and economically profitable (i.e., the terms attached to the franchise agreement affecting cash flows in substantial ways). This chicken-or-egg problem was hatched by Cablevision in proposing that no license be issued until the entrant's capital was actually raised: '[A]s Senator Lovegrove pointed out, the state should not be in the business of creating credibility by issuing licenses—financial credibility must be proven *before* the license is issued, not after'.⁷²

67. *Ibid*, p. 14.

68. Conn. Gen. Stat. Sec. 16–331(h).

69. Cablevision Brief filed with DPUC, 29 April 1994, pp. 11–12.

70. *Ibid*, p. 53.

71. *Ibid*, p. 51.

72. *Ibid*, p. 13. Emphasis in original.

FiberVision's costs were also raised by build-out requirements and cross-subsidies on a 'level playing field'. Interestingly, while FV agreed to fund politically desirable programming on the same proportional basis as the incumbents it would compete with, this was deemed insufficient by its potential rivals. TCI and Cablevision both argued that the entrant should absorb even the same *total* costs as the incumbents:

FiberVision has argued that on a per-subscriber basis its proposed funding is equivalent to that provided by Cablevision and other cable television companies, but such an argument misses the point. Other cable television companies are not required to spend a certain amount per subscriber. Instead, the rule in Connecticut, at least before FiberVision's entry on the scene, was if a cable television company wanted a franchise, it had to provide either adequate public access facilities or the money for a separate organization to provide those facilities. Without a level of funding sufficient to provide those facilities, the cable television company could not have its franchise. Section 16-331(i) requires that FiberVision play by the same rules.⁷³

This demonstrates how asymmetric economic burdens result from nominally equivalent obligations. A firm with a lower scale of operations is more burdened by committing to the incumbent's aggregate cost. TCI also argued that FV should not be given as many as fifteen years to build-out its plant, as requested by the entrant: '[TCI] maintains that any franchise grant should require a ten-year build-out and be restricted to a ten-year term'.⁷⁴ (This argument reveals TCI's entry deterring strategy, otherwise the incumbent would prefer FV to build slower rather than faster.⁷⁵)

However, incumbent firms did not meet the build-out schedule they attempted to impose on FV. TCI conceded that its predecessor cable suppliers (which TCI purchased) failed to provide 100 percent build-out even after ten years in the market—by FiberVision's accounting, it needed twenty-four years to do so.⁷⁶ In arguing for a tighter timeline for the entrant, TCI claimed that comparing any cable build-out in the 1970s with the 1990s was 'ridiculous': 'TCI's predecessors in the Hartford franchise area began from scratch, with no prior history of CATV marketing, with a thirty channel system, without the availability of today's plethora of satellite-delivered services and premium services. Indeed, Hartford CATV, Inc., could offer only eighteen activated channels at turn-on'.⁷⁷

73. *Ibid.*, pp. 23–4.

74. DPUC, Docket No. 93-07-04, 20 January 1994, p. 7.

75. The 1992 Cable Act, for instance, recognized this potential for anti-competitive effect in encouraging local authorities to liberalize their universal service rules for entrants: 'In awarding a franchise, the franchising authority shall allow the applicant's cable system a reasonable period of time to become capable of providing cable service to all households in the franchise area'. 47 U.S.C. Sec. 541(a)(4)(A).

76. TCI Reply Brief filed with DPUC, 10 November 1993, p. 18.

77. *Ibid.*, pp. 18–19.

This was the rationale used by the DPUC in approving FiberVision's various applications. Ironically, only by abandoning formal application of 'equal burden' could the agency justify its pro-competitive decision:

The Department concurs with FiberVision that the regulatory and financial climate in which the instant application is being considered is very different from the 1960s, 1970s and 1980s [when incumbent franchises were first awarded]. Potential lenders knew in the 1960s, 1970s and 1980s, to a much greater extent than today, what a franchisee's requirements would be ... In the 1960s, 1970s and 1980s franchise awards were de facto monopolies and potential financing sources knew that. Overbuilding in today's financial and regulatory environment, particularly when the incumbent operator [TCI] is the largest multiple system operator (MSO) in the country, presents borrowers and lenders with quite different sets of conditions than in the past.⁷⁸

The DPUC got the consumer welfare argument right: to make any sense out of the magnitude of regulatory burdens, one must abandon legalistic equality, assessing the cost of franchise requirements in the appropriate market context. This reality undermined the letter of the law, prompting the incumbents to file court challenges to the pro-entry franchising decisions made by the DPUC.

Despite winning all four franchises and eventually emerging victorious in each of the lawsuits brought by cable incumbents challenging the franchise awards, FV was deterred from entering the 450,000 home cable market it sought to serve. A rough estimate of the value of this deterrence to incumbent operators can be made. Assume that the failure of FiberVision to obtain a franchise in the 1993-97 period delayed entry by four years. Using a series of assumptions based on national cable market data and the facts of the extant case (see Table 3), we estimate to an order of magnitude the financial loss which incumbent suppliers associate with competitive entry (and hence gained by deterring entry four

TABLE 3. Assumptions for calculating gains to Connecticut cable incumbents from deterring entry

Variable	Estimate	Description	Source
Length of delay	4 years	1993-97	Text
Market penetration	63.1	1993 U.S. cable market average	Hazlett & Spitzer (1997) p. 116
Value per subscriber	\$2130	1993 U.S. average	H&S (1997) p. 22
Per subscriber competitive discount	13.6%	1988-91 estimated discount for overbuild sales	H&S (1997) p. 35
Incumbent subscriber loss due to overbuild	33%	75% terminal pen rate reduced to 50%	Cable industry; text
Competitive build-out schedule	15 years	Schedule favored by FV	Text

78. DPUC, Docket No. 93-07-04, 20 January 1994, p. 4.

years). First, the 1993 market capitalization of the pre-entry incumbent systems was approximately \$605 million ($[0.631] \times [450,000] \times [\$2,130]$). Duopolistic cable entry across the entire market would reduce market share and lower prices for the remaining customer base, lowering the incumbents' market cap to about \$348 million ($[\$605M] \times [1-0.136] \times [1-0.33]$). (Total reduction in system value = 42.5 percent.) We assume that this reduction in value would occur over time, as the entrant builds its system. Using a fifteen-year construction schedule (which FV argued as most realistic) and calculating on a straight-line basis implies an annual loss of \$17 million ($[\$605M - \$348M]/15$). Capitalizing this at a discount rate of 12 percent yields a present value for the loss stream of \$116 million—the gain from blocking entry altogether. If FV's full-scale entry had commenced after the four-year regulatory delay, moving the \$116 loss back in time reduces it by 36.4 percent (12 percent annual discount rate), or \$42 million. The gains to incumbent cable companies from delaying entry are substantial, too—about 7 percent of total capitalization.

5. Testing LPF barriers: Ameritech's selection of cable markets

In this section we conduct a statistical test of our model of entry deterrence. Specifically, we measure the effect of level playing field legislation on the probability of competitive entry in cable television markets by evaluating the behavior of Ameritech in pursuing cable TV franchises.

According to the Federal Communications Commission's (FCC) Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming, released 13 January 1998, Ameritech was listed as the most aggressive overbuilder in the United States. Ameritech, the Bell Operating Company serving five midwest states, was permitted to acquire in-region cable TV franchises in the Telecommunications Act of 1996, and was reported by the FCC's 1998 report to have been awarded 'sixty-three cable franchises, primarily overbuilds, in Illinois, Michigan, Ohio and Wisconsin, potentially passing more than 1.1 million homes ...'.⁷⁹

Of the five states in Ameritech's local exchange territory (Illinois, Indiana, Michigan, Ohio and Wisconsin), only one (Illinois) has enacted a level playing field law. To detect if the presence of such a law provided a marginal disincentive for Ameritech to pursue competitive cable franchises, we estimate a probit regression model on a cross-section of cities in Ameritech's service area. This technique employs a dichotomous endogenous variable (ENTER) to indicate the presence or absence of an Ameritech cable franchise (ENTER = 1 if Ameritech has secured a franchise, 0 otherwise).

In general, entry will be more likely where the demand for cable service is relatively large (either actual or potential) and the cost of providing service is relatively low. As predicted by theory, the presence of an LPF statute will make

79. FCC (1998), par. 112.

entry less attractive, other things equal. The five explanatory variables used in our probit equation, with predicted signs of estimated coefficients, are:

Explanatory variables and estimated coefficients (+ / -)

Variable	Description	Predicted coefficient
PR	Penetration rate of the incumbent cable franchisee	+
Y	Per-capita income in the franchise area	+
DENSITY	Homes passed per mile of cable plant	+
METRO	Dichotomous variable = 1 where franchise occurs in metropolitan area ⁸⁰	+
IL	Dichotomous variable for Illinois, the only LPF state	-

We expect the level of demand (measured by the penetration rate) to affect the entry decision, where the prospects for successful entry are greater as demand for cable services is larger. Observed levels of demand in a particular market, however, may not accurately indicate the post-entry level of demand—i.e., observed poor quality or high prices may affect demand as measured by the observed penetration rate. To avoid misleading inferences, we employ an instrumental variables approach to estimate the forecast level of demand (PR).⁸¹ Income (Y) is also included as a measure of potential demand. DENSITY, measured by the number of homes passed per mile of cable plant, serves as an inverse proxy for capital costs. Positive signs are expected on each of these three variables (PR, Y and DENSITY).⁸² METRO is anticipated to be positively correlated by virtue of Ameritech's public announcement of its strategy to focus on franchises serving such areas. Finally, our theory predicts that the presence of level playing field legislation in Illinois will yield a negative coefficient on IL.

A sample of 290 cable markets was constructed from the *Warren Cable Factbook* (1994 electronic version), a database containing detailed data on over 11,000 cable systems across the United States. From the *Factbook*, we were able to construct a sample of twenty-nine markets (of sixty-three total) where Ameritech had acquired a cable franchise.⁸³ A random sample of 263 other cable markets in Ameritech's five-state region completes the sample for a total sample

80. Ameritech had announced, for political or business strategy reasons, that it would first build cable franchises in major metropolitan areas. In fact, 96.5 per cent of Ameritech franchises were found to be in Metropolitan areas as defined by the U.S. Census Bureau.

81. We stress that the instrumental variables approach is not an attempt to correct for simultaneity bias, but to avoid the potential for misleading inferences related to the entry decision that could result from the use of observed levels of demand. Instruments in the demand equation include income, homes passed by the cable system, the number of channels offered, the number of over-the-air broadcast channels offered, the number of coaxial miles in the cable system, the average household rent in the market, and a dummy variable if the market is in a metropolitan area. The penetration rate equation is estimated by minimum chi-square method where the dependent variable is measured by $[\log(\text{PR}/(1 - \text{PR}))]$ (Madalla 1983). The predicted value of this variable is included in the probit regression as an instrument for PR.

82. Per-capita income also may serve as a proxy for labor costs in the market, but we still expect a positive sign on the variable.

83. The data span the time period June 1991 through March 1993, prior to the implementation of rate regulation.

TABLE 4. Probit regression results: likelihood of competitive franchise in Ameritech five-state region (dependent variable: ENTRY)

Variables	Coefficients (<i>t</i> -statistics)	Mean (Stan. Dev.)
C	-9.313 (6.98)	—
PR	2.180 (3.51)	0.52 (0.24)
Y	3.4-04 (5.46)	16,365 (3,079)
DENSITY	0.003 (1.17)	58.49 (55.79)
METRO	0.966 (1.95)	0.40 (0.49)
IL	-0.806 (1.99)	0.29 (0.46)
Log likelihood	-44.3	—
Likelihood ratio index	0.60	—
Observations	290	290

size of 290. Thus, Ameritech-franchised markets represent 10 percent of the sample. The *City and County Factbook* (1994) provides demographic data that we match to the cable systems by the primary county of service.

The estimated coefficients of the probit equation and the descriptive statistics are provided in Table 4. All signs conform to expectations and all variables are significant at the 95 percent level with the exception of DENSITY.⁸⁴ Higher levels of expected demand (PR, Y) and lower expected capital costs (DENSITY) increase the likelihood of entry. Ameritech does indeed appear to be targeting metropolitan areas (METRO) in the early stages of its cable network deployment.

According to the estimated coefficients, a city in Illinois would be about 20 percent less likely to be selected as a venue for competitive entry than an identical city in a non-LPF state.⁸⁵ This result conforms both with the theory of asymmetric regulatory burdens and with published reports that Ameritech and the cable television industry lobbied vigorously to reform the Illinois LPF statute as per Ameritech's cable investments.⁸⁶ On the other hand, this does not *prove* that LPF laws deter entry, as other factors associated with Illinois could be causing the observed disparity in franchise selection. As better data become available for analyzing overbuilds, broader and more powerful tests should be possible.

84. METRO is statistically significant at the 0.052 level.

85. According to the *Factbook*, there are approximately 1,330 cable systems in Ameritech's five-state region. Thus, the probability that Ameritech has a franchise in a city within its region is 0.05 (sixty-three franchises out of 1,330 markets). The marginal effect of the IL variable is -0.01 which represents a 20 percent decrease in the probability of having an Ameritech cable franchise.

86. In fact, legislation initiated by cable interests was signed into law in July 1997. While the measure was originally crafted to make competitive franchises more costly to obtain, Ameritech succeeded in moderating the bill's impact, and the final legislation was passed as a telco-cable compromise. Andrew Fegelman, *Suburbs See Cable Perks in Jeopardy*. *Chicago Tribune*, 23 July 1997; Rick Pearson, *Cable's Capitol Reception*. *Chicago Tribune*, 9 November 1997.

6. Conclusion

FiberVision has also argued that it only should be subject to the public access requirements imposed on other cable television companies in their infancy, in a perverse twist of the level playing field requirements. This ‘too clever by far’ argument ignores the fact that the environment in which public access exists has changed significantly since the cable industry was in its infancy ... If FiberVision expects to be granted a franchise in 1994, it must meet the requirements imposed on cable television companies in 1994.⁸⁷

A consensus exists that regulation should treat competitors alike. What is interesting about level-playing-field legislation governing cable franchising is that formal or nominal equality can be quite distinct from economic equality. Indeed, the pursuit of a level playing field can yield surprisingly asymmetric consequences. In the passage above, an incumbent firm revealingly argues that, for a new firm to be granted a franchise, it should be obligated to provide subsidies equal to those mandated for current providers. Yet, the financial impact of such nominally equivalent mandates are *unequal* given firm life cycles and differential market structures.

The basic conclusions of this paper are:

- Nominally identical burdens levied via the franchising process can have widely disparate economic impacts (i.e., ‘equal’ in law may be ‘unequal’ in fact). This result stems primarily from a first mover’s (or incumbent monopolist’s) greater capacity to fund subsidies, *ceteris paribus*.
- The administrative process whereby the playing field is ostensibly ‘leveled’ is biased in favor of a monopolistic equilibrium. The inherent vagueness of the LPF standard, the entrant’s *de facto* burden of proof, the front-loaded nature of the costs incurred by the entrant and the incumbent’s ability to delay preemptive investments until credible entrants actually materialize invite strategic use of administrative processes to thwart entry.

An additional element of the level playing field is of interest. The traditional market failure problem in cable TV markets was natural monopoly: incumbents enjoyed scale economies sufficient to deter entrants. Ironically, the rationale of the LPF statutes is that *entrants* enjoy unfair advantages, competing for market share without assuming the appropriate franchise burdens.

As a matter of firm strategy, pursuing a faux symmetry in regulation can successfully divert policymaker and administrative processes from promoting competitive entry. The success of incumbent cable suppliers in enacting LPF statutes in key cable battleground states is notable. As a trade journal report, filed as the California Cable TV Association lobbied for an LPF statute in 1988, was succinctly headlined: ‘California Anti-Competition Bill Pending’.⁸⁸ The measure passed the legislature and was signed into law the following year.

87. Cablevision Brief filed with DPUC, 29 April 1994, p. 24.

88. ‘California Anti-Competition Bill Pending’, *Cable TV Franchising*, 31 August 1988, p. 2.

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