FRANCHISE FEE REVENUES AFTER VIDEO COMPETITION:  
THE “COMPETITION DIVIDEND” FOR LOCAL GOVERNMENTS

Abstract: In response to federal efforts to reform the local cable franchise process, state and local governments have argued that proposed legislation will reduce local franchise fee revenues by at least $300 million per year. As demonstrated in this POLICY BULLETIN, however, the introduction of competition for multichannel video services promises to significantly increase gross industry revenues and therefore could substantially increase local franchise fee collections. Specifically, this POLICY BULLETIN finds that if wireline, local telephone company entry into the multichannel video industry is successful, then gross taxable revenues from the wireline multichannel video industry will increase by an estimated 30%. Commensurately, effective pro-entry video policies would allow the local franchise fee percentage cap to be lowered (or the revenue base narrowed) significantly without doing any harm to local government franchise collections. This POLICY BULLETIN estimates that a reduction in the franchise fee cap from 5% to 3.7% would be revenue neutral. However, this “competition dividend” will only occur if wireline entry happens and, therefore, reform of the cumbersome and anticompetitive video franchising process is crucial to ensuring that such entry occurs.

I. Introduction

State and local governments have historically imposed a “franchise fee”, or tax, on the provision of cable television services. In 2004, state and local governments collected approximately $2.4 billion in these franchise fees, slightly more than $37 per year from every
household that subscribes to cable. Proponents justify these fees based on the argument that cable television networks use public “rights-of-way” (such as streets and easements) to build their networks and that these fees constitute a form of rent or compensation for these uses. However, state and local governments have attempted to impose these fees or their equivalent on all providers of video programming, including entities like private apartment complexes that do not use public rights-of-way, but to date, only wireline video providers are generally subjected to these fees.

As discussed below, federal law has historically been concerned about how the local cable franchise process affects the nation’s communications networks and has regularly intervened to preempt and limit this franchise authority. The FCC recognized the impact that these local taxes could have on network deployment, and implemented rules to limit these taxes in 1972. Since 1984, federal statute has capped franchise fees at 5% of gross cable industry revenues.

In the last few months, federal authorities have once again focused attention on the local cable franchising process and the role it is playing in delaying or shaping the construction of new, multi-service broadband networks. President Bush has established a goal of achieving universal broadband Internet access by 2007, and we have shown in POLICY PAPER NO. 23 that there is a strong link between the availability of broadband services to disadvantaged areas and the ability to provide multichannel video service over that same network. As a result, a tax on multichannel video service similarly levies a tax on broadband service, a decision that will inevitably affect fiber optic deployment.

As a result, Congress is once again looking at further federal intervention into the state and local franchise fee arrangements. Several different bills have been introduced or discussed that recognize the need to reform or modify the current franchise fee cap. Reaction to these proposals by state and local governments has been fierce. NATOA has argued that one bill, S. 1504 (Ensign-McCain), “gives away all of the rights of a community to protect its citizens” and “provides unprecedented tax benefits to the telecommunications industry without any concurrent benefit to the public.” NATOA has asserted – without support – that adoption of S.

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2 § 602 of the 1996 Telecommunications Act.
1504 “would immediately cost local governments on the order of $300 million per year in lost franchise fees alone, and much more in the future.”

In arguing that the Ensign-McCain bill will cost them at least $300 million per year, state and local government advocates have missed one key point: the introduction of competition for multichannel video services promises to significantly increase gross industry revenues and therefore could substantially increase local franchise fee collections. If wireline, local telephone company entry into the multichannel video industry is successful, then we estimate a 30% increase in gross taxable revenues from the wireline multichannel video industry. If the 5% gross revenues franchise tax remains in place (as proposed by House Commerce Committee staff and other legislative proposals), then local franchise fee collections would leap by the same 30%.

Commensurately, effective pro-entry video policies would allow the local franchise fee cap to be lowered (or the revenue base narrowed) significantly without doing any harm to local government franchise collections. We estimate that revenue neutrality entails a reduction in the franchise fee from 5% to 3.7% of gross revenues. However, this “competition dividend” will only occur if wireline entry happens. As we have discussed in POLICY PAPER NOS. 21, 22 and 23, reform of the cumbersome and anticompetitive video franchising process is crucial to ensuring that such entry occurs.7

II. Proposed Federal Legislation on Local Cable Franchise Fees

A new wireline provider of video programming is subject to a local franchise fee if is declared to be a “cable television system” under current law. Federal law currently authorized state and local governments to assess this fee, payable by the cable provider, up to 5% of cable service revenues.8 Franchise fees receipts currently stand at $2.4 billion per year, an average of $37 annually for each household that subscribes to cable.9

8 Supra n. 3.
9 Supra n. 1.
Federal authorities have historically been concerned about the adverse interstate economic impact of state and local government franchise fees. As a result, the federal government has already limited the ability of state and local governments to impose these fees pursuant to their police power. As early as 1972, the FCC had recognized the adverse effect that these franchise taxes could have on the development of the cable industry, and the FCC had an established policy of reviewing franchise fees greater than 3% of gross revenues if it believed that the fee would impair the growth of the cable industry.\(^\text{10}\) Since 1984, federal statute has directly capped these franchise taxes at 5% of gross cable system revenues.\(^\text{11}\)

Section 13(b)(A) of S. 1504 (Ensign-Mc McCain) would limit the franchise fee to any “reasonable fee” that compensates the local government for the cost of managing its rights of way. This provision would effectively prohibit a franchising authority from raising funds for general revenues by means of a tax directed solely at multichannel video services. Local government representatives, in contrast, argue that they have the right to collect a franchise fee that bears no relationship to the costs of managing and maintaining their rights-of-way.\(^\text{12}\)

Other pending legislation does not present radical reform of local franchising fees but makes clear that new video networks constructed by local telephone companies would effectively be subject to the same franchise fees as current cable incumbents. The House Commerce Committee staff has circulated a comprehensive discussion draft bill that also addresses local franchise fees.\(^\text{13}\) The House Commerce Committee staff draft removes state and local franchising obligations from “broadband video service providers”, but section 303(b) of the draft makes it clear that state and local governments may impose a 5% gross revenue fee on those companies. Similarly, S. 1349 (Smith-Ro ckefeller) and H.R. 3146 (Blackburn-Wynn) also reform and simplify the local franchising process for new telephone company entrants but make clear that the current 5% franchise fee would apply to telephone company video enterprises.

\(^{10}\) Cable Television Report and Order, 36 F.C.C. 2d 143, 204-10, 219-20, recon., 36 F.C.C. 2d 326 (1972). In setting that policy, the FCC described “a deliberately structured dualism” in which it respected the role of state and municipal governments yet retained the final say in prescribing rules that set forth “at least minimum standards for franchises issued by local authorities.” Id. at 207 ¶ 177.

\(^{11}\) 47 U.S.C. § 542(b).

\(^{12}\) See, generally, Frederick E. Ellrod II & Nicholad P. Miller, Property Rights, Federalism, and the Public Rights-of-Way, 26 Seattle Univ. L. Rev. 475 (2003). It is beyond the purpose of this POLICY BULLETIN to debate whether franchising serves a purpose beyond rights-of-way management. However, we note that efforts by a municipality to effectively “auction off” its rights-of-way to the highest telecom industry bidder could present significant legal issues under Section 253 of the Act, which preempts all local actions regarding that have the effect of limiting the availability of any telecommunications service except those that relate to rights-of-way management.

Many state and local governments have been opposed to any change in the video franchising process and have cited the maintenance of franchise fee revenues as a crucial revenue stream. Local government representatives have indicated that revenue neutrality is a “key state and local principle.” These advocates have also argued – without support or explanation – that S. 1504 (Ensign-Mc McCain) would immediately “cost local governments on the order of $300 million per year in franchise fee revenues alone and much more in the future.”

However, local government advocates have missed one important point – by virtue of demand characteristics, successful entry by telephone companies will increase total video service revenues by a substantial amount, so much that a 5% revenue tax will provide substantially more revenues for state and local government if telephone company video entry is successful. As discussed below, we estimate that extending of the current 5% fee to successful new entrants (as S. 1349, H.R. 3146 and the House Commerce draft all do) will provide a multimillion dollar “competition dividend” to local government coffers. If successful pro-entry policies are enacted, then the franchise fee level or revenue base could be sharply curtailed while leaving local governments revenue neutral.

III. If Industry Revenues Increase, Franchise Fee Receipts Will Increase

The franchise fee operates like any other sales tax – if revenues increase, then the same tax rate will collect more revenues for the local government. Telephone company entry into the video market has the promise to upend the current market structure significantly and substantially increase total industry revenues. Any examination as to whether any of the franchise fee equivalents in pending legislation are “revenue neutral” must consider this impact on revenues.

Currently, according to the Government Accountability Office (“GAO”) and the FCC, the multichannel video market is dominated by cable television incumbents, two direct broadcast satellite providers (DirecTV and Echostar), and a smattering of wireline competitive providers. Importantly, the two satellite providers do not pay a franchise fee to local governments – as a result, any customer that DirecTV or Echostar takes away from cable potentially decreases franchise fee receipts for local government. At the same time, the GAO has found that satellite television competition does not cause considerable price cuts from the incumbent cable

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operators, but that direct, head-to-head wireline competition does result in substantial price competition (with rate cuts of 16% on average).\textsuperscript{16}

Successful telephone company entry into the video market will substantially alter this industry structure. Most notably, based on the GAO studies, we would expect telephone company entry to result in significant price competition between the two wireline providers.\textsuperscript{17} As we show below, these price cuts will result in more consumption of video services by consumers, so that total industry revenues will increase. As we also show below, this increased competition should increase total industry revenues and therefore result in a substantial increase in local franchise fee receipts.

IV. Own-Price Elasticity of Demand for Multichannel Video Programming

Basic economics teaches that quantity and price are inversely related (\textit{i.e.}, demand slopes downward). Whether or not the product of price and quantity, or total revenue, increases or decreases when price changes depends on how sensitive quantity is to price. Economists measure this sensitivity as the \textit{own-price elasticity of demand}.\textsuperscript{18} The own-price elasticity of demand is defined as the percentage change in the quantity demanded of a good ($Q$) divided by the percentage change in the \textit{own} price of the good ($P$), or\textsuperscript{19}

\[
\frac{\% \Delta Q}{\% \Delta P} = E,
\]

\(1\)

\textsuperscript{16} These price differences can be computed from the reported econometric results. For the DBS price change, a 100% reduction from the mean (22%) DBS penetration is equivalent to eliminating the DBS providers from the market. The coefficient is -0.0476, which is roughly equal to 5% (the effect of DBS is measured as -0.0476-100% = -0.0476). The coefficient on a terrestrial overbuild is -0.1694, and the percentage change in price is measured as $\exp(-0.1694) - 1 = 15.6\%$. \textit{See Direct Broadcast Satellite Subscription Has Grown Rapidly, but Varies across Different Types of Markets, Report to the Subcommittee on Antitrust, Competition Policy and Consumer Rights, Committee on the Judiciary, U.S. Senate, US Government Accountability Office, GAO-05-257 (2005) ("GAO 2005 Study") at Appendix III, Table 3.}

\textsuperscript{17} Colloquial evidence supports the GAO’s observation. Jerri Stroud, \textit{Verizon fires first shot in battle with Charter for TV customers}, \textit{St. Louis Post-Dispatch} (Sept. 24, 2005) (noting break-out of price competition in Keller, Texas after telephone company entry).


\textsuperscript{19} The \textit{cross-price elasticity of demand} measures the relationship of the quantity demanded of good X to the price of good Y (the \textit{cross price}).
where \( E \) is negative since prices and quantities are inversely related.\(^{20}\) If \( E \) is more negative than -1.0, then demand is said to be elastic, implying a high sensitivity to price. Alternatively, demand is inelastic if \( E \) is less negative than -1.0, indicating quantity is not very responsive to price. If \( E \) is equal to -1.0, then demand is unit elastic, and the percentage change in quantity will exactly equal the percentage change in price.

These three classifications of demand elasticity correspond to the directional relationship of total revenues to price changes, where total revenue is simply the product of price and quantity (i.e., \( P \cdot Q \)).\(^{21}\) If demand is elastic, then a price reduction increases total revenue, and a price increase reduces total revenue. For an inelastic demand, a price decrease reduces total revenue, but a price hike increases to revenue. In the case of unit elasticity, total revenue is unchanged when price changes.

A little algebra reveals that the percentage change in total revenue (\( TR = P \cdot Q \)) for a given percentage change in price is

\[
\% \Delta TR = (E + 1) \cdot \% \Delta P .
\]  

(2)

Since the franchise fee applies to total revenues from video services, we can rewrite Equation (2) in terms of the tax base (\( TB = TR \)) to which the franchise fee applies:

\[
\% \Delta TB = (E + 1) \cdot \% \Delta P .
\]  

(3)

From Equation (3) we see that any given percentage price decline (\( \% \Delta P \)), the tax base (\( TB \)) will rise as long as demand is elastic (\( E \) is smaller, or more negative, than -1). If \( E = -3 \), for example, then a 1% decline in price will increase the tax base by 2% \([= (-3+1)(-0.01)]\).\(^{22}\) Alternately, if \( E = -0.5 \), which indicates inelastic demand, then that same 1% decline in price will shrink the tax base by 0.5% \([= (-0.5+1)(-0.01)]\). If the demand elasticity is -1.0, then total revenue is unaffected by the price change \([(-1+1)(-0.01) = 0]\).

\(^{20}\) See Ekelund and Tollison, supra n 19. In many cases, the absolute value of \( E \) (or \( | E | \)) is used for expositional convenience, so the own-price elasticity of demand is sometimes reported as being positive. Interchanging the sign of \( E \) is unproblematic since we know that \( E \) is always negative.

\(^{21}\) Id. at 124.

\(^{22}\) Say price is $1 and quantity demanded is 100 units so that total revenue is $100. If price falls to $0.99 (a 1% reduction), then quantity demanded rises to 103 (a 3% increase, as implied by the elasticity of -3). Now, total revenue is $102 – a 2% revenue increase. For large price changes, it is better to use the arc elasticity formula (where percent changes are measured from the averages of the quantities and prices). Id.
Obviously, the impact of pending legislation on franchise fee revenues for local governments depends, in part, on the own-price elasticity of demand for multichannel video service. Presumably, the legislation facilitates entry in the multichannel video market, and entry leads to lower prices. In turn, these lower prices for video services affect the franchise fee tax base. So, an important question is: What is the own-price elasticity of demand for multichannel video service?

Recent studies consistently show that the own-price elasticity of demand for multichannel video service is elastic. Table 1 summarizes a few published estimates of the own-price elasticity of demand for cable television service in the past decade, including recent studies by the GAO.

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<th>Author</th>
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<td>GAO</td>
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<td>GAO</td>
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<td>Beard, et al.</td>
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<td>Ford, et al.</td>
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<td>Rubinovits</td>
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In every study listed, the demand elasticity is elastic (smaller than -1), and significantly so (more negative than -2). The implication is clear: competition-induced price reductions for multichannel video service should expand the franchise fee tax base, and, as a consequence, franchise fee revenues. This expanded tax base is a significant part of the competition dividend created by the pending legislation.

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The figures in Table 1 do not tell the whole story. In a 2005 study by the GAO, the agency applied advanced econometric techniques to assess the nature of competition among terrestrial and DBS multichannel video providers. The results from the study are interesting.24 The GAO shows that DBS providers are not as effective as terrestrial providers in reducing cable television prices.25 Additionally, the GAO 2005 Study shows that DBS penetration is lower in markets with two terrestrial competitors, indicating that wireline competition in video markets steals market share from DBS providers.26 This gain in share by wireline services is important, since this shift of subscription from DBS providers to franchise fee-paying, wireline providers expands the tax base even further than the own-price demand elasticity suggests. In the next section, we use the GAO 2005 Study to approximate these dual effects on the tax base from wireline competition in multichannel video markets, and reveal that the basic elasticity calculation alone substantially understates the effect of the pending legislation on franchise fee revenues.

V. Estimating the Competition Dividend for Local Governments from Successful Wireline Video Entry

Based on the GAO 2005 Study, we can estimate the potential size of the “competition dividend” to local governments if telephone companies successfully enter the multichannel video market. We begin by computing the market demand for terrestrial cable systems and do so by multiplying the sample mean subscriber count (27,498) by the product of the mean overbuild statistic of 0.22 and the coefficient on the overbuild dummy variable of -1.42 \(= \exp(-1.42 \times 0.22) - 1\). This calculation renders an average market quantity of 34,876 subscribers. Based on the \textit{mutatis mutandis} (or equilibrium) effects of a terrestrial overbuild, DBS penetration

24 The NCTA has criticized a sophisticated 2003 GAO study of overbuilding on the basis that it only examined prices in a handful of areas where cable overbuild competition existed. See, e.g., NCTA October 11, 2005 Reply Comments filed in FCC Docket No. MB 05-255, \textit{In re Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming} (available at: [http://www.ncta.com/pdf_files/101105_05-255_replies.pdf](http://www.ncta.com/pdf_files/101105_05-255_replies.pdf)). The 2005 GAO Study, however, examined 113 overbuild situations and found significant price decreases from wireline-wireline competition. A draft of the 2005 GAO Study was made available by the GAO to the NCTA for comment, but NCTA did not provide (and still has not provided) any response or rebuttal to that study. GAO 2005 Study at 16 (“We provided a draft of this report to the National Cable and Telecommunications Association (NCTA) and the Satellite Broadcasting and Communications Association (SBCA) for their review and comment. NCTA provided no comments.”).

25 \textit{Supra} n. 17.

26 \textit{Id.} at 15 (“The DBS penetration rate is lower in areas with wire-based cable competition, compared with areas without wire-based competition. In particular, we found that DBS penetration rates are about 37 percent lower in areas with wire-based cable competition compared with areas without wire-based competition.”).
falls by about 15,256 subscribers (off a base of about 37,876 subscribers, a 40% reduction).\textsuperscript{27} Giving these defecting DBS subscribers back to the cable systems requires an adjustment. The cable penetration for the wireline cable system is about 15% in the GAO study, whereas the typical cable system penetration rate is about 60%. This discrepancy is not the result of a peculiar sample of cable systems, but rather a consequence of the GAO’s definition of franchised area. Our adjustment simply allocates these 15,000 subscribers across four cable systems (assuming a penetration for cable systems of about 60%).\textsuperscript{28} We add these additional subscribers to the average system (about 3,800 subscribers) in addition to the elasticity effect (based on the own-price elasticity of demand -2.626) from the \textit{equilibrium} price reduction of 11.5% (for an elasticity effect of about 10,500 more subscribers). Thus, a terrestrial entrant reduces price by about 11.5% and increases quantity by about 41%. So, the quantity response to terrestrial competition in multichannel video markets is equivalent to an own-price demand elasticity of approximately -3.6 [= 0.41/-0.115].

With these inputs and Equation (3), we compute that the tax base for franchise fees will grow by about 30% [= (-3.6 + 1)(-0.115)]. As a result, local franchise fee receipts would also rise by about 30% if the current franchise fee structure were maintained and successful terrestrial video competition occurs. Revenue neutrality in franchise tax revenues could be obtained by a tax of approximately 3.7% of gross revenues.\textsuperscript{29}

One benefit of a lower tax rate for revenue neutrality is the effect of taxes on entry. Taxes reduce the profits of firms, and, as we show in POLICY PAPER NO. 21, lower profits reduce the incentive to enter markets.\textsuperscript{30} Thus, reducing the maximum franchise fee to 3.7% may hold franchise fee revenues constant and encourage entry into video markets.

\textsuperscript{27} The \textit{ceteris paribus} effect of the overbuild is a price reduction of about 15.6% [= exp(-0.1694)-1]. But, the overbuild competition reduces quantity, increases quality, and affect DBS penetration, all of which affect, in turn, price. The \textit{mutatis mutandis} (or equilibrium) effects are computed following the method prescribed in G. S. Ford and J. D. Jackson, \textit{On the Interpretation of Policy Effects from the Estimates of Simultaneous Systems of Equations}, 30 \textit{APPLIED ECONOMICS} 995-999 (1998). These effects include all the feedback effects across the four equations in the GAO’s econometric model. The \textit{mutatis mutandis} price reduction (after all the feedback effects) is about 11.5%.

\textsuperscript{28} This is a conservative adjustment, since allocating the entire quantity of subscribers to a single cable system renders a much larger “elasticity.”

\textsuperscript{29} This approximation includes an adjustment for the expanded tax base due to the lower franchise tax (\textit{i.e.,} lower end-user prices).

\textsuperscript{30} \textit{Supra} n. 7.
VI. Conclusion

The potential for a 30% rise in local franchise fee receipts due to new wireline video competition has two implications for policymakers considering changes to the nation’s communication laws:

First, applying the same franchise fee 5% rate to new wireline entrants, provided for in several bills pending before the 109th Congress, is far from “revenue neutral” and instead could swell the coffers of state and local governments. Critics who charge that pending legislation would harm local government tax revenues seem to have ignored this “competition dividend” entirely. A franchise fee level established with the expectation of only one monopoly provider must be re-examined when competition is introduced, as studies indicate that competition will vastly increase video industry revenues. To be truly revenue neutral, the federal government should consider lowering the current 5% to about 3.7%. Another way to ensure revenue neutrality after increased competition would be to limit the size of the tax base. Lower taxes induce entry, and entry in video markets is a worthwhile social goal.

Second, the size of the “competition dividend” depends on whether wireline video competition by telephone companies succeeds. Simply extending the tax to telephone company video services will not increase tax revenues unless competition succeeds and the result is an increase in total consumer video expenditures. As we have shown in other research, wireline video entry is tremendously hard to achieve, as a significant market share is needed in order to fund network investment in fiber. In order for local governments to reap the potential “competition dividend,” policymakers need to take a serious look at barriers like build-out requirements, the franchising process, and program access.

As a result, an approach that couples pro-entry policies with franchise fee reform could result in tremendous consumer benefits without necessarily reducing state and local tax revenues. Moreover, local government defenders perhaps have trained their sights on the wrong target – a more real threat to state and local franchise fee receipts may instead be the availability of subscription video streaming over the Internet that are not necessarily subject to franchise fees. The process of introducing competition to a market like multichannel video service calls for aggressive policies and approaches. As Congress debates the future legal structure of the multichannel video industry, state and local government advocates have argued for ostensibly-neutral policies that would extend current obligations on incumbent firms to new video entrants. This short analysis of the franchise fee shows that “neutrality” is, in fact, a moving target – applying the same 5% franchise fee to new telephone video entrants could increase state and local tax receipts significantly. Simply applying “the same old rules” to the new communications environment of today can have expected and unexpected consequences and be self-defeating. Accordingly, in setting video policy for new, multi-service fiber networks, policymakers should move forward with policies designed to encourage entry and choices for consumers.