Journal of Cultural Economics **28:** 167–193, 2004.

Presidential Address

Competition and the Non-Profit Arts: The Lost Industrial Organization Agenda*

BRUCE A. SEAMAN

Department of Economics, Andrew Young School of Policy Studies, Georgia State University, University Plaza, Atlanta, GA 30303, U.S.A.
E-mail: bseaman@gsu.edu

Abstract. The recent industrial organization focus on transaction costs and vertical contracting within the cultural industries (Caves, R.E. 2000, *Creative Industries: Contracts between Arts and Commerce*. Harvard University Press, Cambridge) stands in contrast to the near abandonment of an earlier literature on horizontal firm interaction and competitive conditions within the performing arts (e.g., Throsby, C.D. and Withers, G.A. 1979, *The Economics of the Performing Arts.* Edward Arnold, London.; Gapinski, J.H. 1986, J.H. *American Economic Review* 76(2): 20–25). That incomplete but promising agenda was overwhelmed by the emphasis on non-profit arts firms acting as near natural monopolies, as reflected by Throsby himself (Throsby, D., 1994, *Journal of Economic Literature* 32: 1–29) and Blaug's survey (Blaug, M., 2001, *Journal of Economic Surveys* 15: 123–143). This paper resuscitates these earlier inter-firm hypotheses, identifies surprising contrasts with Caves' less frequent horizontal observations, and encourages a revival of interest in studying the effects of competition in the non-profit arts.

Key words: antitrust, competition, natural monopoly, oligopoly, product differentiation

1. Introduction

Blaug (2001) includes industrial organization as the fourth of nine categories in his brief survey of the progress of cultural economics over 35 years. Throsby (1994) reviews the performing arts research on "firm structure and behavior" as part of his extensive overview of the field. However, neither retrospective addresses any of the traditional core topics in industrial organization: the definition of a relevant market and the resulting analysis of the structure, conduct and performance of a non-profit arts industry. Instead, the focus is on the prevalence of the non-profit organizational form; unique production and cost factors; the potentially complex

* This paper is an extension, including some updated references, of the Presidential Address "Industrial Organization and Arts Research: What We Knew *Before* the Discovery of the Cultural Industries" delivered at the 12th Conference of the Association for Cultural Economics, International, in Rotterdam, the Netherlands, June 2002.

objective functions of arts managers; and the pricing, output and product quality behavior of the individual non-profit arts firm.

In fact, performing arts firms have generally been analyzed as if they were natural, if fragile, monopolies characterized by crushingly high fixed costs and limited audience size. As Kuan (2001) bluntly asserts: "The performing arts industry can be broadly characterized as monopolies teetering on the edge of bankruptcy (p. 510)." While each of the authors addressing ballet, opera, or orchestras (and also museums) in the *Handbook of Cultural Economics* (Towse, 2003) replicates this focus on the individual firm, Schimmelpfennig is most explicit in his assertion that "like most performing arts, any ballet performance, as well as the company itself, can be seen as a natural monopoly" (p. 87).

From this literature, any observer would conclude that the only role for industrial organization in arts research is in the "cultural industries"—a term that has evolved into the exclusive domain of the mass-market commercial media arts.[1] This perception was furthered by the contributions of Caves (2000) in advancing the prior disparate research into vertical issues related to transaction costs and optimal contracting, focused primarily on the media industries with only secondary attention to the performing arts and non-profit museums (or to horizontal issues in general). My attempt to find a reference to industrial organization in the Towse (2003) handbook yielded a sole section on that topic in the chapter on "cultural industries," authored by Towse herself. The handbook index identifies three references to "competition" related to auction houses, the cinema, and recording industries. But the sole easily traced treatment of competition within the non-profit arts is Frey's (2003, p. 393) observation that, although art auction markets are nearly perfectly competitive, "the market for many cultural goods and services is characterized by monopolistic actors" producing less and charging higher prices than competitive firms, hence potentially justifying government support of additional supply to correct this market failure.

Although Caves has directed much of the recent attention to vertical contracting, the topics of horizontal market structure and competitive analysis have been studied in the for-profit cultural industries (e.g., Baker, 1991; Alexander, 1994, 1997; Greco, 2000), including considerable focus on the effects of international trade competition in cultural goods and services (e.g., Acheson and Maule, 1994, 1999), and even prompting some antitrust investigations.[2] Although the non-profit arts have never been a focus of antitrust concern, the American investigation of the ultimately ill-fated AOL-Time Warner media merger included an intriguing inquiry into the argument that protecting competition would be especially important when the goods and services at issue were "beneficial addiction goods."[3] Despite the much larger size of the media arts, the possibly complex welfare properties of reducing competition within the performing arts would also seem to warrant attention, inasmuch as they have long been associated with beneficial addiction (Stigler and Becker, 1977; McCain, 1979).

This dearth of competitive analysis in the non-profit arts is, in fact, rarely even noticed.[4] An exception is Castañer and Campos (2002), who observe that efforts to examine programming (repertory) choices in the performing arts (a fairly large literature) "have tended to ignore the effect of competition within and across arts fields" (p. 37). Even more on point, they note that despite small and medium-sized cities typically having as few as one supplier of symphonic music, and of opera, and of repertory theater that might be viewed as individual monopolies, "general models of programming cannot dispense with competitive supply" in larger cities with a multiplicity of suppliers (citing DiMaggio and Stenberg, 1985b). Nor, they argue, can such models ignore the local, regional or even national competition for financial and human resources, and the "substantial substitutability among art forms" (citing Throsby (1994), apparently his "demand" section reference to the cross price elasticities derived by Gapinski (1986), that suggest that theater, opera, dance and symphonic performances in London in the 1970s were substitutes; see below).

Is the widespread rejection of competitive analysis in the non-profit arts based on a correct premise, a modeling simplification, or a potentially serious error? Moore (1968) made the startling observation that, given his econometric estimation of various formulations of the demand for theater-going from 1928–1963, the for-profit Broadway theater has all the characteristics of a perfectly competitive industry—inelastic demand at the industry level but essentially perfectly elastic demand at the producer level, because no expansion of individual firm output required any reduction in price (Appendix D, p. 78).[5] While that may be the enigmatic result of unique features of Broadway (or of econometric estimation), Freedman (1986, p. 207), discussing the "elusive promise" of arts management cooperation, observed that:

> "It is difficult to overestimate the intensity with which many performing arts organizations view themselves to be in competition with other companies, for audiences and, more fiercely, for contributed income.... Under [the difficult financial circumstances they face] most groups perceive a frustrating dynamic in which the gains by one organization in grants or audiences must come at the expense of the others. Whether or not this widely held view (the opposite of which is invariably expressed at public convocations of arts supporters) is accurate—and the evidence on this is far from clear—even the perception of competition is a substantial impediment to the sharing of management services." [6]

Of course, it is common for firms of all types and in all industries to claim that they face brutal competition. But, as Freedman notes about the performing arts, the evidence regarding such claims is often far from clear. The relative inattention among performing arts researchers to horizontal interactions or oligopoly strategies would suggest that any such competitive claims have lacked credibility, and that utilizing simpler monopoly models would entail low intellectual costs.[7]

It is ironic that when Castañer and Campos (2002) mention the "substantial substitutability among art forms," they cite Throsby's 1994 survey, which has become a surprisingly common practice. For example, Gray (2002) traces his recent interest in orchestral strategic interaction to the work of Throsby (1994). Why is this surprising? Because except for referencing Gapinski (1986) and noting the distinction

between firm and industry own price elasticities found by Felton (1992), Throsby (1994) abandons his own prior contributions to the analysis of performing arts competition that were a unique feature of his treatise with Withers (1979). In fact, his 1994 recommendations for further research in the performing arts (pp.13–14) are fully consistent with a natural monopoly model of firm and industry behavior that in no way suggests any payoff to examining the effects of the "substantial substitutability among art forms."[8]

It is time for a re-invigoration of the analysis of the positive and normative aspects of competitive interaction within the non-profit arts sector. A renewed appreciation for a nearly lost literature, supplemented by some suggestive observations in Caves (2000) and other recent research, justifies a shift away from the nearly exclusive focus on the natural monopoly model of the behavior of performing arts organizations and museums.[9]

2. The Rotterdam Conference: Dueling Models?

It is remarkable that after this address was conceived for the 2002 Rotterdam conference, the submitted papers themselves provided evidence of a potential revival of interest in competitive models, geographic and product market definition, and oligopoly interaction within the performing arts. Despite the historical dominance of natural monopoly models, there was a surprising balance of industrial organization papers or proposals.

2.1. PAPERS STRESSING FIRM INTERACTION

1. Huntington, "Games Played in International Ballet Companies: Europe 1905–1950," concluded "ballet companies adopted different strategies not formed in isolation."
2. Gray, "Strategic Pricing in the Non-Profit Arts: Case of Orchestras," was described as an exploration of "strategic interaction among non-profit orchestral firms," including a comparison of strategic versus non-strategic settings (i.e., two major orchestras in a single metro area versus a professional orchestra in a medium-sized market). He does not consider orchestral interaction with other art forms.
3. Castañer, "Competition and Innovation in the Arts," proposed to follow-up his own previously cited observation that the determinants of innovation in the performing arts must extend beyond the effects of organizational structure and the sources of funding to include considerations of competition, citing Bourdieu's suggestion that competition reduces rather than increases innovation (but suggesting, not entirely correctly, that this is clearly counter to the neoclassical expectation). Interestingly, Castañer discussed the possible need for antitrust action at both the national and international level to prevent dominant positions and attempts to monopolize.

4. Escaleria, "Conjectural Variations Oligopoly Model in an Open Performing Arts Market: Statistical Data for the Portuguese Case," made two especially useful contributions: (1) considering seriously the possibility of there being regional and even national markets for the performing arts, including explicit consideration of localized dominant-firm oligopolies facing competitive fringe firms, and the potentially competitive effects of touring companies on otherwise local monopolies (a point briefly recognized by Throsby and Withers, 1979, p. 43, but not examined in depth),[10] and (2) explicitly attempting to develop empirical tests for the effects of increased competition on product diversification, concluding that touring company competition increases "aesthetic differentiation."
5. Although the focus of their analysis in "The Impact of the Internet on the Structure and Conduct of the Music Market," was on the music recording industry rather than the non-profit performing arts, Graham and Hardaker introduce their work by noting: "Little attention has been given to the industrial organization (structure) and competitive (conduct) aspects of the cultural industries," suggesting that such a lapse should be corrected.

2.2. PAPERS LARGELY IGNORING FIRM INTERACTION

1. O'Hare et al., "Dependence of the Present on the Past, Defense of the Present from the Past: Programming Classical Music and Opera," examined programmatic decisions of performing arts managers in a very thorough way, but without any seeming consideration of how competitive interactions might affect these decisions.
2. Neligan in "Economic Behavior of Subsidized Non-profit Performing Arts Organizations: An Econometric Analysis of Theatre Repertoire in England," tested for the effect of "financial, organizational and socio-economic factors" on the repertoire decisions of non-profit theatres receiving grants in England, but did not examine any inter-firm competitive influences.
3. Luksetich asked the question "Economists and Symphony Orchestras: What Do We Know," but focused primarily on non-profit organizational and objective function issues limited to individual orchestra behavior.
4. King, "The Evolving Economics of Opera over Four Centuries" examined aspects of the Baumol cost-disease, and similar to his earlier work (2001), focused his market attention on the general level of audience demand and the conflicting pressures presented to opera managers from the ticket audience versus the patron audience, without considering any competitive interaction in a traditional industrial organization context.
5. Urrutiaguer, in "Choices of Programme and Network of French Public Theatres" provided some interesting analysis of theater networks regarding the decisions to direct shows and also buy "outside" programming, but stressed the effects of theater size and the hierarchical status of different theaters in France, without particular consideration of competitive interactions (in fact treating these different theater status levels as implicitly non-substitutable and non-competitive).

2.3. A PAPER WITH "MIXED" IMPLICATIONS

Schimmelpfennig, in "Economics of Ballet" identified ballet as a natural monopoly (as cited above), but then addressed an interesting aspect of the implicit competition between art forms by focusing on the decisions of merged ballet and opera companies (common in Europe where they often belong to the same commercial organization) to vary the mix of ballet and the more commercially viable opera performances in the face of the finite performance capacity of given facilities. Choosing another ballet performance, he found, has a high opportunity cost in terms of foregone opera earnings. This has an interesting implication similar in spirit to that of the classic "Williamson tradeoff" between marginal output reduction and possible infra-marginal cost savings in antitrust analysis. Although a merger of opera and ballet companies seemingly reduces costs by sharing administrative functions and some artistic resources, there may be an adverse effect on the output of the merged firm. Do the internal cost benefits of the merger outweigh the welfare losses from potential allocative inefficiency resulting from a sub-optimal output mix?[11]

Thus, his paper confirmed the prevalence of the monopoly assumption in much of performing arts research, while raising a fundamental question common to competitive and antitrust analysis: what are the effects of mergers and by extension more cooperative (even collusive) efforts in the performing arts? Otherwise stated, would a multi-product monopoly firm produce a different (and more preferable) mix of output (at different prices) than competing independent product-differentiated firms? In the case of orchestras, Lange and Luksetich (1993) have shown that there are scope economies in symphonic music, which would suggest that a monopoly orchestra would produce a wide-variety of products and programs. Fazioli and Filippini (1997) report similar findings for Italian local public theaters that imply that multiple types of performances are more efficiently produced than just one type. Of course, in the commercial world, oligopoly firms (e.g., Coca-Cola) commonly produce many varieties of products (e.g., both carbonated and non-carbonated beverages). However, legitimate questions arise regarding optimal diversity and product quality. In fact, the complex effects of market structure on the magnitude and timing of innovation, and optimal product diversity are standard industrial organization topics.[12]

3. The Early Tradition of Competitive Performing Arts Analysis

Despite these recent signs of some revived interest in competitive arts analysis, monopoly modeling clearly dominates in the performing arts (and generally in museums as well). Throsby and Withers (1979; henceforth TW) provide the most intriguing early exception, which makes Throsby's (1994) alternative emphasis especially poignant. The chapter organization of TW is itself indicative of their balanced treatment of both individual and multi-firm industry behavior. In addition to chapters devoted to the "economic structure of performing arts firms" (Chapter 2), and "characteristics of companies" (Chapter 6), there are individual

chapters focused on "structure, conduct and performance in the performing arts industry" (Chapter 4), and "characteristics of performing arts industries" (Chapter 8).

No doubt influenced by the intervening research focus, Heilbrun and Gray (2001) devote little attention to industry-wide issues, and their "firms and markets in the performing arts" chapter (Chapter 7) is heavily weighted toward firm modeling, cost structures and grants and donations. They do address the important issue of whether competition encourages artistic innovation (reporting the mixed results found by DiMaggio and Stenberg, 1985b). But their overview of the different types of market structure stresses the independence of individual companies in setting prices "on the assumption that its own policies will not provoke a response from competitors" within any one art form (p. 118). They also dismiss the relevance of oligopoly competitive interaction among the different local art forms by stressing (as did TW) that non-profit organizations are supposedly less interested in "competitive pricing strategies" (p. 119).[13]

3.1. HYPOTHESES LINKED TO MARKET POWER AND THE COMPETITIVE CLIMATE

While TW is recognized as a classic contribution to cultural economics, and Caves (2000) has become the starting point for further research into arts industry contracting, neither is typically read for their analyses of horizontal interaction in the non-profit arts. A careful re-examination of both treatises, in conjunction with a review of the broader historic literature, unearths a surprisingly rich vein of insights into this relatively neglected topic.

Three topics that generate noteworthy hypotheses and potentially testable implications are: (1) the role of advertising and other marketing efforts to enhance product differentiation; (2) the frequency and welfare implications of competition and increased entry versus monopoly (including collusion); and (3) the conceptualization and measurement of the relevant market, in both geographic and product terms (e.g., a city symphonic music market versus a southeast regional performing arts market).

3.1.1. *The Role of Strategic Advertising*

The potential for advertising to increase entry barriers and create market power has been a standard issue in industrial organization. Less prominent has been the reverse focus on the effect of market power on the benefits from advertising and hence the observed prominence of advertising as a firm strategy. Will advertising be more or less likely in firms having other significant sources of incumbent advantage?

TW (Chapter 4) note that product differentiation is an inherent feature of the performing arts, as are substantial production economies of scale. Both factors, especially when combined with a relatively limited audience size, will confer some market power on incumbent firms. Less obviously, they argue that such market

power will not induce performing arts organizations to advertise and attempt to further enhance perceived product differentiation because consumers of the high arts are unusually well-informed, and have already "acquired taste and skill in artistic appreciation" (p. 41). Thus, while simple factual informative advertising will be useful, persuasive advertising is unlikely to be effective in inducing more than an initial visit (p. 47).[14]

By contrast, Baumol and Bowen (1966, pp. 249–251) are more enthusiastic about the benefits of advertising and promotion, but provide examples ranging from constructing a new cultural center (a rather costly capital expenditure form of promotion) to more creative subscription series options (a better example of pricing than promotion). Their one clear example of advertising was, in fact, purely informational—audience surveys that identified newspaper advertising as a key source of performance information. Thus, their position is not particularly at odds with that of TW.

Another TW proposition supports this view that there are significant limitations on the amount of "advertising-based product differentiation," so that in the performing arts, *production*-based rather than *promotion*-based scale economies will be more significant in raising entry barriers (p. 42). That additional factor is the non-profit perspective that "gives weight to the advancement of art itself irrespective of which company or companies become the vehicle for that advancement" (p. 46). One might reinterpret this point less philanthropically as the recognition by individual firm managers that the partially public good nature of artistic services may limit the appropriable benefits from individual firm advertising, hence limiting their self-interested incentive to focus on that strategy. This may be especially true if indeed the contributions of any one arts firm to educating the arts consumer (i.e., helping in the acquisition of "good taste" and skill in artistic appreciation—"beneficial addiction") will confer rewards more generally to "art itself" rather than to their own organization.

Interestingly, Caves (2000) offers an alternative perspective developed from similar premises (p. 176, and note 2, p. 408). He argues that firms in more concentrated art forms have an advantage in avoiding the free rider problem created by subsidizing early exposure to the arts (given beneficial addiction, and the public good properties of enhanced arts appreciation), so that opera companies and symphony orchestras might be expected to engage in more such subsidization in contrast to the typically less concentrated theater industry. Here, subsidizing early exposure to the arts includes offering low priced tickets as well as investing in advertising and promotion, including educational programs. Again, Baumol and Bowen (1966) provide early support for this view, but without differentiating among art forms. They stress the mobility of the American population, which would make local audience building programs (especially those focused on the young) relatively bad business propositions, since "a child who is taught to enjoy music in Philadelphia may very well grow into an adult who attends concerts in Los Angeles" (note 13, p. 249).

The TW and Caves perspectives can be stated as testable hypotheses:

> Hypothesis 1: Advertising and other forms of subsidized promotion (including such efforts specifically targeted to the young) will be more limited in the performing arts than in the non-arts sectors.
>
> Hypothesis 2: Where we do see such promotional efforts, it is more likely to be in those performing art forms with more market power (possibly linked to industry concentration), such as opera and orchestral music, as opposed to theater (and possibly dance).

Although these hypotheses have not attracted particular research interest, there are some early Australian and international data and later United States data that seem to contradict the second hypothesis. Table 6.7 in TW provides company "percentage composition of cost" data for 1974 for a small sample of "large" and "small" Australian arts organization in drama, ballet and music, and large opera companies. In the category "advertising and promotion," large drama and opera companies had similar advertising budgets (14.2 and 14.0 %, respectively), whereas large music companies spent only 6.9% of their budgets. Small drama companies spent even more (16.7%), whereas small music companies spent even less (2.0%). Ballet companies spent in the middle of these ranges (large companies at 9.0% and small companies, 6.6%). Thus, the supposedly more competitive theater firms advertised as much or more than the less competitive art forms.

However, the relevance of these data to Hypothesis 2 depends on the presumption that the competition facing theater firms is indeed stronger than that facing opera companies and orchestras. TW do cite other Australian data for 1973–1974 (Table 8.6) that confirm the anticipated result that, measured at the national level, firm concentration is highest in opera, followed by music, ballet and drama. However, that ranking may not reflect effective competition in any relevant geographic market. Their market shares for four Australian state capitals (Table 8.7) combine opera, ballet and drama (omitting music) to calculate the shares of the largest single firm through the largest six firms, implying that the relevant product market is the performing arts rather than any one individual art form. Furthermore, those local concentration figures vary significantly across cities, ranging from a three-firm concentration ratio of 60% in Adelaide to 86% in Brisbane (Sydney had 65% and Melbourne 75%). Thus, the ranking of effective competition among the different art forms is unclear, and the relative Australian advertising budget shares are a flawed test of the Caves inspired Hypothesis 2.

Very limited cross-national comparisons were also provided by TW for roughly the mid-to late-1970s (Table 6.8). Within Canada, drama companies again spent the most (as a percentage of total expenditures) on advertising and promotion (10%), followed by ballet (9%), with opera and music companies close behind (8%). Within the United States, drama again led at 9%, followed by modern dance (6%), music (5%) and opera and ballet (equal at 4%). In the United

Kingdom results were similar, with the two drama companies averaging a combined 5.5% compared to the 2.0% advertising budgets of a major opera house and symphony orchestra. However, a second orchestra spent 11.0% of its budget on advertising and promotion, dramatically revealing the fragility of small sample results.

The generally high level of advertising done by theater companies was also reflected in U.S. data for 2000 provided by the Theatre Communications Group (*Centerpiece 2001*), revealing "marketing/customer service/concessions" budgets of about 11.8% of total expenses for 1997–1999, rising to 12.9% in 2000. The American Symphony Orchestra league data for "advertising and promotion" (not fully comparable to the theater definition) revealed budgets that started at about 4.5% of expenses in the late 1970s, rising to 7.8% by 1985–1986, and only coming close to the theater figures if extrapolated to 1999–2000, when it would be 11.5%, still somewhat below the theater figure.[15]

To summarize, the presumption that effective competition is higher in dramatic theater than in opera and orchestral music has not been adequately tested. But, the evidence across several data sources that advertising and promotional budgets are relatively higher in the theater than in opera and orchestras is at least suggestively inconsistent with the Caves property rights view that would predict a positive relationship between advertising and market power as measured by concentration (due to a reduction in free riding from the investment in cultural consumption capital). The evidence that advertising is more common in the seemingly more competitive sector may also be inconsistent with the TW-inspired Hypothesis 1, because it would suggest that theater companies perceive a high payoff to advertising to attract audiences in those more competitive settings. However, an adequate test of that hypothesis requires a full comparison between arts and non-arts firms (a test that TW hint would confirm their view that arts firms advertise less; p. 129).

Arts demand studies offer more direct but limited evidence as to the effectiveness of advertising and promotional expenditures, because the inclusion of such variables is rare. Lange and Luksetich (1984) distinguish promotional expenditures from fund-raising and find that in 1970, a "major" American orchestra (with a budget exceeding $500,000) could typically increase attendance by 15,000 by increasing promotional spending by 10% (calculated to result in a net revenue increase of over $21,000). This contrasted with the "promotional elasticities of demand" for the smaller metropolitan orchestras (modestly negative and statistically insignificant) and urban and community orchestras (higher than for majors, but lacking statistical significance). If it can be assumed that those smaller orchestras have less market power than a major orchestra (which need not be true after adjusting for market size and the number of other potentially competing arts organizations), this result is roughly supportive of the Caves' view that more market power should generate more advertising and other promotional efforts (Hypothesis 2).

Unfortunately, even this tentative support for Hypothesis 2 is weakened because the promotional elasticity for the major orchestras was highly sensitive to the inclusion of a "donor price" variable (i.e., all private donations divided by attendance, interpreted as a potential proxy for price discrimination), which rendered incremental promotional spending no more than a break-even strategy (and reduced its statistical significance). Furthermore, Luksetich and Lange (1995) derive a low advertising elasticity of attendance of only 0.06 for major orchestras using 1979–1986 data, which they attribute to the limited size of the market for orchestra services. Advertising was similarly impotent for the smaller orchestras.

Felton (1989) found that marketing expenditures had almost no measurable effect on subscriber attendance for 20 major American opera companies in the mid-1980s. She later (1992) obtained similar results for orchestras, ballet companies and a smaller sample of opera companies. When combined with the ultimately weakened results for symphony orchestra promotional efforts, these findings provide support for Hypothesis 1: the TW assertion that strategic advertising will be quite limited in the performing arts because it will be ineffective. No theater or dance demand study has directly addressed promotional spending, so it is unclear if this result applies more widely.

Clearly, much more sophisticated analysis is required to adequately investigate these advertising hypotheses, including a better theoretical and empirical foundation for the premise that theater (and possibly dance) companies face more competition than do opera and orchestral organizations.[16]

3.1.2. *Competition versus Cooperation (Collusion): Consequences*

Two well-known problems exist with the use of concentration measures to proxy effective competition: (1) market shares can only be derived after the relevant market has been defined and the participants in that market have been identified; and (2) industry structure, especially simple concentration, is only one determinant of firm conduct and market performance. In particular, it is the classic oligopoly problem that such structures are annoyingly consistent with behavior ranging from brutally competitive to effectively collusive, an analytical and policy dilemma that has often led to a focus on entry conditions (including contestability as a special case) rather than on the complexities of post-entry oligopoly games in an effort to seek deterministic solutions.

Although TW identify the entry barriers in the arts created by high fixed costs and, less importantly, product differentiation, they do not uniformly presume that individual organizations are localized monopolies totally impervious to the existence of other organizations. Firm interaction is directly addressed, but in the context of the reduced incentives of non-profit firms to pursue traditional profit-maximizing goals. In fact, they stress the incentive of such firms to collude and cooperate in the pursuit of those non-profit goals (p. 41), which may actually lead performing arts firms to set prices with the goal of increasing output (as measured by attendance or

quality) beyond profit-maximizing levels, and even to encourage rather than discourage new entry (p. 47). They predict that there will be considerable diversity in prices, but that conscious price competition, in contrast to product competition, will be limited, especially given the presumption that the demand for performing arts services is inelastic (p. 47).

Two additional TW propositions are of special interest: (a) given the focus on programmatic competition, pricing will largely be cost-based rather than strategic, with repertory and performance characteristics also budget constrained, but often "subject to check only from other art forms and recreations rather than from a close competitor in the same art form producing an alternative program with different performers" (p. 47); and (b) any concern over high concentration and high entry barriers is not due to any increased profits stemming from collusion, but due to a likely reduction in product competition because "collusion can produce artistic monopoly in the form and nature of the performances being presented" (p. 47). The first of these assertions suggests that competitive constraints may be relatively weak within any one art form, but could be stronger across all art forms. This important issue is discussed in Section 3.1.4. The second retains the economist's normal aversion to collusion, but with a focus on the adverse effects on product quality and variety.

If these adverse effects on the "form and nature" of performances is interpreted as a less varied and less exploratory repertory (or increased "conformity" as later defined by DiMaggio and Stenberg, 1985a), TW would clearly be on the side of those supporting more competition as a way of encouraging artistic innovation. But, not all of the above TW assertions are mutually consistent. For example, as restated below, the hypothesis about the relationship between competition and product quality (Hypothesis 5 below) is seemingly inconsistent with the two others:

> Hypothesis 3: Any collusive efforts will be in the pursuit of non-profit goals, including an increase in output whether measured by quality or attendance. Thus, diminished competition via increased collusion will tend to *increase* the quantity and quality of arts output.
>
> Hypothesis 4: Any competition will be primarily programmatic, but subject to budgetary constraints tightened by the existence of other art forms and recreational activities in general. Diminished competition for consumers' discretionary recreational and artistic spending will relax budgetary constraints and hence allow greater flexibility to develop programs consistent with the artistic goals of management, i.e., allow organizations to *increase* the quantity and quality of arts output.
>
> Hypothesis 5: Any concern over high-entry barriers and concentration should focus on the threat of creating artistic monopoly in the type of performances being presented. Diminished competition poses a serious monopoly threat that can *reduce* the quantity and quality of arts output.

Such ambiguity may be inevitable given the competing forces at work. Alexander's (1997) conclusion that in the commercial music recording industry "high and low levels of concentration result in lessened variety, and maximum variety is promoted by a moderately concentrated structure" appeals to economists' belief that many functional relationships are inherently parabolic, implying some intermediate optimal result (although it unclear that this result applies directly to the non-profit performing arts).[17] Although attractive, this finding is potentially at odds with another core belief that more competition is almost always a good thing.

Regarding the performing arts, Caves (2000, pp. 223–225, and note 3, p. 417) reaches a conclusion unsympathetic to rigorous competition given an inevitably highly concentrated market structure. He examines the factors affecting the number of creative non-profit firms that could survive in oligopoly equilibrium, and argues that the number of firms will decline as: (1) fixed costs increase relative to market size, (2) variable costs increase for any given fixed cost, and (3) the rigor of competition increases among rivals given the cost structure and market size. Thus, while these factors are interdependent, an increase in competitive behavior within an oligopoly structure will reduce the number of firms in long run equilibrium. Although he (surprisingly) labels this result "paradoxical" (p. 417), the implication is that oligopoly structure is inevitable but collusion, or at least non-rigorous competition, is necessary to prevent the elimination of many of those creative firms, implying that greater artistic variety is likely to survive in less, rather than more competitive settings. This implication would be consistent with the TW pro-collusion Hypothesis 3 and Hypothesis 4, but not with the anti-monopoly Hypothesis 5.

There is some evidence that the particular cause of increased competition may have differential effects on product quality as measured by repertory diversity. That is, if structural competition increases due to the entry of new firms, more innovation and programmatic diversity will result, at least as long as those firms remain financially viable. But if competitive conduct increases within a given structure, the Caves expectation about the decline in the number of arts firms may be realized, or at least a decline in risk-taking among the surviving firms as they react to greater financial pressure.

DiMaggio and Stenberg (1985a) identify the beneficial effects of entry in their analysis of American resident theaters by attributing the increased diversity in repertory in the early-and mid-1970s to the creation of "new, often short-lived innovative theater companies" (p. 129). Unfortunately, such innovative theaters also suffered significantly higher exit rates compared to their conformist counterparts, and that differential exit rate combined with the increasing conservatism of more established theaters led by the end of the decade to markedly reduced programmatic diversity. Heilbrun (2001) tests competing entry hypotheses in his study of the increase in opera repertory diversity in the 1980s and its decline in the 1990s. One hypothesis (that he attributes to a personal conversation with Marc Scorca, the President of Opera America) is that new entrants will be especially conservative in

their program choices until they can establish themselves, whereas the alternative hypothesis associates programmatic boldness with new entrants and increased caution with incumbent maturation. Heilbrun finds evidence for the second hypothesis and concludes that the effect of entry and incumbency is the same for opera as it had been for resident theater in the 1970s. Thus increased competition stimulated artistic innovation. Yet, it was DiMaggio and Stenberg (1985b) who also provided strong early evidence that "market autonomy" (the absence of pressure to fill large seating capacities with paying customers) is an important stimulant for theatrical innovation, which directly implies (even though they did not stress this) that diminished competitive behavior among oligopoly incumbents will generate more innovation. Hence, more competition via entry seems to stimulate innovation (at least in the short run), whereas more competitive behavior among established firms typically reduces innovation.[18]

The internal efficiency of non-profit arts firms and their reaction to government subsidies are also likely to be affected in complex ways by entry and increased competition in the non-profit arts. Vladeck (1976) takes the view (also common in the analysis of excess hospital competition and the "arms race" for duplicate sophisticated medical equipment) that any "reflexive reaction" by economists to believe that the "solution to the managerial shortcomings of non-profits lies in increasing competition among them" is disastrous. More rigorous competition, he believes, would just induce managers to over-invest in capital projects rather than become more efficient (p. 96). Although some excellent studies address whether arts firms operate on their "efficiency-frontiers," the prevalence of this "reverse Averch—Johnson effect" whereby more competition worsens internal performance has not been a major focus compared to, e.g., the effect of government subsidies on art firm costs.[19]

Whether consumers actually benefit from government subsidies via lower prices and increased output was also the topic of an indirect debate between TW and West (1987). West challenges the TW predictions that (1) a non-profit arts monopoly will always produce more and charge less than a for-profit monopoly, and that (2) lump sum arts grants will *not* generate more output and lower prices. The first proposition is challenged largely on the grounds that non-profit firms will face comparatively less financial pressure and will thus fail to minimize costs. West challenges the second TW assertion using the novel argument (as applied to the arts) that such markets can operate much like free-entry monopolistically-competitive industries, so that even lump sum subsidies will increase output and lower price in the long run because any higher rents due to the subsidies will attract additional firm entry. Of course, the well-known result that such entry in a product differentiated setting may be "excessive" by the standard of eliminating excess capacity would still complicate the full welfare effects.

In summary, our currently limited understanding of the effects of arts competition versus collusion suggests potentially high payoffs to re-directing research interest to these topics.

3.1.3. *Competition versus Cooperation: Likelihood of Collusion*

TW suggest that non-profit arts firms will be motivated to cooperate toward the cause of better art. But are the arts a good candidate for successful collusion? As Dewey (1979) provocatively observed, "inside every competently run trade association is a cartel yearning to breathe free of legal restraints" (p. 587). How well does this describe, for example, the American Symphony Orchestra League, Opera America, Regional Dance America, the Theatre Communications Group, the American Association of Museums and more localized arts organizations with seemingly common interests?[20]

Caves observes (p. 345) that museums have seldom been successful in colluding to resist the burdensome idiosyncratic demands of art donors for restrictions on their collections, nor have they been able to limit competition among themselves when facing all-or-nothing donor offers for a "mixed bag" collection. There is also rigorous competition among museums for organizing and presenting costly and risky blockbuster shows. Such failure is noteworthy given the Caves argument elsewhere (p. 232 and note 15, p. 418) regarding the relationship between city population size and the number of viable cultural organizations: a city of size n capable of supporting a single organization must grow to greater than $2n$ to support a second organization, unless the two "behave as if they shared the monopoly between them—not competing on admission prices, quality or other things" (p. 418).

Because collusion is costly to establish and maintain (and generally unstable), economists have identified industry characteristics that contribute to the likely success of such cooperative efforts. TW offer a good example in their discussion of the effects of demand growth in the performing arts. They note that the competing effects of increasing market income (i.e., a real income effect versus the substitution effect linked to a higher opportunity cost of time) may not ensure arts demand growth in the face of higher consumer income and population. Furthermore, in the face of modest or no demand growth over time, "firms will have less incentive to compete on price or quality for greater market shares because increased sales must come at the absolute expense of competitors who are thereby more likely to retaliate" (TW, p. 44).

Although this observation is potentially in conflict with the TW view that non-profit arts firms are already pre-disposed to cooperate rather than compete, the prediction that stable or declining demand will facilitate collusion is consistent with the argument (Posner, 2001, p. 77) that weak demand also simplifies the monitoring and policing of collusive agreements (tacit or explicit). It also suggests that demand growth may have conflicting effects on the arts not normally anticipated when competitive interaction is ignored. That is, while the larger market size will clearly strengthen arts firms, the predicted greater competition and active rivalry within oligopoly arts markets will have the contrasting effect of weakening individual firms (maybe even causing some firms to exit, as argued by Caves (2000))

and potentially reducing "market autonomy" (DiMaggio and Stenberg, 1985b). The relative magnitude of these conflicting forces will be important in determining whether product quality and variety will be enhanced or compromised. It is indicative of the need for more research that not only are these conflicting effects poorly understood, but as argued above, it is not even clear that competition or monopoly will generate greater arts quality and variety.

Differential cost structures and vulnerabilities to market pressures further complicate the ability of firms to collude. In this context, data reported by Baumol and Bowen (1966, p. 254) highlight a difficulty that would face arts firms attempting to cooperatively reduce their exposure to consumer retaliation when offering more experimental programs. Relying on unique information obtained from opera managements, they cite evidence that during the early 1960s, ticket sales at the Metropolitan Opera in New York fell from their customary 97% of seating capacity to 89% when a contemporary work was performed. By contrast, the penalty suffered by the New York City Opera when offering a contemporary program was much more severe—a decline from 65% to only 39% of capacity. (For Covent Garden from the late 1950s through the early 1960s, the attendance penalty was a reduction from 83% to 67% of capacity). Clearly, although competing opera companies might benefit from coordinating their schedules to reduce their market exposure from offering contemporary or experimental programs (and Baumol and Bowen note that the problem of encouraging programmatic risk taking "must be solved by all organizations together;" p. 257), this kind of *differential* risk would complicate any such efforts because the optimal strategies of individual companies may significantly diverge.

Pierce (2000) hints at incorporating competitive market considerations into the analysis of repertory decision making, and is unique in also citing the above Baumol and Bowen data on the financial consequences of programmatic risk taking. However, his interest is in establishing the existence of such programmatic risk (also citing Martorella, 1977) as a foundation for studying the attitudes toward risk avoidance among opera managers, the magnitude of government and private donor support, and the demographic characteristics of local communities as key factors affecting the programmatic choices of large versus small opera companies. Thus, despite including a section entitled "An Explanation of the Market," his conclusions (that both government funding and civic culture affect programmatic behavior) do not reflect any consideration of the *differential* risk faced by potentially competing arts organizations within a particular geographic market, or the possible consequences of coordinating experimental programs within or across arts forms.

The earlier quotation from Freedman (1986) refers to significant impediments to any such artistic coordination, and personal interviews with Marc Scorca of Opera America are consistent with that view. Previous and current repertoires of opera companies are publicly reported by this association (as they are by the American Symphony Orchestra League), and Scorca confirms that individual companies are well aware of the competition for press attention and corporate sponsorships (and

mobile traveling audiences) across fairly large geographical areas. Yet he notes that long-term programmatic planning (and negotiations with star performers) is deemed extremely sensitive and is kept highly confidential by individual companies (explaining in part the enormous enthusiasm for rumors about future programs among devoted opera fans).

Thus, despite the potential payoffs to more collusive efforts, and TW's prediction that non-profit arts organizations will tend to cooperate rather than compete, the ongoing exchange of certain kinds of information by at least American arts "trade associations" does not seem to have generated much successful coordination. Dewey (1979) challenged economists' "doctrinaire" aversion to price fixing and coined the slogan: "Let the local laundries collude in peace" to refer to either benign or even efficiency-enhancing collusion. Baumol (2001) has updated the call for more tolerance of beneficial "inter-firm coordination" to stimulate innovation. The application of these challenges to the non-profit arts is fertile terrain for further investigation.

3.1.4. *Market Definition: Concepts and Evidence*

What would happen if opera companies offered contemporary programs at the same time that more atonal music, *avant-garde* plays, and a "no Swan Lake and Nutcracker" season were presented by "competing" orchestras, theaters and ballet companies? Even more compelling, what would be the effect on any one opera company of the programmatic choices of other opera companies? This question and many others can only be answered after clarifying the identity of the potential competitors, i.e., defining the relevant market in terms of sufficiently close substitute products in an appropriate geographical area (which, as Scorca hints, may not be limited to local communities).

There is an odd tradition that has evolved in arts research that bemoans the limited consumer market for the high arts, but either identifies no particular constraining competitive forces affecting local arts monopolies, or finds such firms constrained at best by secondary rather than primary competitors. TW's Hypothesis 4 reflects this focus on "other art forms and general recreation" rather than any budget constraining effects from "a close competitor in the same art form producing an alternative program with different performers" (p. 47). This tradition might be traced to Baumol and Bowen (1966), who stressed the obviously critical role of movies and television in the decline of theatrical activity in the early 20th century. But except for such dramatic technological changes, is it more plausible that "more distant" competitors impose stronger constraints on individual arts companies than "direct" competitors?

This view would be non-controversial (but somewhat trivial) if there were solid evidence that all relevant performing arts (and museum) markets contained at most one representative of each art form. In that case, alternative art forms or providers of sports and other entertainment would indeed be the *only* possible competitors, because a close competitor in the same art form simply would not exist.[21] Although it

is certainly true that many cities have only one primary (typically "namesake") representative of opera or symphonic music (e.g., the Philadelphia Orchestra), such premier institutions do not fully exhaust all the available local options for consuming classical music, especially if the definition of "local" is not too narrowly restricted. In many cases, a more accurate structural description would be of a dominant firm facing fringe firm competition. Nor is pure structural monopoly an accurate description of the theater, museum or even dance segments of the nonprofit arts, which appear to be more typically monopolistically competitive (but with higher entry barriers) or oligopoly industries. Therefore, there should be no automatic presumption that competitive interaction within the same art form cannot occur.

Data limitations are partly to blame for turning the focus away from direct competition within any one art form in empirical analysis. For example, Corning and Levy (2002) resort to a recreation price index (Withers, 1980, popularized the use of a related leisure index) to proxy substitute prices in their demand study of a particular southern California theater company, while identifying three important "direct competitors for theater attendance" who would have represented more relevant substitutes had enough data been available to construct a useful variable (note 5, p. 234). They do not mention the weakness of omitting the enormous variety of non-theater artistic options available to southern Californians.

Felton's (1992) focus on the price elasticity of demand facing individual arts firms is appropriately cited (e.g., Throsby, 1994) as addressing the downward bias in the derivation of price elasticities for aggregates of those firms, and at least implicitly recognizes the importance of local competitive conditions. Although she did not directly measure the distinction between firm and market, her work highlights the important point that (except for pure monopolies or market-sharing cartels) the price elasticity of demand for individual competitors will exceed the aggregate market price elasticity.

Since her pooled data did not include multiple firms in any one art form in any city (and in some cases did not even include more than one kind of company for any given city), her results are not comparable to Moore's (1968) finding of a distinction between a low-market price elasticity for the local theater industry and the very high price elasticity of any individual theater company. At best her results may reflect the viability of viewing the market as the performing arts rather than, say, ballet (and she specifically found a high cross price elasticity between orchestras and higher budget ballet companies). Her major conclusion was that individual firm elasticities will vary widely, and that, e.g., an individual orchestra cannot be confident that revenues will rise following a price increase just because the demand for "classical music" or the "performing arts" may be low. In fact, her empirical findings were only modestly supportive of that warning because only 21% of individual orchestras, 7% of ballet companies, and 16% of opera companies had negative price elasticities in the elastic range. And because elasticity typically increases with price, even those findings are ambiguous, as high-price elasticity

could reflect the famous antitrust paradox of a dominant firm already charging high prices rather than being constrained by high elasticity to charge low prices.[22]

The Gapinski (1986) cross-price elasticity results not only address more clearly the potential for effective competition among local arts firms, but also reflect the paradox of focusing more on secondary competition across arts forms than primary competition within any one arts form. Interestingly, he saw the attempt to find substitutes that "lie *within* the arts spectrum" as a necessary shift away from implicitly viewing the lively arts as homogenous, which would direct attention to the individual art forms as separate markets. So, even though there had been quite limited study of the nature of horizontal firm interaction within any one of those separate art forms, or of the relevant geographical area in which they competed, he viewed his study as correcting the "reverse paradox" of failing to see the relevance of a broader performing arts market.

Thus, it is not surprising that, although his 12 years of pooled data included two theaters, two opera companies, four orchestras, and five dance companies (all in London), his definition of the "substitute price" in the demand equation for any one arts company was the unweighted average of the prices charged by the companies in the *other* art forms. No prices of other companies within any one art form were considered as substitute good prices. Of course, even though the 12 years of time series observations offered him some latitude in considering such "intra-art form" substitute prices (especially in the orchestra and dance cases), he was naturally sensitive to the econometric problems created by smaller sample sizes. Therefore, this specification had pragmatic as well as theoretical dimensions.

However, there may still be implications for the vibrancy of competition within any one art form. A key finding is that *collectively* theater and opera have the smaller own price and substitute price elasticities, whereas symphony and dance have the larger elasticities. So theater and opera companies feel less audience response to price changes that they or their competitors initiate, whereas symphony and dance companies feel more price pressure (pp. 237–238). Because there are only two theater and opera companies in the database, compared to four orchestras and five dance companies, these comparative findings are consistent with there being more intra-art form competition in the less concentrated symphony and dance segments.

Another important Gapinski finding, consistent with expectations, is that if all rivals act together, the results change greatly. One particular example is that when all the companies in the other arts revise their prices downward by 10%, the second theater company loses 4800 patrons annually, which is twice the loss it can prompt by a unilateral price change of its own. This is consistent with the notion that only a collusive predation strategy could feasibly eliminate a particular rival.

Whether the relevant product market is symphonic music, or all the performing arts, all the non-profit arts, or all entertainment, the strong consensus has been that such markets are quite localized geographically, typically no larger than a city, or at most a metropolitan area. In fact, Moore (1968) observed that even in what is typically viewed as a special case, "in contrast to popular opinion, the New York

theater is sustained by New Yorkers" (p. 71). Of course, his finding that in 1960 "only about 30%" of the audience was from outside the metro area could alternatively be interpreted as supporting the economic argument that such a sizeable, mobile "marginal" consumer group will have a significant effect on the theater market.

Where touring companies are still important, the presumption of localized markets is especially vulnerable. In fact, Escaleira (2002) concludes that "there are no local relevant markets" for symphonic music in Portugal because government and private sponsorship of orchestra tours allows individual companies to serve a wide national market (p. 10). He identifies both local and national dance and theater companies. In the United States, the rising cost of performing arts touring has greatly reduced its significance (as confirmed by Opera America's Marc Scorca, personal interview), but (as noted above) the regional competition for corporate sponsorships and press coverage can make companies sensitive to programmatic choices made by "rivals" beyond their own local home markets (Scorca).

There has been some research on the "geographical reach of performances" (Verhoeff, 1992) focused on the mobility of audiences rather than of companies. Verhoeff's analysis of survey results for theater in the Netherlands confirms the strong negative relationship between distance and attendance, but he finds surprisingly large variability in that relationship when controlling for the size of theater, quality and other factors. In his two most "deviant" individual cases, the audience did not extend beyond 3 km in one; but in the other, only 5% of the audience was from the "nearest zone," and it required extending nearly 70 km to capture 90% of the audience.

Bajic (1985) provides an interesting twist to the audience-distance relationship by exploring the possible effect of performing arts demand on residential choice. He finds that for those with especially strong demands for the theater in the Toronto area, theater location is a factor in their choice of where to live, although this result held for a narrow segment of high income and highly educated consumers. The more typical result, of course, was that housing and other characteristics of neighborhoods were the dominant determinants of residential choice.

Finally, Waterman et al. (1991) stress the complementary rather than merely substitution relationship between media and the live arts, and explore how the electronic transmission of live performances can extend the reach of the arts to those facing especially high cost or location barriers to live participation. Although they find that those facing such particularly high obstacles to live participation do not take special advantage of media transmission, the media (especially television) "clearly extend the reach of the arts to vast numbers of individuals" (p. 34). They do not explore the implications of this finding to the analysis of geographic markets and the strength of competitive interaction among performing arts companies.

Despite the emphasis on markets in economics, it is often true that a careful assessment of the relevant product and geographic markets occurs only if antitrust or regulatory issues arise. Perhaps if such issues were common in the non-profit arts, more attention would have been paid to market definition in that sector as well.

Nevertheless, the literature that does exist provides a foundation for more serious work on this topic.

4. Conclusion

The case for renewed interest in the nature and consequences of competitive interactions among non-profit arts organizations cannot be limited to identifying unresolved questions, or painfully constructing competing hypotheses from long-ignored portions of a classic literature juxtaposed with morsels of suggestive assertions from more contemporary research. Researchers will have to re-evaluate their bias toward monopoly modeling, and entertain unfamiliar ideas about the scope of geographical competition, and the applicability of competitive or collusive strategies to a sector long assumed to have no commercial sensibilities. The construction of useable databases that allow creative modeling and innovative empirical analysis will be required to make genuine progress in reviving the lost industrial organization agenda of competitive analysis in the non-profit arts.[23] Such efforts are long overdue.

Notes

1. The first reference to the term "cultural industries" in the *Journal of Cultural Economics* seems to have been Girard (1981) when he attributed this term to Adorno and Horkheimer (1944), who sought to disparage low culture and celebrate the high culture generated by "true" artists. (He also cited a UNESCO report of his own in 1972). Ironically, Girard felt compelled to call attention to this "forgotten" commercial segment of cultural life. Indeed, despite its current popularity, the term cultural industries was rarely used by economists to refer to research on the commercial arts; Towse (1997) labels her section on broadcasting, public television and cultural trade "The Media Industries." The Acheson and Maule (1994) paper reprinted in that section does address international trade in the "cultural industries." Research on copyright has further popularized the term to refer to the commercial arts, while "creative arts" is now commonly the inclusive term for the traditional non-profit performing and visual arts as well as for the commercial media arts.
2. While the for-profit art auction house price fixing case (*United States v. Sotheby's Holdings Inc.*, 2000) has come closest to the "traditional arts," antitrust concerns more frequently have focused on mergers and contracts within the music recording industry (e.g., the formation of MusicNet by Bertelsmann and EMI group, and Pressplay by Universal Music Group and Sony Corp.), or the motion picture industry (with the 1946 Paramount case, *United States v. Paramount Pictures, Inc.*, being the classic example). Towse (1997a) summarizes antitrust investigations in the United Kingdom dealing with recorded music and the copyright system in the music business. An entertaining case combining the media and performing arts was the 2001 Federal Trade Commission investigation of a joint venture between Warner Communications, Inc. and Vivendi Universal S.A. to distribute past and future recordings of the performances of Luciano Pavarotti, Jose Carreras, and Placido Domingo at World Cup soccer finals matches. Newspapers dramatically announced "FTC Alleges Price-Fixing of Tenors."
3. My own awareness of this novel theory is from phone conversations with Federal Trade Commission staffers seeking academic references and other scholarly contacts that might support this position. Driskill and McCafferty (2001) identify the potentially contrasting result that upward sloping marginal cost in the provision of time-dependent, addictive goods will generate higher

monopoly and tight oligopoly supply of such goods compared to the highly competitive case. However, this result is of questionable application to the performing arts, where fixed costs are high and marginal costs are low and relatively constant.

4. Harry Hillman-Chartrand (e.g., 2000) has frequently invoked traditional structure, conduct and performance language in his research. But his primary interest is in drawing the proper boundaries of the arts, broadly defined, as part of an effort to measure their economic importance. A long-standing literature has addressed the broader substitution relationships between the non-profit and profit sectors, including in the arts (e.g., Moore, 1968; James and Rose-Ackerman, 1986; Weisbrod, 1988).
5. Gapinski (1988) focuses on production and cost estimation for non-profit theater, but as part of his analysis specifies a profit function that implies that "ticket price is constant and hence . . . the demand schedule for theater output is perfectly elastic" (Footnote 8). He does not cite Moore (1968) for empirical verification, and explains this as a simplifying (but apparently quite acceptable) assumption due to data limitations that prevent full demand estimation.
6. Seaman (2002) documents increasing, but still limited and problematic, cooperative efforts in the United States between for-profit and non-profit arts organizations in sharing productive inputs and managerial strategies, and in forming joint ventures. One example of non-profit arts cooperation in marketing and fundraising followed a unique tragedy: the Atlanta Arts Alliance of four organizations originated from the 1962 Orly airport disaster that killed 122 locally prominent cultural leaders. The Utah Symphony and Utah Opera are closely allied and share a common website. By contrast, a prominent divestiture was the breakup of the San Francisco War Memorial Complex (opera, symphony and ballet, with the ballet having previously separated from the opera company).
7. Of course, if Moore were right about the perfectly competitive nature of American theater (at least Broadway), no oligopoly modeling would be required there as well. Admittedly, whatever the case for natural monopoly in orchestral music, opera and ballet, it is generally less compelling in theater. However, except for Gapiniski's pragmatic assumption (see note 5), I am not aware that anyone has followed Moore's suggestion to study local or regional theater as a perfectly competitive industry.
8. He calls for further investigation of the complex interplay between quality and financial goals as firms move closer to the "serious" arts, but in no way suggests that competitive pressures may affect that relationship. Furthermore, he anticipates the now famous Caves (2000) "nobody knows" problem by calling for a more explicit consideration of how the substantial uncertainty of success or failure affects arts firm behavior, and suggests a greater focus on the potential conflicts of interest within arts firms betweens various types of principles and agents.
9. Although there are discussions of performing arts research within Europe, the focus of attention is primarily on the institutional setting in the United States and Australia, where the more limited role of government subjects the non-profit arts to stronger market forces. In countries such as the Netherlands and France, a more centralized and publicly financed arts policy may render questions about the vibrancy and welfare effects of competition versus cooperation relatively moot. Of course, an evaluation of the welfare effects of a "publicly funded arts cartel" would be directly germane to the argument, and the effect of extensive government support on the quality of arts output has been an important topic (e.g., Frey, 2000). The unique institutional setting in Germany, where government arts support is extensive but highly localized (Schulze and Rose, 1998), provides another variation in which competitive versus monopoly behavior could be examined, perhaps with a focus on inter-city rather than inter-firm or inter-art form rivalry.
10. The Rotterdam paper by Moretti and Crisci (2002) includes a section on "the competitive environment and the theatrical constellation of value" in which passing reference is also made to "itinerant" companies searching for places "in which it is possible to distribute performances"

(p. 12). However, their exact position on the degree of effective competition provided by itinerant or less mobile companies is unclear.

11. Peltier (2002), in another Rotterdam paper, finds no evidence of any scale or scope (or other so-called synergistic) economic benefits from mergers and acquisitions within the media industries, which is a fairly common finding in other sectors of the economy as well.
12. See, e.g., Carlton and Perloff (2000), Chapter 16 for a review of the analysis of market structure and innovation, and Chapter 7 for product differentiation and optimal diversity.
13. Gray's (2002) Rotterdam paper does, however, suggest a willingness to explore the possibility of strategic interaction, at least within symphony orchestras in limited situations.
14. The presumption that at least factual, informative arts advertising is effective has not really been tested, although Globerman (1978) found generally low and highly variable awareness of performing arts prices in Ontario. However, he cautions that his findings do not necessarily demonstrate a high payoff to the organizational dissemination of better price information, and suggests "only the most tentative support" for believing that reducing price search costs would increase attendance by new arts consumers beyond an initial visit (p. 37).
15. The earlier data were supplied on request from the American Symphony Orchestra League (ASOL), but updated information has become significantly more difficult to obtain due to the increasing concern for maintaining the anonymity of individual organizations. In the United States, Internal Revenue Service (IRS) Form 990 provides publicly available revenue and expenditure data for non-profit organizations, including individual arts organizations from the early 1990s, but the reporting standards remain relatively non-standard and data are challenging to aggregate.
16. The limited evidence on fundraising, by contrast, seems less ambiguous. The early Rose-Ackerman (1982) model of "excessive fundraising" implied that more competition would increase non-profit budget shares committed to fundraising. McCarthy et al. (2001) report data on U.S. arts philanthropy (Chapter 7) that reveal declining performing arts fundraising yields, most likely due to an increase in the number of firms competing for such funds (Chapter 6), and resulting pressures for higher fundraising budgets.
17. Cellini and Cuccia (2003) develop a related argument regarding innovation among individual visual artists, in which a higher proportion of innovative artists enhances the benefits to an innovative artist from further experimentation, but at the same time lowers the expected profit for financiers supporting such artists, hence making it more difficult to obtain funding. The implication is again that there is an intermediate amount of competition among artists that will generate the highest level of innovation.
18. Despite these important contributions, DiMaggio lamented in a personal conversation in the spring of 2002 that our understanding of the competitive versus symbiotic relationships among arts organizations in any local or regional market is still relatively poor.
19. In fact, the effect of a relaxation of market pressures resulting from government subsidies has been cited (Gapinski, 1980) as a main cause of the excess use of labor and capital, which reflects the more traditional view that reduced competition worsens internal production efficiency.
20. As previously noted, antitrust oversight rarely falls on the non-profit arts. Yet, non-profits do not enjoy a blanket exemption from American antitrust laws, and the merger and anti-collusion laws have been applied to non-profit hospitals and universities, and to for-profit arts firms.
21. It would not be unusual in antitrust analysis to find no serious anti-competitive concerns in a merger between the only two producers of glass bottles if it were believed that the relevant product market were actually "all containers" (glass, plastic, cardboard etc.). And the controversial idea of a contestable market can be portrayed as focusing more attention on "more distant" potential competitors rather than on current actual competitors. But there is no industrial organization tradition that would focus the primary attention of an analysis of breakfast cereal

prices and quality on the manufacturers of eggs, bagels and yogurt rather than on the alternative manufacturers of breakfast cereals.

22. Of course, the common assumption (although rigorously debated) has been that non-profit arts firms would exploit any market power with less rapacious goals, such as providing higher quality performances. However, the increasing financial pressure on arts firms is widely recognized as having made them more conscious of box office revenues.
23. A modest effort of my own is the expansion and updating of a database initially constructed to examine price discrimination as a function of different characteristics of individual arts organizations (primarily cost, market size and venue capacity). That model did not consider competitive pressures (Seaman, 1985). Among the new variables added to these databases are an intra-art form competition proxy (# of individual organizations of a given type within a 40 mile radius of a metro area divided by metro area population), and an inter-art form competition proxy (defined similarly, but including all arts firms regardless of type). Among the preliminary findings are that intra-art form competition reduces price discrimination and the average price level, whereas inter-art form competition does not. The inter-art form variable may reflect the overall vibrancy of the art industry in a region rather than competitive constraints. The results vary across art forms with opera generating the strongest results.

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