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The FCC's Financial Qualification Requirements: Economic Evaluation of a Barrier to Entry for Minority Broadcasters

Yale M. Braunstein*

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I. INTRODUCTION

In 1965, the Federal Communications Commission ("Commission" or "FCC") articulated certain financial requirements that applicants for broadcast licenses must satisfy. Specifically, applicants had to show they had sufficient funds to cover application costs, construction costs, and the operating expenses for one year without any revenue offsets. This standard, known after the 1965 case as the Ultravision standard, was viewed as implementing the general requirements that "all applications . . . shall set forth such facts as the Commission by regulation may prescribe as to the . . . financial . . . qualifications of the applicant." 

The Commission reduced the operating expense part of the financial qualification to the first three months of operation in a series of decisions in 1978, 1979, and 1981. In announcing these actions, the Commission explicitly cited its concern about the level of minority ownership of broadcasters:

In announcing this policy change, the Commission considers its action to be one which will provide a more reasonable and realistic financial qualification standard for all aural applicants and will specifically benefit minority applicants seeking entry into the radio broadcast service. The Commission's decision here is based, in large

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2. 47 U.S.C. § 308(b) (1994). See also § 319(a) (similar language).
part, on the finding, in its Minority Ownership Task Force Report, that station financing has been a principal barrier to minority broadcast ownership.4

Additionally, the Ultravision standard conflicts with Commission policies favoring minority ownership and diversity because its stringency may inhibit potential applicants from seeking broadcast licenses.5

As stated, the underlying rationale is that the financial qualification standard poses a barrier to the entry of new firms into the broadcast market, and this barrier affects, on a disproportionate basis, minority-owned firms which are generally smaller and less well financed than non-minority firms.6

While the specific policies and regulations discussed here date back to the 1980s, the issue of minority ownership remains 'timely for three reasons: (1) the renewed interest of the Commission in increasing minority ownership of broadcasters,7 (2) the changes in ownership limits enacted in the Telecommunications Act of 1996,8 and (3) the planned use of auctions to award new television broadcast licenses,9 possibly raising new barriers to the entry of minorities.

This Article focuses on how one might collect and analyze evidence to measure the economic effects of the financial qualification requirements. This Article shall ignore the questions whether these requirements are politically desirable or constitutional, and instead it will focus on economic, not legal, analysis, and examine three major research questions:

(1) Did the FCC's financial qualification regulations in the 1980s create an unreasonable disadvantage to minorities in the award of new broadcast licenses?

5. Transfer Applicants, Public Notice, supra note 3, at 201.
6. Of course, questions remain as to whether the financial qualification standards reduced station failures or had other beneficial effects. In the 1981 decision, the Commission was doubtful about the usefulness of the one-year Ultravision standard. The Commission stated, "[f]inally, it has been our experience and observation that station failure rates have not been affected substantially by the Ultravision standard, but rather depend more upon market forces, competition, the general state of the economy, or the quality of station management." Id.
Can one measure the economic effects on minority broadcasters, on minority employment, and on program suppliers?

Can one detect any effect on programming and editorial content of these financial requirements?

The questions this Article addresses are both important and complex. Rarely does one event or policy occur in isolation, so generally one cannot rely on straightforward scientific experiments or quasi-experiments to answer the specific research questions that arise. For example, no one expects the Commission to impose one set of rules on half of the country, while refraining from doing so for the other half, just to facilitate the measurement of the consequences of those rules. Instead, this Article demonstrates a research model and design that, hopefully, enables the detection and measurement of the effects of a specific policy or scenario, as unambiguously as possible and with little confounding.

This Article will follow a traditional economic approach:
1. Present the specific issues in economic terms.
2. Develop a logical model that relates various factors to the issues at hand.
3. Describe the data necessary to demonstrate how sample analyses of that data might be undertaken.

II. FINANCIAL QUALIFICATION REGULATIONS IN THE 1980s AND UNREASONABLE DISADVANTAGE TO MINORITIES IN THE AWARD OF NEW BROADCAST LICENSES

A. Background and Economic Logic

Traditional industrial economics texts have long considered the need for start-up capital to be a significant barrier to the entry of new firms into a market. Douglas Greer, in his 1980 textbook on industrial organization, offers an especially clear statement of this phenomenon:

In any event, if the capital costs of efficient entry are appreciably more than what you and your friends can scrape together from your savings, say $1 billion, then capital costs pose a barrier to entry—even when MES [minimum efficient scale] plant is small relative to industry demand.

This barrier might be classified with the other absolute cost barriers mentioned earlier, since its effect often shows up in higher costs of borrowing, namely, higher interest rates. On the other hand, there are several features of this barrier that distinguish it. For one thing, it is

10. The economic and financial model that this Article develops is contained in a single Excel spreadsheet, available from the Author upon request.
closely connected to scalar elements, whereas other absolute unit cost differences are not. Second, the deterrence of this barrier depends on the nature of the potential entrant as well as on the nature of the industry.\textsuperscript{11}

There are two conceptualizations of this barrier. First, minority-owned firms (and possibly smaller firms in general), for one or more reasons, have less access to capital markets and traditional lenders. As a result, when they do get start-up financing, the cost of that financing is higher than to other firms. This constitutes the "weak" version of the barrier.

Second, minority-owned firms simply cannot obtain start-up financing from financial institutions, because the lenders do not make sufficient funds available at any price (interest rate) or because the price is so high as to make the investment unprofitable for the borrower. This constitutes the "strong" version of the barrier.

The Commission has acknowledged that lack of access to financing creates a barrier to the entry of minority owners in broadcasting.\textsuperscript{12} This lack of access to financing may result from discrimination in financial markets, including discrimination by commercial banking institutions, that affects a variety of minority banking customers, of which broadcasters are one type. To put this in context, in 1968, the Commission took the lead in focusing on discriminatory employment practices, stating it would deny licenses to stations that practiced deliberate discrimination.\textsuperscript{13} At approximately the same time, in 1974, Congress addressed the issue of discrimination with the Equal Credit Opportunity Act.\textsuperscript{14}

The Commission has addressed the issue of minority access to start-up funds through policies such as tax certificates and distress sale regulations. Tax certificates allowed the sellers of broadcast property to postpone the capital gains tax on the proceeds if they sold to a minority-controlled business.\textsuperscript{15} The logic behind this policy was that deferring the

\begin{footnotes}
\textsuperscript{11} DOUGLAS F. GREER, INDUSTRIAL ORGANIZATION AND PUBLIC POLICY 174 (1980).
\textsuperscript{15} There are additional requirements; one in particular is that the seller re-invest the proceeds into another broadcasting entity. 26 U.S.C. § 1071 (1994); 26 C.F.R. § 1071-3 (1987). For an analysis of this policy, see Bruce R. Wilde, Comment, FCC Tax Certificates for Minority Ownership of Broadcast Facilities: A Critical Re-examination of Policy, 138 U. PA. L. REV. 979 (1990).
\end{footnotes}
tax was equivalent to lowering the current effective tax rate, which would increase after-tax profits for the seller. The seller could then pass some of this increased profit on to the buyer in the form of a lower selling price, resulting in a possible reduction of the financial barriers to entry.

Investors who provided the start-up financing for minority broadcasters could obtain another form of tax certificate when they later sold their interest in the broadcasting entity. The Commission stated, "The use of tax certificates as creative financing tools will facilitate significantly minority entrepreneurs’ access to necessary financing, thus effectuating the important policy of promoting minority ownership."  

In its 1995 *Notice of Proposed Rulemaking*, the Commission summarized its views on tax certificates:

Exercising the authority conferred upon it by Section 1071 of the Internal Revenue Code, 26 U.S.C. § 1071, the Commission has, since 1978, issued tax certificates to promote minority ownership of broadcast stations. Under the current policy, such tax certificates are awarded to encourage both the sale of facilities to minority purchasers and the investment of start-up capital in minority entities. Thus, tax certificates are available to (1) individuals and entities that sell a broadcast station or cable system to a minority-controlled purchaser and (2) equity holders in a minority-controlled broadcasting or cable entity upon the sale of their equity, provided that their interest assisted in financing the acquisition of a broadcast or cable property or was purchased within the first year after broadcast license issuance, thus contributing to the stabilization of the entity’s capital base. In either case, the tax certificate enables the seller to defer for two years the gain realized by (1) treating it as an involuntary conversion, under 26 U.S.C. § 1033, with the recognition of gain avoided by the acquisition of qualified replacement property; or (2) electing to reduce the basis of certain depreciable property, under 26 U.S.C. § 1071, or both. 

In other words, the intent of the tax certificate program was to lower the effective cost of start-up capital, thereby addressing the weak form of the barrier to entry, and possibly the strong form as well. Congress ended the tax certificate program in 1995. In a recent article, Erwin Krasnow and Lisa Fowlkes propose the reinstatement of the minority tax certificate program.

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The distress sale policy, also adopted in 1978, directly lowered the price of a broadcast property for a minority-owned purchaser. A licensee designated for a license revocation hearing could, for example, before the hearing date, sell its broadcasting property to a minority group for seventy-five percent or less of the station’s fair market value. This would eliminate the need for the hearing and save the original owner from the expense of legal proceedings to keep its license. This policy was held unconstitutional in 1989.

B. Economic Approaches

Possibly the most simplistic economic approach to measuring the cost of the financial barrier to entry for minority broadcasters is to assume that the weak barrier model applies, and to convert the extra cost of obtaining financing to a lump-sum amount using an appropriate discount rate. The higher interest rate for start-up funds leads to higher payments to lenders and possibly higher required returns for equity investors. These additional costs will occur over a number of years, but a present-value calculation can convert them to a single sum as of the start-up date. There are several conceptual problems with this approach, however. Some evidence suggests that this approach would produce an overestimate, while other evidence suggests an underestimate. Furthermore, there is no reason to believe that these problems would, by luck, cancel themselves out.

First, the additional barrier faced by minorities may be overestimated. Some evidence suggests that it costs more to make loans to small businesses and that such loans are viewed as being "information intensive." The following 1994 testimony by James P. LaWare, a governor of the Federal Reserve System, makes this point:

In particular, the number and dollar volume of loans and denial rates provide no information on borrower characteristics and risks of the loans that were made as compared to loans that were not made. (The data also would not provide information about a particular lender’s evaluation standards.) If there is a common thread connecting small


businesses in the credit process, it is that lending to them is information-intensive. That is, suppliers of credit need to gather an extensive amount of information to accurately evaluate the potential risks and returns on a loan. In addition to a borrower’s financial statements, if such exist, a lender needs to understand the markets in which the business operates; to assess the value of assets that may provide collateral; and to make judgments about the financial creditability of the management.  

The differing costs of funds from regional lenders and larger national lenders raises another issue. In discussing the nature of banking relationships as a barrier to entry, W.G. Shepherd wrote:

Leading banks tend to be allied with the leading firms in their markets. . . . All is not uniform: the largest firms often relate to several banks, partly for regional convenience and partly to extract concessions from them. Yet the normal pattern is a single, enduring banking relationship. Larger firms generally relate to larger banks.

This link is two sided, with advantages for both the bank and the firm. The firm gets credit in larger amounts and at lower interest costs. It also gets valuable advice and information from the bank, plus a degree of potential support against future stresses.  

Even with perfect credit markets, and without any unlawful discrimination by lenders, one should expect to see higher interest rates or fees, or both, charged to small businesses, start-ups, and similar less-established, non-dominant firms in the acquisition of credit. From a policy perspective, the relevant amounts include the increased charges that result from non-economically justified criteria.

Of course, discrimination has existed, even when it would amount to illogical (i.e., unprofitable) behavior by lenders. A classic statement on this appears in the 1976 Senate Report on the Equal Credit Opportunity Act (“ECOA”):

[I]t must be established as clear national policy that no credit applicant shall be denied the credit he or she needs and wants on the basis of characteristics that have nothing to do with his or her creditworthiness. The Committee readily acknowledges that irrational discrimination is not in the creditor’s own best interests because it means he is losing a potentially valuable and creditworthy customer. But, despite this logical truth, the hearing record is replete with examples of refusals to extend or to continue credit arrangements for applicants falling within one or more of the categories addressed by this bill.  

Second, the barrier faced by minorities may be underestimated. Funding costs paid by minority broadcasters completely ignore the strong
version of the barrier. There are two possible scenarios. In one, no funding is available at any price; and in the other, the higher cost of funding causes the investment to be no longer profitable. In either case, the investments are not made. The Senate Report on the ECOA, in the quote above, makes it clear that these denials of credit occurred even when they were counter to the best interests of the lenders.

Moreover, larger, more established entities typically use internally generated funds. Smaller businesses, especially those owned by minorities, rarely gain access to funds of this sort. As a result, smaller businesses rely heavily on external funds, driving up their cost. Again, Shepherd noted: “Most investment funds come from internal cash flow ... Among large firms, the share of internal funds was even larger [than the average percentage levels of 65% to 83% for all firms]. Most larger firms are therefore not closely reliant on new outside funds.”

Furthermore, financial considerations may have forced minority principals to accept lower ownership interests than would otherwise have been the case. The need for partners with access to funds may affect the ownership and organizational structure of the enterprise.

Finally, minority owners may have purchased less costly and less viable stations in smaller markets than they otherwise would have if the barriers to entry had been lower. Part III of this Article addresses how one can measure the social costs of each of these possible distortions.

III. QUANTIFICATION OF ECONOMIC EFFECTS

A. Direct and Indirect Effects

In any evaluation of the economic effects of a policy, such as the financial qualification regulations, one must determine the scope of the set of effects in which one is interested. First, one needs to decide whether to look beyond the more obvious direct effects on the players in the specific market being studied. In the broadcast context, these players include the licensee, its employees, current and potential competitors for the license, current and potential competitors delivering similar services, and the current and potential audience.

Indirect effects, on the other hand, may accrue both to upstream suppliers of programming, advertising, and equipment, and to information and entertainment providers not considered part of the broadcast market. With regard to the first group, this Article will not address the academic issue of whether one should consider the audience as the final consumers of

26. SHEPHERD, supra note 24, at 155.
programming and advertising, or whether one should view broadcasters as selling their audience numbers to the advertisers. The second group could include cable and satellite systems and their audiences, advertisers, distributors, and suppliers. If broadcast programming and infrastructure suppliers are included in the direct effects category, one might choose to include the suppliers further upstream in the determination of indirect effects. Finally, one should at least consider macroeconomic issues, such as possible effects on the levels of overall employment and on foreign trade.

In Part III(C)(2)-(3), this Article discusses all of the possible effects on employment and on program suppliers, but in Part IV(B) it develops quantitative estimates of only the direct effects on broadcast station owners and ignores all indirect effects.

B. Gross and Net Effects

In theory, one can approach the problem of identifying the effects of the financial qualification requirements either by focusing on minority broadcasters and applicants alone or by focusing on all broadcasters and applicants. Imagine a policy, for example, that explicitly raises the costs incurred by members of one group, while simultaneously lowering the costs for the members of another group. From the point of view of the first group, this is clearly a negative result, just as it is clearly positive from the second group's perspective. From society's perspective, these gains and losses may or may not cancel out; a net calculation is required. (Of course, in this example, there are clear distributional and equity issues; one needs to consider them in an appropriate framework.) This logic does not appear to apply in the case of the financial qualification requirements, or if it does, it is only of minor importance. The barriers to entry against minority firms in obtaining broadcast licenses may have reduced the number of applicants for any given license, but no locatable source argues that the costs of obtaining licenses were somehow lowered by the reduction in competition. As discussed below, minority broadcasters do not own a large percentage of stations, and the number of unsuccessful license applications by minorities was most likely a small fraction of the total as well.

Given all of these considerations, the calculations in Part IV(B) shall focus exclusively on the costs to the minority community.

C. Specific Effects

1. Cost to Minority Broadcasters

At one level, the logic for considering the effects of barriers to entry, such as the financial qualification regulations, on potential minority
entrants into broadcasting is straightforward. As Kurt Wimmer put it in 1986, "Aiding minority ownership may, however, be justified as adding to the economic base of the minority community."  

More recently, Mark Lloyd of the Civil Rights Forum on Communications Policy wrote in the same vein:

The failure of communications policy to guarantee access to information services will not only stunt the social development of communities, it will cut off economic opportunity. . . . As Congress found in 1982, much of the "severe under-representation [sic] of minorities" in the communications industry is caused by the "effects of past inequities stemming from racial and ethnic discrimination." The effects of this discrimination is [sic] exacerbated by continuing discrimination in lending markets, as well as FCC ownership policies which look to past broadcast experience in awarding licenses, and reserve scarce spectrum for existing owners.  

2. Minority Broadcast Employment

The goal of increasing minority employment in broadcasting is laudable in its own right. Furthermore, the FCC has stated that it has based its regulations concerning nondiscrimination in employment on the connection between the presence or absence of minority employees and the level of programming sensitive to minority tastes and viewpoints.  

Specific estimates vary, but even with the Commission's policies, the percentage of minority professionals employed at broadcast stations remained low through the 1970s and 1980s. In 1987, Wimmer reported:

Minorities are underrepresented in broadcast employment, holding only 9.5 percent of management-level jobs [in 1983] even though they compose at least 14.3 percent of the population. Although minority employment increased annually beginning in 1971, it began to decline in 1983. Over the most recent five-year period, employment of minorities in the broadcast industry has increased only 1.3 percent.  

In reviewing a longer period, Arthur Anastos presented a slightly better picture; he cited FCC data that indicated the percentage of minority professionals grew from 8% in 1971 to 16% in 1989.  

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29. Nondiscrimination Employment, Memorandum Opinion and Order, supra note 13, at 775-77.  
30. Wimmer, supra note 27, at 432.  
31. Jube Shiver, Jr., Bias Challenges Against Stations' Licenses Soaring, L.A. TIMES,
If one were to focus on the employment effects, the research questions include:

1. How do employment patterns differ between minority broadcasters and non-minority broadcasters?
2. What is the appropriate approach to aggregate the differences in minority employment across the entire set of applicable cases?

3. Programming and Program Suppliers

Possibly the most difficult research questions relate to programming matters. There have been many studies that attempt to “explain” differences in programming across groups of stations or relate programming choices to station ownership. These studies do not all focus on minority versus non-minority ownership. Regardless, however, whether one looks at local ownership versus group broadcasters or minority versus non-minority ownership, the evidence of a link between ownership and content is uncertain at best. The following are a few highly selective examples.

a. Group Versus Nongroup Television Broadcasting

In 1967, Paul Baldridge found little difference between the programming of group-owned and independently owned stations. Twelve years later, using data supplied by the Citizens Communications Center, the Author analyzed the local news and public affairs programming of the VHF network affiliates in fifteen of the “Top 50” television markets that had both group-owned and individually owned stations. The Author found that, on average, there was no difference in the amount of local and public affairs programming done by the two groups.

b. Minority Radio Broadcasting

In his 1981 analysis of programming on black-oriented radio stations, James Jeter found no noticeable difference in either general content or in the amount of news programming between those stations that were black-

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33. Citizens Communications Center (1978). Comments submitted to the FCC in the matter of Amendment of Sec. 73.636(a) (Washington, D.C.).


35. Id. at 61.
owned and those that were white-owned. In a separate study in the same year, Loy Singleton found that the racial background of the station owner did not explain any of the variance in the level of public affairs programming at the black-oriented stations. Similarly, J.R. Schement and Singleton found that the ethnic background of the owner was not a significant predictor of the level of public service programming by Spanish-language radio stations. They did, however, find a difference in employment patterns. Latino owners hired more Latino managers than did non-Latino owners. Two years later, David Honig found that the levels of minority employment and of programming aimed to minority audiences were positively correlated in both stations with minority-oriented programming and without.

That these studies essentially stopped in 1984 is no accident. In 1984, the Commission eliminated the requirement that broadcasters keep programming logs available to the public. On reconsideration, the FCC adopted the existing “most significant treatment” requirement, which effectively reduced the volume of programming licensees had to log. As a result of these two Orders, the public does not have easy access to complete programming logs.

c. Later Studies

The FCC and the Congressional Research Service studied broadcast entertainment programming using data collected by a Commission-administered survey conducted in the mid-1980s. In 1992, Justice Thomas, then a judge on the D.C. Circuit Court of Appeals, interpreted this report for the majority as showing that female ownership had little effect on content. On the other hand, minority ownership did appear to affect


42. See Lamprecht v. FCC, 958 F.2d 382 (D.C. Cir. 1992).
minority programming. In 1995, Jeff Dubin and M.L. Spitzer summarized the findings:

Judge Thomas found that, of stations owned primarily by women, approximately thirty-five percent reported broadcasting women’s programming, while twenty-eight percent of the stations owned by men reported doing so. In contrast, seventy-nine percent of black-owned stations reported programming for blacks, as opposed to only twenty percent of stations owned by non-blacks doing so. And similar statistics showed increases of ten to seventy-four percent for Hispanic owners, three to twenty-five percent for Asian/Pacific Islander owners, and four to forty-six percent for Indian or Alaskan owners. The percentage increase of targeted programming was only approximately twenty-five percent for women [(28%)(1.25)=35%], while for the other groups it was far higher.43

Dubin and Spitzer, using the same data set, performed their own analysis and supported the conclusion that a link existed between minority ownership and programming:

It would be reasonable to conclude that the hypothesis that minority ownership affects minority programming (Hypothesis 3) is generally accepted. More particularly, Hypotheses 3.1 (Hispanic), 3.2 (black) and 3.4 (female) are all confirmed—Hispanic owners are more likely to program Spanish formats and target Hispanic listeners; black owners are more likely to program black formats and target black listeners; and female owners are more likely to program women’s formats and target women. Only Hypothesis 3.3—that Asian/Pacific Islander owners will be more likely to program for Asian/Pacific Islanders—is uncertain.44

They also found that increasing minority ownership increased the total amount of minority programming in a broadcast market—not just cause a transfer of minority programming from non-minority stations to those owned by minorities.45

In a recent article, Allen Hammond46 reviewed how the courts in Metro Broadcasting47 and Lutheran Church48 addressed the question of a link between minority ownership and programming. At this point, it appears that there is neither consensus about the existence of the linkage between ownership and programming nor a method to convert such a

44. Id. at 866.
45. Id. at 866-67.
Linkage, if it exists, into economic terms. One might seek alternative data sources, such as advertising revenues, or use time-choice models for future research. As a result, this Article ignores programming effects for the remaining sections.

IV. MODELS AND DATA NEEDS

A. Specific Effects Under the Model

1. Cost to Minority Broadcasters

Following the logic presented above, this Article proposes a multi-step approach to measuring the costs of the financial qualification requirements. Table 1 presents the research issues described in Part II(B) and the specific approaches this Article uses to quantify the costs.

The financial model this Article develops for Step 1 uses a spreadsheet incorporating actual and projected financial statements for a "typical" broadcaster. This spreadsheet utilizes existing data for the early years and estimates for the growth rates of revenues, costs, etc. for the later years. This Article arbitrarily relies upon a ten-year time horizon; this can easily be changed. The model has revenue and operating cost data adapted from a recent SEC filing of a publicly-held multi-station broadcaster. The data on the financial structure (long-term debt and equity) and on the capital investments are completely fictional and serve illustrative purposes only. Other data have been rounded to further disguise the source. The overall effects of the rounding are that valuation estimates are in the range of 10% to 20% higher than otherwise would be the case.

One can approach the problem of estimating the current value of past economic and policy choices in either of two ways: (1) calculate all values using prices and other data from the past and then adjust the result to the current period, or (2) calculate all values using today's prices, interest rates, and so on. This Article uses the second approach because it is easy to explain—there is little mystery as to the source of much of the data as they come from current financial statements of broadcasters and can be compared to similar publicly available information.

Since this Article only addresses changes from a base point, the specific values used in the model are less important than correctly assessing basic relationships, such as capital to revenues. Data from publicly held

broadcasters of comparable size, especially from the years under consideration, would enable one to calibrate the model. Once this calibration is done, it is completely straightforward to change the cost of long-term financing, for instance, and calculate the effects of that change on the stream of cash flows and profits over time.

Table 1: Measuring the Cost of the Economic Barrier

<table>
<thead>
<tr>
<th>Step</th>
<th>Objective</th>
<th>Approach</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Quantify the effect of the financial qualification requirements on minority broadcasters through the increase in cost of funds.</td>
<td>Develop a financial model (operations and valuation) of the archetypal broadcaster. Evaluate alternate scenarios. (See discussion below on valuation.)</td>
</tr>
<tr>
<td>2</td>
<td>Adjust for risk-adjusted higher costs to small businesses.</td>
<td>Obtain estimates from economic literature and revise financial model.</td>
</tr>
<tr>
<td>3</td>
<td>Estimate number of potential minority entrants that were excluded from the market by the requirements and calculate the economic loss resulting from that exclusion.</td>
<td>Use interviews, secondary sources, etc. Possibly, value lost equals average value of licensee in similar market times probability of obtaining license (with no financing barrier).</td>
</tr>
<tr>
<td>4</td>
<td>Adjust for lack of internally generated funds.</td>
<td>Obtain estimates from economic literature and revise financial model.</td>
</tr>
<tr>
<td>5</td>
<td>Adjust for changes in ownership structure and reduced minority interests.</td>
<td>Use interviews, secondary sources, etc., and revise financial model.</td>
</tr>
<tr>
<td>6</td>
<td>Adjust for station “quality” and market size.</td>
<td>Use interviews, secondary sources, etc., and revise financial model.</td>
</tr>
<tr>
<td>7</td>
<td>Estimate employment effects.</td>
<td>Add employment module to financial model.</td>
</tr>
</tbody>
</table>

Once those values are ascertained, convert any set of results from a flow over time to a single value. There are a number of valuation models used in estimating the market value of broadcast properties. This Article’s model shows cash-flow-based valuation approaches. If other approaches are considered more appropriate, they can be used. The “beauty” of this
approach is that, in applying the approach, one may be able to say something like: “The financial qualification requirements in the 1980s resulted in the loss of broadcasters valued at $X in the minority community. The major factors that led to this loss were Y and Z. If the minority tax certificates had not been available, the loss would have been even greater, by $W.”

All of the valuation approaches rely, directly or indirectly, on a calculation that converts future values to the present. Both the base valuation and the changes—from increased financing costs, for example—depend largely on the “discount rate” used in the calculations. Appraisals, reports from stock analysts, and trade journals should provide sufficient information to point to reasonable values. Additionally, the 1980s, the decade under consideration, was a period of fluctuating, and sometimes unusually high, interest rates. Nevertheless, the model can be adjusted accordingly.

Similarly, the model can be adjusted to reflect the problems described in Steps 2, 4, 5, and 6. In each case, changes in the appropriate entries, such as in debt/equity ratios for Step 5, can be made and the results analyzed. The problem resulting from the exclusion of potential minority entrants requires a different approach in Step 3. Here one can obtain estimates of the number of firms that failed to even seek licenses because of the financing barriers and use the model to estimate the valuation that each of those firms might have obtained.

2. Minority Broadcast Employment

It is reasonably straightforward to add an employment module to the financial model described above (Step 7). One can use the data on the differences in employment patterns for minority and non-minority broadcasters, whether aggregated for all employees or disaggregated by job classification, to estimate the dollar value of these losses to minority employees.

3. Minority Programming Practices

This is the most difficult area to analyze from an economic perspective for two, very different, reasons. First, as described above, no clear agreement exists on the degree to which ownership influences programming patterns—or even whether there is any linkage at all. Second, it is difficult to know how best to translate any difference in programming into an estimate of economic loss. To illustrate this second point, assume minority-owned stations transmit, on average, X additional hours of minority programming per week. If this minority programming were
produced entirely by minority-owned production firms, one could estimate the dollar loss to the minority community that results from not having that additional programming broadcast. If minority ownership of the applicable production companies were less than one hundred percent and one knew about the average ownership mix, one could estimate the fraction of the dollars that would have been lost. Program production is an unregulated business, however, and it is unlikely that such data are available or could even be generated on order or request of the Commission. Similarly, a complex model would be required to make use of advertising data or detailed information of listener preferences.

At this time, the best that one can do is to develop better analysis and data, building on the research described in Part III(C)(3) above, in an effort to further document the link between minority ownership and programming patterns. This also holds true for other “content” related areas, such as editorial opinions, news coverage, etc. In each of these areas, economic values to the loss in diversity, if any, cannot be assigned.

B. Sample Calculations

In this section, the financial model illustrates how one could estimate the financial loss from scenarios reflecting the policy issues described above. There are a number of assumptions common to each estimate generated. Many of these assumptions should be changed to better reflect the reality of minority broadcast ownership, but the approach should be instructive. Specifically, this Article assumes:

1. The financial model is for a hypothetical publicly held, corporate group owner of a mix of AM and FM radio stations.

2. It owns approximately one hundred stations in approximately twenty different markets and was purchased in the start-up year (in the 1990s) for $450 million.

3. These markets are in metropolitan statistical areas ("MSAs") that range from twentieth to two hundredth in population. (Of course, groups of this size did not exist in the 1980s. If one were to use data from that period, both the size of a group and its financial results would be lower. Whether this would result in a change in per-station valuations, after adjusting for inflation and changed

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50. Average purchase prices have grown considerably over the years. For example, a 1978 data compilation from the broadcasting industry demonstrated that the price for station purchases by blacks in the 1972-76 period ranged from approximately $500,000 to $1.5 million. Lawrence Soley & George Hough III, Black Ownership of Commercial Radio Stations: An Economic Evaluation, 22 J. BROAD. 455, 461 (1978). The average price paid by white purchasers for 18 stations in the top ten markets was $3.1 million. Id.
(4) All investment was made at start-up. Approximately one-half of the required funds came in the form of equity investments by owners, and the other half came from a long-term loan at 7% interest per year.

(5) Rather than worry about a loan repayment schedule or dividend policy, this Article assumes that cash accumulated over the ten-year time horizon and earned 5% on year-end balances. (More than $450 million of initial funds were obtained so that the group would maintain a positive level of cash in every year.)

(6) Revenues, operating costs, and overhead (general and administrative costs) grow at annual rates of 10%, 8%, and 6%, respectively. The starting values were taken from a filing of a publicly held group broadcaster of approximately comparable size.

(7) A number of specialized assumptions about depreciation rates and accounts payable and receivable were made. The corporate tax rate is set at 34%, and net operating loss carry-forwards are allowed.

(8) All values such as investments needed, interest rates, expected growth rates, etc., are appropriate for the period being analyzed. The valuation methods produce reasonable approximations of actual market values. This Article assumes a "required" return on equity of 25% and uses two valuation methods that differ in their treatment of "terminal values," and then averages the two results.

The above assumptions lead to a base case valuation of $437 million, or just under $4.4 million per station in today's dollars. In other words, an equity investment of $250 million allows the ownership of broadcasting properties worth $437 million, but a loan of $240 million remains to be repaid. Note that the valuation approaches, but does not equal, the assumed investment of $450 million in the stations. The difference may be viewed as indicative of the fact that rarely would a theoretical valuation match the market price one actually has to pay.

1. Scenario 1: Weak Barrier to Entry

In this scenario, the model assumes that minority broadcasters must pay higher interest rates to obtain long-term debt financing, but no other changes are necessary. In other words, there are no changes in capital structure, no additional loan origination fees, etc., and the model ignores the question whether the loan was somehow more risky. Specifically, the interest on the long-term debt increased by one percentage point, to 8%
annually. The “weighted average cost of capital” also changes. The new valuation is $393 million. In arriving at this result, one does not have to distinguish between higher interest rates from illegal discrimination by lenders and higher rates that result from the increased risk in lending to minority enterprises. In either case, there is a quantifiable loss. In other words, the one percentage point increase in external financing costs alone leads to each station losing approximately $440,000 in value, or just over 10% of its original value.

2. Scenario 2: Strong Barrier to Entry

Every station comparable to the “average” station in the original group of 100 has a value of approximately $4.4 million under the original assumptions. If the lack of available funds reduces the number of minority-owned stations by some number, say N, the loss of economic value to the minority community is approximately $(4.4 \times N)$ million. This estimate ignores any additional losses to the community, such as what might occur if non-minority broadcasters hire fewer minority employees.

3. Scenario 3: Value of Minority Tax Certificates

Assume that the base case start-up investment cost of $450 million came about from use of a minority tax certificate. In other words, the “true” market value is approximately $600 million, as the use of the certificate is conditioned on minorities being able to purchase the properties at 75% or less of market value. The exact value of this discount depends on the sources and costs of the additional funding. To take just two of the possible cases, assume the additional $150 million comes from either (a) all debt financing, or (b) a 50-50 mix of debt and equity. In either case, the business must be viewed as more risky—profit rates will decline and additional debt will be incurred. Therefore, we adjust the interest rate on loans to 8% (from the base case of 7%) and the required return on equity to 30% (up from 25%). The valuation now drops to $290 million in (a) and to $286 million in (b). Despite the fact that the new owner had to pay $150 million more for the stations than with the minority tax certificate, the stations have lost approximately one-third of their value from the base case. The deterioration is so severe that, to their new owners, they are actually only worth approximately 65% of their original “market” value. Whether this is realistic depends, of course, on exactly what happens to the costs of funds, considering both the long-term debt from lenders and the equity funds from the owners. (If the higher cost prevented the transaction from being undertaken, the loss to the minority community would be the full value of the license.)
C. Summary of Calculations

Remember that the station financial model in each scenario is based in current dollars. If desired, each of the scenarios above could be refined and calibrated to the historical situation of the 1980s and the results converted to today’s prices. Nevertheless, the results, summarized in Table 2, demonstrate that the approach described above can produce useful estimates of the losses that result from barriers to the entry of minority firms into the ranks of this nation’s broadcasters.

Table 2: Summary of Calculations

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Major Changes</th>
<th>Valuation (per station)</th>
<th>Change from Base Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Case</td>
<td>—</td>
<td>$4.37 million</td>
<td>—</td>
</tr>
<tr>
<td>1</td>
<td>Increased cost of L-T Debt</td>
<td>$3.93 million</td>
<td>($0.44 million)</td>
</tr>
<tr>
<td>2</td>
<td>No entry</td>
<td>Varies</td>
<td>($4.37 million per station “lost”)</td>
</tr>
<tr>
<td>3</td>
<td>No minority tax certificate</td>
<td>(a) $2.90 million</td>
<td>(a) ($1.47 million)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b) $2.86 million</td>
<td>(b) ($1.51 million)</td>
</tr>
</tbody>
</table>

V. CONCLUSION

This Article develops a financial model of an archetypal radio broadcast group that enables the estimation of the value of an individual broadcast property and to the calculation of the effects of various practices and policies on that value. The logic is straightforward: if a certain practice (e.g., discrimination in lending) or policy (e.g., discontinuation of minority tax certificates) raises the cost to the entrant, it removes wealth from the minority community. Regardless of whether the original effect occurs all at once or over several years, as in the case of higher interest rates, the change in wealth is measured in dollars as a lump sum. For example, the hypothetical data found that an increase in the interest rate for the long-term loan at start-up led to a value reduction of approximately $440,000 per station at today’s prices. Using a similar approach, the model demonstrated that discontinuation of the minority tax certificate program results in a loss of value of approximately $1.5 million for each station transfer that is effected (again, in current dollars).

This Article addressed two other questions in addition to the effects of barriers to entry on the determination of value. The effects of barriers on
employment can be measured within the framework provided here, although this Article does not show any sample calculations. It is likely that the largest portion of these effects will result from the "strong" barrier cases. If minority groups cannot acquire stations because of the lack of funding, the composition of the workforce does not change.

The third area this Article investigated related to programming. The analysis was unable to incorporate changes in programming for two reasons: (1) the linkage between ownership and programming is uncertain at best, and (2) there is no useful approach to convert changes in programming into changes in wealth.