



5-1999

A fight for survival : LPTV in Tennessee

Stephen D. Ruf

Follow this and additional works at: https://trace.tennessee.edu/utk_gradthes

Recommended Citation

Ruf, Stephen D., "A fight for survival : LPTV in Tennessee. " Master's Thesis, University of Tennessee, 1999.
https://trace.tennessee.edu/utk_gradthes/10004

This Thesis is brought to you for free and open access by the Graduate School at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Masters Theses by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.

To the Graduate Council:

I am submitting herewith a thesis written by Stephen D. Ruf entitled "A fight for survival : LPTV in Tennessee." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Communication.

Herbert H. Howard, Major Professor

We have read this thesis and recommend its acceptance:

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

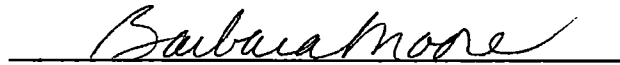
(Original signatures are on file with official student records.)

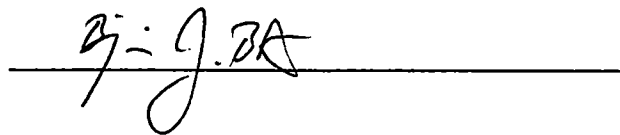
To the Graduate Council:

I am submitting herewith a thesis written by Stephen D. Ruf entitled "A Fight for Survival: LPTV in Tennessee." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Communications.


Herbert H. Howard, Major Professor

We have read this thesis
and recommend its acceptance:





Accepted for the Council:


Associate Vice Chancellor and
Dean of The Graduate School

A Fight for Survival: LPTV in Tennessee

A Thesis
Presented for the
Master of Science
Degree
The University of Tennessee, Knoxville

Stephen D. Ruf
May 1999

Copyright Stephen D. Ruf, 1999
All rights reserved

DEDICATION

This thesis is dedicated to my wife

Jodi VandeVere Ruf

and

to my children

Sarah Rachelle Ruf

and

Amanda Jo Ruf

for their love, patience and understanding.

Abstract

This study was designed to shed light on the little known low power television industry in Tennessee. A total of 56 LPTV stations were identified in Tennessee and border areas, using FCC sources and trade directories. A telephone survey was composed and interviews were completed with the owners and/or managers of 42 stations for a response rate of 75 percent.

The study documents how the FCC's allotment of new digital television frequencies is displacing Tennessee LPTVs. The survey shows 47 percent of the state's LPTV stations will be forced to relocate to other channels. A majority of owners estimate the cost of displacement will range from \$25,000 to \$100,000. A strong majority of owners, 81 percent, favor "Class A" status as proposed by the Community Broadcasters Association.

Among other major findings, about half the station owners were headquartered in the same market, an important benchmark to watch in future studies. Thirty-eight percent of Tennessee stations provided some kind of local programming, a surprisingly low number when compared to previous national studies. Local programming was a prominent characteristic of stations that achieved cable carriage, which can substantially increase a station's viewer base. But only 39 percent of stations were carried on cable, perhaps as a consequence of the low level of local programming. In national studies, the LPTV carriage rate has been reported as high as 63 percent. LPTVs in Tennessee that produced a local newscast enjoyed a high cable carriage rate of 85 percent.

The financial health of the state's LPTV industry appears uncertain. Seventy-five percent of the stations reported annual revenues were less than \$50,000 last year. Of the 37 stations that identified themselves as commercial, 32 percent reported making a profit last quarter. Thirty-five percent reported they had not earned a profit. The rest did not give an answer. About a third of the stations reported revenues were up last year. A slightly smaller

percentage said revenues were either flat or decreasing. Again, the rest did not answer. A total of 190 people either work full, part-time, or volunteer in the total number of stations surveyed.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.....	1
II. HISTORY OF LPTV.....	11
III. REVIEW OF THE LITERATURE.....	42
IV. METHODS AND PROCEDURES.....	57
V. RESULTS.....	63
VI. STATION PROFILES.....	82
VII. DISCUSSION.....	88
VIII. SUMMARY AND CONCLUSIONS.....	97
REFERENCES.....	104
APPENDICES.....	113
VITA.....	123

LIST OF TABLES

TABLE	PAGE
1. Tennessee Minority-Owned LPTV Stations.....	68
2. LPTV Station Clusters in Tennessee Markets.....	69
3. Tennessee LPTV Station Programming.....	73
4. Comparison of Revenue Between Stations With and Without Local Programming.....	75
5. A Revenue Comparison of Locally Owned and Non-Locally Owned LPTV Stations.....	78
6. A Revenue Comparison of LPTV Stations On and Off Cable.....	79
7. Comparison of Three LPTV Operations.....	83
Appendix B List of LPTV Stations.....	120

LIST OF FIGURES

FIGURE	PAGE
1. DTV Impact on Tennessee LPTVs.....	64
2. Support for "Class A".....	65
3. Tennessee LPTV Ownership.....	67
4. Average Number of Programming Hours per Week.....	73
5. Tennessee LPTV Profitability.....	77

CHAPTER I

INTRODUCTION

There are more low power television stations in the United States than there are full-powered stations ("By The Numbers", 1998). Yet, ask a person on the street what a low power TV (LPTV) station is, and few could supply an answer. The American viewing public does not care about the manner of a signal's technical delivery, it just wants to know what's on TV tonight. That is one reason why low power television has remained in the shadow of full-powered stations. This investigation will shed light on the status of low power television in Tennessee: how these stations originated, what they are doing now, and how they hope to survive in the digital age.

The Federal Communications Commission (FCC) created LPTV to diversify programming for viewers and to offer TV service in markets where none had existed before (FCC Final Rules, 1982). At first, this new low-cost technology appeared to be a good way to open the door for groups or individuals who previously had been shut out of broadcast television. Even though LPTV stations could broadcast only to a small 5-15 mile coverage area, they were seen as an economical way to serve remote rural communities and urban ethnic enclaves with news and advertising.

From the start, however, LPTV was hurt by its own sudden popularity among would-be licensees and what critics charge were poor policy decisions by the FCC. Still, more than 15 years later, the number of LPTVs continues to grow. A select group of owners has overcome market and regulatory barriers to produce local programming for a niche audience. Other LPTVs would like to do community news, but managers worry whether it could be profitable.

LPTV owners face another problem. The FCC considers LPTV a secondary service, therefore, expendable to make way for new digital television frequencies. Low power stations are being forced to step aside to allow new, digital, full power stations to broadcast superior sound and high-resolution video. Government regulators have promised to keep spectrum available for LPTV. Beyond that, there is proposed legislation (The Community Broadcasting Protection Act) and an FCC petition for rulemaking that would give some LPTV stations primary or "Class A" status, which would protect them against further displacement.

Justification of the Study

Tennessee has the largest number of LPTV stations in the South, yet little or no research exists on the state's LPTV industry. This study will mark the first known attempt to measure the impact of new FCC regulations forcing some Tennessee LPTV stations to abandon their current channels to make room for full-powered digital TV stations. According to this study, at least 20 Tennessee LPTVs have been put on notice they will be displaced and forced to apply for new channels, thus causing an economic hardship on the broadcaster.

Tennessee LPTV broadcasters also want to know how they can compete with increased cable penetration, Direct Broadcast Satellite (DBS), and other broadband-to-the-home technologies that are on the horizon. Research in this area is needed to help the LPTV industry know what programming options are working and which ones are not. This study will attempt to identify regional trends and model stations that could demonstrate successful strategies available to LPTV owners. That is important to rural Tennessee communities, where LPTVs provide local information found nowhere else over the air. Even non-Tennessee LPTV owners may benefit from this research since they must stay competitive if they expect a return on their investment. The results of this study could also be helpful to

LPTV policy makers because it will measure the level of industry support for proposed changes in FCC regulations that would establish a "Class A" for LPTV stations.

Earlier this year, Dr. Mark Banks of Slippery Rock University (Pennsylvania) conducted a nationwide survey of LPTV stations. However, his sample included only a small fraction of Tennessee stations. By design, the survey instrument in this study is similar to the Banks survey so that national results can be compared to conditions in the Volunteer State.

Statement of the Problem

The problem to be investigated is Tennessee's virtually unknown LPTV industry. Besides the impact of new digital television frequencies, this study will attempt to identify the percentage of locally-owned LPTVs and the number that are providing locally-produced programming to their communities of license. Nationally, a growing number are owned and operated by out-of-state interests as part of religious or home shopping networks. This trend defies the original FCC intent of establishing LPTV to help underserved communities by promoting diversity of ownership and localism.

Another aim of this research is to measure the financial health of Tennessee LPTV stations, particularly those operating as local commercial stations. And finally, as a result of the data collected, the study will attempt to analyze whether or not Tennessee LPTVs with local programming generate more income than stations without local programming.

Purpose of the Study and Research Questions

There are more than 50 licensed LPTV stations in Tennessee (Broadcasting and Cable Yearbook, 1998), yet very little is known about their existence. The purpose of the study is to investigate the current status of the Tennessee LPTV industry. The status will be revealed through the following research questions.

I. To what extent has the FCC's digital television policy affected Tennessee LPTVs?

- A. How many stations are being forced to apply for new frequencies because of digital displacement?
- B. What level of economic burden will frequency relocation place on the average station?
- C. What are Tennessee LPTV owners' options and attitudes about attempts to create a new protected class of LPTV stations?
- D. How many Tennessee LPTV stations have initiated local programming to qualify for primary status under the proposed Community Broadcasting Protection Act?

II. Who owns Tennessee LPTVs?

- A. How many stations are owned locally and how many by out-of-market interests?
- B. How many Tennessee LPTVs are minority owned? (The FCC created LPTV to encourage minority ownership).
- C. Is there evidence of multiple-ownership or mini-LPTV networks within markets?

III. What kind of programming is aired on Tennessee LPTV stations?

- A. Of the 50 or more licensed LPTVs in Tennessee, how many are actually on-the-air?
- B. How many stations only rebroadcast programming from a another TV station or a satellite network?
- C. How many carry primarily shopping or religious programming?
- D. How many Tennessee LPTV stations produce local programming?
 1. How much?
 2. What kind?

IV. What is the financial health of the Tennessee LPTV industry?

- A. Are Tennessee LPTVs profitable as a class?
- B. Since cable carriage is important to the success of many TV stations, what percentage of Tennessee LPTVs is carried by a local cable system?
 1. Does cable carriage correlate with financial success?

2. How many of these stations are carried under the FCC's must-carry rule?
(For FCC LPTV must-carry rules see chapter II, page 20)
3. How many employees (cumulative and average station) work for Tennessee LPTVs?

Definition of Terms

The following definitions of terms are used in this study. Those marked by an asterisk are from the FCC's *A Glossary of Telecommunication Terms* (1998).

Affiliate*

A broadcast station that airs a network's programs and commercials, but is not owned by that network.

Analog*

Analog is "shorthand" for the word analogous, which means similar to. The signal being sent--voice or video--is sent as a stream of changing radio waves and is similar to what is received.

CBA

The Community Broadcasters Association, the primary trade association of the low power television industry.

"Class A" Status

A new class of LPTV station as proposed by the Community Broadcasters Association and some members of Congress. The designation would offer LPTV stations the same license term and renewal standards as a full power station. To qualify, an LPTV station would have to meet certain minimum standards including local programming.

Construction Permit

Awarded by the FCC, the permit gives the applicant a specific time period by which the applicant must construct and put a usable signal on the air.

Digital*

Any type of information that can be output, transmitted and interpreted as individual bits of binary information (the use of the numbers 0 and 1), using electrical or electromagnetic signals that can be modulated to convey their specific content.

Digital Television (DTV)

An advanced form of television broadcasting that uses digital technology to obtain higher resolution. Using compression, multiple video signals can be squeezed onto an existing TV channel.

Direct Broadcast Satellite (DBS)*

A high-powered satellite that transmits or retransmits signals which are intended for direct reception by the public on small dishes mounted on homes or buildings.

Displacement Frequency

A new frequency awarded to a LPTV station, if it can show the FCC its current frequency interferes with the broadcast of full-powered TV station.

DMA

Designated Market Area is a term used by Nielson Media Research to define one or more counties that make up a local television market.

HDTV*

An improved television system which provides approximately twice the vertical and horizontal resolution of the existing television standards. It also uses a wider screen aspect ratio than standard TV.

Localism

A concept pushed by LPTV advocates to encourage broadcast stations to serve local communities with locally produced programming.

Low Power Television Service (LPTV)*

A broadcast service that permits program origination, subscription service, or both via low power television translators. The Low Power Television Service includes the existing translator service and operates on a secondary basis to regular television stations. Transmitter output is limited to 1000 watts for a UHF station, 10 watts for a normal VHF station, and 100 watts when VHF operation is on an allocated channel.

Must Carry (retransmission)*

A term from the 1992 Cable Act, it refers to a cable system's mandatory signal carriage of both commercial and noncommercial television broadcast stations that are "local" to the area served by the cable system.

Multiple System Operator*

A company that operates more than one cable TV system.

Notice of Inquiry (NOI)*

An FCC term that means fact gathering or a way to seek comments from the public or industry on a specific issue.

Notice of Proposed Rulemaking (NPRM)*

An NPRM is adopted by FCC commissioners to detail proposed changes to FCC rules and to seek public comment on these proposals.

Report and Order (R&O)*

An FCC term. After considering comments and reply comments to Notices of Inquiry or Notices of Proposed Rulemakings, the FCC may issue a Report and Order amending the rules or deciding not to do so. Summaries of the R&Os are published in the Federal Register.

Secondary Service

An FCC term meaning the service must not interfere with a primary service or risk being shut down immediately. LPTV remains a secondary service to full power television.

Spectrum*

The range of electromagnetic radio frequencies used in the transmission of sound, data, and television.

Spectrum Auction*

A public sale of spectrum space in which the price is increased by bids until the highest bidder becomes the purchaser. The U.S. Treasury receives all profits from the FCC spectrum auctions.

Subscription Television (STV)*

A special service providing additional programs in encoded form to television viewers who pay a monthly rate.

Tennessee LPTV Stations

As defined for this study, those LPTV stations licensed to communities in Tennessee or those stations licensed to border towns whose signal crosses state boundaries and is watched by Tennessee households.

Terrain Shielding

When broadcasters can claim that potential interference to a nearby station is blocked because of geographic barriers. The FCC now accepts terrain shielding as an argument broadcasters can use to maintain higher power levels or maintain an adjacent frequency with another station.

Translator

A low-powered TV transmitter usually used to send a signal into an area with poor reception (Gross, 1997, p. 426). Frequently used by full power stations to serve fringe areas.

UHF*

The part of the radio spectrum from 300 to 3000 megahertz which includes TV channels 14-83, as well as many land mobile and satellite services.

VHF*

The part of the radio spectrum from 30 to 300 megahertz which includes TV channels 2-13, the FM broadcast band, and some marine, aviation and land mobile services.

Limitations/Delimitations of the Study

While the issues that face Tennessee broadcasters are indeed ones that face all LPTV owners, this study is delimited to Tennessee stations and those that service markets in Tennessee for reasons of manageability. The universe was compiled from a number of sources including the latest FCC database available on its website, information supplied by the Community Broadcasters Association, the 1998 edition of the Television and Cable Factbook, and the 1998 Broadcasting & Cable Yearbook. The study also faced limitations since past researchers have reported difficulty in finding working telephone numbers that represent these stations/owners (Banks, 1990, 1994). As a result, not every Tennessee low power station was represented in the sample.

The telephone survey sample used for statistical analysis was restricted to the participants, mainly LPTV owners and/or operators, who volunteered to complete telephone interviews. The study is also limited in scope because some owners or managers would not discuss proprietary information on the phone with an unknown interviewer.

Plan of Organization

This research is divided into six chapters.

Chapter I provides a brief introduction, statement of the problem, justification of the study, purpose of the study, research questions, definition of terms, limitations/delimitations, and a plan of organization.

Chapter II presents a history of low power television based on FCC regulatory actions and how they have affected the industry nationwide. It also includes the latest attempt by some members of Congress to legislate protection for certain LPTV stations.

Chapter III reviews the literature on low power television drawing from law reviews, journal articles, industry-sponsored research and published dissertations and theses.

Chapter IV outlines the survey and other methods used to obtain primary data for this study.

Chapter V presents the survey results.

Chapter VI profiles three LPTV station groups that were selected for their financial and programming success.

Chapter VII offers discussion and analysis of the survey results and station profiles.

Chapter VIII contains a summary, major findings and conclusions of the research, implications, recommendations for further research, and limitations of the study.

CHAPTER II

A HISTORY OF LPTV

Each weekday morning 72-year-old Sarah Evetts broadcasts a one-hour talk show called "Coffee with Granny." (Hardy, 1998) It airs on W10BV in Etheridge, Tennessee, a town of about 538 people, 90 miles south of Nashville. Evetts told the *Wall Street Journal* her show features "whoever wants to show up and some who show up more than I want them to."

Granny Evetts' station is perhaps the epitome of what FCC Commissioners envisioned when they authorized the first low power television station in 1981. The technology itself is nearly as old as Granny Evetts. As television grew in popularity during the 1950s, most stations signed on in big cities where they would be the most profitable. This left rural areas without the exciting new technology that everyone was talking about. Farmers and ranchers came up with a solution: a translator that could receive a station's signal and then amplify and rebroadcast it simultaneously on a different channel (Kendrick, 1983). It provided residents of isolated communities with good reception within a 5-20 mile radius of the translator.

The first translators were developed in the late 1940s. They were especially popular in the West where small isolated communities were often separated by mountains. In the beginning, the FCC did not have a policy governing translators. They were, in effect, illegal. In the 50s, the FCC tried its best to discourage these devices because officials worried that translators would cause signal interference with authorized communications (Atkin, 1987). The FCC tried shutting some down, but citizens complained to their senators and congressman who intervened and kept the FCC at bay (p. 359). By the mid-1950s, 1,000 translators, mostly in the rural West, were operating "extra legal" with no

license from the FCC (Carey, 1983). The FCC realized it could exercise more control by legitimizing a translator service.

In 1956, the FCC, still concerned about interference, finally authorized broadcasts but only on the upper 14 Channels (70-83) of the UHF band, using no more than ten watts of power. (Fed. Reg. 21, p. 3680). Two years later, maximum power was increased to 100 watts, but translators were still strictly confined to rebroadcasting a signal from a full-powered station. Raising revenue through advertising or subscription fees was forbidden (Fed. Reg. 23, p. 9141-9141).

In the 60s, the FCC expanded its role by licensing VHF booster stations and granting the first of many waivers to local translator operators seeking to originate their own programming. In 1966, the FCC authorized the Board of Cooperative Educational Services in New York State to tape incoming programs from various sources and rebroadcast them later in a mixed format (Carey, 1983). In 1968, the FCC once again increased power levels, allowing UHF translators to broadcast up to 1000 watts and to originate a limited number of local slides and voice announcements to solicit financial support (13 FCC 2nd, p. 305). In Alaska, remote villages were allowed to build translators fed locally with video tape cassettes supplied by various Alaskan television stations. This later evolved into a large network of LPTVs serving rural Alaska (FCC NOI, 1978). Word of LPTV's success in Alaska spread down to the lower 48 and forced the issue of low power onto the national agenda (Atkin, 1987).

FCC Notice of Inquiry

During the 70s, pressure continued to mount on the FCC to expand television service in remote, rural areas. Citizens testified before Congress, think tanks issued reports, all called for some kind of new class of program-originating station (Keefer, 1991, p. 81). By 1978, FCC Chairman Charles Ferris was ready to launch the low power

crusade. The Commission issued a Notice of Inquiry (NOI) into the Future Role of Low-Power Broadcasting and Television (68 FCC 2nd, p. 1525). The inquiry was to determine if low power technology could improve service to underserved communities and diversify programming and ownership. Public comment and feedback would be used in the Commission's decision-making process on whether to create a new service of TV stations that could not only rebroadcast like translators but also originate local programming. The Commission staff wrote, "It seems apparent, from the wealth of 'rural TV' and other proposals which recently have appeared on the scene, that there is a renewed and expanded interest in translator and low power origination" (FCC NOI, 1978, pp. 1527-1530).

The FCC had several concerns before launching a new service:

- 1) What were the economics of operating a low power TV station?
- 2) What incentives were available to encourage investment and potential revenue sources available to sustain operation?
- 3) What would be the potential impact on the VHF-UHF spectrum?
- 4) What would be the potential impact on cable and primary TV stations?
- 5) What would be the impact on the FCC's own resources to handle such a service? (FCC NOI, 1978, p. 1529).

The Commission also wanted input on how LPTV could "relate to and foster the concepts of programming 'localism' and program diversity" (p. 1532). The comments and replies started flowing into Washington. This was a radical idea; "the FCC was entertaining the possibility of licensing the first major new broadcast service since the introduction of television some thirty years before" (Kendrick, 1983, p. 234).

Notice of Proposed Rulemaking

Two years later in September of 1980, the FCC staff completed its job of processing the public comments and released a Notice of Proposed Rulemaking (NPRM). Michael Couzens, an FCC staff attorney who helped draft the report, later told researcher

Janet Keefer that every attempt was made to address problems or complaints in the NPRM.

In other words "to defang the opposition."

The proposal was designed politically to put together a motherhood coalition--minority ownership, rural America, Alaska, enhanced competition. The rural operator would benefit from getting the regulators off their backs. And large markets would get additional service. We wanted to load the thing up at the outset so it would be clear what the direction would be (Keefer, 1991, p. 85).

It was the intent of the FCC to graft the new LPTV rules onto its original translator service, but in so doing it would permanently cast LPTV as "secondary" to full power broadcasters (FCC NPRM, 1980, p. 69179). Secondary status was a two-edged sword. On one hand, LPTV stations must yield to primary or full-power stations (FPTV) in the event of signal interference. For instance, interference caused by a low-power station to either an existing or later-licensed FPTV would cause the FCC to order the LPTV to cease and desist or be shut down (FCC NPRM, 1980, para. 54). That could mean a low power station might lose its license if a new FPTV is licensed in an area where the LPTV causes interference. In major cities where the spectrum is crowded, that could mean a permanent loss. It was less of a problem in rural areas, where LPTVs could likely find another channel (Carey, 1983, p. 3).

But secondary service also meant more relaxed technical standards and a set of liberalized rules regarding ownership. The rules basically allowed unlimited multiple ownership and did away with requirements such as ascertainment or maintaining a studio. The Commission hoped by making the rules less bureaucratic, LPTV stations could start sooner and be far less costly to own and operate. This would also make it easier for minorities and first-time broadcasters to get on the air (Kersey, 1995).

Up to that time, the FCC had limited local origination from translators to emergency warnings and no more than 30-seconds per hour for fundraising. But under the proposed

rules, LPTVs would be allowed to originate unlimited local programming. However, local origination wasn't required; LPTVs could simply rebroadcast a local FPTV or satellite-delivered program. There were no restrictions on a station's method of financial support. It could sell advertising, solicit donations, even charge monthly fees for an encrypted subscription television service (FCC NPRM, 1980, p. 69179).

In the NPRM, the FCC explained that a combination of technical factors had convinced it that it was time for "a re-evaluation of the role of low-power technology." The Commission cited the following developments:

- Low cost portable videotape players as used by the mini-TV stations in Alaska.
- Satellite-delivered signals which provide reliable low cost program interconnection services.
- FM microwave feeds from any suitable source (p. 69181).

FCC Chairman Charles Ferris called the proposed rules "highly innovative." He said the reduced cost and ability to narrowcast to a target audience would "attract a new breed of broadcaster, and broadcast networks, that are priced out of TV today" (p. 69191). A more sobering, although concurring, statement was offered by Commissioner Robert E. Lee. "I am concerned that potential applicants for low-power stations have not been alerted adequately to the prospect that such stations may exhibit *very limited service areas* due to interference from regular stations....It certainly isn't going to be a license to print money" (p. 69191).

When the FCC released the NPRM, it also announced that effective immediately it would start accepting LPTV applications, pending approval of the Final Rule. Translator operators who wanted to upgrade to LPTV status could just send in the paperwork. The National Association of Broadcasters (NAB) and the Corporation for Public Broadcasting (CPB) strongly objected on grounds the FCC was presuming that the proposed rules

would be accepted ("FCC Petitioned," 1980). Couzens said the "interim processing" idea was another premeditated tactic to ensure LPTV would survive its enemies like the NAB.

To make doubly sure that there were applicants, I collected mailing lists and worked into the nights copying information packets. We figured that if enough people showed up demanding licenses LPTV would have a political cheering section--overnight ("Couzens, 1985, p. 32).

An Avalanche of Applications

The deluge of applications was far beyond what Couzens or the FCC had anticipated. During the first five months the Commission received more than 5,000 applications for new LPTV stations. A large portion of applicants was from the corporate sector. Sears, Roebuck & Co., through its Allstate Insurance subsidiary, filed 140 applications in cities across the country in efforts to start a national country music network called Neighborhood TV. The Southern Baptist Convention filed 120 applications in hopes of establishing the American Christian Television Service (Isenberg, 1981).

Some believe the decision to open the door to "interim processing" of applications was premature. Looking back four years later, Roy Stewart, the FCC's Video Services chief said, "If we made one mistake, it was inviting the applications before we had a set of rules" ("LPTV west," 1984). Others saw the rush to invite applicants as more political. Atkin said the Carter-appointed FCC may have wanted to ensure LPTV would survive under the Reagan administration.

[FCC Chairman] Ferris knew that, once public interest had been piqued and stations actually licensed, no succeeding administration could feasibly stop the progress of LPTV--at least not without facing serious political consequences (Atkin, 1987, p. 360).

To cope with the avalanche of applications, the FCC imposed a freeze on the acceptance of new applications in April of 1981 (Fed. Reg. 46, 1981, p. 2602). The only

exception was for applicants from rural areas (Berkowitz, 1984). Most of the applications were for licenses in major markets and/or were mutually exclusive with each other (Biel, 1985). Whenever there was more than one applicant for a license, the FCC practice was to hold comparative hearings to determine the more eligible candidate. But this time-consuming process would not work with so many applicants. The FCC asked Congress for relief.

Senators were also hearing complaints from anxious citizens. Thanks to a lobbying effort by Senators Orin Hatch of Utah, Barry Goldwater of Arizona, and Paul Laxalt of Nevada, Congress approved \$10-million in the 1982 budget to help the FCC start licensing stations (Atkin, p. 360). Included was a measure that would allow the FCC to use lotteries to determine applicant preferences in hopes of speeding up the process. Congress gave the FCC 180 days to come up with a lottery to give "significant preferences to groups and organizations that are underrepresented in the ownership of telecommunication facilities" (PL No. 91-35 1242a, 1981).

On the last day of the 180 days, the FCC voted 5-1 to reject the lottery. The Commission said it was impossible to implement without a specific determination of what Congress meant by "underrepresented groups" (Keefer, 1991, p. 97). Congress went back and passed another amendment to the Communications Act, which required the FCC to grant comparative preferences for only two categories: minority ownership and diversity of ownership (PL 97-259, 1982). This gave the Commission the authority it needed and a lottery system was adopted in March of 1983.

The Final Rule

When the FCC issued its Report and Order for LPTV in March of 1982 (FCC Report & Order, Final Rule, Fed. Reg. 47, p. 21468), the backlog of applications for stations had grown to more than 6,000 and the freeze was still on ("Television," 1982).

The landmark Final Rule, under Reagan's newly appointed FCC Chairman Mark Fowler, had a distinctive laissez-faire tone.

"It is likely that low-power stations will have to be very directly responsive to the interests of local consumers to assure economic viability.... We are reluctant to mandate the particular kinds and amounts of programming to be aired, substituting our decision for market mechanisms"
(FCC Final Rule, 1982, p. 21470).

The rules spelled out the goals of the new LPTV service which had been articulated by several groups before:

- 1) The potential importance of the low power service to telecommunications,
- 2) The possibilities for additional local television outlets providing local service,
- 3) The potential for additional minority-owned and non-commercial stations,
- 4) The possibility for increased programming for specialized audiences such as children and the elderly and the potential for more diverse television service nationally (Final Rule, p. 21512).

The Final Rule included many of the proposed rules in the NPRM. Low power stations were authorized on any VHF (2-13) or UHF Channel (14-69). Power was limited to ten watts for VHF and 1000 watts for UHF. Several ideas floated in the original NPRM were dropped from the Final Rule. Initially the Commission had proposed to apply duopoly and "one-to-a-market" rules which also applied to radio and full-power television. But under the Final Rule, citizens could own as many stations in a given market or nationally as they wanted. Even the three major networks could now own LPTVs, something the NPRM had banned (Final Rule, p. 21,488).

There were other full power TV rules that did not apply to LPTV stations. There was no requirement to ascertain community needs, operate for certain lengths of time, maintain public files, maintain program logs, provide local or public affairs programming,

or limit commercial time. For all of the FCC's talk about the goals and ideals of local programming and service, there were no rules to enforce them. Ten years later, researcher Janet Keefer (1991) observed:

The LPTV rulemaking of 1982 was an example of marketplace model of broadcast regulation. The Commission did not require TV stations to advance the goals of either localism or diversity, preferring instead to let free-market forces determine the nature of the LPTV programming that appears (p. 60).

However LPTV licensees did have to comply with existing laws covering obscenity, plugola, payola, broadcast of lottery information, the Fairness Doctrine, Equal Time, Personal Attack (as it relates to local origination), copyright, EEO, and Emergency Broadcast System regulations. LPTV owners who were awarded construction permits (CPs) had one year to get stations on the air. There was also a one-year anti-trafficking rule, which meant a station could not be bought or sold for one year after the license had been awarded.

Facing a huge backlog of applications, the FCC adopted a tier structure to help prioritize applicants. The three tiers were defined in market size as follows:

Tier I: Applications proposing to locate the transmitting antenna more than 55 miles from all cities in the 212 ranked TV markets.

Tier II: Applications proposing to locate the transmitting antenna more than 55 miles from all cities in markets 1 through 100.

Tier III: Applications proposing to locate the transmitting antenna within 55 miles of a city in markets 1 through 100.
(Final Rule, p. 21526)

Applications in Tier I were given top priority because they were already exempt from the April 1981 freeze. Only after processing of Tier I applications was complete, did the staff start working on Tier II applications. Tier III applicants, those in the bigger cities, had to wait until all the rural and semi-rural applications were processed (Kendrick, 1983, p. 242).

FCC Adopts Lottery

In March 1983, the Commission handed down a Second Report & Order (Fed. Reg. 48, p. 21478), finally adopting rules to permit the use of a lottery to replace the lengthy comparative hearing process. Under this system certain applicants were given a preference or weight before the actual drawing, but this did not automatically control the result. The preferences were awarded as follows:

- A 2 to 1 preference was given to LPTV applicants that are more than 50 percent owned or controlled by minority interests. By statute, minorities were defined as Blacks, Hispanics, American Indians, Alaskan natives, Asians and Pacific Islanders.
- License applicants whose owners controlled no other forms of mass media (including daily newspapers) were awarded a 2 to 1 preference.
- Applicants who controlled one to three other mass media outlets were awarded a 1.5 to 1 advantage (Second Report & Order, FCC 2nd 952, 1983).

Minority and diversity preferences could be pooled so that an applicant(s) who is both a minority and owns no other media properties could receive a 4 to 1 preference in the lottery. The preferences appeared to work. "In the first lottery, held during late 1983, eight out of 23 license "winners" were minority-owned; there were minority applicants in 12 of the 23 contests" (Atkin, 1987, p. 366-367).

Even though there was an official freeze, the FCC was still being flooded with applications. By 1983, 12,000 LPTV applications were on file. To stem the tide, the Commission implemented a cut-off list. Biel (1985) described it this way:

Each application received by the Commission is placed on an "A" list that was published. The list includes deadline dates by which other applicants can file for that same frequency. Once the deadline passes, the FCC will publish a second or "B" list that would include the original and any additional applicants. If there was competition, a lottery would be scheduled. (p. 16).

But the cut-off list was short-lived because it was so time-consuming. The FCC staff not

only had to check each application to see if the applicant was financially sound and met all the technical requirements, the staff also had to determine if any competing applications had been filed.

When the Commission issued its Third Report & Order in October of 1984, it did away with the cut-off list and replaced it with a "filing" window (FCC 2nd 102, p. 295). Each five-day window was announced at least 30 days in advance and specified the geographic region that was eligible. Applications were made available for public inspection after the five-day period. If no objections were made to the application, the applicant was then placed on a proposed grant list or placed in the lottery, if there were several other mutually exclusive applications that were filed during the same window (White, 1992, p. 45). The 1984 Report & Order also eliminated the financial capability requirement where applicants had to show proof they had the financial resources to build a station. Instead, the Commission said it would strictly enforce the limits of its one-year construction period for permit holders. Later in 1986, the deadline was extended to 18 months (White, 1992).

A Sluggish Start

By the mid 80s, the financial promise of low power television appeared bleak. A marketing consultant told station owners gathered at the National Institute for Low Power Television in Washington, "We project that a relatively small percentage, 25 percent to 30 percent of all LPTV stations will have a profitable operation after the first five years" ("Low Power TV stations," 1983).

Other industry consultants urged owners to focus on local programming in light of the stiff competition from cable and DBS. A study by Mark Wyche and Darcy Stamler (1983) recommended LPTV stations avoid duplicating formats of full-power broadcasters.

The LPTV operator needs to develop programming which is unique and local in character, in order to create a demand for the service within

the community. By creating local demand, local cable systems in rural areas will be inclined to carry the new LPTV station. Similarly, in the urban areas, LPTV operations which appeal to a specific ethnic or special interest group could possibly carve a niche within an urban market (Wyche and Stamler, 1983, p. 31).

LPTV consultant Paul Bortz told owners, "It's particularly important in urban areas to put together LPTV clusters. With four or five low-power services sold collectively...the odds of success will increase" ("Low power television, 1982). Another consultant urged operators to take advantage of special event programming such as live broadcasts of local high school sports that might generate higher spot rates (p. 82). But programming that was "unique and local in character" was expensive. A station had to make up for the cost by selling more ads. Consultants suggested LPTV owners model themselves after radio stations where local advertisers provided up to 88 percent of a typical radio station's revenue ("Low power television...., 1983, p. 4).

Investment Required for LPTV

Many investors were asking how much does it cost to get into low power television. Estimates were all over the map. During the NTA annual convention in 1982, LPTV owners were told it was possible to get on the air for as little as \$30,000. The price was upwards to \$80,000 and \$100,000 for stations equipped to do local origination ("Low Power Television," 1982). Later, the Browne study estimated that a typical advertiser-supported LPTV operation with local origination could have capital equipment costs ranging from \$130,000 to \$200,000. If a station relied mostly on satellite-delivered programming and produced just a few shows locally, they estimated annual operating costs would exceed \$200,000 (Wyche and Stamler, 1983, p. 30). For stations that did not originate local programs, the cost would be lower.

The LPTV universe of 1984 was much smaller than the prognosticators of 1980

and 1981 had predicted. In December of that year only 127 stations were on the air; a little more than half produced local programming, the rest were translators. While the FCC issued grants at a snail's pace, applications kept pouring in. From the day the FCC started accepting them in 1980, a total of 47,000 had been filed by March of '84 (FCC inundated," 1984). Many of these were copycat applications that were mutually exclusive for big city frequencies. Sometimes there would be more than 50 applicants for a single station ("Disagreement," 1985).

The First Applicant

The first applicant to be awarded an LPTV license, John Boler of Bimidji, Minnesota, signed on the air in December of '81. He started out as a commercial station, with 3 hours of local programming a day and two dozen staff. But by the end of 1984, he had cut his staff to four and was offering pay TV ("Low-Power Television," 1984). Program suppliers weren't faring much better. The JPD Television Network, the only broadbased satellite network serving the LPTV industry had signed up only 16 affiliates. The network had been forced to drop its flat rate affiliation fee to a sliding scale of \$2,000-\$4,000/ month ("Low-power...medium," 1984).

Couzens, the man who drew up the original LPTV rules, told *Broadcasting* magazine, "LPTV was killed by the regulatory delays at the FCC." He blamed the agency's delays on FCC chairman Mark Fowler's "anticompetitive" inclinations ("Low-power television," 1984, p.58). Couzens, who at the time worked as a communications attorney in San Francisco, said his initial fears that LPTV would be rolled out slowly and develop a bad name appeared to be materializing. LPTV consultant John Kompas could name seven or eight businesses that had gone under in the previous year (p. 58). He blamed failures on poor management.

Even while industry experts were discouraged, business magazines continued to

trumpet the glory of LPTV. A headline in *Dun's Business Month* read "LPTV: a hot new investment" (Murray, 1984). But six months later *Forbes* ran a scathing story on the LPTV gold rush gone bust. The story headlined "Channels paved in Gold," reported that only a handful of LPTV operators were breaking even. The big problem revolved around LPTV owners' attempts to get on cable. Cable system owners said that if they carried an LPTV station, US copyright laws required them to pay 3.75 percent of their system's gross revenue to the Copyright Tribunal. An LPTV owner in Texas who was being forced to pay for carriage said, "LPTV is being oversold" (Trachtenberg, 1984).

Relief for the industry came later in 1984 when the Copyright Office reversed an earlier opinion. Previously, the Office had said LPTV stations did not meet the statutory definition of local stations and were distant signals subject to expensive royalty payments. Now the Copyright Office said it wouldn't question a cable operator's argument that an LPTV station was within the system's local coverage area ("Copyright Office," 1984).

Success and Failure

LPTV promoters had predicted the new medium would provide a diversity of programming in urban as well as in rural areas. LPTV stations in large metro areas did, in fact, become successful broadcasting foreign language programs that were popular among ethnic groups, many of whom didn't subscribe to cable. This created a demand for foreign language networks like SIN (Spanish International Network). In 1986, WXTV was the full-powered SIN affiliate serving the New York market. But thanks to LPTVs in Philadelphia and Hartford, which rebroadcast WXTV's signal, SIN's coverage was enlarged to 512,000 Hispanic households in the Northeast.

After three years as head of the FCC's LPTV branch, Barbara Kreisman said the industry's No. 1 problem was financing. Industry consultant John Kompas added, "A lot of people had financing lined up when they applied for licenses in 1981. But now that

they've finally gotten their construction permits, their financing has dried up" (Wines, 1985). FCC Mass Media Bureau Chief James McKinney said he was not optimistic about LPTV's future as a medium, because after five years, most of the licenses granted are being used for translators to rebroadcast signals of established stations and not for new stations originating local programming (p. 54). Another five-year critique came from former LPTV architect Michael Couzens who once again blamed the government for restricting LPTV owners from making facility changes (such as power, antenna radiation) without opening the license to challenge (Couzens, 1985). In another industry profile, Couzens remarked:

LPTV is in a race against time, The stations need to expand their numbers, score some economic successes and attract venture capital. If it doesn't happen in the next three years, the service will be tainted with a bad reputation that will take years to overcome (Wines, 1985, p. 11).

Broadcasters who wanted out could take advantage of a little-publicized, secondary market for the sale of low power construction or broadcast licenses. "The bloom is definitely off the rose," said consultant Charles Jackson. "People are beginning to realize how expensive a venture like this can be" (p. 116).

In the big cities, it was very expensive. A retired California orthodontist paid \$50,000 for an LPTV license in New York City from CBS. The amount didn't include the 10-year lease he signed to keep the transmitter and antenna atop the Empire State Building. W53AA reportedly had the largest potential audience of any LPTV in the country with a grade A service area including 4.6 million potential viewers ("Low power in the Big Apple," 1988). In Chicago, an applicant paid his seven competitors \$750,000 to withdraw from the FCC lottery. The 10-watt station, located atop the Sears Tower, eventually broadcast rock videos to a potential audience of 1.2 million viewers (Wines, 1985, p. 114, 116).

LPTV owners were represented by two industry trade groups, the Community Broadcasters of America and the National Institute for Low Power Television. In 1985 when both recognized that the industry was barely big enough to support a single organization, they merged to become the Community Broadcasters Association (CBA) ("John Kompas," 1990).

By 1989 things started looking brighter for the beleaguered industry. The *Wall St. Journal* said LPTV had begun to prosper thanks to ethnic networks like Telemundo, for which stations could pay about \$2,000 a month (Pae, 1989). The FCC reported there were 630 licensed LPTV stations on the air, and the agency was licensing about 15 new stations a month ("Beating the drum," 1989).

The Commission tried to make it easier for stations whose signal interfered with a full-powered station. Under its "displacement relief" policy, stations could apply for a new frequency without competing against new applications (Beating the drum, p. 71). FCC commissioner Quello called the growth of LPTV "the most significant success story of the Commission's procompetitive policies" ("Quello praises LPTV," 1989). And he reassured a fearful audience at the CBA annual convention in Las Vegas that even though HDTV would use additional UHF space, low power stations will "receive the highest priority" from the FCC and Congress (p. 2). In the eyes of LPTV owners it turned out to be a hollow promise.

Diminishing Local Control

By the middle of 1990, LPTVs were being licensed so fast that the FCC predicted as many as 4,000 by the end of the decade. That year the *New York Times* and the *Los Angeles Times* both ran positive stories about the industry, focusing on large LPTV networks like Channel America and small minority-run stations like the Native American LPTV licensed to Dull Knife Memorial College in Lama Deer, Montana (Pinsky, 1990).

But included in both reports was a growing criticism that low power television was moving away from its original goal of providing a voice for local communities. The religious-based Trinity Broadcasting Network and the Home Shopping Network were starting to amass dozens of stations that rebroadcast satellite-delivered signals without local programming. Samuel Simon, the director of Citizen Television System in Washington, D.C., said, "The networks are the antithesis of what low-power is intended to be" ("Low-power TV," 1990).

But no one could argue with small town stations like D.J. Everette's Channel 43 in Hopkinsville, Kentucky, a community that straddles the Tennessee-Kentucky border at least 50 miles from any full-powered station. Everette produced two hours of local news and sports daily with a staff of 16. He told *the L.A. Times*, "Of the 15 cable systems that I'm on, the only local voice on those cable systems would be gone if they took me off" (Pinsky, 1990, p. A-1).

LPTV Lacks Must-Carry

The biggest threat to LPTV was that cable subscribers would likely never tune in to an LPTV station's off-air signal. LPTV lacked a national must-carry rule that would require cable systems to include them in their channel line-ups. Full-powered stations could demand must-carry, but that legislation was passed before the advent of low power. LPTV owners had to negotiate with cable systems or be excluded from cable carriage altogether (Banks & Havice, 1991, p. 24). Scores of LPTV operators complained about broken promises by cable firms. John Kompas, as president of the Community Broadcasters Association, testified before the Senate Communications Subcommittee, blasting cable MSOs for their refusal to carry LPTVs ("CBA," 1989). Kompas believed the MSOs viewed LPTVs as competition for their ad dollars (Katz, 1990). For LPTVs who did successfully negotiate with cable systems and win carriage, cable was a lifesaver because it

guaranteed delivery to more homes than available in the 5 to 15-mile off-air signal radius.

Early Threat of HDTV

There was talk of a new technology that posed an even bigger threat to low power. With the federal government's blessing, a consortium of manufacturers and research institutions was developing HDTV, or High Definition Television. These crystal-clear, high-resolution pictures would take extraordinary bandwidth and actually require a new channel of their own. The FCC had its eyes on unused channels in the UHF band where many LPTV stations were licensed. In 1990, Kompas warned broadcasters the spectrum allotment could come at LPTV's expense ("Low-power...uncertain", 1990), and more ominous tones were sounded by FCC Chairman Alfred Sikes who reminded low power owners that LPTV remained a "secondary service." Before any consideration could be given to upgrading LPTV, Sikes announced the FCC would allocate spectrum for HDTV ("LPTV to remain," 1990).

With their future threatened, community broadcasters went on the offensive. CBA petitioned the FCC for increased power, the option to apply for four-letter call signs, and a request to be held responsible for the same general rules and regulations that apply to full-powered stations ("CBA asks," 1991). It also wanted the FCC to stop calling them "low power" and instead create a new class of "community television" stations. From its inception the FCC had assigned LPTV stations with a five-character call sign of numbers and letters, such as W26BT. The number--in this case--26, would always represent the station's channel. For years, low power owners complained that viewers or advertisers were mistaking their station for amateur radio operators. There was another problem. Arbitron confirmed their computer couldn't list an LPTV station's five-letter calls. LPTVs with four-letter signs would make it possible for stations to show up in the ratings book ("LPTV seeks," 1991).

The NAB called the petition a “thinly veiled attempt to convert low power TV stations...into full-service facilities.” But CBA denied they were seeking any change in their “secondary status.” (“CBA asks”,1991, p. 62). Some industry observers thought LPTV owners were positioning themselves for inclusion in new must-carry legislation, but CBA president Kompas said it went beyond that: “We just want to be treated like every other TV station and to be able to compete in the market on a fair basis“ (“LPTV seeks”, 1991, p.1). To qualify as “community television”, a station would have to provide at least 5.6 hours of locally originated programming a week. (The CBA would propose this concept again, years later.) Later in 1991, FCC Commissioner Quello stopped just short of endorsing the CBA petition. He favored the name change to “community television” and was sympathetic to the group’s use of four-letter calls (“Quello tells CBA,” 1991).

In November of 1991, the FCC put a freeze on LPTV station applications until Commission officials knew how much spectrum HDTV would be required. A spokesman for the fast-growing Trinity Broadcasting Network expressed concern that HDTV would curb the network’s station-a-month growth. At the time, Trinity owned more than 100 LPTV stations and 12 full power stations (Malt, 1991).

Four-Letter Calls Granted

It took several years before the FCC adopted a First Report and Order (May 19, 1994) approving three major changes to the LPTV rules. It granted the CBA’s request for the use of four-letter calls for low power stations. However, stations would have to use the letters “LP” as a suffix (FCC First Report and Order, 1994, p. 2558). The FCC also said it would allow terrain shielding in all LPTV applications (p. 2557). Applicants use terrain shielding to demonstrate that a mountain or other object blocks their signal from interfering with another LPTV or full-powered station. Previously, the commission had considered terrain shielding only in applications that were not involved in license lotteries. The

Commission also relaxed application acceptance standards. Instead of requiring "letter perfect" applications, the Commission would now accept "substantially complete" forms (p. 2555). But the Commissioners took no action to increase LPTV power or make them as accountable as full-powered stations (Stern, 1994).

It is rare when an LPTV shows up in a Nielsen book. That's because an LPTV's signal covers only a portion of a DMA. In 1995 Nielsen reached an agreement with Network One, a low-power station network, to design a new system that would give Network One stations more accurate audience research in hopes of attracting advertisers. Under the agreement, Nielsen would use diaries and meters to monitor LPTV performance in areas within their DMA. (Coe, 1995). Months later, Network One reported positive results. Although its Pensacola affiliate WBQP had registered only a 1.38 rating in a previous book, under the new Nielsen method--measuring LPTV audience by zip code instead of DMA--the station recorded a 5 rating in the 6-10 p.m. time period. Network One claimed the pattern repeated itself in other markets ("Measure for measure," 1996).

LPTVs and the Networks

During the mid '90s, LPTVs became attractive to major networks. This attraction began with a chain of events starting with Rupert Murdoch's \$500 million investment in New World Communications in 1994 which resulted in 11 big-market stations leaving established networks and jumping ship to Fox. Fox's raid left the "Big Three" scrambling for affiliates in some of the nation's biggest markets. The first LPTV to become a big three affiliate was WBND-LP in South Bend, Indiana. The former ABC affiliate in town had switched to Fox, so the LPTV became the ABC signal in metro South Bend (Friedman, 1996). Fox and the newly formed United Paramount Network had already been using LPTVs as stand-alone affiliates.

Losing Spectrum

The little black cloud called HDTV that first appeared in 1990 was getting much bigger. In South Georgia, LPTV owners wondered how long their licenses would last. As any good citizen, they took their complaints to their local congressman. After listening to their concerns and getting briefed by the CBA, U.S. Rep. Charlie Norwood announced legislation that would protect low power stations (Corwin, 1996). For some stations HDTV was not the only thing they had to worry about. In 1997, the FCC issued a Notice of Proposed Rulemaking to allocate 24 MHz of spectrum (UHF channels 60-69) for law enforcement ("FCC moves," 1997). Full-powered broadcasters would be fully protected from new users, at least until the end of the digital television (DTV) transition in 2006. But there was no such promise for the estimated 1,300-1,400 LPTV stations and translators located in the band. *Video Technology News* predicted low power television was facing the beginning of the end. A consultant was quoted as saying, "This is going to put a lot of people out of business. I'd give the low power industry another five years" ("ATV licensing," 1997).

After years of debate and litigation, Congress passed a 1992 law requiring cable systems to "must-carry" local broadcast stations. LPTV owners lobbied hard to be included, but the politically powerful NAB argued it would be unfair because LPTV stations were not subject to full-powered regulations like multiple ownership rules (Kersey, 1995, p. 56). NAB also said mandatory carriage for LPTV would extend their coverage beyond the 15-30 mile secondary service area for which they were licensed.

Limited Must Carry

After overriding a presidential veto, Congress passed the Cable Television Consumer Protection Act of 1992. The NAB had won. Only under rare conditions would a

cable system be required to must-carry a low power station, To qualify, the Cable Act said an LPTV had to meet the following conditions:

- 1) LPTV must meet minimum broadcasting standards applicable to full-power stations such as public interest programming and requirements.
- 2) The station must be no more than 35 miles from the cable system's principal headend.
- 3) There can be no full-power broadcast station licensed to a community in the county served by the cable system.
- 4) The community of license and the franchise area must both be located outside of the largest 160 metropolitan statistical areas as determined by the Office of Management and Budget.
- 5) The station must provide local news or information not provided by full-powered stations in the community (47 U.S.C. statute 534 and 535; 47 C.F.R. 76.55 and 76.56)

Cable systems with a capacity of 35 or fewer channels were required to carry at least one "qualified" LPTV. Cable systems with more than 35 channels must carry two LPTVs (Lloyd, 1998). The cable industry immediately challenged the law on constitutional grounds. Through various hearings and filings, the low power industry lobbied judges for stronger rules. After four years of litigation, the Supreme Court handed down a surprise decision in the test case *Turner v. FCC*. The high Court upheld the power of Congress to require must-carry, a clear victory for full-powered broadcasters. But low power owners didn't win the stronger requirements they'd hoped for. The Court's majority ruling, written by Justice Anthony Kennedy, said "neither Congress nor Court provided enough information to decide whether LPTV stations are entitled to must-carry" ("U.S. Supreme Court," 1997).

Congressional Support

Meanwhile that same year, support was building on Capitol Hill to help LPTV. Senator Wendall Ford (D-KY) circulated a letter urging the FCC to protect low power

stations ("PBR Notes," 1997). The letter, addressed to FCC Chairman Reed Hundt said, "the prospect of losing 50 to 60 percent of the LPTV broadcast service and more than 10 percent of translator stations is neither good public policy nor an acceptable result" of the Commission's DTV allotment proceeding. At least 53 Senators signed the letter asserting that protecting LPTV was important "because many LPTV stations provide more local and niche programming" than full powered stations ("PBR Notes", 1997). LPTV was also winning support from the executive branch of government. National Telecommunications and Information Administration director Larry Irving wrote Chairman Hundt advising the DTV allotment should be changed to protect LPTVs ("NTIA seeks," 1997). Irving said preserving LPTV was important because it "would serve the public interest by ultimately promoting diversity" of station ownership.

Under the FCC's DTV allotment plan, each full-powered VHF and UHF station would be assigned a new channel on which they could begin digital broadcasting. The Commission admitted that this could bump at least half of all LPTVs. But the CBA thought the FCC could save more LPTV stations if it just tried harder. CBA hired its own computer specialists to build an alternate DTV channel allotment scheme and discovered more LPTV stations could be saved (McConnell, 1997). Subsequently, NTIA urged the FCC to consider the CBA's alternate list of DTV channels ("PBR Notes", 1997).

Class A Protection

In May of 1997, Congressman Norwood introduced The Community Broadcasting Protection Act (H.R. 1539, 1997). Later in November, Senator Ford introduced a companion bill in the Senate (S. 1427, 1997). The bills proposed a new "Class A" FCC license for qualified low power broadcasters that would require owners to be subject to the same license term and renewal standards as the licenses for full-powered stations. To be eligible for Class A, LPTVs had to meet three basic requirements:

- Broadcast a minimum of 18 hours per day.
- Broadcast an average of at least 3 hours per week of programming produced within the station's community of license.
- Be in compliance with the Commission's requirements applicable to low power stations. (H.R. 1539, S. 1427)

There were two major differences between the bills. The House bill stipulated that for low power stations to qualify for Class A they must have fulfilled the basic requirements 90 days before passage of the Act. In other words, once the Act passed, stations could not qualify by simply by adding local shows. The Senate version was even more strict. It required stations to have operated under these conditions for at least 24 months or two years prior to the Act's passage. The bill would not protect satellite translator stations like the hundreds owned by the Trinity Broadcasting Network. Ford explained his bill in introductory remarks:

Let me say, Mr. President, that I have been and continue to be a supporter of the transition to digital television....But I also believe that as we make this transition, good public policy must support the investments made by LPTV licensees (Ford, 1997).

Both bills allowed "Class A" licensees to convert to digital broadcasting on their frequency without any additional authorization from the FCC. The bills also included the stipulation that should the FCC determine that a "Class A" station could not exist in one market, because of interference with a full power station, then the FCC was authorized to award the LPTV licensee another "Class A" license in an adjacent community, or if that was not available, in another community acceptable to the licensee (Ford, 1997). By June of 1998, 40 House members and a majority of the Senate Commerce Committee, which oversees telecommunications, had signed on as co-sponsors of the legislation. (Biel, June 25, 1998a).

On October 1, 1998 the Senate Commerce Committee passed the Ford bill by

unanimous vote and it was reported to the Senate floor. But it was stopped cold by two unknown senators who placed a hold on the bill preventing a full Senate vote. *Community Television Business*, the LPTV trade newsletter, blamed the NAB who it said had requested the hold (Biel, Oct. 28, 1998). LPTV lobbyists vowed to try again in the 106th Congress.

Besides Congress, the CBA sought relief directly from the FCC. On September 30, 1997, the group filed a Petition For Rulemaking for "Class A" TV Service, later amended in March of 1998. The requirements were similar to the House and Senate bills with a few exceptions (FCC Public Notice: Petition for Rulemaking, 1997).

- 1) LPTVs would have one year in which to qualify for Class A after the effective date of the new class.
- 2) An applicant would qualify by demonstrating that continuously during the preceding three months (before the filing date) its station aired at least 3 hours of local programming a week (FCC Public Notice: Petition for Rulemaking, 1997).

By LPTV standards, the petition proposed substantial increases in effective radiated power (ERP) for analog Class A stations. The power limits listed below were set at 10 percent of maximum levels approved for full power analog stations.

- 10 kW for stations operating on channels 2-6.
- 31.6 kW for stations operating on channels 7-13
- 500 kW for channels 14 and above.

The petition also proposed that a Class A station be permitted to apply on a first-come basis for an additional channel for digital broadcasts, provided it did not interfere with existing stations (FCC Public Notice: Petition for Rulemaking, 1998).

Some LPTV owners didn't like the efforts of the politicians or the CBA's petition ("CBA forced," 1997). Most of these stations didn't produce local programming and their

concern was that new Class A stations could bump them and translators off the air. Other licensees blasted Norwood's bill, but said the Petition for Rulemaking was more fair as long as all stations were given an opportunity to comply ("CBA forced", 1997).

FCC Issues DTV Frequencies

The first digital channels set aside in the FCC's Sixth Report and Order in April of 1997 had given LPTV owners a first look to see if their frequency would soon be occupied by a full-powered digital station. The rules also spelled out guidelines to help displaced LPTVs find displacement frequencies. But it wasn't to be the final word. The FCC accepted suggestions and comments, including the CBA's computer list, and issued a revised table of allotments in its Memorandum Opinion and Order (MO&O) in February of 1998 (FCC Record 13(10) 1998, p.6860).

The First Casualty

Nicholas Negroponte (1995), the *Wired* columnist who heads MIT's media lab, has coined a phrase for those who are left behind in the information revolution. He calls them the "digital homeless." W35BA, Cincinnati, got a taste of that when in February of 1998 it became the first LPTV casualty of the DTV era. Hearst-Argyle's WLWT-TV, also in Cincinnati, had obtained an experimental FCC license to begin digital broadcasting on Channel 35. WLWT, which pioneered broadcasts in televised baseball and color, wanted to mark its 50th anniversary by simulcasting in the new digital format. However, WLWT's first digital broadcast wiped out W35BA, an LPTV which had been carrying the Home Shopping Network for two years. Station owner Elliot Block of Block Broadcasting vowed to tear up his FCC license and send it back to Washington (LaFayette, 1998). While Block is eligible for a displacement frequency, he said the conversion would force him off the air for a month and cost him \$40,000 in new equipment, about half a year's revenues

(Marshall, 1998). He expects to be bumped again by 2002 when a local religious station goes digital (Davidson, 1998). Ironically, the only way WLWT could test the new digital signal was with a field strength meter. Engineers didn't have a digital monitor to see the historic broadcast.

One LPTV owner who realized his South Florida station would soon be displaced petitioned the FCC to create a new low power FM radio service. On February 20, 1998, Rodger Skinner of Ft. Lauderdale filed petition RM-9242 asking the FCC to grant the new service and allow individuals, women, local churches and community groups the chance of gaining a voice on the airwaves (Skinner, 1998). In January of 1999, the FCC released a proposed set of rules to create the LPFM service (FCC proposes, Jan, 28, 1999).

Minority Ownership

Other low power TV stations have earned headlines as their plight to survive in the digital age has caught the attention of the national media. One overstated report claimed that up to "1,800 LPTVs were in danger of losing their livelihood" (Hall, L., 1998). Of particular concern have been the minority-owned LPTV stations. Many of these, in large urban markets like Los Angeles, are either owned by minorities or target Hispanic or Asian audiences. A 1998 survey by the Community Broadcasters Association showed minority ownership of LPTV stations stands at 15 percent (Shiver, 1998). Included in that group are KNLA and KNET-TV of Los Angeles, two of the most profitable LPTV stations in the country. General manager Charles Lore told the *Los Angeles Times* he may lose his stations. "This is a spectrum grab by large companies, pure and simple" (p. A-1). Minority-owned stations are more vulnerable because they typically are in large metro areas where the spectrum is crowded.

Minority ownership in the U.S. broadcasting industry has already fallen precipitously since media chains have been buying out smaller players, a trend accelerated

when Congress eased media ownership rules under the Telecommunications Act of 1996. The next year, the National Telecommunications and Information Administration found the number of minority-owned commercial broadcast (AM, FM, TV) stations fell from 350 to 322 (NTIA: Minority Commercial Broadcast Ownership Findings, August, 1997). The study did not break down the impact on minority LPTV owners.

In April of 1998, FCC chairman William Kennard called the LPTV industry a "little oasis" of minority ownership ("NAB Notebook," 1998), claiming that 47 percent of LPTV stations were owned by minorities, 25 percent by women. Those figures, as reported in *Television Digest*, sounded unusually high. In a phone interview conducted for this study, CBA executive director Mike Sullivan said Kennard's statement was based on erroneous information. "At present, no hard figures exist on LPTV minority ownership," Sullivan said (personal communication, Nov. 2, 1998).

Urban LPTV broadcasters may be forced to bid against other LPTV operators who must also apply for a displaced frequency. LPTV owner Warren Trumbly told the *San Francisco Chronicle* that he's had a tough time finding an unused channel that won't interfere with other broadcasters. Trumbly fears he'll be forced into a bidding war to get what is left, and even if he does win a replacement channel, he estimates the cost of converting to a new channel will be \$200,000 or more for a new transmitter and antenna, roughly equal to his station's income in 1997 (Marshall, 1998).

Some LPTV stations may be able to survive by simply moving their antennas to prevent interference. In big cities however, tower space is extremely hard to find, given the competition from digital TV and new wireless phone services (Marshall, 1998, p. D1). Across the country low power stations are scrambling to hire consultants to find new frequencies that won't interfere with existing stations.

Displacement Relief

A low power station can be displaced if a frequency allotted for digital TV has the same channel number and lies within a 162-mile radius. Those are called "co-allotments." For example, if WXXX has been allotted Channel 28 as its new digital frequency, that means a low power station nearby on the same channel would have to shut down. Low power stations also cannot conflict by having "adjacent allotments," channels either one number higher or lower, than the full-powered station. Low power stations "adjacent" to WXXX on channels 27 and 29, would also have to go dark if engineering studies showed their signals interfered. Engineers search for an unused frequency far enough away or make other use of other devices such as directional antennas. There is no FCC table of allotments for LPTV displacement frequencies. It is up to displaced stations to find their own (Wagner, 1998, p. D1).

Some LPTVs Saved

The FCC's MO&O issued in the spring of '98 affirmed its decision to retain secondary status for low power television, but took additional steps to assist stations that may be displaced. The Commission expanded the core group of channels from 7-51 to include 2-51. This was done in part to permit the continued operation of 500 existing low power and translator stations (Cunard, 1998). Thanks to the upgraded software provided by the CBA, regulators changed 66 channel assignments in order to preserve a select group of LPTV broadcasters. CBA president Sherwin Grossman praised the agency; "It's the first time in the 17-year history of our community-based television service that the FCC has actually changed full-power TV channel assignments to reduce the impact on community stations" ("Happy Broadcasters," 1998). The Commission also ruled LPTV or translator stations experiencing interference from new DTV signals would have priority at choosing a new frequency ("displacement relief") without worry from competing (new) applications.

On June 1, 1998, the day LPTVs and translators were scheduled to file for displacement relief, FCC officials received 1,100 applications (Biel, 1998a). Requests poured in because replacement channels were being awarded on a "first-come, first-served basis" ("Commission postpones", 1998). Some of these stations weren't just trying to escape DTV, they were facing imminent displacement from the FCC's final decision to reallocate channels 60-69. FCC officials were expected to release the first proposed grant list by late August or September of 1998. Stations who apply for the same frequency or ones close enough to interfere with each other, were being encouraged to work out problems individually, otherwise, mutually exclusive applications would have to face public auction (Biel, 1998).

Financial Survival

Even if low power broadcasters are successfully reassigned a new displacement frequency, some wonder if they can financially survive the move. Tom Faircloth of Four Rivers Broadcasting in Vidalia, Georgia, said a channel move would require major expenses for transmission gear, a new tower, and lots of promotion (Hall, L., 1998). Operators may have a tough time financing the change because banks are wary about lending to LPTVs because of their "secondary status" (Wagner, 1988).

LPTV owners were encouraged when, during the '98 NAB convention, FCC Chairman Kennard promised he would put the CBA's petition for Class A service out for comment. "You've got a friend at the FCC," he told broadcasters. ("NAB Notebook," 1998). But the objections filed from the large industry trade groups weren't so friendly. NAB and the Association for Maximum Service Television (AMST) protested that the FCC had already considered--and rejected--arguments of LPTV stations ("CBA says", 1998). AMST claimed that "even the mere initiation of a rulemaking would create destructive uncertainties about the DTV rollout" ("CBA says", 1998). NAB argued that CBA had

failed to offer "substantial justification" for the rulemaking that could hurt the transition to DTV.

Renewed Call for Must-Carry

Besides the quest for "Class A", there have been renewed calls from the LPTV industry for improved cable access or must-carry. In Little Rock, a low power station is programming a daily hour-long local newscast at 9 p.m. (Brummett, 1998). Officials at KKYK-WB22 estimate they're spending \$25,000-\$50,000 a week to do the show that is carried on local Comcast cable. However, KKYK pays \$1,000 a day for a leased access agreement with the cable system. LPTV owners have long complained about unfair charges for leased access. Some, like KKYK, pay on a monthly basis, but most LPTVs cannot afford this luxury. The FCC recently ordered cable firms to make leased access rates more affordable; however CBA feels the policy is still too protective of cable operators. (McConnell, p. 22).

Leased access would be but a memory if LPTV owners could win must-carry. That issue is back before the FCC and Congress. Full power broadcasters want Washington to pass laws requiring cable systems to must-carry their new digital channels. The cable industry vigorously opposes any attempt to mandate carriage of both analog and digital signals (McConnell & Colman, 1998). As usual, low power television is caught in the middle. If cable systems are required to must-carry digital channels, the squeeze in channel capacity will make LPTV stations that much less attractive. However, when cable systems go digital themselves, channel capacity should be dramatically increased. In a 500 channel universe, there might still be room for a low power station featuring "coffee with granny."

CHAPTER III

REVIEW OF THE LITERATURE

Ever since the FCC issued its Notice of Proposed Rulemaking (1980) on low power television, scholars and legal writers have been dissecting the Commission's LPTV policy. Most criticize the FCC for failing to follow through on its goals to expand minority ownership and encourage a diversity of programming through LPTV. Other researchers have attempted to document how the industry has matured by conducting surveys of LPTV owners. This chapter will provide a review of what has been written by those that have analyzed the industry and made recommendations.

Law Review Articles

Mayeda

Soon after the NPRM was released, Daniel Mayeda (1981) made suggestions in the *Federal Communications Law Review* for the Final Rule, which had yet to be adopted. He saw value in the FCC's relaxed ownership rules, including unlimited multiple ownership (p.442). In economic terms, Mayeda admitted a new national network, like the one Sears was proposing at the time, would be the most efficient model of service to provide regional or national programming via LPTV. But he predicted this would conflict with FCC goals for promoting local expression. "A national, multiple-station owner would not be as likely to be aware of the needs of a small community as one who lives in the area himself" (p. 454). To increase local ownership, Mayeda suggested that the FCC add a preference for applicants who can show local ownership was more than 50 percent. "This would provide an incentive for resident entrepreneurs, community groups or civic organizations to apply

for grants.”(p. 465). It also would encourage minority owners who traditionally could not afford conventional broadcast stations.

Berkowitz

The FCC initiated its lottery in late 1983 that included preferences for minorities and first-time owners. But Eric Berkowitz (1984) argued in the *University of San Francisco Law Review* that the FCC needed to go further to ensure local programming got on the air. In absence of any such preference, he said the FCC may actually have violated a statutory mandate to grant licenses only when the “public interest, convenience and necessity will be served” (p. 512). Berkowitz pronounced the lottery a failure because the best applicant could still lose the grant (p. 517). Minorities were given only better odds--a two to one preference. The lottery, he said, could be improved by giving a comparative preference for applicants who proposed originating local programming (p. 529). The author suggested a 1.5 to 1 preference be awarded to applicants who promised that three to five percent of their total programming would be local (p. 531). Berkowitz said this would help LPTV develop as a forum for self expression and meet the congressional mandate of Section 307(b) of the Communications Act which says “The Commission shall make such distribution of licenses...among the several states and communities as to provide a fair, efficient, and equitable distribution of service to each of the same” (47 U.S.C. 307(b) (1976).

Kendrick

James Michael Kendrick (1983) also proposed a new licensing scheme to avoid what he felt were grave constitutional problems with the minority preference, which he predicted would likely meet a “severe challenge” (p. 283). He based these fears on Supreme Court decisions such as *Regents of the University of California v. Bakke* (1978), a case where a white applicant claimed reverse discrimination upon his denial of acceptance to medical school. If the FCC were challenged, Kendrick wrote in *Rutgers Law Review*, it

would cause delays and possibly undo many licensing decisions (p. 283). Kendrick recommended a licensing plan that would not be subject to constitutional challenge. Applicants would first be screened in a comparison paper hearing process with the following preferences given to underrepresented groups: women, minorities, non-minority ethnic groups, labor organizations, and community groups. Criteria would be based on (1) how well the applicant represented an underrepresented group in the area to be served, and (2) the applicant's commitment to providing service which would increase the diversity of programming that meets the needs of underrepresented segments in the community (p.284). If two or more applicants met both parts of the test, a lottery would be held to determine which of the two fully qualified, underrepresented applicants should be chosen (p. 285). Kendrick said his proposal would achieve a balance between a lottery system that has the advantage of working quickly and a comparative hearing process, which would insure the selection of a diverse group of applicants (p. 284-285).

Miscellaneous Studies and Articles

Hsiung et al

Did LPTV suffer from a lack of regulation? That's the question raised by James Hsiung, et al.(1983) who along with a number of critics said LPTV could not provide diversity with so few rules and regulations. After examining the LPTV Final Rule, Hsiung presented his findings at the International Communication Association Conference in May of 1983. His big concern was the allowance for unlimited commercial use of airtime. (This was long before the development of home shopping channels). Another major concern was no required minimum amount of local programming. Hsiung concluded the government no longer wanted to meet its initial goal of promoting diverse, local television. "The FCC has spoken in favor of a 'marketplace' that will most likely be dominated by major corporations and media conglomerates" (p.3).

Schmuckler

Similar cynicism came from Eric Schmuckler (1982) who wrote in *The Nation* "The FCC's guidelines for the granting of low-power TV licenses, as is evident from those that have already been awarded, make it likely that LPTV will become the preserve for the corporate hucksters" (p. 41). Schmuckler also worried about the lack of ownership limits. At one time during the LPTV Rulemaking, the FCC had proposed a 15-station limit. But the agency abandoned that concept in the final rules. He called on the agency to "repudiate the laissez-faire ideology of its chairman and seek to nurture local stations serving local needs" (p. 43). Besides a cap on the number of stations an owner could have, Schmuckler proposed a ban on absentee license holders and media cross-ownership.

Atkin

After five years of LPTV, David Atkin (1987) analyzed how the technology had evolved from the ideology of the Carter administration and through the Reagan years under the influence of FCC Chairman Mark Fowler. A number of researchers cite Atkin for his historical details on the development of LPTV, especially how politics may have shaped the outcome. In his article published in *Telecommunications Policy*, Atkin noted that the FCC had ignored a congressional lottery directive. That said groups "which are underrepresented in the ownership of telecommunication facilities will be granted significant preferences" ("FCC approves", 1983, p.31). To correct this oversight, Atkin proposed a return to the original charter objectives under Carter. Preferences would be restored for applicants representing community and women's groups. He would place an ownership cap of five stations per licensee to "prevent the coordination of large programming networks which might otherwise abandon local origination in favor of shared programming" (Atkin, 1987, p. 367). To encourage long-term investment and ownership, Atkin proposed extending the anti-trafficking rule to five years. Like other LPTV critics, Atkin feared a lack of ownership

restrictions would allow large corporations to dominate LPTV, although he failed to specify examples of this.

Kersey

Andrew J. Kersey (1995) discussed the potential impact of three LPTV rule changes in *CommLaw Conspectus* and wondered if the recent developments would place LPTV out of reach of minorities and underrepresented groups (p. 53). The rule changes included granting LPTVs four-letter call signs and allowing stations to make more extensive use of terrain shielding in their applications. Kersey predicted this latter development would encourage multiple LPTV stations in a given area because stations could receive licenses to operate in locations on the same channel, without having to wait for the FCC to make a decision. Aside from the FCC's move to accept applications that were "substantially complete" rather than the more strict "letter perfect" standard, Kersey said the changes would make it easier for huge corporations like Warner Brothers and Paramount who were "hungrily eyeing LPTV stations as a cheap and quick way to develop television networks" (p. 61). Kersey predicted the companies would likely pressure the FCC to upgrade LPTVs to equal footing with full power stations of other networks. Kersey said LPTV appears to be moving away from the idealistic "mom and pop" stations the FCC had envisioned in the beginning. As examples he cited the Trinity Broadcasting Network and the Home Shopping Network both of whom have acquired hundreds of stations in an effort to expand their networks (p. 61).

The Banks Surveys

Over the last ten years, Dr. Mark Banks of Slippery Rock University has conducted surveys of the low power television industry. His first, with Sara Titus in 1988, was partially sponsored by Kompas/Biel and Associates, an LPTV consulting firm owned by

John Kompas and his wife Jacqueline Biel. Banks and Titus wanted to see how well the FCC rules were meeting its goals as set forth in the Final Rules. They put forth the following research questions:

1. Is minority ownership being served? Since the lottery system grants two-to-one odds for the selection of minorities over non-minorities, how closely does the proportion of minority ownership approximate those odds?
2. Is localism being served? In particular, is the LPTV industry bringing television to markets previously underserved? Is it addressing the needs of special audiences? What is the extent of locally produced programming?
3. Is LPTV economically viable? Specifically, is the number of stations growing? Are revenues and station economic viability increasing? Where do revenues come from? (Banks & Titus, 1990, p. 18).

The study included a national telephone survey in October and November of 1988. A list of 435 LPTV stations gathered from FCC records was provided by CBA. After cutting off names and numbers of licensees who no longer were owners, had no phone number listed, or were duplicated by another station, 165 stations remained. Of those, 80 interviews were completed for a response rate of 48 percent.

Banks and Titus observed that minority ownership was far below expectations. Only 8.3 percent of the stations were minority-owned, about evenly split among women, Black, Hispanic and Oriental owners. In this survey, women were included as minorities even though the FCC does not give them a preference in LPTV applications (p. 19).

About half of the stations surveyed said they were serving a rural audience, which the authors identified as a strong indicator of localism, "bringing local service to heretofore underserved areas" (p. 23). Banks and Titus called this one of LPTVs "highest achievements" (p. 23). In addition, the study found that 63 percent of the stations surveyed produced local programming. But of those who did, local programming averaged about 15 percent of the weekly program schedule.

As for economic viability, two thirds of all stations reported increasing revenues, although most stations had been on the air only a short time. However, only 29 percent of the commercial stations had a profit over the last month. Findings in this area were skewed because more than half of the stations interviewed were reluctant to or could not report amounts of monthly gross income (p. 22). The researchers report many stations had disconnected or unlisted phone numbers and thus, were ineligible for the survey (p. 23). Despite lottery preferences for single-station owners, the Banks and Titus survey documented a growing trend of multiple ownership (30 percent). With no limits on the number of LPTVs a licensee could own, they said "the possibility of mergers and acquisitions is strong" (Banks & Titus, 1990, p. 23).

Criticism of Banks

Keefer (1991) criticized Banks and Titus' sample as "unrepresentative" because stations that have resources to answer phones are naturally more likely to originate locally programming (p. 15). She also criticized the low sample. The 80 stations surveyed represented only 18 percent of the 435 that appeared on the original list (p. 13). Group owners were hardly represented at all. Trinity, for example, had only one station represented in the survey. Keefer said the authors provided no regional breakdown of stations surveyed and no quantifiable categories describing the population density of the station's communities (p. 15).

Latham (1992) also found problems with Banks and Titus survey. She said the questions about locally targeted programming were open-ended, and the answers were self-reported (p. 74). Also, no comparison was made of locally produced programming as produced by stations claiming to serve a specific demographic population. (Banks would correct this in later studies.) Latham wrote, "The operational definitions used in their study

appear to fall short of measuring LPTV's localism goals in terms of ownership or programming diversity" (p. 74).

The 1990 and '94 Surveys

Banks repeated his survey in the fall of 1990 with the aid of Marquette professor Michael Havice. With a sample of 243 stations provided by the CBA, the researchers conducted 10-minute phone interviews with 102 station owners or managers, yielding a response rate of 42 percent (Banks & Havice, 1991, p. 26). The results showed an increase in minority ownership, up to 12.4 percent. Of those, Hispanics owned a third. But there also was an increase in multiple-station owners, up to 37 percent. More stations were also airing locally produced shows, 86 percent. The most popular genre was public affairs, followed by sports and news. Despite local programming, stations were having trouble getting carried on cable. Carriage was denied to 57 percent of the stations.

Banks and Havice tried to measure the LPTV industry's financial health by asking stations about their annual revenues. While only about half responded, the median was \$650,000 for the previous year. A little more than half said their revenues had increased over the last year. Thirty-six percent of the stations reported an operating profit in the last quarter (Banks & Havice, 1991, p. 28). At commercial stations, the average cost for a 30-second spot was \$52.

Again the researchers had trouble with the sample. From the original list supplied by CBA, 26 percent of the "licensees" were not LPTV owners; some had traded or relinquished their licenses, or had delayed startups. So the stations interviewed were ones that were on the air. Even so, Banks and Havice concluded the industry was "economically healthy" (Banks & Havice, 1991, p. 30). However, they said stations suffer from very limited audience data as a result of LPTV's small signal coverage. The rating services rarely

acknowledge their existence because their survey area is based on a much larger DMA or ADI (p. 32).

Four years later, in 1994, Banks completed another national survey of LPTV stations (Banks, Dec. 19, 1994). Most respondents were contacted by telephone, but questionnaires were mailed to group owners of three or more. Trinity and the Alaska public TV system were not included. Banks' sample included 456 stations (from a total of 1,360), taken from a list provided by the FCC. Many stations were unreachable because of no telephone number, persistent busy signals, or no answer. It led Banks to conclude that one fifth of all stations listed with the FCC are not on the air or are automatic translators (Banks, Dec. 19, 1994, p. 5). Banks secured interviews or completed questionnaires from 129 out of 456 stations for a response rate of 28 percent.

The results showed 48 percent of the LPTV owners surveyed operated multiple stations. The average cluster was five stations. Minority ownership had dropped from 1990 levels back down to 8 percent where it was in 1988. Still, Banks reported LPTV minority ownership remained the highest of all media (Banks, Jan. 16, 1995, p.8). He found 36 percent of these stations were rebroadcasting the signal of another LPTV station. And he suggested this might indicate the emergence of mini-LPTV networks.

The number of stations who reported local programming had dropped from 86 percent in 1990 to 63 percent. But of those stations producing local shows, 33 percent of their weekly program schedule was local. Cable carriage remained one of the crucial factors of an LPTV's success. The '94 survey reflected similar results from previous studies; about two thirds of the stations surveyed were on cable (Banks, Jan. 30, 1995, p. 5).

Banks cautioned this his results might skew toward financially healthy stations because marginal stations or even ones off the air did not respond to the survey. Nevertheless, he put together a rough composite of what he had. The 1994 survey reported commercial and noncommercial stations showed an average annual revenue of \$240,944

per year. That figure was up by more than \$140,000 from 1990 levels (Banks, Feb. 13, 1995, p. 5). Sixty-one percent of the stations said their revenues had increased over the last year. The most common source of revenue was local advertising. Finally, at the request of the CBA, Banks asked station managers what issues were most important facing the industry. The responses were as follows:

Raising the power limits of LPTV	34%
Must-Carry requirement	31%
License protection	31%
Four-letter call signs	24%
Better filing windows for changes or new stations	8%
Replacing the "Low Power" name with something more positive	6%

(Banks, Feb. 13, 1995, p. 8)

Banks concluded:

...there may be some segments of the medium that are doing well, having established a maturity and stability that this survey reveals, but there may also be segments that are doing very poorly, and either are not on the air, or are functioning strictly as translators while holding the low power license.
(Banks, Feb. 13, 1995, p. 8)

Theses and Dissertations

Reardon

One of the first low power stations in the country was WO7BN in Bruce, Mississippi. In 1986, Rory Campbell Reardon published the results of a viewer survey he completed for his master's at the University of Mississippi. His telephone interviews found most residents in the viewing area watched the station, but on the average for less than one hour per day. Most respondents said they watched because of the station's local news and

music programming. Eighty-seven percent of the respondents said the station was needed for local news and events because it was "a community asset." Still, the low power station ranked fifth as a specific source of news, behind two local newspapers, a full-powered station in Tupelo, and a radio station in an adjacent county.

Conner

LPTV's shaky start wasn't unusual, according to Alan James Conner (1984), who said the FCC's treatment of LPTV was no different than those of previous "new technologies." In a master's thesis for Pennsylvania State University, Conner said it was common for the agency to assign communication innovations as "secondary" to a dominant service. Using adoption theory, Conner compared LPTV's start to other new innovations. Low power was different from early television, he said, because the receivers were already out there. The researcher concluded opposition from several powerful industry groups hurt low power (Conner, 1984, p. 47). The NAB, for instance, was insecure about what kind of competition LPTV could pose to full-powered stations. Conner wrote, "Unfortunately FCC innovation seems dictated by preserving the status quo. That will make it difficult for LPTV to be properly introduced to the public" (p. 69). Conner suggested the FCC might have improved LPTV's launch by authorizing several experimental stations and watching their performance in the marketplace before writing the LPTV rulebook.

White

In 1992, Sydney White at Howard University wrote a dissertation that explored how the FCC's goals of program diversity and local origination have affected the viability of the industry. Since White was primarily interested in profits, his research targeted only commercial LPTV stations. Using econometric analysis, he put together two formulas that

could be used to predict the viability of low power stations, one for stations on cable, the other for those not carried. However, White said the formulae would be useful only five to eight years later when the industry had developed an adequate database.

He confirmed that cable carriage was critical to a station's profit-making ability and suggested additional research on how cable and DBS would affect LPTV in the future. Survey analysis showed cable-carried stations typically earned 2.5 times the amount of revenue of stations without carriage (White, 1992, p. 139). He concluded the variables that determine the success or failure of UHF stations were not the same for LPTV. For instance, his research showed there was not necessarily a link between network affiliation and station viability (p. 141). He predicted that more stations would drop expensive local programming in favor of cheaply acquired satellite programming from networks (p. 142). Like Keefer, White categorized LPTV stations into four primary programming formats:

- a) Subscription Television--requires viewers to have descrambler.
- b) Non-Profit Education Stations--PBS affiliates. network supplemented with some local.
- c) Non-Profit Religious Stations--broadcast programming from one or more religious satellites supplemented by local taped or live religious services.
- d) Commercial For-Profit Stations that operate like full power stations but on a much smaller scale (White, 1992, p. 17).

In a discussion and critique on FCC policy, White determined government policies were harmful to the development of the industry. He recommended a number of changes to enhance the industry's viability and local service: First that the FCC remove LPTVs from "secondary status" classification and allow them the same rights and responsibilities as their competitors (White, 1992, p. 100) White wrote, "If LPTV is going to be competitive, it must operate with some of the same advantages as well-established full-service stations, or with the same advantages of cable systems and other pay services" (p. 7); Second, that the

FCC remove major corporate applicants from the lottery process and cap the number of stations a licensee could own (p. 105). Instead of the minimum one year that owners must keep a license before they can sell it, White recommended extending the anti-trafficking measure to four years.

White concluded that the FCC had "failed dismally" in its pursuit of localism from the lack of clarity in its own policy. Localism, he said, must be regulated to the extent that stations should be required to air a specific number of hours of local programming per year (p. 109). He called for mandatory must-carry for LPTV. In so doing, he said, one could make LPTV signals available to 54 percent of America's TV households. That would greatly increase LPTV's potential to attract national advertisers (p. 114). However, cable operators see LPTV operators as direct competition and are reluctant to put them on their local systems.

Kefer

One of the most comprehensive studies of low power television was authored by Janet Kefer (1991). For her dissertation at the University of North Carolina, Chapel Hill, she provided a systematic assessment of FCC policy coupled with fresh data from a national mail survey. From a random sample of 45 stations, Kefer interpolated the following:

- 1) One-third of the nation's LPTVs were, in effect, translator stations that could have existed without the special FCC class (Kefer, 1991, p. 163).
- 2) Religion followed by entertainment was the most prominent type of programming on LPTV. Most of the non-religious stations were located in urban markets.
- 3) About half of LPTV stations were owned by an organization located within the county of license, and that is the most important factor in determining whether a station offers local programming. About half of all stations offer locally produced programs. Kefer said the FCC needs to address whether or how

LPTV should be preserved considering the predominant role of religious programming (p. 164).

She attributed the FCC's hands-off policy for catapulting Trinity Broadcasting, a religious network, to being the single, largest private owner of television broadcast properties in the U.S. (p. 169). Keefer speculated that if the FCC had required stations to produce local programming, it probably would have prohibited the growth of non-profit, religion-oriented stations that rely on satellite delivered signals (p. 172).

Keefer also developed what she called "a new typology" of LPTV stations. They are listed here in order of prominence:

- **Evangelators** Stations that offer little or no local programming and offer religion-format programming supplied by satellite networks.
- **Imitators** Stations that offer local programming and offer general interest programming from satellite networks, thereby imitating full-service TV stations.
- **Nichelators** Stations that offer little or no local programming and offer satellite-based, non-religious, specialized programming in densely populated areas.
- **Translators** Stations that exist only to relay general-interest programming from full-service terrestrial stations in sparsely populated areas. (Keefer, 1991, p. 173-174)

Finally Keefer wondered if perhaps the best time for LPTV may have been the 1960s before the rise of cable and when most people still relied on antennas for reception (p. 177). She suggested the FCC should do its own research and evaluate whether LPTV might be able to serve new functions or whether certain functions might be provided by services other than LPTV (p. 179).

Latham

As part of her thesis at Texas Tech, Kathleen Latham completed a national survey of LPTV stations in 1992 and studied how ownership and format relate to the FCC's goals

of localism. Out of a sample of 492 stations, she received 139 questionnaires back, for a response rate of 28.2 percent (Latham, 1992, p. 100). Latham had hypothesized that single-station LPTV owners were more likely than multiple-station owners to produce local news and public affairs, but her results found the reverse to be true. Latham found 55 percent of all these stations responding produced no local programming at all (p. 115-116). Similarly, Latham had postulated that non-cross media LPTV owners would be more likely to do local programming. But her research showed LPTV licensees who own other media interests like radio, newspapers, and other LPTV stations, were more likely to do local news. Her survey did support other hypotheses such as that local LPTV owners do more local programming than non-local owners.

Latham concluded that the FCC should "reappraise" its LPTV goals (Latham, 1992, p. 118). Her research confirmed Banks and Titus' findings that show the LPTV industry relies heavily on satellite delivered programming. Obviously local programming is expensive beyond the reach of many struggling LPTVs. Latham summarized, "The industry has not defined a niche, at least not the niche reflected in LPTV objectives" (p. 120) and suggested that future researchers do case studies of the few successful independent and network LPTVs so as to provide models for other LPTV stations (p. 121).

Although a number of studies have been conducted, none has focused specifically on LPTV's problems related to the loss of channels from the introduction of digital television. This study of LPTV broadcasting in Tennessee will add to the body of LPTV literature.

CHAPTER IV

METHODS AND PROCEDURES

This study used a cross-sectional telephone survey of all Tennessee LPTV stations. Singletary (1994) suggested this is a low-cost method that generates quick results. The phone survey has also been used successfully by previous scholars working in LPTV research. Other methods have been less useful. For instance, in 1991, Latham conducted a national mail survey of LTPV stations. Her data collection took at least three months, thousands of letters and postcards, and the resulting response rate was 28 percent. Latham also reported that none of the LPTV networks like Trinity cooperated in the survey. Keefer (1991, p. 106) thought she could get a better response rate using telephone interviews. The networks did respond and her survey earned a response rate of 56 percent. The CBA-sponsored Banks surveys have all relied on telephone interviews. In 1990, Banks reported a response rate of 42 percent. However in 1994, when his response rate dropped to 28 percent, he blamed the poor response on what he believed were more than one-fifth of the stations either "not on the air as LPTV stations, or serving as automated translator facilities that do not operate in the full capacity of LPTV stations as the service was intended" (Banks, Dec. 19, 1994, p. 5).

Research Population

For this study, a census was undertaken of the entire universe of Tennessee LPTV stations. These stations were defined as those that are licensed to communities in Tennessee and stations in border towns whose signals cross state boundaries and are viewed in Tennessee markets.

Several sources were used to build a list of phone numbers: the LPTV listings in *1998 Television and Cable Factbook*, the *1998 Broadcasting & Cable Yearbook*, and the FCC's engineering database available on the FCC website (www.fcc.gov). A total number of 56 LPTV stations was identified from the FCC's engineering database in July of 1998. Unlike some previous low power studies, this study only included active licensed stations and excluded lottery grantees and construction permit holders. Fifty-three of these 56 stations were licensed to cities or towns in Tennessee. The remaining three were headquartered outside of Tennessee but broadcast a signal that served Tennessee viewers.

Out of a total population of 56 stations, telephone interviews were completed with 42 stations for a response rate of 75 percent. Ten stations did not participate in the census, including seven stations owned by the Trinity Broadcast Network, the largest private LPTV group owner in the United States. These stations simply rebroadcast the satellite delivered programming from TBN. After repeated telephone and fax requests, Trinity's LPTV manager said the network did not have the staff or time to provide information on individual stations. However, after several more phone calls, the company's director of broadcast operations supplied written answers to several open-ended policy questions. Of the remaining four stations, telephone numbers could not be found for two stations. For the other two, telephone numbers were obtained; but after repeated calls, contact was never made.

This study included a relatively low number of "unreachable stations." In a national survey, Banks (Dec. 19, 1994) found more than 20 percent of the stations "were not on the air" or operated as automatic translator facilities. This study could only document one station that was not on the air, Channel 14 licensed to Lincoln Memorial University in Harrogate. It is possible that some or all of the four stations never reached by phone could also be off the air.

Limitations

Previous telephone surveys (Keefer, 1991, Banks & Titus, 1990, Banks & Havice, 1990, Banks, 1994) indicated that reaching someone by telephone at these LPTV stations would be difficult. Keefer also observed it may introduce bias: "The more employees a station has, the easier that station will be to reach and the more likely that station will offer local programming" (Keefer, p. 107). To address that concern, this study initiated up to five callbacks to ensure stations were represented in the sample. Some stations had no employees at all, which required a search for the an owner/manager at home or at another business.

The Questionnaire

The questionnaire was based on a similar one used by Banks and Havice in the spring of 1998. Banks gave permission for the use of his survey instrument. Some of his original questions were dropped for brevity. A few more relevant questions were added from Keefer's (1991) and Latham's mail survey. This study also included a new list of questions to measure the impact of DTV. Since this is a hot button issue among LPTV owners, these questions were listed first to inspire participation in the survey.

Stations were organized into groups by ownership: singles and multiple owners (Latham, 1992, p. 87). A multiple owner is defined as someone owning two or more stations. Questionnaires were marked if they represented multiple stations that were programmed and operated identically.

The questionnaire, listed in its entirety in Appendix A, solicited information to answer the research questions on DTV impact, LTPV ownership, programming, and financial health. Among the information requested was the following:

- 1) The impact of digital television on the LPTV station: whether the station must apply for a displacement frequency, whether the station has already been awarded one,

whether the owner/manager supported the CBA's petition to establish a "Class A" for LPTV, whether the owner/manager approved of pending congressional legislation to establish "Class A", and whether the owner/manager has taken action to qualify for "Class A".

2) The nature of the owner: whether it is a for-profit organization, whether the licensee is headquartered in the market where the station was located, whether the owner owns more than one LPTV station, whether the licensee owns media properties other than LPTV stations, and whether or not the station is minority owned.

3) Background information: such as when the station signed-on, the number of hours broadcast per day, how many households are included in the station's grade A coverage area, and the number of full-time and part-time employees and the number of volunteers.

4) Relationship to cable: whether the station's programming is carried by the community's cable television system if it has one, and if not carried, why not.

5) The nature, amount and source of nationally-oriented programming.

6) The nature and amount of locally produced programming, including an open-ended question asking respondents to identify successful local programs.

7) The station's sources of revenue, which could include local advertising or underwriting, and the station's degree of profitability.

8) An open-ended question asking respondents what they believe are the most pressing issues facing LPTV today.

Questions about revenue were placed near the end of the survey so that if they offend the respondent and the interview be terminated, most of the data will already have been collected.

Pretesting

As suggested by Shoemaker and McCombs (1989), the survey instrument was pretested on October 27, 1998, by conducting six phone interviews with LPTV owner/operators in Georgia. After the pretest, the following changes were made to improve the questionnaire.

1) Added "already qualify" to list of answers in question #5 concerning the addition of programs to qualify for "Class A" status.

2) Collapsed two questions about the CBA's push for "Class A" status into one.

3) Added a question for the specific number of hours of local TV produced weekly. This is an important criteria should "Class A" be approved.

4) Clarified wording of question #18 to indicate programs "first aired" and not to include repeated programs.

5) Added "don't know" to list of answers in question #3 concerning estimated cost of frequency change.

6) Clarified language in question #13 to include repeated hours of local programming.

The pretest, revealed the unreliability of published lists of LPTV stations as documented by previous researchers. For instance, one Georgia station that had an extensive listing in the *1998 TV and Cable Factbook* had not been on the air for six years.

Data Collection

All of the interviews were conducted by telephone except for three stations where the primary investigator talked face-to-face with station owners or managers. These three, Mary Beth Wilson at WHRT-LP Murfreesboro, Doug Jensen at WTNB-LP, Cleveland, and Fred Falin at WAPK-LP, Kingsport, were selected on the basis of success and longevity in the industry. The survey generated qualitative data for the discussion chapter and station profiles. Data was collected between November 1 and 30, 1998. During the following month results were processed using the Statistical Package for Social Sciences (SPSS-X) for cross-tabulation and analysis with assistance from the academic computing center at the University of Tennessee, Knoxville.

CHAPTER V

RESULTS

After compiling data from the station questionnaires, here are the answers to the research questions that were outlined in the Introduction.

Research Question I: To what extent has the FCC's digital television policy affected Tennessee LPTVs?

The FCC's new digital television frequencies have displaced a number of low power TV stations. But another group of LPTV stations, those in the Channel 60-69 band, are also being displaced because the FCC has set aside this spectrum for public safety use.

A. How many stations are being forced to apply for new frequencies because of digital displacement?

The study revealed that 47.6 percent, or 20 stations out of the 42 that participated in the survey, were being forced to find new channels. Another 11.9 percent (5 stations) were unsure of their fate, and 40.5 percent (17 stations) reported they will not have to relocate. Figure 1 shows how LPTV stations are affected by the FCC's allocation of new digital TV channels and other channel re-allocations. Of those who will have to move, only two stations reported that they already had been assigned a new channel by the FCC.

B. What level of economic burden will frequency relocation place on the average station?

Forty percent of the LPTV stations surveyed estimated it would cost in the range of \$25,000 to \$50,000 to move a station to a new frequency. A smaller percentage, 15 percent, estimated moving costs would fall between \$50,000 and \$100,000.

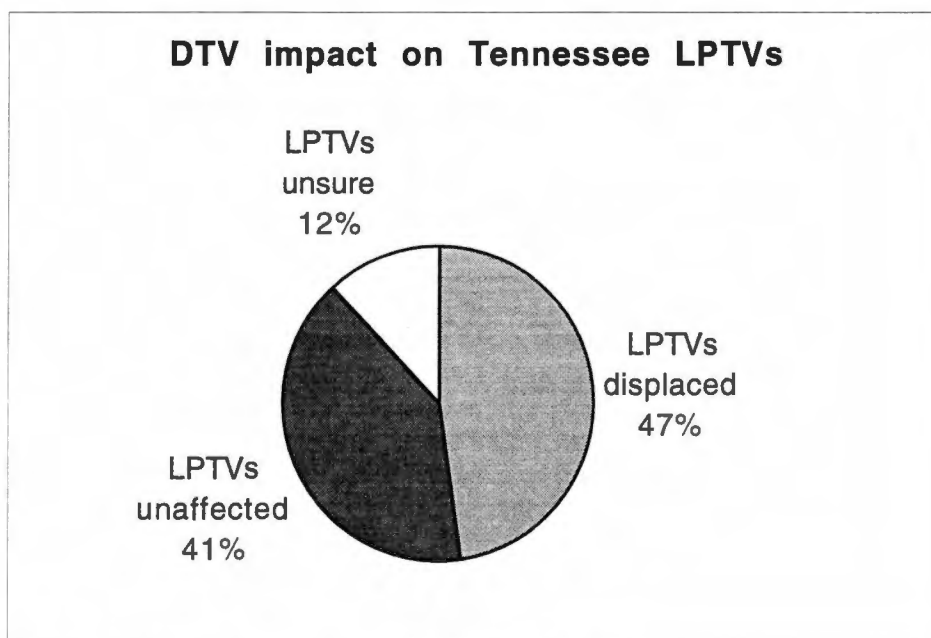


Figure 1. DTV impact on Tennessee LPTVs

C. What are Tennessee LPTV owners' options and attitudes about attempts to create a new protected class of LPTV stations?.

The survey asked station owners and general managers if they supported "Class A" status for LPTV stations as proposed by the Community Broadcasters Association. As could be expected, a large majority of owners and managers, 83 percent, said yes. Only 5 percent said no and 12 percent said they were uncertain (Figure 2).

Respondents were asked an open-ended question as to why or why not they supported the proposal. Here is a sample of reasons cited for supporting of "Class A".

- It will protect us from future displacement;
- It will provide increased power, expanded coverage area;
- It should give us access to cable;
- It protects low power broadcasters and their investment;
- It would give us recognition from step-child status;
- It will protect an additional voice for the community.

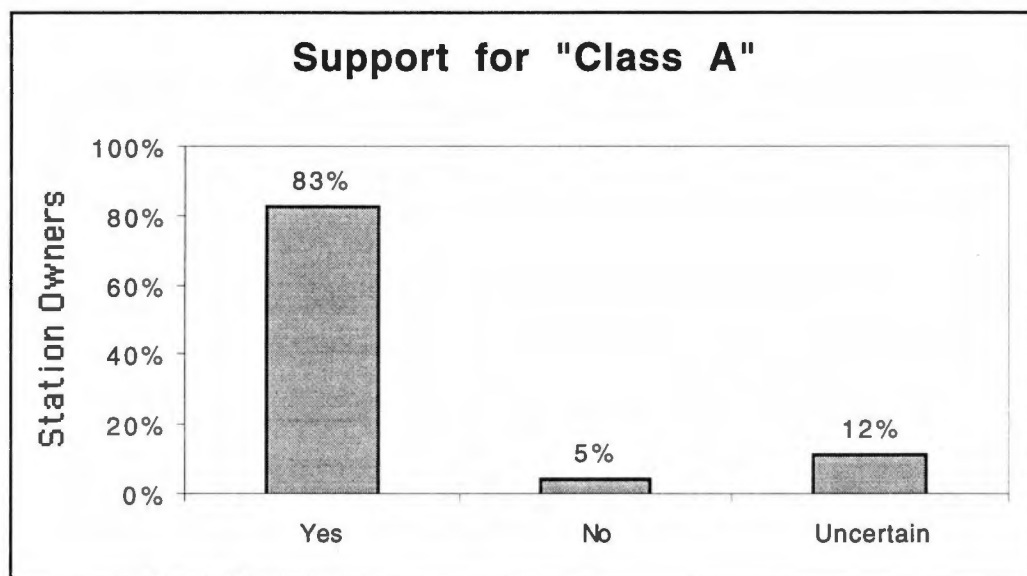


Figure 2. Support for "Class A"

The only LPTV owner opposed to "Class A" was Gannett-owned WBIR in Knoxville, a full power TV station that operates two translators.

D. How many Tennessee LPTV stations have initiated local programming to qualify for primary status under the proposed Community Broadcasting Protection Act?

As currently proposed, to qualify for "Class A," a station must broadcast at least three hours of local programming a week. One third of Tennessee LPTV stations report they already meet that criteria. One station said it has added recent local programming to qualify. Two-thirds of the stations, 62 percent, do not qualify, including all stations owned and operated by the Trinity Broadcasting Network.

Station Types

Tennessee LPTV stations are mostly commercial operations. Of those interviewed in the survey, 87 percent identify themselves as commercial; the remaining stations, 13 percent, described themselves as religious (non-profit). The religious category undoubtedly

would have been higher if the Trinity stations had been included in the sample. Most LPTVs have signed-on in the last 10 years. Only a handful date back to the early 1980s when the FCC created the service. The oldest stations in the sample were created as translators for full-powered TV stations in the mid-60s, such as WBIR's Channel 7 on Fork Mountain. On average, a Tennessee LPTV station has been on the air 8.6 years. The largest group, 40 percent, has been on the air fewer than five years.

Tennessee LPTVs can be found in locations from the largest city to the smallest mountain cove. Owners and general managers were asked to identify the number of households reached in each station's grade A coverage area. A little more than half could provide an answer. Of those who did, half the stations served markets less than 50,000. Some Memphis stations, however, identified a potential viewing audience of more than 300,000. LPTV was not only created to serve communities without primary television service but also underserved urban enclaves in large cities. In Tennessee, 43 percent of LPTVs reported serving urban communities, while another 29 percent identified their markets as rural. Nineteen percent of the stations in the survey said their viewing audience was primarily suburban. Another 9 percent of the stations said their audiences were a combination of the above categories.

Research Question II: Who owns Tennessee LPTVs?

Most of the Tennessee LPTVs, 73 percent, are privately owned. Another 10 percent are held by public corporations. In addition, 7 percent are owned by religious organizations, with another 7 percent owned by other groups such as non-profit organizations. The remaining 2.4 percent are owned by educational institutions (Figure 3). None of LPTVs identified themselves as a noncommercial public or subscription (pay TV) station.

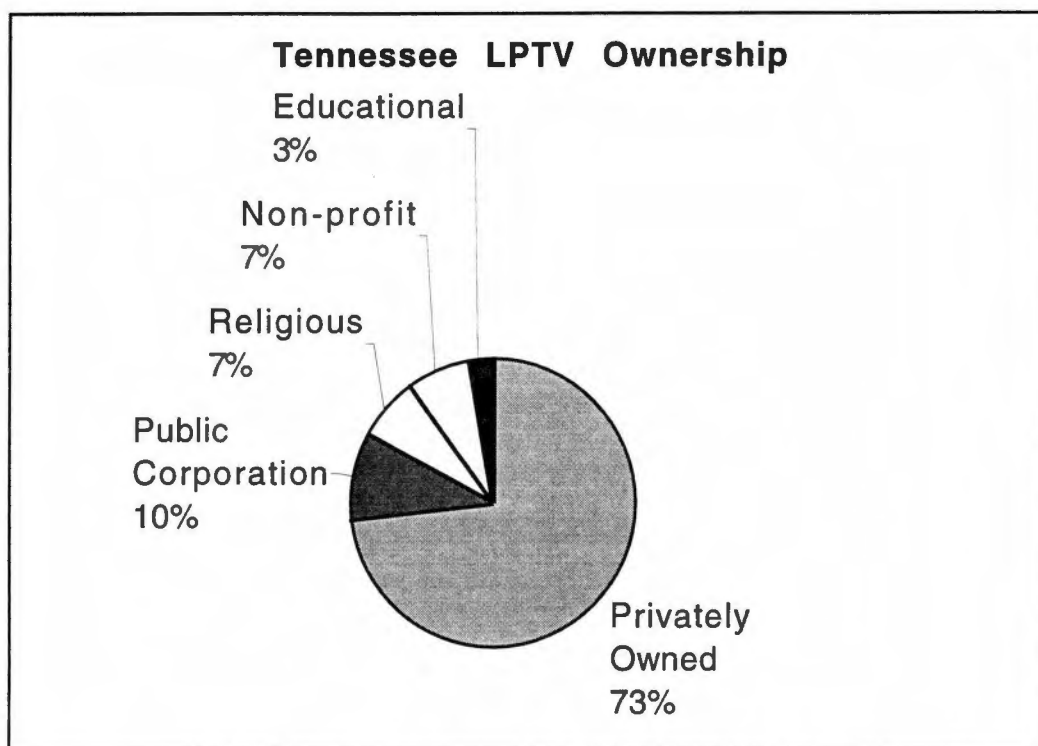


Figure 3. Tennessee LPTV Ownership

A. How many stations are owned locally and how many by out-of-market interests?

Only about one half of the stations, 51 percent, reported their owners were headquartered in the local market. More than a quarter, 28 percent of the owners, held an interest in full-powered TV stations. Slightly more than a quarter of the owners, 26 percent, also held interests in radio stations.

B. How many Tennessee LPTVs are minority owned?

The low-power TV industry likes to tout its relatively high degree of minority ownership, and there is some evidence of that in Tennessee. The study found four stations, or around 10 percent of the sample, were minority-owned in some way (Table 1). African Americans own two stations; a Native American and an Asian American own two others. The minority-owned station respondents were also asked what percentage of station

Table 1.
Tennessee Minority-Owned LPTV Stations

Race	Number of stations	Percentage of survey sample
African-American	2	4.8
Native-American	1	2.4
Asian American	1	2.4
Total	4	9.6

ownership was minority held. Only two of the four stations are owned 100 percent by minorities. The average is 65 percent. Tennessee minority ownership is about the same level as that estimated nationally five years ago when Banks (Dec. 19, 1994) reported it was around one in ten stations.

B. Is there evidence of multiple-ownership or mini-LPTV networks within markets?

In Tennessee, most LPTV owners own multiple stations. Sixty-two percent said they own two or more stations. Of those multiple owners, 76 percent owned stations within the same market. The study identified three owners who own three or more stations clustered in the same market. For example, Holston Valley Broadcasting operates six LPTVs in the Tri-Cities (including ones in Virginia and Kentucky). Other multiple station clusters within a single market are listed in table 2. Overall, the average cluster was three. Some of these operations were mini-LPTV networks. A total of 23 stations were identified as sharing the same Nielsen DMA with other commonly-owned LPTVs. Thirteen of these 23 stations were rebroadcasting the signal from the principal LPTV in the market. Other owners formatted their stations differently to reach separate target audiences.

Table 2.
LPTV Station Clusters in Tennessee Markets

Multiple Station Owner	No. of stations	Market
Holston Valley Broadcasting	6	Tri-Cities
North Georgia Television	4	Chattanooga
Dwight R. Magnuson	3	Knoxville
Tiger Eye Broadcasting	2	Nashville
George S. Flynn Jr.	2	Memphis
Three Angels Broadcasting Network	2	Chattanooga
WBIR Inc.	2	Knoxville
South Central Communications Corp.	2	Knoxville

Research Question III: What kind of programming is aired on Tennessee LPTV stations?

A. Of the 50 or more licensed LPTVs in Tennessee, how many are actually on-the-air?

Banks (Dec. 19, 1994) estimated that nearly one-fifth of all LPTV stations were off the air or automatic unmanned translator stations. Of all the stations contacted in the study, only one was discovered to be dark. That station, Channel 14, licensed to Lincoln Memorial University in Harrogate, was not included in the census results. Some of the remaining stations that did not respond to the survey may be dark as well. Including Trinity's seven stations, one can assume at least 49 out of 56 stations are on the air and serving viewers in Tennessee.

Nearly all of the stations that participated in the survey were broadcasting around the clock. Only two out of 42 stations surveyed reported they were broadcasting less than 24 hours a day, seven days a week.

B. How many stations only rebroadcast programming from a another TV station or a satellite network?

Ever since the FCC created the LPTV service in 1982, thousands of TV translator stations have come under the LPTV umbrella. Translators offer a simultaneous rebroadcast of other terrestrial stations' signal. In many cases they were set up in isolated rural communities to provide a signal from a full-powered TV station in a nearby city. With the advance of cable, there are fewer Tennessee translators today. The survey shows some LPTVs rebroadcast the signal of a primary low-power station nearby. Of the 11 stations, 24 percent, that described themselves as translators, all except one simulcast 100% of their broadcast schedule. The remaining 31 stations use a combination of programming sources. On average, their broadcast schedule is made up of 88 percent satellite programming, 10 percent local origination, and 2 percent "other" (paid or syndicated programming).

Satellite-delivered programming

When a LPTV station is not serving as a translator, it is likely to be receiving a good portion its programming via satellite. Of the 42 that participated in the survey, 30 stations, 71 percent, use some kind of satellite programming. Sixteen stations, 38 percent, depend exclusively on satellite programming.

Twenty satellite networks were represented in the sample. The Trinity Broadcasting Network has the most affiliates in Tennessee, but TBN did not provide data for this study. Of the remainder, the most frequently carried networks are shown below in descending order, with the percentage of affiliating stations.

America One Television	14.3%
Three Angels Broadcasting Network	14.3%
Family Channel	11.9%
The Home Shopping Network	11.9%
The Box	9.5%
American Independent Network	7.1%
UPN	7.1%
Fox Network	4.8%
All News Channel	4.8%
Nostalgia	4.8%

The rest were each identified by one station, or 2.4%:

Warner Brothers (The WB)

Bloomberg Shopping Channel

Jefferson Pilot Sports

Outdoor Television Network

Panda Shopping Channel

Shop at Home

World Harvest Network

Blue & White Sports Network (Brigham Young University)

Nearly 20 percent of stations using satellite programming reported having an affiliation with more than one network.

C. How many LPTV stations carry shopping or religious programming?

Nine out of 42 stations, or 21 percent, indicated they are primarily shopping channels broadcasting a satellite-delivered signal. The survey did not provide an accurate number of religious stations since the Trinity owned stations were not included. The

survey did identify six stations affiliated with the Three Angels Broadcasting Network (3ABN), a non-profit organization owned by Seventh-day Adventist laymen in Illinois. There are at least 13 religious LPTVs serving Tennessee, if one includes the TBN and 3ABN stations.

D. How many Tennessee LPTV stations produce local programming?

1. How much?
2. What kind?

Of the stations surveyed, 38 percent (16 out of 42 stations) provide some kind of local programming. Two stations in the survey broadcast nothing but local. One airs church services, the other broadcasts continuous community service announcements along with the audio of a local radio station. The flip side is that 62 percent of LPTV stations in Tennessee exclusively import signals such as another terrestrial station's signal or a satellite-delivered service (Table 3).

Of those stations that engage in local programming, 50 percent average between three and nine hours a week. However, it is noteworthy that 25 percent of the stations produce 21 or more hours a week. Figure 4 provides a breakdown of the LPTV stations in the census.

In descending order, the most frequent types of local programming were

Magazine/public affairs	81%
Sports	50%
News	44%
Community Events	44%
Talk/audience call-in	38%
Children's shows	19%

Table 3.
Tennessee LPTV Station Programming

	Stations	Percentage
Only Local	2	5%
Local/ Satellite	14	33%
Only Satellite/ Translator	26	62%
Total	42	100%

Average number of local programming hours per week

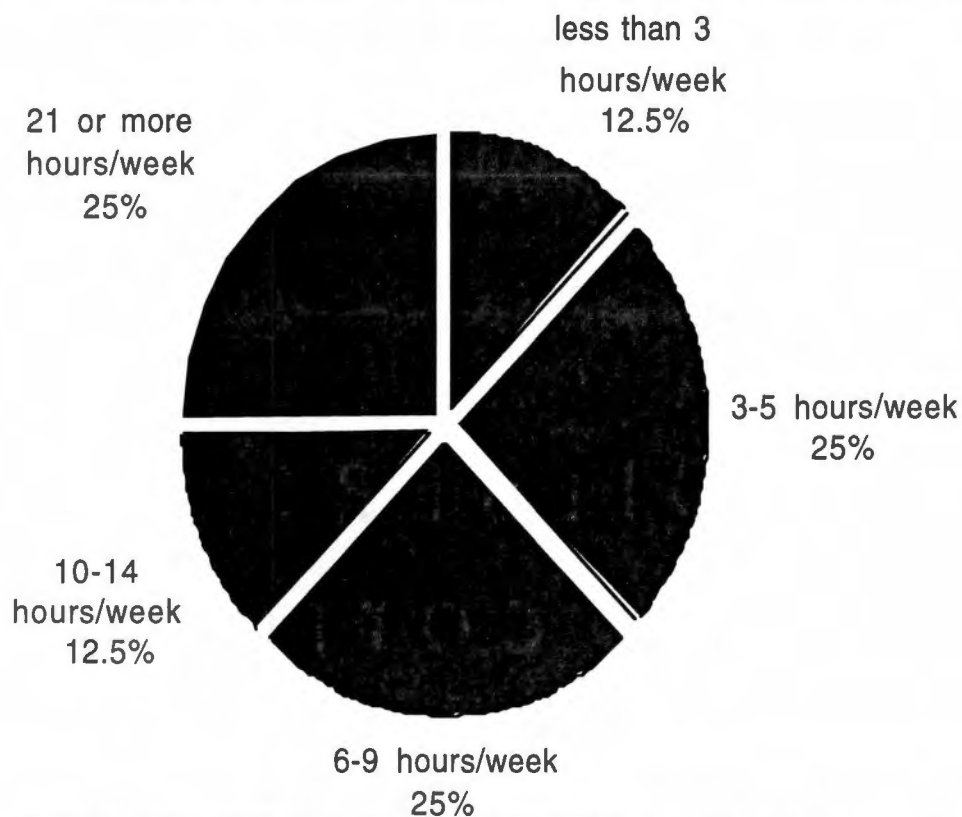


Figure 4. Average Number of Programming Hours Per Week n=16 stations

The stations producing local programming averaged 37 percent of their programming live and 72 percent taped. Most stations, 90 percent, paid nothing for outside programs, presumably getting them for free, entirely through barter or from a parent or host station. Only four stations (10 percent) were among those that did pay for programming. Their monthly programming costs ranged from \$100 to \$8,000.

Single station owners provided more local programming, on average, than multiple station owners. The survey showed 56 percent of single owners provide local programming compared to 26 percent of multiple owners. And that percentage would have dropped even lower if the Trinity stations had participated in the survey.

For stations that identified themselves as serving a rural audience, 58 percent provided local programming. In the big cities where LPTV stations serve an urban audience, only 11 percent said they provided local shows. And of those stations that produce local programming, 75 percent were locally owned. However, there was not enough information to test if local owners produce more local programming than owners who live outside the market.

Cross tabulations were run (Table 4) to see if stations that provide local programming generate more revenue than stations that do not provide local programming.

Since the study is a census of the population and achieved a 75 percent response rate, the data are regarded as a description of the population and no statistical procedures were necessary. Results are inconclusive that stations with local programming generate more revenue. Of those stations offering local programming, 44 percent offered a local newscast. Perhaps one reason LPTVs are not well known is that few are identified in the TV listing of the local newspaper. Only one third of the stations reported their programming is listed on a regular basis.

Table 4.
Comparison of Revenue Between Stations With and Without Local Programming

		Local Programming			
			Yes	No	Total
Annual Revenue	<\$25,000	Count	6	9	15
		% of <\$25,000	40.0%	60.0%	100.0%
		% with local programming	46.2%	60.0%	53.6%
Annual Revenue	>\$25,000	Count	7	6	13
		% of >\$25,000	53.8	46.2	100.0%
		% with local programming	53.8%	40.0%	46.4%
Total		Count	13	15	28
		% with revenue	46.4%	53.6%	100.0%
No Response=14 n=42		% with local programming	100.0%	100.0%	100.0%
$\chi^2 = .464$		df=1			p=.537

*This table excludes stations that do not seek revenue from local sources.

Research question IV: What is the financial health of the Tennessee LPTV industry?

Low power television stations serve communities from a few hundred individuals to large urban centers with thousands of people. The financial performance of these stations is just as varied. The study measured the financial health of the industry by asking questions concerning revenue, profits, and trends. The survey included commercial and noncommercial stations, but some of the following data apply only to commercial stations. Compared to other questions on the survey, there were a number of no answers in this category.

A. Are Tennessee LPTVs profitable as a class?

Of the 28 station owners who answered this question, 21 stations, or 75 percent, reported revenue last year of \$50,000 or less. About five stations reported revenue in the \$50,000-\$150,000 range and only two stations above that.

A third of the LPTV owners, 33 percent, reported revenue had increased over the last year. Twenty-four percent said revenues were flat, and only 5 percent said their revenues had decreased. However, 38 percent of the LPTV owners did not know or did not respond to this question when surveyed. Among the reasons cited for increasing revenue were the following:

- Increased advertising sales
- Better negotiating with vendors in the marketplace
- Local promotion
- More exposure since we've been placed on cable
- Increased cable coverage by 25 percent this year
- More local programming
- Good sales people

Other reasons cited by stations that reported revenues were flat:

- Same (no new) sponsors
- Haven't worked at it
- Didn't put that much effort into it

Of those few stations that reported revenue was decreasing, only one offered this explanation:

- Not as aggressive in raising money

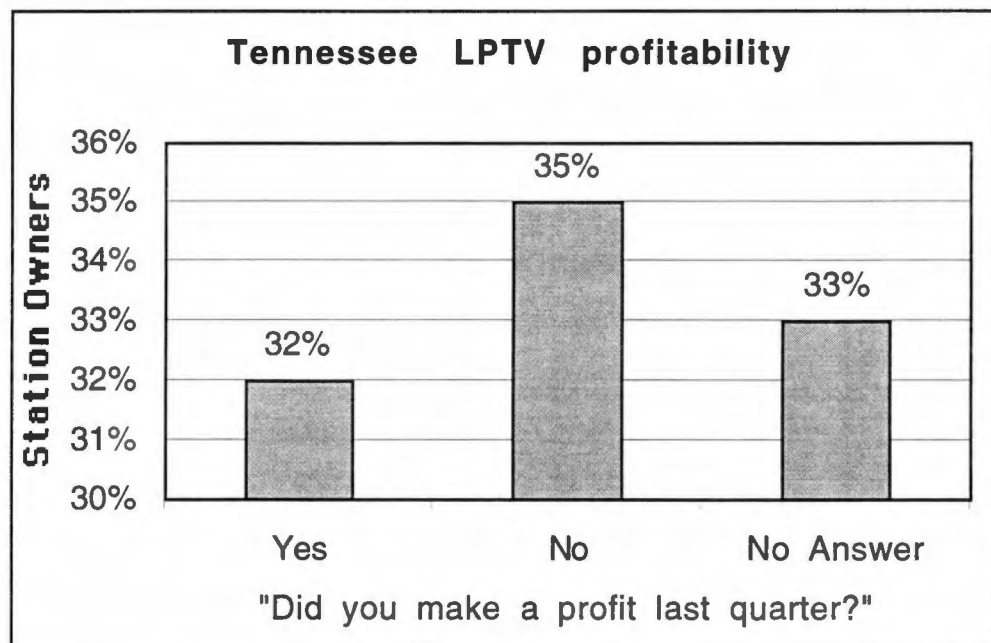


Figure 5. Tennessee LPTV profitability

Another way to examine the financial health of Tennessee's LPTV industry is to look at station profits (Figure 5). For the 37 stations who identified themselves as commercial, almost one-third, 32 percent, reported making a profit in the last quarter. A slightly higher number, 35 percent, reported they had not earned a profit. The rest of the stations did not answer the question.

Local ownership did not seem to improve financial performance. In fact, a case could be made that non-locally owned LPTV stations generate more revenue. Table five shows that 70 percent of locally owned stations generate less than \$25,000. About the same percentage, 73 percent, of non-locally owned stations have revenue of more than \$25,000 a year. Only 30 percent of locally owned stations reported making a profit in the last quarter. But 90 percent of non-locally owned stations reported making a profit. However, the results of this data may be misleading since one third of the stations refused to answer this question.

Table 5. Revenue comparison of locally owned and non-locally owned LPTV stations

Annual Revenue	Locally owned stations	Non-locally owned stations	Total
Under \$25,000	70.6%	27.3%	100%
More than \$25,000	27.2%	72.8%	100%

Stations were asked to identify how much it cost to either build their station from scratch or acquire it from another party. The average among 16 respondents who built their station was \$86,562. Only three station owners identified a purchase price. It averaged \$83,333.

B. Since cable carriage is important to the success of many TV stations, what percentage of Tennessee LPTVs is carried by a local cable system?

One of the crucial factors for success in low power television is cable carriage. LPTV signals are limited in their coverage area and their reception can be spotty. A presence on cable guarantees the station owner that a clear signal is delivered to a designated number of homes. Previous national surveys (Banks, 1994, Keefer, 1991, Latham, 1992) have shown a consistent trend; about two-thirds of all LPTV stations are carried on cable. In Tennessee that figure is substantially lower. Only 39 percent, 16 out of 42 stations surveyed, indicated they are carried by a local cable system (All but one station indicated there is cable service in its market).

Cable carriage can also be measured in number of cable households. Of those LPTV stations on cable, 50 percent have cable coverage of 19,000 subscribers or fewer. The station with the largest subscriber base is W55CD, the Paxson affiliate in Chattanooga, which reported 216,000 subscribers. However, Comcast, the MSO in Chattanooga, does not rebroadcast the off-air signal of Channel 55. Instead, it picks up the Paxson network feed off satellite.

1. Does cable carriage correlate with financial success?

It is widely assumed in the low power TV industry that cable carriage brings with it financial rewards. But the census data could not statistically prove that Tennessee LPTV stations on cable generate more revenue than non-cable stations. However, those stations that generate the most revenue tend to be carried on cable and those that generate the smallest revenue tend not to be carried on cable. The numbers in table six show that a majority of stations, 64 percent, not on cable generated less than \$25,000 a year and majority of stations on cable, 54 percent, generated more than \$25,000 a year. Only two stations reported annual revenue of more than \$150,000 a year. Both of those were on cable.

Simple cable carriage is only the big picture. Stations were asked how many cable systems were in their market and, of those, how many carried the station. There were an average of 9.6 cable systems in the LPTV markets. When carried, those stations were on

Table 6.
A Revenue Comparison of LPTV Stations On and Off Cable

		On Cable	Off Cable	Total
Annual Revenue	Count	5	9	14
<\$25,000	% with Revenue	37.5%	64.3%	100.0%
	% on Cable	41.7%	60.0	51.9%
>\$25,000	Count	7	6	13
	% with Revenue	53.8%	46.2%	100.0%
	% with Cable	58.3%	40.0%	22.2%
Total	Count	12	15	27
	% with Revenue	44.4%	55.6%	100.0%
	% with Cable	100.0%	100.0%	100.0%
No response=15 n=42				
$\chi^2 = .898$		df=1		p=.343

*This table excludes stations that do not seek revenue from local sources.

an average of 5.5 of them, suggesting that in markets where LPTV stations are carried by cable, the stations are carried by roughly 57 percent of the systems in a given market.

2. How many of these stations are carried under the FCC's must-carry rule?

The stations on cable were asked by what arrangement were they carried on their cable systems. Thirteen percent said they lease a cable channel, 43 percent said they are carried as a must-carry station. This number appears unusually high since the FCC "must-carry" provisions affect only a small number of LPTV stations. Nineteen percent are simply carried as a non-paid channel. A remaining 25 percent did not know or did not answer. None of the stations that lease channels would reveal how much they pay for carriage.

Local programming does appear to be a key factor for LPTV stations to win carriage. Of those stations already on cable, 81 percent (13 of 16 stations) provide local programming. Ironically the same percentage holds true for all stations that broadcast local programming. Eighty-one percent are on cable. LPTVs that produce a local newscast enjoy a high cable carriage rate of 85 percent.

3. How many employees (cumulative and average station) work for Tennessee LPTVs?

The stations were asked how many employees they had. More than 66 percent said they had no full-time employees and relied solely on part-time workers or volunteers. As a whole, the average staff was 2 full-time workers and 1.8 part-time. The largest employer was WKAG-LP in Hopkinsville, Kentucky, whose market also includes Clarksville, Tennessee. The station employs 24 full-time and 12 part-time staffers. Among the 42 stations represented in the census, there were a total of 88 full-time workers, 75 part-time employees and 27 volunteers. A total of 190 people work at the stations that participated in

the study. A complete list of the LPTV stations in Tennessee and those serving Tennessee viewers is located in Appendix B.

Major LPTV Issues

The last question on the survey asked owners and general managers what they believed are the major issues facing the low power television industry today.

In ranked order, the responses were:

The impact of digital TV frequencies	34%
Class A/permanent status	30%
Must-carry	30%
Retention of spectrum	13%
Lack of recognition from FCC	9%

The responses add up to more than 100 percent because stations could name more than one issue. The findings from this survey of LPTV stations will be discussed in chapter VII.

Chapter VI contains profiles of three prominent LPTV operations in Tennessee.

CHAPTER VI

STATION PROFILES

Part of this study included on-site visits to three LPTV operations in Tennessee. At each station, in-depth interviews were conducted with the general manager about the industry at-large and how each station or commonly-owned cluster of stations is coping with the massive changes ahead. These operations were selected on the basis on their financial strength and ability to provide local programming which fulfills the original FCC goals established for LPTV (Table 7). This chapter provides a glimpse into those operations and what strategy owners have used to become successful community-based low power stations.

WAPK-LP, Kingsport, WAPG-LP, Greeneville WAPW-LP, Abingdon, VA, WAPM-LP, Lynch, KY

WAPK-LP, Channel 30, is one of a handful of LPTVs in Tennessee that are operated much like a full power station. When the station signed on in 1991, it broadcast the Home Shopping Network. But since 1995, it has been the primary United Paramount Network (UPN) affiliate in the Tri-Cities market, which gives it a network prime time schedule Monday through Friday. Since June of 1998, the station has aired a local 10 p.m. newscast each weeknight anchored by the same team that provides news for its sister station WKPT, Channel 19, a full power ABC affiliate. Both stations are owned by Holston Valley Broadcasting and are located in the same building in downtown Kingsport, along with several radio stations the company owns.

WAPK's antenna is on Holston Mountain, an excellent site some 2,200 feet above average terrain. But the signal also reaches much farther than the typical LPTV, thanks to a

Table 7. Comparison of Three LPTV Operations

Grouping	Commonly-owned cluster	Commonly-owned cluster	Single-station
Owner	Holston Valley	NGTV	Landmark
Stations	WAPK, WAPG WAPW, WAPM	WTNB, WCNT WDNN, WDGA	WHRT
Location	Kingsport, Greeneville, Abingdon, VA Lynch, KY	Cleveland, Chattanooga, Dalton, GA	Murfreesboro
Local owner	No	Yes	Yes
Networks	UPN	America One, Family Net	Nostalgia, America One
Channels	30, 51, 60, 9	27, 65, 43, 47	27
Cable HH	175,699	75,000	34,000
Broadcast HH	80,000	125,000	50,000
Local hrs/week	3-5 hours	3-5 hours	more than 21
Cross media benefits	Yes	No	Yes

cluster of LPTVs that act as translators in the Tri-Cities market. The station's signal is also broadcast on WAPG-LP, Channel 51, to the south in Greene County and on WAPW-LP, Channel 60, across the stateline in the Abingdon/Washington County area of Virginia. Kentucky viewers have been able to watch the station on WAPM-LP, Channel 9, in the Lynch and Benham area since 1997. (The Virginia and Kentucky stations were not included in the survey since their signals do not reach into Tennessee).

WAPK management has worked hard to win cable carriage in systems across the market. The station is currently carried full-time on 25 cable systems. It can be seen by 79.7 percent of all DMA cable households. The total subscriber count is 175, 699 as of

June 1, 1998. An estimated 80,000 non-cable homes can also potentially receive WAPK's signal via one of the four transmitters.

Holston Valley also operates two additional LPTVs in Kingsport. WOPI-LP, Channel 56, alternates between Bloomberg Business News and Shop at Home and W25AE simulcasts WKPT's signal. The LPTV cluster of six stations including those out-of-state could pose an engineering challenge to some small operators. But here the ownership benefits from the synergy of having a full-time engineering staff on duty as a result of WKPT.

During Monday through Friday daytime, WAPK-LP airs mostly syndicated programming such as People's Court and Touched by an Angel. In early fringe it runs tabloid news shows like Hard Copy. During access it features reality shows like ET and Real TV. For sports fans the station has consistently carried Cincinnati Reds baseball. Of all the stations surveyed, WAPK pays the most for syndicated programming at around \$8,000 a month.

Besides the local news, WAPK also airs locally produced fishing and gardening shows and broadcasts local community events such as the Fourth of July parade. It broadcasts an average of between three and five hours of local programming per week.

The FCC's rollout of digital TV channels is taking a toll on Holston's family of LPTVs. WAPK-LP, Channel 30, is being bumped so as not to interfere with Knoxville's WVLT, whose new digital frequency is also Channel 30. WAPK has already been awarded a new displacement frequency of Channel 36. Holston's Channel 56, 51, and 25 must also find new frequencies because of displacement.

**WTNB-LP, Cleveland, WCNT-LP, Chattanooga
WDNN-LP Dalton, GA, WDGA-LP Dalton**

Another LPTV cluster in southeast Tennessee and north Georgia is programming community news in several towns. North Georgia Television is a non-profit organization that operates WTNB-LP, Channel 27, in Cleveland and WCNT-LP, Channel 65, in Chattanooga. However, the group's flagship station is WDNN-LP, Channel 43, in Dalton, Georgia, which broadcasts affiliated programming from America One Television, Family Net, and Raycom/Jefferson Pilot. WDNN produces a daily 30-minute newscast along with weekly local sports and talk shows. Another low power station in Dalton, WDGA-LP, serves as a translator.

In 1998, North Georgia Television's founder Doug Jensen, a CBA board member, started up a similar station in Cleveland, Tennessee, with its own 6-person news department that produces a daily newscast for Bradley, Rhea, Polk, and Meigs counties. Jensen convinced a popular TV news anchor who had left the CBS affiliate in Chattanooga to anchor the daily newscast in Cleveland. When the Cleveland station is not airing local programs it rebroadcasts WDNN's signal from Dalton.

Part of Jensen's success lies in his ability to convince local cable systems to carry his stations. Currently WDNN's signal is on five systems in Georgia. More than 200,000 cable and broadcast households can tune into one of his four stations. He credits the daily newscast in both Cleveland and Dalton as a catalyst to winning that cable support. Jensen has also recently changed the name of his organization to Community News Television, to better reflect its role as a niche broadcaster.

Another key to Jensen's success lies in geography. Both Cleveland and Dalton are in the Chattanooga market, but do not have full power TV stations providing local news in their counties. The big four network affiliates rarely cover community news in these towns except for a sensational murder, fire, or accident. WDNN and WTNB fill a niche by

providing daily coverage of local government, civic, and educational organizations, news that doesn't make air on the Chattanooga stations. Currently WCNT-LP operates as a translator for WDNN, but Jensen plans to eventually originate local programming from Chattanooga as well. Three out of four of Jensen's stations are being displaced and must find new channels.

WHRT-LP, Murfreesboro

One of the most ambitious LPTV stations producing local programming in Tennessee is WHRT-LP in Murfreesboro. At one time, 60 percent of its broadcast schedule was locally produced. Now, local programming is closer to about 16 percent, but still amounts to more than 21 hours per week.

Like the other stations profiled, WHRT produces a daily newscast, "Murfreesboro News Tonight." One of their co-anchors is a reporter for the *Murfreesboro Daily-News Journal*. The cooperation between the two media also includes a barter agreement where the newspaper runs a daily half page promoting the station's local programs and the TV station provides advertising for the newspaper. The news departments stay in touch with each other sharing story ideas. The station's other local programming includes

- A daily magazine show with local guests and entertainment
- A local, live, one and a half hour music video show with viewer participation
- Unedited coverage of the Rutherford County Commission, School Board, and Planning Commission
- High school sports including various coaches' shows, and a game of the week
- Tips from a local golf pro in a weekly 30-minute show.

Located in Rutherford, the fastest growing county in the state, WHRT is similarly positioned to provide niche community programming in the shadow of a large metro area,

Nashville. Channel 27 is carried on Intermedia's cable system which reaches a total of 34,000 subscribers in Murfreesboro. Non-cable households is estimated at 50,000. Network programming is supplied by Nostalgia and America One.

The station is locally owned by Landmark Communications, an investor group headed by local real estate developer Jim Holland. Station manager Mary Beth Wilson says if "Class A" goes into effect, plans are already in place to boost the station's power to 500 kilowatts (10 percent of full powered UHF station). This would increase the station's coverage area to Bedford and Cannon Counties, doubling the number of grade A households.

CHAPTER VII

DISCUSSION

Digital Displacement

Of all the problems that have plagued LPTV since its inception, digital displacement poses the most serious threat to the survival of the industry. This study documents how extensively Tennessee's low power television industry is being hurt by the FCC's allocation of digital channels for full powered TV stations. Nearly half of the LPTVs surveyed will be forced to relocate to other channels. Station owners will bear the economic cost of retuning transmitters and antennas to different channels. A majority of station managers estimate the cost will range from \$25,000 to \$100,000. That's lower than what has been popularly reported in the press (Davidson, 1988). But this represents only equipment and doesn't count the intangible damage from lost viewers who can no longer find their community station on the same channel where it has been for years.

A possible outcome is that some LPTV owners may be forced to sell their properties, the rationale being that stations running on a marginal basis will be sold to group owners who have more capital to finance technical changes. However, there is no strong anecdotal evidence to indicate this is an established trend.

"Class A"

There is hope for survival in a new class of stations that would protect against future displacement. The data show the proposed "Class A" status has strong support in Tennessee's LPTV community. Judging by the response to open-ended questions, many owners see "Class A" as a solution to the stepchild attitude the industry has suffered as a

secondary service under the FCC. "To me, it's like a full power license," said Mary Beth Wilson, general manager of WHRT-LP in Murfreesboro.

Only one station reported the addition of local programming to comply with the minimum three-hour per week requirement as proposed in the "Class A" legislation. This is not surprising as nearly all stations that provide local programming already meet that requirement. But the narrow 90-day window of eligibility is not popular with the Trinity Broadcasting Network, the largest private LPTV owner in the country. In a written response to this inquiry, Ben Miller, TBN's vice president of broadcast operations, said he opposes "Class A." But added that Trinity would support it if the provision requiring stations to broadcast local programs 90 days prior to passage is removed. "We have no desire to invest in local programming other than through "Class A" protected status," Miller said.

John Englebrecht, president of South Central Communications, which operates LPTV stations in the Knoxville and Nashville market, expressed a more pessimistic view. "The LPTV industry is in shambles," he said. "Class A will not happen. The CBA does not have the political clout and it won't happen because the NAB is standing on our shoulders."

However, Englebrecht said he isn't bailing out from the five low power stations he owns in Tennessee. "I will stay in LPTV because it supplies a nice cash flow. I can make it happen because of synergy. " Unlike many single-station operators, Englebrecht enjoys the benefits of cross-media ownership. For instance in Knoxville, engineers employed full time at his WIMZ-radio station also maintain his LPTV stations in Knoxville and Sevierville. The same applies to his radio and LPTV properties in Nashville.

NAB's opposition to "Class A" so angered one LPTV manager that he refused to contribute to NAB's lobbying arm "TARPAC" this year. "The greatest fear is that if we don't get "Class A" status, once we get into the digital world, the FCC will come along and

take these channel opportunities (new displacement channels) and auction them off," said George DeVault, who also is general manager of WKPT, the full power ABC affiliate in Kingsport.

"Class A" would help clear up the continuing confusion in the television and advertising industry about the number and nature of stations that operate under the LPTV designation. It would define those stations that originate local programming as opposed to a host of other stations that are translators and satellite rebroadcasters.

Ownership

Tennessee's LPTV landscape is maturing along with that of the rest of the country. While a historical comparison of the state's LPTV ownership profile is unavailable, the average number of years a station has been on the air is 8.6 years. Four years ago the national average was 7.3 years (Banks, 1994). According to the survey data, about half (51 percent) of Tennessee LPTV owners live in their respective markets. That's an important statistic and one to watch in the future. Previous researchers have identified local owners as having more interest in providing local programming in their communities of license. While there is no hard evidence that local ownership has decreased in Tennessee, many of the newer stations are not locally owned or operated. Keefer (1991) first documented this trend in a nationwide survey. Religious networks are expanding and Tennessee is no exception. Trinity and Three Angels Broadcasting (3ABN) Networks are buying up stations in each market. Currently, TBN has seven stations serving Tennessee viewers. 3ABN owns three, is currently buying one, and leasing one more.

Multiple ownership

The level of multiple ownership (63 percent) is double compared to that of national studies a decade ago. This trend may increase profitability, but it may come at the expense of

localism. The data showed more than half of single station owners provides local programming, compared to only 26 percent of multiple owners.

Some of these multiple owners do provide local programming in the form of local station clusters where several LPTVs act as translators of the primary station. Is LPTV moving toward larger and fewer owners? Such a possibility should be monitored with respect to local and minority ownership.

The question of LPTV's survival appears dependent on a balance between its uniqueness and its economic viability. There are successful model stations programming local news, sports, and entertainment each day. But that is expensive compared to relatively cheap satellite-acquired syndicated programming. LPTV owners must decide to what degree they are willing to use their channels to give back to the community. Local programming does seem to be a trump card in winning cable carriage.

Minority Ownership

Minority ownership among Tennessee LPTV stations mirrors national estimates by Banks four years ago. He found minorities owned one in ten stations, the same percentage applies to Tennessee. But one wonders whether this should be higher considering the historic advantage that the FCC has given minority applicants. Statistically, LPTV has the highest of minority ownership levels of all electronic media. But in Tennessee, owners have done little to increase the ethnic diversity of programming. The survey revealed no stations that as a whole target ethnic groups with niche programming. Under new rules for auctioning off mutually exclusive licenses, will minorities still receive favorable treatment?

LPTV and Localism

As described in chapter three, much of the prior research in LPTV has focused on the industry's role in fulfilling the FCC's original objectives to serve communities with

local programming. In 1994, Banks reported 63 percent of the nation's LPTV stations carried local programming. That figure was down from 86 percent in 1990. Banks explained that while fewer stations were doing local, those that carried local included more local shows in their programming schedule. The number of Tennessee stations broadcasting local programming is much lower than the national average in previous surveys. This study reveals 16 out of 42 stations or 38.1 percent of Tennessee stations air some kind of local material.

The drop in the percentage of stations airing local programming may also be explained by the recent growth in the LPTV religious networks that have added new stations in recent years. Nearly all of these provide little or no local programming.

Data collected in this survey confirms earlier findings (Keefer, 1991) that rural stations are more apt to broadcast local programming. In fact, only 11 percent of the stations that identified themselves as serving an urban audience carry any sort of local programming. City-based stations typically carry one of several nationally syndicated networks including home shopping, music videos, and religious channels.

Local ownership also breeds local programming. The data shows of those stations with local programming, 75 percent are locally owned.

Many LPTV owners who lived in their station's market expressed a strong desire to air programs that reflect community interests. An example was Community News Television's Doug Jensen who operates a cluster of LPTVs in Dalton, Georgia, Chattanooga and Cleveland, Tennessee. "You should be in there for the (local) programs. To provide a community service that no one else is filling," Jensen said in an interview. Jensen has pioneered daily local newscasts on both his Dalton and Cleveland stations. Each town is about 20 to 30 miles from Chattanooga. That city's big three network stations typically do not cover daily events in Dalton or Cleveland unless it is a sensational murder or event. Jensen's daily newscasts cover the rest.

Of the total number of stations surveyed, 30 percent air some kind of local news or public affairs programming. This is more than Latham's national survey (1992) which found that less than 20 percent of LPTVs air news and public affairs.

While rural LPTVs have carved a niche with local programming, urban LPTVs struggle to be recognized in a market where there may be as many as five to eight full powered over-the-air stations. Few if any Tennessee stations have followed the lead of successful LPTV stations in L.A., Miami and New York who cater to ethnic audiences. As ethnic populations continue to grow, this will become an attractive alternative for urban LPTVs searching for a viable format. A Memphis station has experimented with Hispanic programming and the owner, Dr. George Flynn, is currently negotiating for a larger Hispanic presence. Flynn says Hispanics are one segment of the community that is less likely to subscribe to cable and therefore more accessible to over-the-air, low power TV. In North Georgia, Jensen is considering an increase in the amount of Hispanic programming on his stations in Dalton because of the large influx of immigrants who work in the carpet industry. Local programming does appear to be a key factor for LPTV stations to win carriage. Of those stations already on cable, 81 percent (13 of 16 stations) provide local

Translators

The number of LPTVs serving as translators in the survey was 11 stations, or 23 percent. This is close to the 21 percent national average as reported by Banks in 1994. Some carry the signals of a commonly owned full power parent station or, as in nearly half the cases in Tennessee, they are part of a commonly owned cluster of low power stations, receiving a signal from a principal station. The survey classified these translator stations as ones that do not originate local programming. However, in some cases these stations are rebroadcasting "local" programming from a principal station nearby. This could mean there

are actually more LPTV stations distributing local programming than the raw numbers indicate.

One of the puzzling questions that arose in this research was the presence of full-power TV station translators on official LPTV published lists and government databases. Why would a translator built in the mid-1960s such as WBIR's Channel 4 in La Follette be classified by the FCC as an LPTV station? Peter Tannenwald, a noted Washington attorney who represents a number of LPTV clients before the FCC, explained it this way.

Licenses may choose for themselves whether they wish to be designated as low power stations or translators and can switch back and forth at will by simply writing a letter to the FCC. There is no application or filing fee. The FCC really does not care which category each station is in, nor does it really care if its database is in error. It tries to classify each station however that station asked to be classified in its most recent application or letter (Tannenwald, Mar. 2, 1999).

Once designated as a low power TV station, a station may still act as a translator under 47 CFR Sec. 74.731(g). There are no minimum program origination requirements. The only limit is that a translator station may not originate programming without providing notice as mentioned above.

Financial Health

It is difficult to generalize an industry that has extreme examples of financial success and failure. As Banks noted in 1994, survey numbers probably represent the most financially successful stations in the medium, since they are the most willing to talk on the record about their performance. One third of the stations surveyed said their revenues had increased over the past year, which is significantly down from historical data. Banks reported 61% in 1994 and 57% in 1990. But in other categories, the number of stations who said revenue was flat or decreasing closely paralleled the historical data. When station owners were asked about profits, the results were similar between the one third of Tennessee LPTVs who reported making a profit in the last quarter, compared to 36 percent

of stations in a 1994 national sample. There is evidence that LPTV as a medium has reached a level of stability. Compared to previous national surveys where the number of unreachable stations was very high, this survey had a relatively low number of unreachable owners.

Cable Carriage

Many LPTV owners said must-carry is one of the major issues facing the industry. Some feel the government should reward "Class A" stations with must-carry. But FCC Mass Media Bureau Chief Roy Stewart warns against linking these two issues. "If you try to push [Class A LPTV must carry] there will be no "Class A", Stewart told LPTV owners at the annual 1998 convention in Las Vegas (Biel, Dec. 9, 1998). Such linkage would not only face opposition from NAB but also the cable TV industry.

LPTV owner Jensen says must-carry should not be mandated across the board. "I don't think cable companies should be required to take LPTV just because they broadcast. I think if they're going to require must-carry there has to be localism. It's best if it's earned and not forced on them."

Perhaps the biggest cable carriage success story in Tennessee is WAPK-LP, which boasts more than 175, 000 cable households in the Tri-Cities market. Program director Fred Falin says those 25 cable systems didn't come without a lot of legwork. "I've made ten visits to cable systems this year. I've taken them antennas to see if we can find a signal."

Other LPTV owners have begged cable systems for carriage and been ignored. Why not more LPTVs on cable? No common answer dominated the responses. Some owners blamed the cable system for refusing to carry the station. Others admitted they had not even asked for carriage because, "I don't qualify for must-carry." One said they were currently negotiating with the local cable company. Local ownership and local

programming appear to play an advantage in negotiating cable carriage. A common tactic is to urge local government officials and community leaders to lobby the cable system for carriage. It doesn't always work. Knoxville's Ed Marlar, of WFEM-LP, Channel 12 has tried this and other lobbying techniques but still has not been picked up by Comcast.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

Summary

This study was designed to shed light on the little known low power television industry in Tennessee. A total of 56 LPTV stations were identified in Tennessee and border areas using FCC sources and trade publications. A telephone survey was designed and interviews were completed with the owners and/or managers of 42 stations for a response rate of 75 percent.

The census documents how the FCC's allotment of new digital television frequencies is displacing Tennessee LPTVs. The results showed 47 percent of the stations surveyed (20 stations) will be forced to relocate to other channels. A majority of owners estimate the cost of displacement will range from \$25,000 to \$100,000. A strong majority of owners, 81 percent, favor "Class A" status as proposed by the Community Broadcasters Association.

Among other major findings, of those surveyed, about half the station owners were headquartered in the same market, an important benchmark to watch in future studies. Thirty-eight percent of Tennessee stations provided some kind of local programming, a surprisingly low number when compared to previous national studies. Of those stations that do local programming, there was inconclusive evidence that they generate more revenue than stations without local programming. However, local programming was a prominent characteristic of stations that achieved cable carriage, which can substantially increase a station's viewer base. Perhaps as another consequence of the low level of local programming, only 39 percent of stations were carried on cable. In national studies, the

LPTV carriage rate has been reported as high as 63 percent. LPTVs in Tennessee that produced a local newscast enjoyed a high cable carriage rate of 85 percent.

The financial health of the state's LTPV industry appears uncertain. Seventy-five percent of the stations reported annual revenues were less than \$50,000 last year. Of the 37 stations that identified themselves as commercial, 32 percent reported making a profit last quarter. Thirty-five percent reported they had not earned a profit. The rest did not give an answer. About a third of the stations reported revenues were up last year. A slightly smaller percentage said revenues were either flat or decreasing. Again, the rest did not answer. A total of 190 people either work full, part-time, or volunteer in Tennessee's low power television industry.

Future Outlook

Digital displacement is an issue that isn't going away. The FCC plans to open windows for new DTV allotments that will likely cause more disruption among LPTV stations. That's why LPTV owners are appealing to Congress for help. Early in 1999, Representatives Charlie Norwood (R-GA) and Ron Klink (D-PA) introduced a revised version of Norwood's Community Broadcasters Protection Act in the new 106th Congress. Norwood was optimistic in his remarks to the trade press.

The last Congress served to educate Representatives to the situation faced by many of our smallest local television stations. I'm now confident that the measure will move through this Congress on a fast track as a result (Biel, Feb. 10, 1999).

While "Class A" legislation is pending in Congress, industry leaders say it may be a lot easier to convince five FCC commissioners than a majority in the House and Senate. In March of 1999, *Broadcasting & Cable* magazine reported FCC commissioners were within two weeks of announcing a proposed rulemaking in favor of "Class A" (McConnell, Mar.

1, 1999). But FCC staffers remain cautious. Some are urging LPTV owners to continue lobbying efforts in Washington and with their hometown congressmen.

What if "Class A" becomes a reality? As it is currently proposed, LPTV broadcasters can expect protection from future displacement in the spectrum. But many owners may not realize that to qualify as a "Class A" station, they not only must generate at least three hours per week of local programming, they must also abide by minimum FCC standards for full power stations, such as paying an annual regulatory fee. Broadcasters may be able to recoup the added cost of "Class A" by increasing power and enlarging their coverage area. This larger potential viewer base would be more attractive to advertisers.

There is an alternative view. Some LPTV industry observers are skeptical about the threat posed by DTV. Consultant Rodger Skinner predicts that if big market, full power, digital stations fail to inspire viewers to purchase digital sets, the whole digital phenomena will fail much the same way quadrasonic sound failed to gain acceptance in the 1970s (Skinner, 1998). "Long after the digital firestorm has burned its way out," Skinner says, "LPTV stations will still be serving their local communities."

LPFM

While LPTV broadcasters are trying to weather the storm of digital displacement, some are looking over their shoulder at yet another low power service the FCC wants to create. On Jan. 28, 1999, the FCC released a Notice of Proposed Rulemaking that, if enacted, could allow hundreds, if not thousands, of small low-powered FM radio stations (Labaton, Jan. 29, 1999).

It was a Florida LPTV broadcaster, Rodger Skinner, who filed one of the three LPFM petitions for rulemaking in 1998. The new class would license stations to broadcast at 1000 and 100 watt levels. The FCC is also asking for public comment on a third proposal to develop a class of microradio stations that would transmit from 1-10 watts.

There are several parallels between the development of LPTV and the FCC's proposal for LPFM. Like the early days of LPTV, the FCC said its goals for the new low power FM service are to allow new entry and diversity of broadcast ownership. (FCC Proposes, Jan. 28, 1999). As with LPTV, low power radio is designed to serve underserved audiences in urban communities and small rural towns.

In order to meet these goals, the FCC may have learned a thing or two from its experience with LPTV. None of the proposed LPFM classes would be allowed to operate as translators for full powered stations. Strict ownership restrictions would ban full power owners from owning or having any joint marketing agreement with the new LPFMs and prohibit anyone from owning more than one LPFM in one community (FCC Proposes, 1999).

However, the FCC's goal to encourage diverse broadcast ownership could be hurt by its decision to award mutually exclusive applications by auction. The "one with the most money wins" runs counter to lowering the barrier to entry for radio station ownership. A more egalitarian alternative would be a return to the lottery process such as used for years in awarding LPTV applicants.

LPFM faces strong opposition from the National Association of Broadcasters who says it will cause "devastating" interference to present analog and the new In Band on Channel digital service under study (Biel, 1999, p. 2).

LPTV in a Digital World

The FCC has mandated that all full powered TV stations relinquish analog broadcasting by the year 2006. But where does that leave LPTV? Currently rules do not exist yet for LPDT or low power digital television. As it reels from the displacement problems caused by the introduction of DTV, the industry appears willing to wait while full power broadcasters work out the bugs and prices drop on digital equipment. The

investment required to go digital lies beyond the financial resources of many "mom and pop" operators. TV viewers can't receive digital signals unless they have a special DTV set or converter box. Since very few people own these, LPTV consultants like Bob Fisher are recommending their clients "wait and see" if anyone buys DTV sets before encouraging stations to convert to DTV (Fisher, Feb. 16, 1999). If and when LPTV broadcasters want to jump into digital, they should time their entry carefully because as it stands now, they are not entitled to an extra channel during the transition.

Some DTV options for LPTV "Class A" stations are spelled out in H.R. 486, the Community Broadcasters Protection Act introduced by Congressman Norwood of Georgia. The bill does not require the FCC to issue any additional licenses for advanced television services to the licensees of "Class A" stations, but it directs the FCC to "accept license applications proposing facilities that will not cause interference to any other broadcast facility" (H.R. 486, 1999). The bill says if the FCC awards a DTV license to an LPTV broadcaster they must relinquish that frequency or the original license once the DTV transition period is terminated. Finally, it says LPTV owners may opt to convert to advanced television services on their analog channel, but the FCC shall not require LPTVs to convert until the end of the DTV transition.

One of the unsettled issues that could impact LPTV is the controversy over whether new DTV signals should be required as "must-carry" on local cable systems. The NAB, representing over-the-air broadcasters, maintains DTV should be must carried, while the cable industry is vehemently opposed. If Congress or the courts require DTV must-carry, it will make it much harder for LPTVs to win carriage because of the scarcity of cable channels. However, as cable systems convert to their own digital systems, channel capacity is expected to rise which may offset this potential negative impact.

Recommendations

After conducting this study, this researcher recommends a new class of stations that would offer protection in return for unique locally-based programming. The industry should concentrate its resources on lobbying the FCC and Congress to create this new class of stations. The most pressing issue facing the LPTV industry is passage of "Class A" legislation that would help level the playing field between low power and full power stations. The secondary status of LPTV has limited broadcasters from having access to capital to make the necessary improvements in programming and equipment to remain competitive. Conversion from secondary to primary status would attract more investment and capital from owners.

The census confirms station owner concern for "must-carry" designation, but the likelihood of winning that now is dim, considering the strong opposition from the NAB. But for LPTV to survive in the 500 channel universe, it needs some cable parity with full power broadcasters and cable networks. The FCC should mandate carriage of LPTVs, at least "Class A" stations that offer a minimum amount of local programming. While they should not be guaranteed coverage over the entire DMA, "Class A" stations should at least be "must-carried" on cable systems in those counties covered by the LPTV's signal. As cable channel capacity continues to rise, cable operators may be more receptive to carrying an LPTV station, especially one with local origination.

To survive, LPTV owners must seek out programming that attract viewers. To be successful on the air and on cable, LPTVs must provide local programming. It works especially well for communities without a full power broadcaster to cover community news. In urban areas, successful strategies are less certain. The literature review showed that in large metro areas, niche programming for ethnic audiences is performing well. LPTV broadcasters in the state's major cities like Nashville and Memphis should seriously consider a similar format. This survey revealed a surprising absence of such programming.

Chain Ownership

As LPTV faces more competition from expanded cable capacity and DBS, some national program distributors are looking elsewhere. National religious networks, like the Trinity and Three Angels Broadcasting are promoting satellite direct-to-home channels, a more efficient delivery service that ensures good reception nearly anywhere and places the burden of setting up and maintaining equipment on the viewer. There is no sign that TBN or 3ABN will abandon their national LPTV networks, but as DBS becomes more accepted, these networks may slow their development of new LPTV downlinks.

Issues for Further Research

This study marks only a snapshot in time of LPTV broadcasting in one state. As the medium faces new challenges from government regulators and the onslaught of digital television, it will be important to replicate this study as a way to track Tennessee's LPTV industry. Other issues worth exploring include case studies of model stations who successfully use local programming to draw viewers and revenue, a survey of cable systems as to why they do or do not carry low power signals, a closer look at local programming to examine what works and why. Also more research is necessary to study the trend toward higher multiple LPTV ownership. How will this effect local programming and minority ownership? There is also the issue of where and how LPTV will adopt digital broadcasting. Is the industry prepared to invest in expensive technology to remain competitive with full-powered television? And as noted in this chapter, an emerging issue is the development of low-power FM radio. How will the FCC implement this new service in ways that are different or similar to LPTV, especially as it relates to possible restrictions on ownership?

References

References

- ATV licensing casts a shadow on LTPV. (1997, Jan. 13). Video Technology News, 2.
- Atkin, D. (1987, Dec.). The (low) power elite: Deregulated licensing criteria for low-power television in the USA. Telecommunications Policy, 357-368.
- Banks, M. J. (1994, Dec 19). The state of the low power television industry (part I). Community Television Business 1(15), 1, 5, 8.
- Banks, M.J. (1995, Jan. 16). The state of the low power television industry (part II). Community Television Business 2(1), 1, 5, 8.
- Banks, M. J. (1995, Jan. 30). The state of the low power television industry (part III). Community Television Business 2(2), 1, 5, 8.
- Banks, M. J. (1995, Feb. 13). The state of the low power television industry (part IV). Community Television Business 2(3), 1, 5, 8.
- Banks, M.J. & Havice, M.J. (1991, July-August). Selling time in a new medium: A survey of the low power television industry. Broadcast Cable Financial Journal, pp. 24, 26, 28, 30, 32.
- Banks, M. J. & Titus, S. E. (1990, Fall). The promise and performance of low power television. Journal of Media Economics 3(2), 15-25.
- Beating the drum for LPTV. (1989, May 8). Broadcasting 116(19), 70-71.
- Berkowitz, E (1984, Spring). Low Power Television. University of San Francisco Law Review 18, p. 505-533.
- Biel, J. (1985). Low power television: Development and current status of the LPTV industry. National Association of Broadcasters: Washington D.C.
- Biel, J. (1998a, June 25). Class A bills in Congress could pass quietly this season. Community Television Business 5(10), 1.
- Biel, J. (1998b, June 25). First displacement applications could be granted by September. Community Television Business 5(10), 6.
- Biel, J. (1998, Oct. 28). Last minute holds scuttle S. 1427. Community Television Business 5(17), 1.
- Biel, J. (1998, Dec. 9). Be visible, fight hard. Community Television Business 5(18), 1.
- Biel, J. (1999, Feb. 10). Norwood, Klink seeking support for revised Class A bill. Community Television Business 6(3), 1.

- Broadcasting and Cable Yearbook 1998. (Volume 1), R.R. Bowker: New Providence, New Jersey.
- Brummet, J. (1998, March 5). Local Broadcast News Upstart TV station KKYK-WB22. Arkansas-Democrat Gazette, E1.
- By The Numbers. (1998, Sept. 30). Broadcasting and Cable, 128(40) 55.
- Cable Television Consumer Protection Act of 1992, 47 U.S.C. Statute 534 and 535 (1992).
- Carey, J. (1983). An Assessment of Low-Power Television for the Nonprofit Community. The Benton Foundation & Corporation for Public Broadcasting, Washington, D.C. (ERIC documentation Reproduction Service No. ED 254 203)
- CBA asks FCC for LPTV name change. (1991, Jan. 17). Broadcasting, 62.
- CBA forced to defend bid to get primary status for some LPTV stations. (1997, Oct. 9). Communications Daily.
- CBA says LPTV Service Can't Be Ignored. (1998, June 12). Communications Daily.
- CBA to Hit MSOs at Senate Hearing for Refusing to Carry LPTV Signals. (1989, Oct. 24) Communications Daily, 9(205), 3.
- Coe, S. (1995, Nov. 13). Nielsen to measure LPTVs. Broadcasting and Cable, 125(46) 55.
- Commission postpones date for filing TV translator and LPTV applications for replacement channels. (1998, April 17). Washington D. C.:Federal Communications Commission Press Release.
- Community Broadcasters Protection Act of 1997, H.R. 1539, 105th Cong., 1st Sess. (1997). (<http://thomas.loc.gov/cgi-bin/query/D?c1055:2:1temp/~c105m123IX:>) June 19, 1998.
- Community Broadcasters Protection Act of 1997, S. 1427, 105th Cong., 1st Sess. (1997). (<http://thomas.loc.gov/cgi-bin/query/D?c105:1:/1temp/~c105m123IX:>) June 19, 1998.
- Community Broadcasters Protection Act of 1999, H.R. 486, 106th Cong., 1st Sess. (1999). (<http://thomas.loc.gov/cgi-bin/query/D?c106:1:/temp/~c106Vygg1I:e1060:>) April 20, 1999.
- Conner, A. J. (1984). Low-Power Television and the Broadcasting Regulatory (Master's thesis, Pennsylvania State University, 1984).
- Copyright Office opens door for cable carriage of LPTV stations. (1984, Nov. 28). Communications Daily 4(230), 1.

- Corwin, T. (1996, Dec. 28). Technological advances in communications could affect some local television channels. August Chronicle Online, ` (<http://augustachronicle.com/stories/122996/telcom.html>) June 17, 1998.
- Couzens, M. (1985, Sept. 9). LPTV still afloat after a rough five years. Broadcasting, 109, 32.
- Cunard, J. P. (1998, March). Digital TV finally ready to go. Cable TV & New Media Law and Finance, 16(1), 1.
- Davidson, P. (1998, Sept. 9). Tiny TV stations on Americana's endangered list. USA Today, 12B.
- Disagreement over LPTV's future. (1985, Nov. 25). Television Radio/Age 33(10), 54.
- FCC approves final lottery rules. (1983, March 14). Broadcasting, 31.
- FCC inundated by as many as 50,000 low-power TV applications. (1984, March 9). Communications Daily 4(48), 3.
- FCC Low Power Television (LPTV) Fact Sheet (1982, Mar. 18).
- FCC moves on Ch. 60-69. (1997, July 14). Television Digest. (<http://nrstg2p.djnr.com/cgi-bin/Ne...What=What1&AdditionalSources=MEDIA>) June 17, 1998.
- FCC petitioned to review its low power plan. (1980, Nov. 24). Broadcasting 99, 42.
- Federal Communications Commission. (1998). A Glossary of Telecommunications Terms. Washington D.C.
- Federal Communications Commission. "Report and Order, Amendments to Rules on Experimental Auxiliary, and Special Broadcast Services." Federal Register 21 (1956): 3680.
- Federal Communications Commission. "Amendments to Rules on Experimental and Auxiliary Broadcast Stations: Operations of UHF Translator Stations," Federal Register 23 (1958) 9141-9142.
- Federal Communications Commission. "Amendment of the Rules Governing Television Broadcast Translator Stations." Federal Communications Commission Reports 2nd 13 (1968), 305.
- Federal Communications Commission. "Notice of Inquiry into the Future Role of Low-Power Television Broadcasting and Television Translators in the National Telecommunications System." Federal Communications Commission Reports 2nd 68 (1978): 1525.
- Federal Communications Commission. "Notice of Proposed Rulemaking on the Need for Low Power Television Service." Federal Communications Commissioner Reports 2nd 82 (1980): 47.

- Federal Communications Commission. "Order Imposing Freeze on Applications for Translator and LPTV Station Licensees." Federal Register 46 (1981): 2602.
- Federal Communications Commission. "Report and Order in the matter of the Future Role of Low Power Television Broadcasting and Television Translators in the National Telecommunications System, (Final Rule). Federal Register 47 (1982, May 18): 21,468.
- Federal Communications Commission. "Report and Order in the matter of the Future Role of Low Power Television Broadcasting and Television Translators in the National Telecommunications System, (Amended Final Rule). Federal Register 48 (1983, May 12): 21,478.
- Federal Communications Commission. "Report and Order: Low Power Television and TV Translator Service--Institution of 'Window' Filing Procedure." Federal Communication Commission Reports 2nd 102 (1984): 295.
- Federal Communications Commission. "First Report and Order: Review of the Commission's Rules Governing the Low Power Television Service." FCC Record 9(12) (1994, May 19): 2555-2563.
- Federal Communications Commission. "Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order in the Advanced Television System Docket." FCC Record 13(10) (1998): 6860.
- Federal Communications Commission. "Public Notice: Petition for Rulemaking for 'Class A' TV Service." RM-9260, (1998, April 21). (http://www.fcc.gov/Bureaus/Mass_Media/Filings/rm9260.pdf.) June 16, 1998.
- Federal Communications Commission. "FCC Proposes Licensed Low Power FM Radio." MM-99-25, (1999, Jan 28). (http://www.fcc.gov/Bureaus/Mass_Media/News_Releases/1999/nrmm9003.html) Feb. 5, 1999.
- Fisher, B. <thirdcoa@hit.net> (1999, Feb. 16). [LPTV Listserve]. Feb. 16, 1999.
- Ford, W. "The Community Broadcasters Protection Act of 1997." Statements on Introduced Bills and Joint Resolutions, 105th Cong., 1st Sess. (1997, Nov. 7) (<http://thomas.loc.gov/cgi-bin/query/D?r105:8:.1temp/~r105pa2ALW:e503383>;) June 19, 1998.
- Friedman, W. (1996, Feb. 21). Low-power heavyweight, WBND-TV. Inside Media, 8(4) 22.
- Gross, L.S. (1997). Telecommunications: An Introduction to Electronic Media Brown & Benchmark: Dubuque, IA.
- Hall, L. (1998, January 5). Low-power TV fights digital battle to survive, Electronic Media, 3.
- Hall, S. (1998, July 2). DTV Trade: Excellent pictures but less to see. Indianapolis Star, p. E1.

- Happy Broadcasters. (1998, March 12). Broadcasting Cable Online (www.broadcastingcable.com).
- Hardy, Q. (1998, June 5). As the town turns: sit back, grab a beer, see some grass grow, Wall St. Journal, no. 109, p. 1.
- Hsiung, J. C. et al. (1983, May 29). Low power television: The impact of the final regulations. Paper presented to Mass Communication Division of the annual conference of the International Communication Association, Dallas, TX.
- Isenberg, B. (1981, Feb. 20). Low power stations: TV interest runs high, Los Angeles Times, part VI, pp. 1, 17.
- John Kompas: The high power behind low power. (1990, Jan. 8). Broadcasting 118(2), 135.
- Jones, W. (1997, July 31). Budget amendment helps broadcasters. Augusta (Ga.) Chronicle, p. C12. (<http://web.lexis-nexis.com/univers...5=30e00c01981e1d55ela528cf2ced5761e>) June 12, 1998.
- Katz, R. (1990, Dec. 3). A low-wire act. Channels, 10(18), 92.
- Keefer, J.H. (1991). The FCC's low-power television service policy: development, implementation and implications (Doctoral dissertation, University of North Carolina, Chapel Hill, 1991). Dissertation Abstracts International, 53(01A), p. 0009.
- Kendrick, J. M. (1983). The FCC and low-power television: Managing the new gold rush. Rutgers Law Review, 36, 233-285.
- Kersey, A.J. (1995). Low power television in 1994: Outgrowing its secondary status. CommLaw Conspectus, 3(1), 53-62.
- Kesler, L. (1986, Aug. 11). Low-power stations build up SIN's strength. Advertising Age, 57(43), S-6.
- LPTV seeks power upgrade, 4-letter calls, other full-power attributes. (1991, June 13). Communications Daily, 11(114) 1.
- LPTV to remain secondary service-Sikes. (1990, Nov. 20). Communications Daily 10(224), 2.
- LPTV west: 'An industry waiting to happen'. (1984, April 2). Broadcasting, 106(14), 52, 56.
- Labaton, S. (1999, Jan. 29). FCC offers low-power FM stations. The New York Times, p. C1.
- LaFayette, J. (1998, February 16). Digital pushes out low-power Cincinnati station. Electronic Media, 1.

- Latham, K. (1992). Low-power television and the issue of localism: Levels of diversity in a new medium (Master's thesis , Texas Tech University, 1992).
- Lloyd, F.W. (chair) (1998). Cable Television Law, New York: Practising Law Institute, 280.
- Low power in the Big Apple. (1988, Sept. 26). Broadcasting, 115(13), 67.
- Low-power TV--a medium searches for an audience. (1984, April 4). Advertising Age, 55(16), 62.
- Low power TV: Coming of age in uncertain times. (1990, April 9). Broadcasting 118(15) 60.
- Low-power TV gains strength. (1990, May 14). New York Times, p. D-8.
- Low-power television. (1982, Nov. 8). Broadcasting, 103(8), 80-81.
- Low-power television. (1984, Dec. 10). Broadcasting, 107(24), 58,66.
- Low power television stations require marketing programs to complement their technical expertise. (1983, March 4). Marketing News, 17, 4.
- McConnell, B. (1999, March 1). FCC proposes upgrading LPTV. Broadcasting & Cable, 129(9), 19.
- McConnell, C. (1997, March 17). Digital TV no sure thing. Broadcasting & Cable, 127(11), 8.
- McConnell, C. (1998, March 16). LPTV says cable overprotected. Broadcasting & Cable, 128(11), 22.
- McConnell, C. & Colman, P. (1998, July 13). FCC tackles digital must carry. Broadcasting & Cable 128(29) 8.
- Malt, L. (1991, Jan. 14). LPTV officials fear spectrum loss to HDTV. Electronic Media, 124.
- Mandrell, E. (1994) FCC announces amendments to low power television rules" News Release from Pepper & Corazzini L.L.P. (<http://www.commlaw.com/pepper/Memos/LPTV/memo-lptv-060594.html>) June 21, 1998.
- Marshall, J. (1998, April 28). Digital TV threatens ethnic shows; tiny, diverse stations may be forced off the air, San Francisco Chronicle, p. D-1.
- Mayeda, D. M. (1981). High potential in low power: A model for an efficient low power television service. Federal Communications Law Journal, 33(5), 419-469.
- Measure for Measure. (1996, March 11). Mediaweek, 6(11) 14.

- Murray, T. J. (1984, June). LPTV: A hot new investment. Dun's Business Month, 123, 131.
- NAB Notebook. (1998, April 13). Television Digest
- Negroponete, N. (1995). Being Digital, New York: Knopf.
- NTIA seeks more localism in DTV allotments to free spectrum. (1997, Feb. 25). Communication Daily.
- National Telecommunications and Information Agency. "Minority Commercial Broadcast Ownership Findings." (1997, August). (<http://www.ntia.doc.gov/reports/97minority/index.html>) April 20, 1999.
- PL No. 91-35, Stat. 736 (1981) amending 47 U.S. Code, 309(i), p. 1242(a).
- PL No. 97-259, Stat. 736 (1982) amending 47 U.S. Code, 309(i).
- PBR Notes. (1997, March 21). Public Broadcasting Report, (<http://nrstg2p.djnr.com/cgi-bin/Ne...What=What1&Additional Sources =MEDIA>) June 17, 1998.
- Pae, P. (1989, May 30). Low-power TV expands, fed by new programming. Wall St. Journal, p. B1, 2.
- Pinsky, M. (1990, April 19). Los Angeles Times, p. A-1.
- Puglisi, R. (1991, October). Covering their own backyard. RTNDA Communicator, 45, 20-23.
- Quello praises LPTV, calls charge against MSOs 'Disturbing if True. (1989, Nov. 7). Communications Daily, 9(215), 2.
- Quello tells CBA it has made good case at FCC. (1991, Nov. 26). Communications Daily, 11(228), 2.
- Reardon, R. C. (1986). Television viewing patterns of low power television station W07BN, Bruce, Mississippi, in Calhoun County, Mississippi: A statistical analysis (Master's thesis, University of Mississippi, 1986).
- Schmuckler, E. (1982, July 10-17). Many Voices or More Markets? The Nation, p. 41-43.
- Sears has everything, maybe even translators. (1980, Oct. 13). Broadcasting, 99(15), 24-25.
- Shiver, J. (1998, June 10). Digital TV may squelch minority-owned stations. Los Angeles Times, A1.
- Singletary, M. (1994). Mass Communication Research: Contemporary methods and applications. Reading, MA: Addison-Wesley.

- Skinner, R. (1998). Frequently Asked Questions on Low Power FM Radio. (<http://www.concentric.net/~Radiotv/>). (1999, March 12).
- Shoemaker, P. & M. McCombs (1989). Survey Research. In G. Stempel III & B. Westley (Eds.), *Research Methods in Mass Communications* (p. 165). Englewood Cliffs, N J.: Prentice Hall.
- Stern, C. (1994, May 23). New Calls for LPTV. (*Broadcasting*, 124(21) 16).
- Sullivan, T. (1990, Nov.). Best kept secret. *Cable TV Business*, 27(21), 24-25.
- Tannenwald, P. <ptannenwald@ictpc.com> (1999, Mar. 2). LPTV classification. [personal e-mail]. (1999, Mar. 3).
- Television and Cable Factbook* (vol. 66). (1998). Washington D. C.: Warren Publishing.
- Television: low powered stuff. (1982, May 1). *The Economist*, p. 59 (U.S. edition p. 33).
- Trachtenberg, J.A. (1984, Nov. 5). Channels paved with gold. *Forbes*, 96.
- U.S. Supreme Court upholds must-carry in surprise decision. (1997, April 7). *Warren's Cable Regulation Monitor*. ([http://nrstg2p.djnr.com/cgi-bin/Ne...What=What1&Additional Sources =MEDIA](http://nrstg2p.djnr.com/cgi-bin/Ne...What=What1&AdditionalSources=MEDIA)) June 17, 1998.
- Wagner, L. (1998, April 26). Casualties of the digital TV revolution, *The Virginian-Pilot* (Norfolk, Va), p. D-1.
- White, S.O. (1992). The viability of low power television (LPTV) service in the United States (Doctoral dissertation, Howard University, 1992). *Dissertation Abstracts International*, 54-07A, p. 2375.
- Wines, M. (1985, Jan.). Video Roulette, *Financial Planning*, 111.
- Wyche, M C. & Stamler, D. (1983, April). The local promise of low power TV: A pipe dream? *Satellite Communications*, 7, 30-33.

Appendices

Appendix A

Tennessee LPTV Telephone Survey November 1998

Basic station information obtained from published sources before phoning station:

Station identification number _____ (range is 1 through ____)

City _____ County _____

State _____ Call letters: _____

Phone: _____

Hi, my name is _____. I'm doing research for the University of Tennessee in Knoxville, on low power television stations in Tennessee. I'd like to ask you a few questions about the impact of the new FCC digital television frequencies on your station. Some of these questions are similar to a national survey taken earlier this year. But this project is not related to that. We're focusing on the health and status of the LPTV industry in the Volunteer State.

Information to be gathered from stations:

1. Will your station be forced to find another channel because of the FCC's rollout of new Digital TV frequencies?

Yes _____ No _____ Uncertain _____ (If "NO" or "Uncertain" skip to question # 4)

2. Have you already been awarded a displacement channel by the FCC?

Yes _____ No _____ Uncertain _____

3. How much do you estimate it will cost to move your station to a new frequency?

Under \$10,000 _____
 \$10,000-25,000 _____
 \$25,000-50,000 _____
 \$50,000-100,000 _____
 Above \$100,000 _____
 Don't know _____

4. Do you support the Community Broadcasters Association's proposal to authorize a "Class A" status for LPTVs?

Yes _____ No _____ Uncertain _____

5. Why? or Why not?

6. Have you added local programming this year so as to qualify for Class A status?

Already qualify _____ Yes _____ No _____ Uncertain _____

Now, a few questions about your station

7. How long has your station been on the air? Month _____ Year _____
8. How many households are in your grade A coverage area? _____ households
9. How many hours a day do you broadcast, on average? _____ hours per day
- 10 How many employees does the station have?
 _____ full time
 _____ part time
 _____ volunteers
11. Would you classify your station as:
 _____ Noncommercial Public
 _____ Noncommercial Educational
 _____ Religious (non-profit)
 _____ Subscription TV or Pay TV
 _____ Commercial
 _____ Other _____
12. What type of community does your station serve? (circle one)
 rural
 suburban
 urban
 OTHER _____

I'd like to ask you about the programming on your station.

13. What percentage of your on-air schedule do you estimate is
- | | |
|--|---------|
| Simultaneous translating of another station's signal | _____ % |
| Satellite delivered service | _____ % |
| Locally produced
(including hours that programs are repeated) | _____ % |
| OTHER _____ | _____ % |
- (LIST SHOULD TOTAL 100%)
14. What satellite services do you use? (check any that may apply)
- | | |
|---------------------------------------|---|
| _____ American Independent Network | _____ Channel America |
| _____ Country Music Television | _____ Family Network |
| _____ Fox Network | _____ Home Shopping Channel |
| _____ The Learning Channel | _____ National College Television |
| _____ National Empowerment Television | _____ Resort Sports Network |
| _____ Trinity Broadcasting Network | _____ Three Angels Broadcasting Network |
| _____ Telemundo | _____ Video Jukebox |
| _____ Univision | _____ WB Network |
| _____ Pax Net | _____ UPN |
| _____ Other (names) _____ | |
15. Does your station broadcast locally-produced programming? Yes _____ No _____
 (IF NO, SKIP TO #20)

16. How many hours of local programming do you typically produce in a week?

- less than 3
 3-5
 6-9
 10-14
 15-20
 21- or more

17. What types of programs do you locally produce? (check all that apply)

- News
 Sports
 Talk or Audience call-in
 Community Events
 Children's programs
 Magazine or public affairs shows
 Anything else? _____
 NONE

18. What percentage of your local programming is first aired
(not including repeated programs)

Live _____%
 Taped _____%

19. What kind of local programming works especially well in attracting an audience?

20. How much, if anything, do you pay monthly to purchase outside programming?

\$ _____/month

21. Is your programming included in local newspaper TV program listings?

- Yes
 No
 Don't know

Now a few questions on ownership

22. Is your station owned by a:

- private business
 publicly held corporation
 local government
 educational institution
 religious organization
 or by OTHER means? _____

23. Are the owners headquartered in the market in which your station is located?

Yes _____ No _____

24. Do your station owners have any ownership in the following, and indicate how many of each:

Newspapers? _____
 Radio? _____
 Full Power TV? _____
 Other LPTV? _____
 Other media? _____

25. (IF YES TO LPTVs) Does your organization own any other LPTVs in this market?
 Yes _____ No _____

26. (IF YES) How many? _____ stations

27. (IF YES) Do they rebroadcast programming from your principal station? Yes _____ No _____

28. Is your station in any way minority owned? Yes _____ No _____ (IF NO, SKIP TO # 31)

29. (IF YES) Which minorities are owners?
 Native American (Indian or Eskimo)
 African American (Black)
 Hispanic
 Asian American
 OTHER: _____

30. (IF YES) What percentage of ownership is minority held? _____%

Thank you, this information is helpful. And now, just a few questions about cable coverage.

31. Is your community served by cable? Yes _____ No _____ (IF NO, skip to #38)

32. (IF YES) Is your station on it? Yes _____ No _____

33. (IF NO) Can you tell me why not?

34. (IF CARRIED) Approximately, how many cable households do you reach? _____ Households

How many cable systems are there in your market? _____
 ...and of these cable systems, how many carry your station? _____

35. (IF CARRIED) Are you carried as a

1. Leased cable channel
2. Must-carry cable channel
3. Non-paid cable channel

36. (IF #1 is circled) How much do you pay each month? \$ _____/month

37. What percentage of your revenues come from:

Government/Tax support _____ %
 Sponsoring owner(s) _____ %
 Viewer contribution _____ %
 Advertising _____ %
 OTHER _____ %

38. What would you say is the general level of annual revenues from this station last year? (including all sources)

Under \$25,000 _____
 \$25,000-\$50,000 _____
 \$50,000-\$150,000 _____
 \$150,000-\$250,000 _____
 \$250,000-\$500,000 _____
 \$Above \$500,000 _____
 Won't answer _____

39. Are your revenues increasing, flat, or decreasing, and why?

WHY

_____ increasing _____
 _____ flat _____
 _____ decreasing _____
 _____ don't know _____

41. Have you had an operating profit in the last quarter? Yes _____ No _____

I'm almost finished, just two more questions.

42. In approximate dollars, what was the total cost in getting this station on the air, or otherwise acquiring the station?

Cost in getting station on the air \$ _____
 (OR)
 Cost of acquiring station \$ _____

43. What would you say are the most important issues or needs facing low power television today?
 (Write in space below)

Would you allow us to use your name and comments in our report?

(IF YES)

Name _____

Title _____

If you would like to see a copy of the survey results, can I get your mailing address?

Mailing address _____

Thank you very much for your time and contributing to our research.

Appendix B: List of LPTV Stations

List of LPTV stations in Tennessee or that serve viewers in Tennessee (1998)

- originates local programming
- * serves as a translator for another full or low-powered station

City/ State	Ch.	Station	Network affiliation	Local Prog.
Adamsville, TN	18	W18BL	TBN	•
Chattanooga, TN	6	W06BG		
Chattanooga, TN	26	W26BE	3ABN	
Chattanooga, TN	39	WYHB-LP	WB	•
Chattanooga, TN	55	W55CD	Pax	
Chattanooga, TN	65	WCNT-LP	Fam., Am 1, Jeff Pilot	*
Cleveland, TN	27	WTNB-LP	Fam., Am 1, Jeff Pilot	•
Cleveland, TN	64	W64CH	Fox	*
Collegedale, TN	5	W30BR	3ABN	*
Cookeville, TN	46	W46AJ	TBN	
Del Rio, TN	3	W03AL	NBC	*
Farragut/Knox, TN	50	W50CG		
Farragut/Knox, TN	51	W51BG	3ABN	
Farragut, TN	66	W66AZ	TBN	
Fork Mtn., TN	7	W07AM	NBC*	
Greeneville, TN	51	WAPG-LP	UPN	*
Harrogate, TN	18	W18AN	Fam., Outdoor Net	•
Heiskell, TN	12	WFEM-LP	Fam., AIN, ANC	•
Hendersonville, TN	11	WIIW-LP		
Holly Springs, MS	20	WBII-LP	Fam. , AIN, ANC	•
Hopkinsville, KY	43	WKAG-LP	Am1	•
Jackson, TN	35	W35AH	TBN	
Kingsport, TN	25	W25AE	UPN	*
Kingsport, TN	30	WAPK-LP	UPN	•
Kingsport, TN	56	WOPI-LP	Shop at Home	
Knoxville, TN	4	W04CY	Home Shopping Net.	
Knoxville, TN	12	WFEM-LP	Am 1, Fam., AIN	•
Knoxville, TN	32	W32BQ	The Box	

LPTV station list continued

- originates local programming
- * serves as a translator for a full or low-powered station

City/ State	Ch.	Station	Network affiliation	Local Prog.
Knoxville, TN	34	WEZK-LP	Home Shopping Net.	
Knoxville, TN	56	W56CM		
Knoxville, TN	60	W60CF	TBN	
La Follette	4	W04BM	CBS*	
Lawrenceburg, TN	10	W10BV	Nostalgia	•
Lebanon, TN	11	W11BD	Shop at Home	*
Lenior City, TN	38	W38AQ	Am 1	•
Memphis, TN	36	W36AM	The Box	
Memphis, TN	42	W42BY	3ABN	
Memphis, TN	57	W57CG	Panda Shopping Net.	
Memphis, TN	61	W61BP		•
Memphis, TN	67	W67CV	Panda Shopping Net.	
Morristown, TN	31	W31AS	TBN	
Murfreesboro, TN	11	WETV-LP		•
Murfreesboro, TN	27	WHRT-LP	Am 1, Nostalgia	•
Nashville, TN	10	W10BI	3ABN	
Nashville, TN	12	WRMX-LP	Home Shopping Net.	
Nashville, TN	24	WJDE-LP	Home Shopping Net.	
Nashville, TN	36	W36AK	TBN	
Nashville, TN	59	W59AW		
Nashville, TN	61	WJNK-LP	3ABN	
Nashville, TN	68	W68CG	The Box	
Scottsboro, AL	64	W64BJ	TBN	
Selmer, TN	6	WDTM-LP	Fam.	•
Sevierville, TN	22	WYHY-LP	Home Shopping Net.	
Sharon, TN	2	W02BT		
South Pittsburg, TN	36	W36BG	ABC	*
Union City, TN	9	WOBT-LP	Am 1, AIN	•

Network abbreviations:

America One	Am 1
Trinity Broadcasting Network	TBN
Warner Brothers	WB
Family Network	Fam
American Independent Network	AIN
United Paramount Network	UPN
Three Angels Broadcasting Network	3ABN
Jefferson Pilot Sports Network	Jeff Pilot

VITA

Stephen D. Ruf was born in Columbus, Georgia on Feb. 8, 1960. He attended Seventh-day Adventist elementary and secondary schools in Knoxville and Collegedale, Tennessee. He graduated with a B.S. in communications from the University of Tennessee, Knoxville in 1983.

For the next several years Ruf worked as a radio anchor and reporter in Knoxville and Chattanooga. In 1987, he joined WDEF-TV, the CBS affiliate in Chattanooga, as an assignment editor and later, reporter. For the next nine years, Ruf covered local government, politics, and the environment in southeast Tennessee and north Georgia for Channel 12.

In 1990s, Ruf received several awards from the Tennessee Associated Press Broadcasters Association for Best Continuing News and Best In-Depth Reporting. In 1996, he joined Southern Adventist University in Collegedale as an assistant professor in journalism and communication. Ruf immediately enrolled in UTK's master's program and a year later was inducted into Kappa Tau Alpha, the national honor society for scholarship in communications.