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AN ANALYSIS OF CABLE TELEVISION SUBSCRIBERS AND NON-SUBSCRIBERS IN EAST LANSING, MICHIGAN

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AN ANALYSIS OF CABLE TELEVISION SUBSCRIBERS AND NON-SUBSCRIBERS IN EAST LANSING, MICHIGAN

By

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ABSTRACT

AN ANALYSIS OF CABLE TELEVISION SUBSCRIBERS AND NON-SUBSCRIBERS IN EAST LANSING, MICHIGAN

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The focus of this study was to ascertain differences between cable television subscribers and non-subscribers. Ten research hypotheses primarily regarding demographics and media usage were tested. Subscribers were asked to evaluate their programming and service, then cite areas of improvement. Non-subscribers were asked why they do not subscribe to cable, and what could increase the liklihood of their subscribing. Both groups were asked if they recognized twelve cable programming services. In addition, a discriminant analysis was performed using the results of the research hypotheses.

Results show that cable television subscribers are significantly older, report watching more hours of television per day, and have a higher household income than non-subscribers. The findings indicate no significant differences between cable subscribers and non-subscribers in formal education, number of people living in household, movie attendance, time spent reading newspapers, time spent listening to the radio, and satisfaction with network programming.

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CHAPTER I

INTRODUCTION

A new revolution is upon us, a revolution of information. Brought into homes via coaxial cable; access to computers, multi-information and entertainment channels, home security devices, at-home shopping, banking, and working are, or soon will be, available to households across the United States.

In the future, time and information will be the world's most cherished resources. Cable communication, better than any other source, has the potential to provide the most information in great time efficiency.

What began as a simplistic method of providing television signals to rural areas, has developed into a totally new form of media. The metamorphosis of this medium has been phenomenal.

Cable television began in rural Pennsylvania in 1949. A local radio and television set dealer, realizing the Appalacian Mountains blocked reception of the television signals originating in Philadelphia, ingeniously erected an antenna tower tall enough to receive the Philadelphia television signals. He then ran coaxial cable to all the area households, charging the residents a slight fee for the service his "community antenna" provided. In this way the local citizenry could receive the television signals, which provided them with the motivation to purchase television sets, which was the dealer's objective in the first place. Cable television started as "Community Antenna Television," commonly referred to as CATV.

During the 1950s, CATV spread to other rural areas and into small towns that received only one or two of the network signals. Its proliferation into larger metropolitan areas was hindered by government regulation, lobbying from the networks, who feared competition, and the perception that it was only practical where network signals were weak. Cable's entrance into major markets began in Canada, due to the fact that Canadian system operators were allowed to import distant signals and thus provide programming alternatives.

In 1968 the Federal Communication Commission, dictated by a U.S. Justice Department antitrust decision, made the commitment that cable television should be allowed to develop as a competitive medium with its own program origination and advertising support. This ruling allowed the importation of distant signals; the number of signals permitted was based primarily on market size, the smaller television markets were permitted to import a maximum of three imported signals (areas outside all television markets had no such limitations). This limit on the number of distant signals was designed to protect the local television stations. With a control on competing signals, fragmentation of local stations' audiences could be limited, protecting the stations' advertising base.

These imported signals, although limited, brought diversity and a unique selling proposition to cable systems. Now cable television provided more than improved reception of already available over-the-air television signals. This unique selling point aided cable's influx into larger cities.

During this period the primary benefits of cable were improved reception, and the ability to receive imported television signals. In

the early 1970s, a handful of companies began providing programming exclusively for cable. This further enhanced cable televisions' differentiation, as it began to provide services unavailable on broadcast television. In 1975 Home Box Office began satellite transmission of first run, uncut films, specials, and sporting events without commercial interruption on RCA's Satcom I. The speed and efficiency of satellite transmission brought other program suppliers, eager to satisy a large latent demand, into the cable programming business. Soon channels offering 24-hour news, stock market reports, 24-hour sports, cultural programming, religious programming, adult oriented programming, etc., began transmitting alternative program choices to cable subscribers across the United States.

Currently there are some 25 exclusive cable program suppliers providing a wide diversity of programming to about 4,400 cable systems in all 50 states.[1] About 19,374,490, or approximately 25.3 percent of all television households are cable subscribers.[2] This number will grow drastically as the major urban areas become wired. Selman M. Kremer, President of Southern Satellite Systems, predicts that by 1984 over fifty percent of all United States television households will be cable subscribers.[3]

As cable television developed into an attractive service for subscribers, it also developed into a lucrative, yet complex, business for cable system operators. After an expensive and often highly competitive franchise bidding process, a large financial outlay to wire the franchised area, and the acquisition of expensive production and programming

equipment; cable system ownership can be extremely profitable. Revenue is generated by the monthly fees subscribers pay for the cable service.[4] The profitability of a cable system will depend on a host of variables, such as population of the franchised area, geographical location, Area of Dominant Influence (ADI) ranking,[5] number and reception quality of off-air signals already available, and, most significantly, the characteristics of the people the cable system hopes to serve. Market variability and the differences between the serviced population make each franchised system unique.

It is up to the cable system operator, through the franchising agreement, and subsequent additions to progamming and service throughout the life of the franchise agreement, to ascertain what the specific service area desires in programming and services, and then provide that service while maximizing the profits of the system.

The basic key to maximizing the revenue of the system is increasing the number of cable subscribers within the service area. Since cable systems are, in most cases, a natural monopoly, the marketing effort is spent, not in competition with other media, but in soliciting additional subscribers. For the cable system operator, the number of subscribers and the rate of penetration (number of subscribers divided by the number of potential subscribers, or homes passed) are the most representative indicators of the financial health of the system.

The positive correlation between an increase in subscribers (and hence an increase in penetration) and an increase in system revenue is apparent. For this reason, finding more effective and efficient means of selling cable television to the non-subscriber is a top priority for the cable system operator.

Purpose

The purpose of this study is to determine if there are measurable differences between cable television subscribers and non-subscribers in an area where cable television is available. Should differences be found, the specific differences can be analyzed to ascertain attitudes and perceptions subscribers and non-subscribers have toward cable television. In terms of subscribers, this information can help the system operator provide an improved service. For the non-subscriber, this information can lead to an increase in the efficiency and effectiveness of a remarketing campaign.

The questions this study addresses are:

1. Why do some people choose to subscribe to cable television while others do not?
2. What are the differences between subscribers and non-subscribers?
3. What can be done to make cable television more attractive to the non-subscriber in hopes of increasing the likelihood of selling this group cable television service?
4. How do subscribers feel about current service, and what changes or additions would this group like to see?

Significance

It is apparent that to attract new subscribers, and to better serve present subscribers; the system operator must have reliable information on which to base decisions.

It is logical to assume that the first step in organizing a remarketing campaign to the non-subscriber would be to identify characteristics common to this group, and to ascertain their perceptions and

attitudes toward cable television. Analyzing these results, the system operator can tailor a streamlined remarketing campaign that targets specific areas uncovered by preceding research. In this way the effectiveness and efficiency of the remarketing effort can be increased yielding more new subscribers and reduced costs.

In addition, the system operator could gather similar information concerning subscribers, scrutinize this data, and analyze the differences found between the non-subscriber group and the subscriber group. Will the two groups have different attitudes and perceptions concerning cable? Are subscribers different types of people (i.e age, income, education, etc.) than non-subscribers? With answers to these and other questions, and an understanding of the characteristics of subscribers, the system operator can provide subscribers with better service, to assure that they remain subscribers. Furthermore, discovering attitudes and perceptions of subscribers could prove helpful in marketing additional services to that group.

In the past, perceived differences between subscribers and non-subscribers were based on what was considered, "common sense." Example assumptions included: subscribers have higher incomes than do non-subscribers, subscribers tend to be younger than non-subscribers, and subscribers watch more television per day than do non-subscribers. These assumptions may be true in some cases, but they cannot be generalized to every cable system. Assumptions such as these have guided the marketing efforts of many system operators with various degrees of success. The rational approach to this dilemma would be to reduce the risk of making false assumptions by doing applied research. From a

study of the service area population a more effective marketing campaign can be designed.

While this research design may help tell the system operator what differences exist between subscribers and non-subscribers, what level of awareness and comprehension of cable exists within his service area, and how current subscribers feel about their service, determination of the relative financial gain of launching an extensive marketing campaign is in the hands of the system operator. Possibly the system is near, or at, the maximum penetration level. The marginal utility of adding additional subscribers may be prohibitively high. In fact, the cost necessary to add those new subscribers may exceed the additional revenue they will generate.

Close examination and careful analysis of the situation is required. The more a system operator knows about his service area, and the people who live within it (which is what this study is designed to do), the more prepared he is to make these sorts of decisions.

Scope of the Study

Although this study is confined to one cable system in one city, the design is generalizable to any system in any city wishing to research differences between subscribers and non-subscribers. However, the results of this particular study can only be applied to East Lansing, Michigan and the United Cable Company which serves it. Possible inferences can be made to similar communities (for a detailed description of East Lansing see Chapter III) at the reader's discretion.

This study focuses on two groups; cable television subscribers and non-subscribers. The purpose of this study is to ascertain differences

between these two groups. To ascertain differences between non-subscribers, basic subscribers, and premium subscribers would require an entire additional research study to investigate such questions.

This study does not address what specific content people watch on television. Rather, it addresses the differences between people who subscribe to cable television and those who do not.

This study will not concern itself with why people watch television. Again, this lies beyond the focus of this study.

What this study will address is to ascertain differences between cable television subscribers and non-subscribers. Differences in demographic make-up, and differences in perceptions and attitudes toward cable television between subscribers and non-subscribers. Non-subscribers are asked why they do not subscribe to cable and what could be done to the cable service to make it more attractive to them. Subscribers are asked to evaluate their present service, and what could be done to make it better. Ancillary questions pertaining to these main areas hope to provide the system operator with an understanding of his service area, the people he serves, and those he hopes to serve.

This study attempts to answer some of the questions concerning how non-subscribers feel about cable television, how much they know about it, and what they perceive its value to be. Also, it attempts to discover how subscribers feel about their present service, and what could be done in the future to improve it.

CHAPTER I

Reference Notes

[1]Broadcasting Yearbook 1981 (Washington D.C.: Broadcasting Publications, Inc. 1980), p. G-3.

[2]For further information on cable's growth see Nielsen Quarterly Report on Television, A.C. Nielsen Company, Northbook, Illinois 1981.

[3]Selmen M. Kremer, "Since You Asked Me," Cablevision, March 24, 1980, p. 57.

[4]It should also be mentioned that local advertising sales are becoming a more attractive form of revenue for the cable system operator.

[5]As defined by Arbitron, an Area of Dominant Influence is "an exclusive geographical area consisting of all counties in which the home market stations receive a preponderance of total viewing hours."

CHAPTER II

RELATED RESEARCH

Interest in cable communication research has enjoyed a steady growth, especially in the past few years. Despite this growing interest, most research concerning television audiences has dealt with broadcast television. Most research has concentrated on what types of people watch television, how much television they watch, and why they watch. Reasons such as entertainment, keeping current, cultural, technical information, facilitating interaction, escaping boredom, escaping interaction (Gutman, 1978), arousal, pleasure, company, social substitute, distraction, modeling, pass time, and background noise (Eastman, 1979) have been theorized. Television viewers have been categorized into such diverse classifications as change-oriented viewers (Villani, 1975) to information processor (Gutman, 1978). These studies attempted to discover the motivation and satisfaction people experience from watching television, and to describe homogeneous groupings of individuals who watched television for the reasons discovered.

Further research has been done concerning differences between heavy television viewers and light or non-viewers. For example, non-viewing was associated with less satisfaction with family life, greater happiness with things in general, fewer number of children under age 6 in the household, greater number of memberships in groups or organizations, greater time spent in active military service, lower family income, strong view of self as being religious, greater numbers of teen-agers (age 13-17) in

households, higher level of income when person was 16, less frequent attendance of religious service, and more frequent socializing with friends outside the neighborhood (Tankerd and Harris, 1980).

These findings yield some contradictions; namely while non-viewers strongly view themselves as religious, they attend religious services less frequently. Maybe this is explained by concluding that the non-viewing group is made up of two or more heterogeneous groups. Continued analysis of these findings could yield deductions that non-viewers are more self and peer oriented, due to the findings that indicate they receive less satisfaction from the family, while having a greater number of memberships in groups and organizations; and more frequently socialize with friends outside their neighborhood.

In related research Villani (1975) discovered differences between light and heavy television viewers.[1] Light viewers tended to be older than heavy viewers and scored negatively on lifestyle characteristics such as "enjoy doing nothing," "television as a primary form of entertainment," "watch television to relax," and "use television for company." Heavy television viewers scored significantly high on all these variables, plus scored positively on concern for present financial situation, preference for name brands, and liking television violence. The heavy viewer group, who also scored negatively on lifestyle characteristics, spend time out of the house every day, and participation in activities such as club memberships. In short, heavy television viewers tended to be younger, less satisfied with their life and present financial situation, and considered television their primary source of entertainment. The characteristic that distinguished light television viewers was their tendency to be out of the house every day. Light television viewers also placed less emphasis, overall, on television than did heavy viewers.

Examining demographics between heavy television viewers and average television viewers,[2] it was found heavy viewers tended to be female, and younger than average viewers. There was also a significant difference in the percentage of non-whites in the two groups (11 percent of the average viewers, 23 percent of the heavy viewers). They found no significant difference in marital status. Both average and heavy viewers tended to be married with children living at home (Jackson-Beeck and Sobal, 1978).

Heavy viewers were employed in service or equipment/laborer occupations. Fifty seven percent of heavy viewers identified themselves as blue collar workers compared to 43 percent of average viewers. In addition, 52 percent of heavy viewers reported their primary employment to be in the home. This might be explained by the significant number of females in the group.

The majority of heavy viewers failed to graduate from high school and earned less than $5,000 per year (65 percent of heavy viewers reported an annual household income of $10,000 or less). Also, heavy viewers were less likely to be involved in outside activities, especially professional and academic societies or church affiliated groups.

Another study examined composite psychographic data of viewership by daypart. Five composite categories of viewers were identified: (1) old fashioned, (2) outgoing/individualist, (3) service-quality conscious, (4) fashion conscious, and (5) other directed. The study found day time audiences to be more old fashioned and less other directed; early fringe audiences more service-quality conscious; prime time audiences more outgoing/individualist, and service-quality conscious; and late fringe audiences less old fashioned, more outgoing/individualist, service-quality

conscious, and fashion conscious. The researchers concurred, "Averaged over the day, television viewers seemed more outgoing and individualistic in their behavior than non-viewers and concerned themselves more with service support in the marketplace."[3]

Great care and discretion must be used in making inferences from light or non-television viewers and average or heavy television viewers to cable television subscribers and non-subscribers. In comparing subscribers to non-subscribers there is a recognizable exchange link. The fact that a monthly fee must be paid to receive the service. In deciding whether or not to simply view television, any exchange process is altered to the extent that it is unrecognizable by most people. In addition, all the previous research cited concerns itself with broadcast television. Can those findings be generalized to cable television subscribers? As mentioned previously, there is a growing interest in researching cable communication. But, most of the research in cable has dealt with law and regulations, uses of cable for education, and the technical aspects of the medium. For this reason most research on choosing to use a medium (e.g., subscribing or not subscribing, viewing or not viewing) has dealt only with the choice between viewing television or not viewing television.

There has been some related research done in cable communication. One study examined a community before and after the introduction of cable, discovered cable subscribers to be satisfied with their service; with the most often mentioned benefits being more variety of programming or channels, improved reception, and comments concerning specific types of content (e.g., more movies, wider news coverage, etc.). Problems cited

included poor reception of one or more channels, too few channels, and family arguments over programs. After the introduction of cable, the mean hours of television viewing, and the mean number of programs viewed over a three day period decreased. The researcher explained that the possible cause for this was, due to construction delays the introduction of cable took place in late spring and early summer, which are times of the year when television viewing is lower than average (Jeffres, 1978).[4]

Jeffres identified a five point continuum of reasons for watching television: (1) media seeking--seek the medium regardless of content; (2) generic content seeking--seek a genre of programming; sports, news, films, etc.; (3) program content seeking--seek a specific program; (4) information seeking--seek specific content within a program, such as the weather report; and (5) mixed--content and non-content judgements influence the decision. After the introduction of cable, there was a significant increase in media seeking reasons for watching television. This could possibly be explained by the relative novelty of cable television in the community.

Another study found cable television had an effect on the use of other media. Cable was found to have the most negative impact on local network television, radio news, and movie theatre attendance. The effect of cable on print media was negligible, with less than 10 percent of the respondents indicating a reduction in their time spent reading newspapers, magazines, or books.

In accordance with Jeffres' findings that increased channel availability is considered one of the most positive aspects of cable television, the researcher discovered 62 percent of the respondents reported

watching an imported television station four or more times per week. Furthermore, an additional 25 percent reported watching an imported station from one to three times per week.

The study also found considerable usage of the automated information channels, with the weather channel being the most often used. There was a significant negative relationship between the use of an automated news channel and education (less educated respondents used the automated news channel more often). Education was not related to any other information channel. There were no significant relationships between information channel use and other demographic variables (Kaplan, 1978).

There has been research done on differences between basic only subscribers and pay subscribers. One study reported that pay cable subscribers tend to be younger and are more likely to have young children at home. In the same study, 20 percent of the basic only subscribers said they would subscribe to the single pay service offered (Home Box Office) if it cost less.[5]

In their first quarter report on television, the A.C. Nielsen Company reported that pay cable households have a higher percentage (57) of households with incomes in excess of $20,000 than do basic only households (38 percent) and total television households (36 percent).

It is assumed that private studies of cable subscribers and non-subscribers have been undertaken by some of the nation's cable systems. But no public studies of this nature were found in any journals or periodicals.

CHAPTER II

Reference Notes

[1]In this study light viewers were individuals that reported watching television 35 hours or less per month. Heavy viewers were individuals who reported watching television 104 or more hours per month.

[2]In this study, average viewers were individuals who reported watching one to five hours of television per day. Heavy viewers were individuals that reported watching 6 or more hours of television per day.

[3]Teel, Jesse E.; Bearden, William O.; and Durand, Richard M. "Psychgraphics of Radio and Television Audiences." Journal of Advertising Research, 1980. pp. 55-56 (in Bibliography)

[4]Nielsen Report on Television 1980, A.C. Nielsen Company, Northbrook, Illinois.

[5]This information was gathered through an interview with Rick Ducey, a doctoral candidate at Michigan State University. The findings he cited were from a study he and Dr. Dean Krugman, Department of Advertising, Michigan State University, were undertaking for possible publication.

CHAPTER III

METHODOLOGY

To determine additudinal and demographical differences between subscribers and non-subscribers in East Lansing, Michigan, a representative sample was drawn and surveyed. Also, pertinent information about the cable system, city, and market were obtained to provide a better understanding of the area and the people who live there.

The Test Market

East Lansing, Michigan is a college community situated four miles east of the state capital. A synopsis of city characteristics is shown in Table 1.

In Table 2 is information pertaining to the Lansing-East Lansing SMSA (Standard Metropolitan Statistical Area) which includes Clinton, Eaton, Ingham, and Ionia counties of Michigan.

East Lansing has been a stable community in terms of growth. The population in 1970 was 47,540,[1] compared to the present population of 54,600, a population growth rate of 1.5 percent per year. The number of dwelling units (excluding the student on-campus dormitories) grew at an annual rate of 3.1 percent; from 11,217[2] in 1970 to the present 14,650.

The Cable System

United Cable Company, owned by United Cable of Denver, Colorado holds franchises for the city of East Lansing, and parts of Meridian Township and Michigan State University. The system began operation in

TABLE 1

East Lansing Characteristics
1981

Population[3]	54,600 (88.7 percent white, 5 percent black, 2 percent Hispanic, 4.5 percent other). Includes on-campus population of Michigan State University students. Deletion of MSU on-campus student population yields a city population of 36,742.
Dwelling Units[4]	14,650 (plus 8,929 student dormitory rooms on MSU campus), total - 23,579.
Size of City[5]	9.03 square miles
Linear Milage of Roads[6]	75.37
Tax Base[7]	85 percent residential, remaining commercial and retail
Major Industries[8]	Michigan State University and numerous retail establishments (largest retail store; Jacobson's)
Buying Power Index[9]	.232
Consumer Spendable Income[10]	$453,992,000
Consumer Spendable Income per household[11]	$30,989
Total Retail Sales[12]	$92,858,000
Total Retail Sales per Household[13]	$6,338
Median Age[14]	22.6
Age Breakdown[15]	18-34, 57.9 percent; 25-34, 14.5 percent; 34-49, 7.2 percent; 50 and over, 8.1 percent

TABLE 2

Lansing-East Lansing Characteristics

Population[16]	467,200, the eighty-fifth largest SMSA nationally.
ADI[17]	ninety-third largest nationally
EBI Level Breakdown[18]	$8,000-9,999, 6.2 percent; $10,000-14,999, 12.6 percent; $15,000-24,999, 22.7 percent; $25,000 and over, 43.4 percent.

Population breakdown by age group and sex:

	18-24	25-34	35-49	50-64	total
Males	31,000	51,000	38,000	28,000	163,000
Females	30,000	51,000	38,000	30,000	170,000

In addition, there are 71,000 children ages 2-11 and 49,000 teenagers 12-17.[19]

May 1973. The total number of households passed is 21,700, including all 14,650 households in East Lansing. The United system serves approximately 7,910 households in East Lansing, for a penetration level of about 54 percent. United estimate their annual churn rate at 3-4 percent.[20] Charges and fees are: installation--re-connect ($12.50), first time ($20.00); tiers--basic service ($8.70), Home Box Office ($9.95), Cinemax ($9.95), The Movie Channel ($9.95), Escapade/Brave ($9.95). If a subscriber takes the first pay service at $9.95, the second pay service is $8.95, and the third pay service is $7.95. Maximum revenue per subscriber is $51.50. For a detailed outline of United's programming services, see Appendix A.

The Survey

Telephone interviews were used to survey the selected sample. Utilization of the telephone survey was chosen because of its inherent advantages:

1. Quickness--Data is gathered instantaneously and all at the same time.
2. High Cooperation Rate--Telephone surveys have shown to yield relative high cooperation rates (60-70 percent) compared to other methods of data collection.
3. Efficiency--The cost of a telephone survey is far less than either a mail or personal interview survey.
4. Less Interviewer Bias--Since the interviewer is not seen by the respondent, the likelihood of bias is reduced.
5. Short, Direct Questionnaire--Maximum length 15 minutes, to ensure maintenance of respondent's attention. Allows more respondents contacted per time period than either mail or personal interview surveys.
6. Greater Control Over Data Collection--Should problems or questions arise during an interview, the research supervisor is right there to assist the interviewer. Also, clarification of any question can be done for the respondent on the spot.

The telephone surveying took place November 15-18, between the hours of 6:30 and 9:30 p.m.

Undergraduate and graduate telecommunication students made up the majority of interviewers.

Selection of Sample

Systematic sampling from the Lansing-East Lansing phone book was the technique used to select the sample. The systematic sampling technique

was chosen for two reasons. First, because a concise, easily accessable sample frame (the phone book) was available, and second, because of the high phone penetration in the Lansing-East Lansing area.[21] High telephone penetration was conducive to the selection of a representative sample.

Sampling Technique

Systematic Sampling

Execution of a systematic sample is very simple. Every Kth element in the sampling frame is selected for inclusion in the sample. If the frame contains 5,000 elements and a sample of 500 is to be selected, every 10th element is selected for inclusion in the sample. To insure against any possible human bias, the first element should be selected at random.[22] In the above example a random number between 1 and 10 would be selected, the element having that number would be selected for inclusion in the sample, plus every 10th element following it. This method is referred to as systematic sample with a random start.

In the selection of the sample for this study, two conditions of the sampling frame were not ideal. First, telephone books are arranged alphabetically, which in a systematic sampling can cause unrepresentativeness. Second, the frame contained elements outside the survey population (i.e. listing for households outside the city of East Lansing, business listings, and other unusable listings).

The problems were considered before the selection of the sample, and the following explanations justify the minimizing of their effect. In the Lansing-East Lansing telephone book there are 260 pages of telephone listings in the white pages. Each column (four columns to a page)

contained about 25 East Lansing listings, with a sample size of 500, every 217th listing in the frame was selected, if the element was a non-resident of East Lansing, a business listing, or otherwise unusable number, the next East Lansing resident listing down was always selected. The sampling interval was maintained based on the originally selected element, not the next East Lansing listing. This insured systematic selection of East Lansing households, and adherence to the systematic sampling interval.

Because at least one element was selected from each column, this provided representativeness in regards to surname. If the sampling interval had been larger, surnames beginning with certain letters would have a better chance of not being selected. In this sample more common surnames were selected more often, but that is representative of the population.

There have been many debates concerning the merits of systematic sampling in comparison to simple random sampling. Emperically, the results of the two techniques are virtually identical.[23]

Questionnaire Development

The questionnaire was designed following the determination of the perceptions, attitudes, and characteristics of the respondents as the dependent variables; while the independent variable is whether the respondent is a cable television subscriber or not. The dependent variables consist of all four levels of measurement; while the independent variable is a nominal level of measurement.

The questionnaire utilizes open-ended, close-ended, and Likert scaled questions. Likert scaling was developed by Rensis Likert in the

1950's. Through its design, he attempted to improve the level of measurement in social research through the use of standardized response categories in survey questionnaires.[24] One of the primary advantages of Likert scaling (for an example, see Appendix B, question 4) is that it causes the response categories to be unambiguously ordinal. If respondents were permitted to answer in an open-ended fashion, such answers as "kind of agree," "really agree," "truly agree," and so on might be volunteered. It would be impossible to judge the relative strength of agreement intended by the various respondents.[25] With Likert scaling, with ordinal measurement, the problem of subjective judgement is eliminated.

Other questions address nominal level measurements (e.g. "Do you subscribe to cable television?"), interval level measurements (e.g. "Would you please tell me your age?"), and ratio level measurements (e.g. "How many hours of television did you watch yesterday?").

Close-ended questions are designed to address areas that the researcher has some idea of what the range of answers will be. For example, the question "Do you subscribe to cable television?" will most likely yield an answer to 'yes,' 'no,' or possibly, 'I don't know.'

Open-ended questions address the perceptions and attitudes of the respondents toward cable television. There is no pre-assumed answer to the question. The interviewer asks the question (e.g. "Why don't you subscribe to cable television?") and records the response verbatim. In this manner the actual reaction of the respondent is recorded without biasing him/her with pre-determined answer categories. One drawback to open-ended questions is that they are difficult to code for the purpose of computer analysis. In some cases it is possible to group responses

into general encompassing areas; such as responses to "What is your occupation?" or 'doctor' and 'dentist' can be put into the same category and labeled "professionals."

The questionnaire addresses three basic areas: individual variables, system variables, and marketing variables. Individual variables consist of attitudes and perceptions of the respondents toward cable television, in addition to demographic characteristics.

Items concerned with system variables address the service and programming the cable system provides. Also, general service tasks (responsiveness of office personnel, etc.) and how the subscriber feels the cable system handles them is handled in an open-ended fashion.

Marketing variables address the effectiveness of current or recent cable system marketing efforts.

In short, the questionnaire attempts to ascertain how much the respondents know about cable television and what they perceive to be the pluses and minuses of the medium. Also, demographics and the level of awareness concerning cable television services were gathered for the purpose of analyzing differences between the two groups. (A copy of the complete questionnaire can be found in Appendix B).

The Pre-test

The reasons for pre-testing a questionnaire are two-fold. First, to see if there are any problems with respondents understanding the wording of the questions. This is important in terms of validity. The researcher wants to be sure that the question he is asking is understood and comprehended, and the respondent is answering the question the researcher asked. For example, in this study, does the term "cable television"

mean the same thing to both researcher and respondent? If asked the question, "Do you subscribe to cable television?" and they don't know what cable television is, or if they have a misconception as to what it means; their answer will be in terms of their perceptions, and may not address what the researcher wants to know based on that question. It is during the pre-test that any misconceptions or confusing terms are discovered and altered before inclusion in the final questionnaire.

The second purpose of pre-testing is planning. The researcher can estimate how long it takes to complete a questionnaire, and the approximate cooperation rate. With this information time and money can be budgeted more efficiently.

The methodology used to select the pre-test sample was the same as how the final sample was selected, by systematic sample using a Lansing-East Lansing phone book or the sampling frame. First, the systematic sample was selected, then a systematic sample of 30 was selected from that form for the pre-test. In this way an element selected for the pre-test was excluded from inclusion in the final sample.

Computer Analysis

Computer analysis of the data was done on the MSU CDC Cyber 170 using the Statistical Package for the Social Sciences (SPSS).

Frequencies

The SPSS subprogram FREQUENCIES was used to determine the basic distributional characteristics of the variables to be used in subsequent statistical analysis.[26] In addition, the subprogram FREQUENCIES provided descriptive statistics, information required for selection of

subsequent statistically techniques, and produced a reference document for file storage (for a list of relevant frequencies see Appendix C).

Difference of Proportions

The difference of proportions test is used to test the significance of proportions in two random samples. The null hypothesis is that the difference in proportions is not significant.

This test was used to test significance of proportions in two random samples (cable subscribers and non-subscribers) regarding demographic variables.

T-Test

The t-test is the statistic used in calculating the probability associated with the null hypothesis. It is generally applicable to a normally distributed random variable where the mean is known, or assumed to be known, and the population variance is estimated from a sample.

Through the t-test the significance of differences between two groups (cable subscribers and non-subscribers) on a number of demographic variables was accomplished.

Discriminant analysis (SPSS subprogram DISCRIMINANT) is a statistical technique used to distinguish between two or more groups of cases. The first step in this procedure is the selection of discriminating variables that measure characteristics on which the groups are expected to differ. In the case of this study, many of the discriminant variables were provided by some of the research hypotheses on pages 27-31, the two groups to be discriminated between are cable television subscribers and non-subscribers.

The mathematical objective of discriminant analysis is to weight and linearly combine the discriminating variables in some fashion so that the groups are forced to be as statistically distinct as possible.[27] We want to discriminate between the two groups in the sense of being able to tell them apart. In this process no single variable (e.g. age) will perfectly differentiate between cable television subscribers and non-subscribers. But, by taking several variables and mathematically combining them, we would hope to find a single dimension on which subscribers are clustered at one end, and non-subscribers at the other. These linear combinations are called discriminant functions. The mathematical formula of discriminant analysis is, therefore, linear:

$$D_i = d_{i_1} Z_1 + d_{i_2} Z_2 + \ldots d_{i_n} Z_n$$

Where D_i is the score on discriminant function, the d's are weighting coefficients, and the Z's are standardized value of the n discriminating variables used in the analysis.[28]

Once the discriminant functions are derived, the next steps are analysis and classification. The analysis aspect of the technique provide several tools for interpretation of the data. Among these are statistical tests for measuring the success with which the discriminating variables actually discriminate when combined into the discriminant functions.[29] The classification technique derives a set of classification functions that permits classification of new cases with unknown group membership after a set of variables is found that provides satisfactory discrimination for cases with known group membership. Thus, in finding characteristics that do well in predicting whether a case is a cable television subscriber or non-subscriber, we can then use these

characteristics to predict whether an individual not in our sample is a subscriber or non-subscriber.

In short, discriminant analysis statistically determines the degree of difference between groups based on variables selected. It measures and reports the significance of the differences between the groups based on the discriminant functions. This allows the researcher to predict, based on the individual's characteristics, what group the individual would belong in if he/she were in our sample. In this way we can discover what variables, or characteristics, are determinants of an individual being a cable television subscriber or not being a subscriber.

Hypotheses

The thrust of this study is to discover if there are any significant differences between cable television subscribers and non-subscribers. Therefore, the overall encompassing research hypothesis is that there are significant differences between cable television subscribers and non-subscribers (null hypothesis: no difference).

While that is elementary to the study, it is also unspecific. Therefore, the following are hypotheses tested in this study:

H_1: Cable television subscribers (S) will have a lower mean age than non-subscribers (N). ($S < N$)

H_0: $S \geq N$

The rationale behind this hypothesis is that younger members of our society have been exposed to electronic media all their life, with many considered part of the "television generation." Thus, it is felt that younger people have less resistance to innovation than do older people. In this context cable television is considered an innovation to television as television was an innovation to radio in the 1950s.

H_2: Cable television subscribers will have a higher household income than will non-subscribers. ($S > N$)

H_0: $S \leqslant N$

The basis for this hypothesis is findings by other researchers, most recently Nielsen's 1981 quarterly report on television, that cable subscribers, and pay cable subscribers tend to have higher household incomes than non-subscribers. Also, the fact that subscribing to cable television brings on an additional expense to the household, households with higher incomes would be better prepared to absorb an added expense.

H_3: Cable television subscribers will have had more formal education than non-subscribers. ($S > N$)

H_0: $S \leqslant N$

The foundation for this hypothesis is that better educated people are more innovative and will adopt earlier to a new product or service. Also, there is the assumption that education and income are significantly associated.

H_4: Cable television subscribers will report watching more hours of television per day than will non-subscribers. ($S > N$)

H_0: $S \leqslant N$

The basis for this assumption is inherent to the medium of cable television; the fact that it increases viewer choices almost tenfold. Thus, with more options available, subscribers should be more likely to find a program that they like, while non-subscribers, with limited choices, will be more likely to turn to other forms of entertainment.

H_5: Cable television households will have fewer number of individuals residing within the household than will non-cable households. ($S < N$)

H_0: $S \geq N$

The rationale for this hypothesis is the changing social structure; the fact that people are marrying later in life, having fewer children, and divorcing with more regularity than ever before. Also, it is assumed that age and large households are positively correlated (older households will have more household members) because older people are not as significantly affected by the changing social order prevalent today.

H_6: Cable television subscribers will attend fewer movies than non-cable subscribers. ($S < N$)

H_0: $S \geq N$

This hypothesis is based on similar assumptions of hypothesis 4, cable television subscribers will have more options of video entertainment, possibly including uncut movies, which will keep them home watching television. Whereas non-subscribers, with limited video variety, will seek out other forms of entertainment.

It is also assumed that the variable movie attendance will interact with age, as younger people attend films more frequently than do older people.

H_7: Cable television subscribers will spend less time reading newspapers per day than will non-subscribers. ($S < N$)

H_0: $S \geq N$

Again, more of the subscribers entertainment and information needs will be filled by cable; while the non-subscriber, due to lack of video diversity, will seek out other forms of entertainment and information. Also, if subscribers are younger than non-subscribers; they are more electronic, innovation oriented than non-subscribers.

H_8: Cable television subscribers will listen to more hours of radio per day than will non-subscribers. ($S > N$)

H_0: $S \leq N$

This hypothesis assumes a positive correlation between radio listening and age (younger people listen to more radio). Thus, if the hypothesis that subscribers are younger than non-subscriber

this hypothesis. Although others might theorize that cable television would draw radio listening time away from individuals; the author feels that heavy radio listeners seek the medium and not the content. That they are more likely to have the radio on in situations that light radio listeners would consider distracting (e.g. while driving, reading, showering, etc.). Thus, the sheer volume of time spent listening is very high. In addition, it is assumed that heavy radio listeners are more likely to be young.

H_9: Cable television subscribers will be less satisfied with network programming than will non-subscribers. ($S < N$)

H_0: $S \geq N$

The rationale here is that dissatisfaction with network offerings was a motivator in subscribing to cable television; and hence, satisfaction with network offerings is a motivator to not subscribe to cable television.

H_{10}: Cable television subscribers will consider their cable bill to be more like a utility expense than like an entertainment expense or information expense. (Utility > Entertainment, Utility > Information)

H_0: Utility $\leq$ Entertainment, Utility $\leq$ Information.

The basis for this hypothesis is that a cable television subscriber feels somewhat of a dependence on his/her cable service. It becomes considered the same as the phone or electric bill; especially since it is mailed to the household like a utility bill, and its appearance is similar. Such services are considered indispensible, and should subscribers feel that way about cable television, that knowledge could be focused on during marketing efforts.

CHAPTER III

Reference Notes

[1]East Lansing Department of Planning, 5 May 1981.

[2]Ibid.

[3]Spot Radio Rates and Data, Standard Rate and Data Service, Inc. Skokie, Illinois. February 1, 1981, p. 420.

[4]Ibid.

[5]East Lansing Department of Planning, 5 May 1981.

[6]Ibid.

[7]Ibid.

[8]Ibid.

[9]Sales and Marketing Management, Bill Publications, New York, New York, 1980, p. C-116. As defined by Sales and Marketing Management, the Buying Power Index is calculated by assigning a weight of 5 to the market's percent of U.S./Canadian Effective Buying Income, a 3 to the market's percent of total retail sales, and a 2 to its percent of population. The total of those weighted percents is summed, then divided by 10 to arrive at the BPI.

[10]Spot Radio Rates and Data, p. 420.

[11]Ibid.

[12]Ibid.

[13]Ibid.

[14]Sales and Marketing Management, p. C-116.

[15]Ibid.

[16]Spot Radio Rates and Data, p. 420.

[17]ADI Rankings, 1981, American Research Bureau, Beltsville, Maryland, 1981.

[18]Sales and Marketing Management, p. C-116. Effective Buying Income is Sales and Marketing Management's term for consumer spendable income.

[19]Ibid.

[20]Interview with John Reinhart, United Cable Company, East Lansing, Michigan, 27 April 1981. Churn refers to the percent of service disconnects in a given period of time.

[21]Telephone penetration in the Lansing-East Lansing Standard Metropolitan Statistical Area is greater than 97 percent. Interview with Gene Kukse, Michigan Bell Telephone Company, Lansing, Michigan, 7 June 1981.

[22]In this study the first element in the systematic sample was selected by using a table of random numbers.

[23]Earle R. Babbie, The Practice of Social Research, 2nd ed. (Belmont, California: Wadsworth Publishing Company, Inc. 1979), p. 178.

[24]Ibid., p. 580.

[25]Ibid., p. 410.

[26]Norman H. Nie, et al., Statistical Package for the Social Sciences, (New York: McGraw-Hill Book Company, 1975), p. 181.

[27]Ibid., p. 435.

[28]Ibid.

[29]Ibid.

CHAPTER IV

RESULTS

This study addresses differences between cable television subscribers and non-subscribers. Demographic differences between these two groups were tested through ten research hypotheses. The results of the statistical analysis provide insight as to the demographic characteristics within each group, as well as differences between the two groups. For descriptive statistics of the entire sample refer to Appendix B.

Hypotheses

The following are the test results of the hypotheses. An alpha level of .05 was used in all cases as the level of significance.

Age:

H_1: Cable television subscribers (S) will have a lower mean age than non-subscribers (N) ($S < N$).

H_0: $S \geq N$

The rationale for this hypothesis was that younger people are more inclined to accept new forms of technology and entertainment. However, this hypothesis was not supported by the data. Utilizing a t-test it was found that cable subscribers are significantly older than non-subscribers (see Table 7). Although H_1 is not accepted, results show a significant difference in the ages of subscribers and non-subscribers.

Household Income

H_2: Cable television subscribers will have a higher household income than non-subscribers ($ > N).

H_0: $S \leq N$

The basis for this hypothesis are findings from other studies indicating subscribers tend to have higher incomes than non-subscribers. Also, households with higher incomes have more discretionary income to spend on non-staples.

A difference of proportions test shows that cable television subscribers do have significantly higher household incomes than do non-subscribers. The results are shown in Table 3. The null hypothesis is rejected.

TABLE 3

Annual Household Income
Subscribers and Non-Subscribers

	<$25,000	>$25,000
Cable subscribers	54.2%	45.8%
Non-subscribers	74.4%	25.6%
		Significance = .0002

Education

H_3: Cable television subscribers will have had more formal education than non-subscribers (S > N).

H_0: $S \leq N$

The assumption is that better educated people are more innovative and are more willing to try new things. Also a positive correlation between income and education was assumed.

The results show no significant difference in the amount of formal education between subscribers and non-subscribers (see Table 4). The null hypothesis cannot be rejected.

TABLE 4

Years of Formal Education
Subscribers and Non-Subscribers

	High Education[1]	Low Education[2]
Cable subscribers	83.9%	16.1%
Non-subscribers	83.1%	16.9%
	significance = .429	

Television Usage

H_4: Cable television subscribers will report watching more hours of television per day than non-subscribers (S > N).

H_0: $S \leq N$

The basis for this hypothesis is that cable subscribers would have more viewing options than non-subscribers. This would allow them to watch more television, while non-subscribers with fewer viewing options would seek other forms of entertainment.

In rejecting the null hypothesis, results from a t-test show that cable television subscribers reported watching significantly more hours of television than non-subscribers. The results are shown in Table 7.

Number of People in Household

H_5: Cable television households will have fewer numbers of individuals residing within the household than will non-cable households (S < N).

H_0: $S \geq N$

The foundation for this hypothesis is recently married people that are starting families later, and are having fewer children. While the mean number of people was higher in cable households, the findings are not significant. The null hypothesis is not rejected (see Table 7).

Movie Attendance

H_6: Cable television subscribers will attend fewer movies per month than non-subscribers ($S < N$).

H_0: $S \geq N$

This hypothesis is based on the assumption that cable subscribers have more viewing options (possibly including pay movie services) on cable and will stay home, while non-subscribers will seek other forms of entertainment.

The findings of a t-test show no significant difference in the number of movies attended by cable subscribers and non-subscribers (see Table 7). The null hypothesis cannot be rejected.

Newspaper Usage

H_7: Cable television subscribers will spend less time reading newspapers per day than will non-subscribers ($S < N$).

H_0: $S \geq N$

Again, it is assumed non-subscribers will seek out other media and forms of entertainment, while subscribers will watch television.

No significant difference was found between the two groups tested by a t-test (see Table 7). The null hypohtesis is not rejected.

Radio Usage

H_8: Cable television subscribers will listen to more hours of radio per day than non-subscribers (S > N).

H_0: $S \leq N$

This hypothesis assumes a positive correlation between radio usage and age (younger people listen to radio more).

Utilizing a t-test, no significant differences in hours spent listening to the radio between subscribers and non-subscribers were found. The results are shown in Table 7. The null hypothesis cannot be rejected.

Satisfaction with Network Programming

H_9: Cable television subscribers will be less satisfied with network programming than will non-subscribers (S < N).

H_0: $S \geq N$

The rationale for this hypothesis is that dissatisfaction with commercial network programming was a motivator to subscribe to cable television.

A difference of proportions test found no significant difference in the level of satisfaction with network programming between cable subscribers and non-subscribers (see Table 5). The null hypothesis is not rejected.

TABLE 5

Network Satisfaction
Subscribers and Non-Subscribers

	Satisfied	Unsatisfied
Cable subscribers	60.1%	39.9%
Non-subscribers	55.3%	44.7%
	Significance = .19	

Perception of Cable Service as a Utility, Information, or Entertainment Expense

H_{10}: Cable television subscribers will consider their cable bill to be more like a utility expense rather than entertainment expense or information expense (Utility > Entertainment, Utility > Information).

H_0: Utility = Entertainment = Information.

The foundation for this hypothesis is that cable subscribers will come to perceive cable service as a utility because of the services' non-programming content (i.e. improved reception, local access, etc.) and billing procedure.

The results show more cable subscribers consider their bill to be most like an entertainment expense rather than a utility or information expense. This is contrary to the research hypothesis (see Table 6).

TABLE 6

Subscriber Perceptions of Cable Bill

Bill Type	N	Percent
Entertainment	94	54.0
Utility	53	30.5
Information	27	15.5
		standard error = .056

TABLE 7

Comparision of Subscribers and Non-Subscribers
on Key Antecedent Variables

Variable		Subscribers (N = 183)	Non-Subscribers (N = 153)	t	Probability
Age	$\bar{x}$ =	36.96	30.42	3.50	.001
	s.d. =	18.65	15.07		
Hours of TV	$\bar{x}$ =	2.63	1.76	3.67	.000
	s.d. =	2.35	1.95		
Number of people in household	$\bar{x}$ =	3.07	2.76	.63	.530
	s.d. =	2.13	1.59		
Monthly movie attendance	$\bar{x}$ =	0.93	1.21	-1.72	.086
	s.d. =	1.50	1.41		
Minutes of newspapser	$\bar{x}$ =	56.47	59.35	- .54	.588
	s.d. =	34.66	49.06		
Hours of radio	$\bar{x}$ =	2.15	2.33	- .65	.516
	s.d. =	2.50	2.53		

Summary

In summary, cable television subscribers are significantly older, report watching more hours of television per day, and have a higher household income than non-subscribers. Also, cable subscribers are more likely to consider their cable bill as an entertainment expense rather than an information or utility expense.

The findings indicate no significant differences between cable subscribers and non-subscribers in formal education, number of people living in the household, movie attendance, time spent reading newspapers, time spent listening to the radio, and satisfaction with network programming.

Discriminant Analysis

The function of discriminant analysis is to mathematically weight and linearly combine variables so that the groups are forced to be as statistically different as possible.[3]

In this study the purpose of using discriminant analysis was to separate cable subscribers and non-subscribers into two groups based on demographic variables. These two groups would then be as statistically different as possible based on the variables used. With a list of variables that distinguish the two groups, knowing the variable values of a case allows the researcher to predict what group the case belongs in. Discriminant analysis also provides an estimate of accurate predictions for each case.

In this study the variables demonstrating the strongest ability to separate subscribers and non-subscribers are, in order of strength; income, hours of television, age, minutes reading newspapers, marital status, and number of people living in household (see Table 8).

TABLE 8

Summary of Discriminant Analysis

Variable	Wilks Lamda	Rao V	Change in V	Significance
Household income	.9387	13.73	13.73	.0002
Hours of TV	.8820	28.24	14.51	.0001
Age	.8678	32.14	3.90	.0482
Minutes reading Newspapers	.8511	36.90	4.76	.0292
Marital status	.8441	38.96	2.06	.1508
People living in household	.8386	40.62	1.66	.1981

TABLE 9

Cannonical Discriminant Functions

Percent of Variance	Canonical Correlation	Wilks Lamda	Chi Squared	DF	Significance
100.0	.4018	.8386	36.621	6	.0000

Standardized discriminant function coefficients are used to compute the discriminant score for a case in which the original discriminating variables are in standard form (see Table 10).

TABLE 10

Cannonical Discriminant Function
Coefficients of Discriminant Analysis

Variable	Standardized Coefficients
Household income	-.68739
Hours of TV	-.60088
Age	-.51508
Minutes reading newspapers	.33817
People living in household	-.20669
Education	-.26960

Based on the values of a case on these variables, membership in the subscriber or non-subscriber group can be accurately predicted 63.7 percent of the time (see Table 11).

TABLE 11

Classification Results of Discriminant Analysis

Group	Actual Membership N	Predicted Group Membership Subscribers	Non-Subscribers
Cable subscribers	183	113 (61.7%)	70 (38.3%)
Non-subscribers	153	52 (34.0%)	101 (66.0%)

Percent of grouped cases correctly classified = 63.69

Recognition of Cable Programming Services

As cable television is just beginning to develop as a universal medium, it is important to gauge the relative level of recognition of the programming services cable offers. This is a valid indication as to how well cable, and its programming services, have promoted the medium.

Results based on the entire sample population show Home Box Office (HBO) as significantly[4] the most recognized cable television programming service. Asked if they had heard of HBO, 92.3 percent of all respondents said "yes." Next in recognition were The Movie Channel, 82.3 percent; Cable News Network (CNN), 77.7 percent; Entertainment and Sports Programming Network (ESPN), 76.5 percent; and Cinemax, 72.6 percent.

As expected, cable subscribers recognized the cable programming services more so than non-subscribers. The level of recognition between the two groups can be dramatic. For example, 31.4 percent of non-subscribers reported hearing of WTBS (Atlanta), 69.6 percent of subscribers claimed recognition. A difference of 38.2 percentage points; based on a difference of proportions test, significant to .0000003.

Table 12 shows the programming services used in the questionnaire with the number of positive responses and an adjusted percentage (blank responses disregarded). All services were available to the sample except Showtime.

Subscribers Evaluation of Benefits Offered by Cable

As a barometer of perceptions toward cable television service, subscribers were asked to evaluate specific benefits offered by cable.

The results show how subscribers feel about their service; what they value, their satisfaction with programming and service, and what could be done to improve the programming and service.

TABLE 12

Subscriber and Non-Subscriber Recognition of Cable Programming Services

Service	Total Sample Percent	Subscribers Percent	Non-Subscribers Percent
HBO	93.2	93.1	93.3
The Movie Channel	82.3	87.4	77.2
CNN	77.7	91.2	64.2
ESPN	76.5	88.0	64.9
Cinemax	72.6	79.1	64.6
Escapade/Bravo	55.5	67.0	43.9
WTBS	50.5	69.6	31.4
Nickelodeon	47.0	52.0	42.0
Showtime	46.3	44.3	48.3
WELM/Public Access	39.2	51.4	27.0
USA Network	29.9	43.6	16.1
Cable Satellite Public Affairs Newtork (C-SPAN)	22.1	23.7	20.4

Of the features offered by cable, improved reception was cited as the most important, although not statistically significant. It was rated "very important" or "somewhat important" by 87.4 percent of the subscribers surveyed. Following were news and information channels, 84.1 percent; independent television stations, 83.6 percent; more channel availability, 81.7 percent; and importance of a movie service, 49.5 percent.

Although the importance of a movie service was claimed to be less important than other cable features; when cable subscribers were asked which channel they watch most often, HBO was the leader with 25 responses. It should also be noted that only approximately 45 percent of the cable subscribers subscribe to HBO. Following were CNN, 21 responses, WKBD (Detroit), 17 responses; ESPN, 8 responses; The Movie Channel and WKAR (PBS), 6 responses; and WTBS, 5 responses.

Overall, cable subscribers are satisfied with cable programming. Table 13 shows the results to the question of satisfaction with cable programming.

TABLE 13

Cable Subscribers' Satisfaction With Cable Programming

Category	Percent
Very satisfied	27.8
Somewhat satisfied	62.8
Not very satisfied	7.8
Not satisfied at all	1.7
	N = 180

When asked how cable programming could be improved, the most prevalent responses regarded the selection and scheduling of movies on the pay services, and simply "more variety." The results are shown in Table 14.

Evaluation of United's service was generally favorable. Cable reception was rated "good" or "excellent" by 77.8 percent of the subscribers surveyed. Following were responsiveness of technical personnel, 68.1 percent; responsiveness of office personnel, 62.7

percent; the billing procedure, 62.0 percent; and phone communication, 57.4 percent. Table 15 shows specific responses as to how their cable service could be improved.

TABLE 14

Subscriber Responses of How to Improve Cable Programming

Response	N
More variety	19
Improve movie selection/scheduling on movie services	18
Less repeats on movie services	9
More older movies	5
Another PBS station	4
Eliminate commercials	4
Improve overall quality	4
More cultural programming	4
More Detroit stations	3
More documentaries	3
More educational programming	3
More news programming	3
More 24 hour channels	3
Televised channel guide	3
HBO 24 hours	3
Better reception	3
Less sports	2
Less religious programming	2
Less pornography	2
Remove local access channel	2
Eliminate duplicate networks	2
Miscellaneous[5] (one response each)	28

TABLE 15

Subscriber Responses on How to Improve Cable Service

Response	N
Improve billing procedure	15
Improve reception	13
Improve phone communication	8
Improve promptness of service calls	8
Make it easier to get service after 5 p.m.	8
Office personnel are rude/incompetent	8
Lower price	4
Offer free	3
Miscellaneous (one response each)	13

Non-Subscriber Evaluations and Results

The majority of non-subscribers knew a friend or relative with cable television (84.7 percent) and had watched cable television at a friend or relatives' home (79.6 percent). The majority also reported receiving literature in the mail from the cable company (53.4 percent), but only 29.3 percent reported phone contact with the cable company.

Asked why someone would subscribe to cable television, the most prevalent reasons were for "more variety," and for "more movies." Table 16 presents a complete breakdown of results to that question.

When asked why they don't subscribe to cable television, the most prevalent answers revolved around cost and usage. Table 17 shows a complete breakdown of responses.

Non-subscribers were asked to estimate the monthly fee for cable television, the installation charge, and how many channels cable offers. The results are summarized in Table 18.

TABLE 16

Non-Subscribers Responses to Why Someone Would Subscribe to Cable

Response	N
More variety	52
More movies	20
It's good if you watch lots of TV	12
Improved reception	8
No commercials	8
More channels	8
Better programming	6
Convenience of seeing movies	5
Movies unedited, commercial free	5
Good value for movies	4
For more sports	4
They have nothing better to do	3
They think they are getting better programming	3
For HBO	2
They're bored	2
They're curious	2
They like things in prime time	2
For entertainment	2
They have the time to watch TV	2
24 hour news	2
They don't have an antenna	2
For distant stations	2
Miscellaneous (one response each)	5

TABLE 17

Non-Subscriber Responses of Why
They Do Not Subscribe to Cable

Responses	N
Costs too much	37
Don't watch much TV	24
Can't afford it	16
Not available where I live	10
Not a good value	8
Don't want to become a "TV addict"	6
No time to watch TV	5
Satisfied with what I have now	5
Not home enough	4
It would keep me from doing other things	4
Only watch PBS	4
Don't want children to watch more TV	4
I'm not interested	4
Have poor quality TV	3
Objectionable programming	3
Bad service from CATV company before	3
Plan to subscribe	3
I'm cheap	2
Doesn't offer me much, I read a lot	2
No money available	2
Don't want it	2
My converter was stolen	2
I don't like it	2
Afraid of the wires	2
There will be arguments over what to watch	2
My spouse/roommate doesn't want it	2
The movie services are too expensive	2
I watch too much TV already	2
All we watch is the news	2
Miscellaneous (one response each)	3

TABLE 18

Non-Subscriber Estimates of Cable Expenses

Category	Mean	Mode	Median	Minimum	Maximum	Actual[5]
Estimated monthly fee	$15.41	$10.00	$14.33	$3.00	$100.00	$ 8.70
Estimated installation fee	$29.73	$20.00	$24.89	$2.00	$100.00	$20.00
Estimated number of channels	22.9	20	19.9	3	200	25 (plus 4 pay)

When asked what could be done to cable to increase the likelihood of their subscribing the most prevalent responses were in the area of price sensitivity. A complete breakdown of responses is presented in Table 19.

TABLE 19

Non-Subscribers Responses of What Could Increase The Likelihood of Their Subscribing

Response	N
Lower price	45
Specified programming[6]	36
Offer free	11
Would subscribe if building allowed/had enough time/money	8
Increase the variety	3
Control objectionable programming	3
Better quality	2
Cable company co-operatively owned	2
Offer more than just entertainment	2
Less ungly wires	2
Receive information from cable comapny	2
Miscellaneous (one response each)	3

CHAPTER IV

Reference Notes

[1]High education refers to individuals with "some college," "college degree," "some graduate work," and "graduate degree."

[2]Low education refers to individuals with a high school diploma, 9th through 12th grade, and through 8th grade.

[3]Norman H. Nie, et. al., Statistical Package for the Social Sciences, (New York: McGraw-Hill Book Company, 1975), p. 435.

[4]Significant to .00005 based on a difference of proportions test.

[5]These are the actual fees United Cable charges in East Lansing at the time of the survey. Also the national means for that time were $7.43 for basic, and $17.86 for basic installation.

[6]These varied a great deal. The responses included "shows on advertising," "aerobic dancing," "advertising on HBO to bring down cost," etc.

CHAPTER V

DISCUSSION AND RECOMMENDATIONS

Discussion

Chapter IV presented the findings of how cable television and non-subscribers differ; subscribers are significantly older, have a higher household income, and report watching more hours of television per day. Conversely, non-subscribers are younger, with lower household incomes, and lighter viewers of television.

In addition, certain attitudinal trends were found. Price sensitivity and a lack of perceived value regarding cable television were common non-subscriber objections. Many non-subscribers perceived cable television as too expensive, or as not a good value in terms of price. Also, light viewership was a common objection. Many non-subscribers said they didn't have time to watch television, or that there was nothing on that interested them.

Cable subscribers seem satisfied with the programming and service they are receiving. There were few mentions of price sensitivity among subscribers indicating an acquired and appropriate value for the service.

For subscribers, the importance of a strong basic service should not be underestimated. Subscribers rated improved reception, news and information channels, independent television stations, and more channel availability as more important than a movie service. However, the pay services were reported as watched most often, possibly indicating a difference between importance of a service and usage. Possibly the high

profile programming pay services provide and the sentiment of getting their money's worth through high usage explain the higher levels of viewership.

Concerning service, a stronger effort to respond faster, and at times more convenient to the subscriber were mentioned. There were also complaints that the cable company's telephone lines are "always busy," and of being put on hold for unreasonable lengths of time.

Non-subscriber requests of what could make cable more attractive and increase the likelihood of subscribing were very interesting. Apart from the price sensitivity requests (i.e. "offer it free," "lower the price") most of the requests are available or unfounded.

Many non-subscribers mentioned specific programming genres such as "a 24 hour movie service," "religious channel," "another PBS station," "classic television programs," "televised coverage of city council meetings," "a channel devoted to children's programming," "an all news channel," etc. All of which are available with United's cable service. One block of non-subscribers objected to the availability of X-rated programming via cable. Others were concerned about keeping children from watching programming they considered objectionable. The objection to X-rated programming is unfounded as United offers no service that presents such programming. Also United, as do most cable systems, offer lockable converters so parents can control their children's viewing.

While the above are controllable, some objections or requests were uncontrollable. For example, a few non-subscribers mentioned non-importable television signals (e.g. WBBM-TV, Chicago) as additional services that could increase the likelihood of their subscribing. Others objected to the aesthetics of the converter and/or accompanying wires.

Some said they had a low quality television and did not see the point of bringing in all these channels into a set that is almost unwatchable. A few non-subscribers said they might subscribe when they have enough time and/or money.

The question of whether price sensitive questions are controllable or uncontrollable is not dichotomous. For example, the objection "It's not worth the price" may be controllable whereas "I can't afford it" may not be. Truly some people simply do not have enough disposable income to afford a non-essential item like cable television. But the lack of an association of value with cable is another matter. This low perception of value may stem from a lack of knowledge of what cable offers, or the relative utility of what they perceive cable offers.

Looking at the price/value sensitivity non-subscribers have along with the estimates of monthly cable fees, installation fees, and channels available (see Table 17) there exists incongruity. While the non-subscriber feels cable costs too much, they over-estimate its monthly fee and installation charge; while they feel the price of cable is not worth the services offered, they under-estimate the number of channels available.

Clearly, most non-subscribers have misconceptions about cable service. They do not understand what it offers, which blocks an associated value for the service. It is not hard to comprehend why someone does not buy something they don't perceive offers any benefits to them, undervalue, and perceive as overpriced. The challenge for the cable system, and the cable industry is to accurately demonstrate the benefits and value of cable television.

Recommendations

Regarding subscribers, the most common requests were for "more variety." It seems they currently enjoy the variety cable offers and simply want more of it. New cable programming services abound, thus, the utmost consideration regarding which services should be added to the channel line-up is a necessity.

To address the complaints of available service at convenient times, possibly the cable company could designate one week-end per month for service calls, and one day per week for service after 5 p.m. Also a concerted effort to improve telephone skills should be undertaken.

As for non-subscribers, to address the lack of knowledge of what benefits cable offers, the lack of an associated value for the service, and that cable offers something different from commercial over-the-air television; a campaign emphasizing the low cost of cable and the variety of services available, especially the variety of highly promotable services (e.g. ESPN, MTV, CNN, etc.) could be used. The primary benefits would be value, and programming that would offer something for everyone.

As for non-subscribers being younger, a direct approach highlighting youthful features (e.g. youthful spokesperson, endorsements for young people, etc.) could be used. Possibly a slice-of-life campaign showing how young college students solve the problems of high priced, inconvenient entertainment, limited television viewing options, and a busy schedule with cable television. Cable would be presented offering the benefits of low priced/high value entertainment, conveniently available at home, increased viewing options, and many 24 hour services that fit anyone's schedule.

It is essential to note that most of the non-monetary requests or objections are available or controllable. As it is obvious that the non-subscriber is misinformed in many ways regarding cable television, a highly visable campaign telling people what services are and are not availabe (e.g. X-rated programming) could address the ignorance the typical non-subscriber has. With an increased knowledge of what services and benefits cable offers, the non-subscriber can develop an associated value for cable.

In the above examples, non-subscriber has been used interchangably with "untouchable," an industry term for non-subscribers in a mature cable market who have been marketed, but still do not subscribe. Of course it is impossible to evaluate the level of involvement each non-subscriber has had with previous marketing plans. Direct mail pieces are not opened, sales representatives are hung up on or don't get in the door, etc. Many untouchables are ignorant of cable television and are content to remain that way.

If it is possible to gain their attention most of their objections are controllable. Price sensitivity for example; possibly non-subscribers do not differentiate pay services from the basic service and are price sensitive at the $15+ range. Selling basic only to these individuals, rather than the industry prevalent "top down" selling approach may address their objection. A campaign simply emphasizing the cost of basic service could help diffuse the misconception of cable's high cost. Hopefully, through experience and consumer education, basic only subscribers could then be approached with pay services, now that a value for cable service is established. Obviously, this approach is not optimal for every potential subscriber, but may be for those with a high level of price sensitivity.

A basic only selling approach, together with an installation price reduction promotion, may be the best enticement a price sensitive non-subscriber could be offered. As estimated, installation fees were the most highly overpriced, in comparison to actual fees (see Table 17). A price reduction may work as well as free installation because the high estimated installation fees suggests non-subscribers have a "cost appreciation" for cable installation.

The objection of value could be addressed emphasizing the high quality, fresh different programming, and improved reception cable offers for such a small price. The misinformation and lack of knowledge of what cable programming offers dictates that a strong effort must be made to explain cable's quality and variety while conveying a value to having the service, and a value in terms of price paid for quality of service received. Non-subscribers must be told that there is something on cable they will enjoy watching, and the price charged for watching is a bargain.

To address the objections of the light television viewer, it could be emphasized that while the three broadcast networks and PBS offer limited options in terms of content and hours of operation; on cable there is something for everyone at virtually every time.

Of course, not every non-subscriber or untouchable can be sold. Besides uncontrollable objections, a determined untouchable can tune out or selectively screen messages to fit his or her predetermined perceptions. The challenge is to find the message which will cause the person to evaluate the information without predetermined opinion.

In summary, more consumer education addressing the availability and definition of cable services, the benefits cable service offers,

and the value of cable in terms of price/service, is needed. Also an ongoing effort to address the light television viewer with increased programming options, and the price sensitive individual with a low price/high quality effort. The general non-subscribing population simply does not understand cable; and they are not going to readily subscribe until they do.

Limitations

As is true with any study, there are weaknesses that need to be exposed. For example, the moment the questionnaires were completed the data became dated as people's perceptions shift. Also, from the time the survey was done to the time the computer analysis was accomplished, changes in the cable service occurred. United added new channels, and had some rate increases.

Also, as mentioned in Chapter I, this is not a cross sectional study. The results pertain to East Lansing, Michigan. For this reason, forty-five percent of the respondents are full-time college students. Possibly the results can be generalized to other suburban college communities.

The questionnaire did not attempt to differentiate basic cable service from pay services. It was the intention that pay services are just other channels that cable offers at additional cost. How well non-subscribers differentiate pay from basic is not known.

The primary goal of this study was to ascertain differences between cable subscribers and non-subscribers, discuss these findings and make recommendations.

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APPENDICES

APPENDIX A

UNITED CABLE COMPANY PROGRAMMING

Channels	
2	The Weather Channel*
3	WKZO (CBS) Kalamazoo
4	WXYZ (ABC) Detroit*
5	WFSL (Independent) Lansing
6	WJIM (CBS) Lansing
7	Cable News Network
8	WOTV (NBC) Grand Rapids
9	CBET (Independent) Windsor, Ontario
10	WILX (NBC) Jackson
11	Public Access
12	WJRT (ABC) Flint
13	WKAR (PBS) East Lansing
14	Home Box Office
15	WKBD (Independent) Detroit
16	Entertainment and Sports Programming Network (ESPN)
17	WTBS (Independent) Atlanta
18	WGN (Independent) Chicago
19	Michigan State University Classes
20	Michigan State University Classes
21	Lansing Community College
22	East Lansing City Government
23	East Lansing Library
24	East Lansing Public Schools
25	WTVS (PBS) Detroit
26	Cinemax*
27	Public Access
28	Nickelodeon/ARTS at 9 p.m.

Appendix A

United Cable Company Programming (continued)

Channels

29	USA Network
30	The Playboy Channel*
31	The Movie Channel
32	Music Television*
33	Modern Satellite Network/Daytime/Satellite Programming Network*
34	Satellite News Channel*
35	Cable Health Channel*
36	Special Events*

*Services added after the survey was completed (October 1981).

APPENDIX B

SAMPLE QUESTIONNAIRE

EAST LANSING CABLE STUDY
November 1981
Hanson/Ducey 355-7563

PHONE NUMBER _____

INTERVIEW STATUS: (1) Completed (2) Refused (3) Disconnected
(4) Business, Junk, etc. (5) Language Problem
(6) Other _____

Call #	Last Name	Date	Time	Result
1	_____	____	____	_____
2	_____	____	____	_____
3	_____	____	____	_____
4	_____	____	____	_____
5	_____	____	____	_____

(Either no answer or busy. Otherwise indicate at top.)

I.D. Number
(_____) (1-3)

INTRODUCTION: Hello, I'm _____ calling from Michigan State University. We're doing a study of television use in East Lansing and I have a few questions I'd like to ask you.

1. First, do you live within the city limits of East Lansing?
   (1) YES (2) NO (TERMINATE)

2. How many television sets do you have in your household?
   0 1 2 3 4 5 6 7 8 9+ (-0) DK/REFUSED (4)

3. Is the set you usually watch black and white or color?
   (1) B&W (2) COLOR (-0) DK/REFUSED (5)

4. How satisfied are you with the programming offered by the three commercial television networks? Would you say you're?

   (1) very satisfied?,

   (2) somewhat satisfied?,

   (3) not very satisfied?,

   (4) or not satisfied at all?

   (-0) DK/REFUSED (6)

5. Do you have cable television?

   (1) YES (GO TO Q. 6, YELLOW SECTION)

   (2) NO (GO TO Q. 6, GREEN SECTION)

   (3) DK/REFUSED (TERMINATE) (7)

Appendix B

YELLOW SECTION

6. How long have you subscribed to cable television?
(_____) (RECORD IN TIME PERIOD GIVEN)
(-0) DK/REFUSED (8-10)

7. The following are cable television channels or services. Please tell me if you've ever heard of them.

A.	Entertainment and Sports Programming Network (ESPN)	(1) YES (2) NO (-0) DK/REFUSED	(11)
B.	The Movie Channel	(1) YES (2) NO (-0) DK/REFUSED	(12)
C.	USA Network	(1) YES (2) NO (-0) DK/REFUSED	(13)
D.	Cinemax	(1) YES (2) NO (-0) DK/REFUSED	(14)
E.	WTBS	(1) YES (2) NO (-0) DK/REFUSED	(15)
F.	Home Box Office (HBO)	(1) YES (2) NO (-0) DK/REFUSED	(16)
G.	Cable News Network (CNN)	(1) YES (2) NO (-0) DK/REFUSED	(17)
H.	WELM/Public Access	(1) YES (2) NO (-0) DK/REFUSED	(18)
I.	Escapade	(1) YES (2) NO (-0) DK/REFUSED	(19)
J.	Nickelodeon	(1) YES (2) NO (-0) DK/REFUSED	(20)
K.	Cable Satellite Public Affairs Network (C-SPAN)	(1) YES (2) NO (-0) DK/REFUSED	(21)
L.	Showtime	(1) YES (2) NO (-0) DK/REFUSED	(22)

8. Do you subscribe to Escapade? (1) YES (2) NO (-0) DK/REFUSED (23)

9. Do you subscribe to Home Box Office? (1) YES (2) NO (-0) DK/REFUSED (24)

10. Do you subscribe to The Movie Channel? (1) YES (2) NO (-0) DK/REFUSED (25)

Appendix B

11. The following are characteristics that cable television offers. Please indicate how important each one is in retaining your cable subscription. How important is:

A. Improved TV reception;
(1) very important?,
(2) somewhat important?,
(3) not very important,
(4) or not important at all? (-0) DK/REFUSED (26)

B. 30 channels of TV instead of 3 or 4 available without cable television;
(1) very important?,
(2) somewhat important?,
(3) not very important,
(4) or not important at all? (-0) DK/REFUSED (27)

C. Movie channels such as HBO;
(1) very important?,
(2) somewhat important?,
(3) not very important,
(4) or not important at all? (-0) DK/REFUSED (28)

D. Independent TV stations like channel 50 from Detroit;
(1) very important?,
(2) somewhat important?,
(3) not very important,
(4) or not important at all? (-0) DK/REFUSED (29)

E. News and information channels like Cable News Network and the 24 hour weather channel;
(1) very important?,
(2) somewhat important?,
(3) not very important,
(4) or not important at all? (-0) DK/REFUSED (30)

12. What cable channel or service do you watch most often?

_____ (31-32)

13. Would you say you're very satisfied, somewhat satisfied, not very satisfied, or not satisfied at all with the programming offered on cable television?

(1) VERY SATISFIED (GO TO Q. 14)

(2) SOMEWHAT SATISFIED (GO TO Q. 14)

(3) NOT VERY SATISFIED (-0) DK/REFUSED

(4) NOT SATISFIED AT ALL (33)

13a. What are you not satisfied with? _____

_____

_____

14. United Cable Company is the cable company in your area. Please evaluate the following factors regarding United Cable Company's service. Please rate each factor excellent, good, fair, or poor.

	EXC. (1)	GOOD (2)	FAIR (3)	POOR (4)	DK/REFUSED (-0)	
A. The billing procedure						(34)
B. Reception of cable in the home	(1)	(2)	(3)	(4)	(-0)	(35)
C. Responsiveness of cable TV office personnel	(1)	(2)	(3)	(4)	(-0)	(36)
D. Responsiveness of cable TV technical personnel	(1)	(2)	(3)	(4)	(-0)	(37)
E. Telephone communication with local cable office	(1)	(2)	(3)	(4)	(-0)	(38)

15. (FOR THOSE ITEMS CHECKED "POOR" IN Q. 14).....

Why did your rate _____ poor?

_____

_____

_____

16. Do you consider your cable bill to be most like an entertainment expense, like a movie ticket; a utility expense, like the phone bill; or an information expense, like the cost of a newspaper subscription?

(1) ENTERTAINMENT EXPENSE

(2) UTILITY EXPENSE

(3) INFORMATION EXPENSE

(-0) DK/REFUSED (39)

17. What could be done to improve the programming on cable television?

_____

_____

_____ (40-41)

18. What could be done to improve the service of your cable company?

_____

_____

_____ (42-43)

Appendix B

GREEN SECTION

6. Have you ever subscribed to cable television?
   (1) YES (2) NO (-0) DK/REFUSED (8)

7. Why don't you subscribe to cable television?

   _____

   _____

   _____ (9-10)

8. Do you have a friend or relative with cable television?
   (1) YES (2) NO (-0) DK/REFUSED (11)

9. Have you ever watched cable television at a friend or relatives' home?
   (1) YES (2) NO (-0) DK/REFUSED (12)

10. Have you ever received literature about cable television in the mail?
    (1) YES (2) NO (-0) DK/REFUSED (13)

11. Have you ever been contacted by phone or in person by the cable company?
    (1) YES (2) NO (-0) DK/REFUSED (14)

12. Why do you think someone would subscribe to cable television?

    _____

    _____

    _____ (15-16)

13. How much is the monthly fee to receive cable television? If you're not sure, please give me your best estimate.
    (_____) (ROUND TO NEAREST DOLLAR)
    (-0) DK/REFUSED (17-18)

14. How much does it cost to have cable television installed in your home? Again, if you're not sure, give your best estimate.
    (_____) (ROUND TO NEAREST DOLLAR)
    (-0) DK/REFUSED (19-20)

15. How many channels can you receive if you have cable television? Again, your best estimate is fine.

(_____) CHANNELS

(-0) DK/REFUSED (21-22)

16. The following are cable television channels or services. Please tell me if you've ever heard of them.

A.	Entertainment and Sports Programming Network (ESPN)	(1) YES	(2) NO	(-0) DK/REFUSED (23)
B.	The Movie Channel	(1) YES	(2) NO	(-0) DK/REFUSED (24)
C.	USA Network	(1) YES	(2) NO	(-0) DK/REFUSED (25)
D.	Cinemax	(1) YES	(2) NO	(-0) DK/REFUSED (26)
E.	WTBS	(1) YES	(2) NO	(-0) DK/REFUSED (27)
F.	Home Box Office (HBO)	(1) YES	(2) NO	(-0) DK/REFUSED (28)
G.	Cable News Network (CNN)	(1) YES	(2) NO	(-0) DK/REFUSED (29)
H.	WELM/Public Access	(1) YES	(2) NO	(-0) DK/REFUSED (30)
I.	Escapade	(1) YES	(2) NO	(-0) DK/REFUSED (31)
J.	Nickelodeon	(1) YES	(2) NO	(-0) DK/REFUSED (32)
K.	Cable Satellite Public Affairs Network (C-SPAN)	(1) YES	(2) NO	(-0) DK/REFUSED (33)
L.	Showtime	(1) YES	(2) NO	(-0) DK/REFUSED (34)

17. What could be done to cable television to make it more attractive to you and increase the possiblity of you subscribing to cable television?

_____

_____

_____ (35-36)

Appendix B

Just a few more questions.....

19. How many hours of television did you watch yesterday?
    0 1 2 3 4 5 6 7 8 9+ (-0) DK/REFUSED (44)

20. How many hours of radio did you listen to yesterday?
    0 1 2 3 4 5 6 7 8 9+ (-0) DK/REFUSED (45)

21. How much time did you spend reading a newspaper yesterday?
    (_____)(RECORD IN TIME MEASURE GIVEN)
    (-0) DK/REFUSED (46-48)

22. How many movies, at a theatre or drive-in, have you been to in the past month?
    0 1 2 3 4 5 6 7 8 9+ (49)

23. How long have you lived in East Lansing?
    (_____) (ROUND TO NEAREST YEAR)
    (-0) DK/REFUSED (50-51)

24. Are you married? (1) YES (2) NO (-0) DK/REFUSED (52)

25. Do you have children living at home? (1) YES (2) NO
    (-0) DK/REFUSED (53)

26. Counting yourself, how many persons live in your household?
    (_____) (EXACT NUMBER)
    (-0) DK/REFUSED (54-55)

27. How much education have you completed?
    (1) THRU 8th
    (2) 9th - 12th
    (3) HIGH SCHOOL DEGREE
    (4) SOME COLLEGE
    (5) COLLEGE DEGREE
    (6) GRADUATE WORK
    (7) GRADUATE DEGREE
    (-0) DK/REFUSED (56)

28. Are you a full-time student? (1) YES (2) NO (-0) REFUSED (57)

29. Would you please tell me your age?
    (_____) (TO NEAREST YEAR)
    (-0) DK/REFUSED (58-59)

30. Is your total annual household income more than $15,000?
(--) YES (GO TO Q. 30a) (1) NO

30a. IF YES: Is it more than $25,000?

(--) YES (GO TO Q. 30b) (2) NO

30b. IF YES: Finally, is it more than $35,000?

(4) YES (3) NO (-0) DK/REFUSED (60)

That's all the questions I have, thank you; you've been very helpful.

31. RECORD SEX (1) MALE (2) FEMALE

APPENDIX C

DESCRIPTIVE STATISTICS OF THE SAMPLE POPULATION

N=336

	YES	NO
Cable Subscriber	54.5%	45.5%
Married	37.0%	63.0%
Children living at home	27.0%	73.0%
Full-time student	40.8%	59.2%

	MALE	FEMALE
Sex	44.9%	55.1%

	<$15,000	$15,000-25,000	$25,000-35,000	$35,000 >
Income	42.5%	20.7%	14.4%	22.4%

	Thru 8th	9th-12th	High School Diploma	Some College	College Degree	Graduate Work	Graduate Degree
Education	9%	7.6%	5.2%	36.8%	23.7%	8.8%	17.0%

	Mean	Median	Mode	Minimum	Maximum
Age	34.0	27.6	21.0	11.0	86.0
Hours of TV yesterday	2.2	1.9	.0	.0	9.0
Hours of Radio yesterday	2.2	1.3	1.0	.0	9.0
Minutes reading newspapers yesterday	57.8	59.6	60.0	.0	360.0
People living in household	2.9	2.5	2.0	1.	13.0