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ABSTRACT

The first of three phases to provide the Pennsylvania Public Television Network (PPTN) and its seven component stations with information and procedures for defining, estimating and characterizing audiences, as well as developing programs and assessing reactions to them, this study concentrated on establishing audience definitions. The basic parameters were geographic scope and size. The 1970 United States Census data tapes for Pennsylvania and neighboring states were used for developing potential audience profiles in the areas of total service, effective viewing, core viewing, Federal Communication Commission ascertainment and Pennsylvania total service. Demographic profiles for each station were compiled using 10 variables from the census data. General and specific audience estimates were derived from Arbitron television audience data bases. For each PPTN station, the following products were generated: (1) service area designation printouts and maps, (2) general and demographic profiles, (3) People Instant Cume printouts covering estimates of average and cumulative television audiences and (4) Audience Flow printouts tracing the movement of the average audience between television stations. Appended are sample profiles, maps and printouts as well as printouts of selected audience estimates. (KP)

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FINAL REPORT

1976 PENNSYLVANIA PUBLIC TELEVISION NETWORK
AUDIENCE RESEARCH PROJECT:

PHASE 1. AUDIENCE DEFINITION AND ESTIMATION

Carl A. Lindsay
Harrison T. Southworth

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The Pennsylvania State University

August 1976

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for the

PENNSYLVANIA PUBLIC TELEVISION NETWORK COMMISSION
HERSHEY, PENNSYLVANIA

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FOREWORD

In the Foreword to the report of the last major audience research project undertaken by Planning Studies in 1972-73 (Seguin, Lindsay, Southworth and Mezack), we noted that the three successive reports summarizing the audience research conducted for WPSX-TV had been getting bigger if not better. Three years later, at the conclusion of Phase 1 of the Pennsylvania Public Television Network (PPTN) Audience Research Project, we feel confident in stating that the research is getting better and the reports are getting smaller.

Public television (PTV) audience research is getting better, not because of any significant breakthroughs or advances in the state of the art, but because we are beginning to understand, adapt, and use the services developed by commercial audience rating firms such as Arbitron and Nielsen. Just a few years ago, the use of commercially developed audience information to define and estimate the audiences of PTV would have been considered heretical behavior by many in the public telecommunications community. What curiosity PTV station managers had about the program preferences, size, characteristics, etc., of their audiences was usually satisfied by a "general audience survey," conducted by their staff or commissioned to another agency. A large number of these studies were conducted during the late '60's and early '70's by local stations and by the Corporation for Public Broadcasting. Relying usually on a questionnaire administered by telephone or mail to a sample of TV households within a station's Grade A or B signal coverage area, these studies were perceived, and perhaps rightly so, as having limited utility.

Reports describing general audience survey research tended also to be long on methodology and short on results, a practice which contributed in large part to their length. We at Planning Studies plead guilty to this practice in previous reports. Fortunately, since the present project relies on audience data provided by Arbitron, a lengthy description of sampling methods, return rates, etc., is unnecessary. It should be pointed out, however, that the thrust of the present report is primarily definitional and descriptive, outlining what could be called the pre-ascertainment phase of audience research for the seven public television stations in Pennsylvania.

Ascertainment procedures for public television licensees are a recent requirement, and certainly at this time their impact on public broadcasting is indeterminate.

However, we believe that the implementation of the FCC requirements, without first asking and answering some basic questions about the audiences a station is attempting to serve, would be a rather meaningless exercise. Hence the notion of pre-ascertainment research to define and assess the audiences presently being served by a station. Such research should make it possible to put formal and informal ascertainment procedures into a meaningful context.

As indicated previously, no audience data were collected specifically for this study; instead data from extant sources were used. Indeed, it would have been impossible, even if the budget for this project had been doubled or tripled, to collect via audience surveys, within the six-month research period, the audience estimation information developed by this study. U.S. Census data were used to provide estimates of the size and characteristics of the potential audiences within each of the seven PPTN station's service areas, and Arbitron's data bases were used to develop estimates of the size of general audiences and specific program audiences.

This report is intended to be an overall summary of how Phase 1 of the PPTN Audience Research Project was carried out, and to provide a description of the products and audience information developed for each of the seven PPTN stations taken individually as well as collectively. Since this report is addressed to three primary audiences, the PPTN Commission and the general public telecommunications community, the General Manager of the PPTN, and the seven PPTN stations, it is being published in three slightly different versions. The text of all three versions is identical but the physical size of the reports and the project products included with each version differs. Version one is a standard 8 1/2" x 11" in size and contains only descriptions of the project products. The second version is 15" x 11" and includes a state-wide demographic profile. There are seven separate reports of version three, one for each of the PPTN stations. They are 15" x 11" and contain the products developed specifically for each station.

A final note about the appearance of this report: it was produced on the University's IBM 370/168 computer using the text processing program, FORMAT. Notes, rather than being placed at the foot of the pages, are indicated by numbers in brackets and are found at the end of the report.

Cari A. Lindsay
Head, Planning Studies in Continuing Education
Director, PPTN Audience Research Project

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A large number of individuals from different organizations contributed directly to the planning and execution of Phase 1 of the PPTN Audience Research Project and to this project report. The authors are indebted to:

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...Robert McIntyre, graduate assistant with Planning Studies, who set up this report for text processing.

...And finally, Benjamin Nead, Staff Associate and writer from Planning Studies, whose wise counsel helped plan this report and whose editorial skills made it more readable.

SUMMARY

In order to provide the Pennsylvania Public Television Network (PPTN) and its seven component stations with basic information and procedures for defining and estimating audiences, characterizing PPTN audiences, developing programs, and assessing audience reactions to programs, a projected three-phase audience research project has been undertaken by Planning Studies in Continuing Education, The Pennsylvania State University. Phase 1 of the project, reported on here, provides the basis for audience definition and audience size estimation as well as demographic profiles for the PPTN and the seven individual stations. Using 1970 U.S. Census data and television audience data bases maintained by Arbitron, six principal products were generated for each of the seven stations and the PPTN: (a) service area designation printouts, (b) service area maps, (c) general audience profiles, (d) demographic profiles, (e) specified "PIC", and (f) specified "FLOW" outputs from the Arbitron Information on Demand (AID) system.

Analyses of Arbitron and other television audience data sources revealed the following information about the size and characteristics of PPTN station audiences. During May 1976, 126 of the more than 200 public television (PTV) stations in the U.S. were "reportable" according to A. C. Nielsen standards. During the average week in May 1976, the net weekly reach of these 126 stations was 18,450,000 TV households, approximately 26.5% of the more than 70 million TV households in the U.S. Also during the average broadcast week in May, the seven PPTN stations reached about 35% of the TV households in Pennsylvania. During this same period, the total (in- and out-of-state) net weekly reach of the seven PPTN stations was 1,715,000 TV households, slightly less than 10% of the total U.S. PTV audience. During the average broadcast week in February 1976, more than one out of four (27%) of the nearly 12 million persons in Pennsylvania viewed one of the seven PPTN stations. Also during this period, over 1,500,000 Pennsylvania households were reached by the seven PPTN stations, or 38% of the nearly four million Pennsylvania TV households. During this same period, 80% of the children aged 2-5 in Pennsylvania were reached by the seven PPTN stations. Persons over 65 years of age were next in terms of reach (30%), followed by persons 6-17 (26%). The reach figures for females and males aged 18-64 were 23% and 19%, respectively. It is estimated that about 80% of the total (both in- and out-of-state) audience reached by the seven PPTN stations during an average broadcast week are Pennsylvanians.

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INTRODUCTION

Background

"The People's Business," published by the Pennsylvania Public Television Network Commission in 1974 (PPTN Commission, 1974), is a comprehensive report on (a) the needs of the Commonwealth's citizens that can be served by public television and (b) recommended ways of meeting the identified needs. Much of the report makes for interesting reading, particularly the ascertainment hearings, and it is safe to conclude that it was successful in achieving its twin goals of finding out what people want from public television and how public television can respond to the challenge.

However, there is an equally important aspect of the total public television picture in the Commonwealth that is beyond the scope of "The People's Business." This aspect could be called "The People Who Look at Public Television," for indeed the identification of public television's audiences is necessary to complete the cycle begun by "The People's Business." In a sense, then, the question of who watches public television is the unfinished business of "The People's Business" and frames the broad problem to which the present research is addressed.

The Pennsylvania Public Television Network (PPTN) Audience Research Project began in March, 1974. At that time, the Network Operations Committee of PPTN asked Planning Studies in Continuing Education, The Pennsylvania State University, to prepare for them a prospectus for a public television audience research proposal. The requested prospectus was written by Planning Studies and approved by the Network Operations Committee, who funded a proposal development project for the period April 11, 1975 to July 31, 1975.

The proposal, which provided the rationale for and described the first phase of a projected three-phase audience research project, was approved by the PPTN Commission at their September 11, 1975 meeting. The proposal was based primarily on information received by the Planning Studies proposal development team from interviews held with PPTN station managers or their representatives, one meeting with an advisory group, several meetings with the Network Operations Committee, and two meetings with Dorothy Stein, Director of Marketing Research Services, Arbitron. In addition, it depended upon several basic assumptions about public television audience research, which, since they frame the approach taken by this project, should be reiterated here.

1. The scope and objectives of any research project on the public television audience of Pennsylvania are constrained by costs. Therefore, the present research has attempted to address and answer audience research questions in a cost-feasible manner.

2. The state of the art with regard to research on the audiences of public television in general, as well as currently available PPTN audience information, can best be described as primitive. It follows from this assumption that this research project must begin at the beginning and adopt an evolutionary stance. Basic questions such as what are the size, location, and demographic characteristics of the audiences of public television in general, and PPTN in particular, must be answered before more complex ones, such as what is the impact of a specific program on its intended audience, can be addressed.

3. This next assumption is a corollary of the preceding one. The use of, and/or the secondary analyses of, television audience data that have been collected in a systematic and reliable fashion is preferred to the collection of fresh data. The commercial television rating services, e.g., Nielsen and Arbitron, collect regularly and publish a large amount of information that is adaptable to a public television research project, especially with regard to establishing the basic parameters of the public television audience. It is almost axiomatic that the collection of fresh, comparably reliable public television audience data is prohibitively costly and wasteful of resources.

Overall Project Goals and Phases

The broad, long-range goal of the overall PPTN audience research project is to design, test, and implement an interacting, feedback-oriented system which systematically uses the results of audience ascertainment studies to (a) define target audiences, (b) develop programs, and (c) define and assess program impact. It is recognized that the development and use, even on a limited basis, of the system envisioned by this goal will require, at a minimum, time, resources, and significant advances in the state of the art for television research. Nevertheless, this goal has been adopted as the eventual outcome toward which PPTN audience research efforts are directed.

To meet the overall project goal, a three-phase research and demonstration effort has been planned. A descriptive title for Phase 1 is "Counting the House: Defining and Estimating the Scope and Size of PPTN Audiences." The title emphasizes that the main thrust of Phase 1 involves the definition and estimation of audiences, a necessary prelude to Phase 2, labeled, "Characterizing and Analyzing the Attitudinal and Viewing Behavior of Viewers and Non-Viewers of Public Television." Given the successful completion of the first two phases, a third, and as yet untitled phase is seen: to design and test the audience ascertainment, programming, and feedback system envisioned by the overall project goal.

Phase 1 Objectives

The two basic objectives of Phase 1 of the project were to (a) establish parameters and conventions for defining the audiences of PPTN and its seven individual stations, and (b) collect, summarize, interpret, and distribute to PPTN station managers, information which provides estimates of the geographical scope and size of the defined audiences. The overriding concern in carrying out these objectives was to develop definitions and conventions which were acceptable to all of the seven PPTN station managers and which, once established, could be systematically applied to each station.

Audience Definition. The basic audience definition objective involved several tasks. First was the definition of service areas for each of the seven stations taken individually, and collectively as the PPTN. The county was taken as the basic building block for this task, and it was used in the definition of both Pennsylvania and non-Pennsylvania service areas. Once the service areas were defined on a county basis, the next task was to select those variables (e.g., age, sex, race, income) which could be used to demographically characterize the potential audiences within the geographical service areas and to develop audience profiles. The third and final audience definition task included the selection and modification of general and specific audience definitions which could be used to estimate audience sizes.

Audience Estimation. Carrying out the audience estimation objective involved the development and summarization of a number of audience size estimates. Television audience rating data bases maintained by Arbitron were used as the sources for these estimates. The specific audience size estimates which were developed, and their data bases, are described in subsequent sections of this report.

Audience Definition and Research Terms

In defining audiences a number of specialized terms are either used in this report or an implied understanding of them is assumed. Key terms are briefly defined as they are introduced in the report; more complete definitions can be found in Appendix A.

Project Organization

The first phase of the PPTN Audience Research Project was directed and carried out by a research team from Planning Studies in Continuing Education under a contract between the Pennsylvania Public Television Network Commission and The Pennsylvania State University. However, the project actually involved a tripartite relationship among Planning Studies, the seven PPTN stations, represented by an Advisory Group, and Arbitron, Inc. of Beltsville, Maryland.

Advisory Group. At the beginning of the project, a five-person group was formed to advise and actively work with the Penn State audience research team. Members of the Advisory Group were: David Leonard (PPTN); Sheldon Siegel (WLVT); David Phillips (WPSX); David Menair (WQED); and Mike Zeigler (WITF). During the six-month period of this project the group met five times (January 29th, February 26th, March 10th, April 8th, and May 27th). In addition, the Penn State research team made progress reports to the full Network Operations Committee on two occasions.

Arbitron Contract. The third member of the PPTN Audience Research Project organization was Arbitron, Inc., Beltsville, Maryland. Access to Arbitron's various TV audience data bases (subsequently described) was secured through a subcontract between Arbitron and The Pennsylvania State University. Arbitron was represented principally by David Grigsby, Arbitron, New York, and by Dorothy Stein, Claire Kummer, and Pat Duggan, Arbitron, Beltsville, Maryland.

DATA SOURCES AND METHODS

No audience rating or demographic information was collected specifically for this study by the Penn State research team. Instead, extant data sources, described in the next section of this report, were used. Readers interested in sampling methods and other technical details for the audience rating data described in this report are referred to Arbitron's "Description of Methodology" (1975) as a general source and to Arbitron's "Local Market Books" and "County Coverage Books" for specific references. A description of the U.S. Census data employed for the audience demographic profiles can be found in a technical document published by the National Data Use and Access Laboratories (DUALabs, 1971).

U.S. Census Data

The 1970 U.S. Census data tapes for Pennsylvania and its contiguous states were used for developing potential audience profiles. Several sources for more recent population estimates, such as the updated census information maintained by Westat, Inc., were explored. However, it was felt by the project research team and the Advisory Group that the timeliness of this updated information was outweighed by three factors: (a) the number of recent estimates of the demographic characteristics of the population is limited, (b) their availability is confined to hard-copy, pre-categorized lists, and (c) the variables cannot be disaggregated and re-combined easily. Thus it was decided that the completeness and flexibility of the 1970 U.S. Census data tapes in developing audience profiles for the seven PPTN stations compensated for their age.

Arbitron Audience Information

Under the contract between Arbitron and The Pennsylvania State University, the PPTN Audience Research project purchased the use of three sources of audience rating information: (a) County Coverage Books for 1975, (b) Local Market Books for the six Pennsylvania television markets, and (c) Arbitron Information on Demand (AID).

County Coverage Books for 1975. In the fall of each year, Arbitron publishes estimates of television usage for each county in the United States. The estimates are averages for three "sweep" or diary placement periods, May and November of the preceding year, and February of the current year. Two types of TV usage are presented: (a) county circulation, or the unduplicated number of households

viewing a station in the average week, and (b) share of viewing hours, or the percent of the total viewing hours (generated by the "in-tab" or placed and returned diaries) that are attributable to a given station. In those counties which have a CATV penetration of from 10% to 90%, separate estimates are calculated for CATV and non-CATV households. Circulation and share of viewing estimates are provided for all TV stations that achieve 0.5% (one-half of one percent) of the total viewing generated by the in-tab diaries. Data from the 1975 Arbitron County Coverage Books for Pennsylvania and its contiguous counties were used to develop what are termed "General Audience Profiles" for the seven PPTN stations.

Local Market Books for 1975-76. Arbitron has established six commercial TV market areas for the state of Pennsylvania. For each of the three primary survey dates, or sweeps, (November, February, and May), Arbitron publishes audience rating information for all reportable stations in each of the six markets. The essential requirement for reportability in the Local Market Books is that a given station must reach a minimum of 1% (as opposed to the 0.5% criterion for County Coverage Books) of the TV households in its assigned market area during the average week of the survey period. Arbitron publishes audience ratings for day-part, or day and time period (e.g., 7:30-8:00 p.m.) and specific program audiences for commercial stations, but only day-part ratings for public television stations. Local Market Books for November 1975, February and May 1976 were purchased as part of the agreement to use the AID system and were employed primarily to provide net weekly reach or "Cume" audiences for the three survey periods.

Arbitron Information on Demand (AID). AID is an audience rating and research capability developed recently by Arbitron. Basically, it is a computer-accessible file of the TV viewing behavior recorded by the in-tab diaries from a given Arbitron market area. Although AID contains the same information used to produce the Local Market Books, its flexibility was of interest to the present project. First, it allows a service area to be defined by taking any combination of counties within an Arbitron Total Survey Area, or the largest of three market area definitions. [1] There has been some concern that Arbitron's and Nielsen's commercially defined markets do not, in general, represent the service areas of public TV stations within these markets. Thus, the flexibility of the AID system was used to define and provide audience ratings for service areas which were tailor-made for each of the seven PPTN stations.

AID provides two principal kinds of audience information, People Instant Cume (PIC), and Audience Flow (FLOW). PIC provides information, both for (a) tailor-made service areas and for (b) up to six user-specified combinations of audience sex and age categories, estimates of average quarter-hour audiences and cumulative audiences for a specified number of quarter-hours (from one to a maximum of 560).

FLOW provides, for tailor-made service areas and one user-specified age-sex category of the audience, a means for tracking the flow or movement of the average audience between TV stations for any combination of contiguous quarter-hours. The reader can better appreciate and understand both the PIC and FLOW capabilities by examining the examples and their explanations shown in the Project Products section of this report. Use of AID was purchased for the February and May 1976 survey periods.

Audience Definition

In estimating the size and penetration of a television station's viewing audience, it is axiomatic that one must first define the geographical context in which the viewing takes place and obtain estimates of the population in the defined geographical area. The PPTN Audience Research Project adopted the notion of service areas to indicate those geographical areas and respective populations that the PPTN stations are attempting to serve and used the county as the geographical unit to construct them. Five such service area definitions were arrived at as the first step in audience definition.

Service Area Definitions.

1. Total Service Area (Service Area A). This is a station's maximum or largest service area, including both in- and out-of-state counties. Counties within, or partially covered by a station's Grade B signal coverage were typically assigned to its Total Service Area, although counties beyond the signal coverage were included if they had reportable viewing attributable to the station and were within the Arbitron Total Survey Area.
2. Effective Viewing Area (Service Area B). This is the geographical area defined by those counties (both in- and out-of-state) for which a station has reportable viewing (either CATV, direct signal, or both), according to Arbitron's County

Coverage Books.{2} To be reportable in a given county, a station must have achieved one half of one percent of the total viewing generated by the in-tab diaries. Effective Viewing Area designations were made by reviewing Arbitron's County Coverage Books for 1975.

3. Core Viewing Area (Service Area C). This is a subset of those counties from the Effective Viewing Area, generally those contiguous to the county in which the transmitter is located. Core Viewing Area designations were made by inspection of a map showing counties and PPTN station transmitter sites.

4. FCC Ascertainment Area (Service Area D). This service area comprises those counties which define a station's "community" for FCC ascertainment purposes. In general, FCC AA designations were made, as recommended by the "FCC Ascertainment Primer," by matching the standard Metropolitan Statistical Areas (SMSA's) to a given station's location. However, there were some minor departures from this practice based on other considerations for defining a given station's "community."

5. Pennsylvania Total Service Area (Service Area P). The PTSA includes those in-state counties within a given station's Total Service Area. This last service area was established to allow the definition and estimation of state-wide or PPTN audiences.

A total of 100 counties{3}, 67 from Pennsylvania and 33 from the six states surrounding Pennsylvania are in the Total Service Areas for the seven PPTN stations. PPTN service area designation information is summarized in two formats, computer printouts and maps.

Printouts. A two-part computer printout was prepared to display the counties which were assigned to the five service areas of each of the seven PPTN stations. Part A lists each of the 100 counties arranged alphabetically by state. For each county it shows (a) total TV and CATV household penetration, and (b) the station service area(s) and station(s) to which the county was assigned. Part B provides for each of the seven PPTN stations individual lists of counties and their service area designations.

Maps. For the visually minded, two sets of maps were prepared which display service area designations for (a) the total state and (b) each PPTN station.

Demographic Profiles

From the vast amount of demographic information contained in the 1970 U.S. Census, 10 variables were selected by the Advisory Group to provide a description of the populations residing in the various PPTN service areas. Counts of the following categorized demographic variables were obtained from the populations residing in each of the 100 counties comprising the Total Service Areas of the seven PPTN stations.

1. Age
2. Sex
3. Race
4. Mother tongue
5. Family income
6. Families with children under 25
7. Years of school completed by age and sex
8. Persons aged 3-34 in school, by level and type
9. Employed persons over 16 by occupation
10. Employed persons over 16 by industry

Using a series of computer programs written for this project, the 10 demographic variables were combined into sets of nine tables for each of the 100 counties. Finally, individual station audience demographic profiles were prepared by (a) aggregating data from the counties found in each of the five service area designations and (b) listing the nine tables for each of the individual counties in a given station's Total Service Area.

Audience Estimation

Two primary types of audience-size information were developed for the PPTN Audience Research Project: general and specific. General estimates, taken from Arbitron County Coverage Books, are available only for TV households, and are not based on a specific program. Instead, general estimates are averages, based on three audience measurement periods (November, February, May), and thus tend to smooth out the known fluctuations in audience size and amount of TV viewing that occur between the fall and spring. Specific audience estimates, on the other hand, are tied to a particular audience measurement period and to programs or time periods within it, and can be given for individuals within TV households as well as for households alone.

General Audience Estimates for 1974-75. Selected TV viewing estimates, taken from Arbitron County Coverage Books for 1975, were adapted, re-worked, and combined to form what are called General Audience Profiles. These profiles were developed for each of the seven PPTN stations, using a presentation format similar to that for the Demographic Profiles. The following viewing estimates, given for both CATV and non-CATV households, are found in the General Audience Profiles. {4}

1. Total TV viewing hours for an average week
2. PPTN station's share of total viewing hours
3. PPTN station's net weekly circulation
4. PPTN station's net daytime (6 a.m. to 4:30 p.m.) circulation, Monday through Friday
5. PPTN station's net early-fringe (4:30 p.m. to 7:30 p.m.) circulation, Monday through Friday
6. PPTN station's net prime-time (7:30 p.m. to 11 p.m.) circulation, Monday through Sunday
7. PPTN station's average daily circulation
8. PPTN station's average weekly maintenance

The above audience estimates are self-explanatory with the exception of "maintenance," defined in Appendix A.

Specific Audience Estimates for 1975-76. Specific audience estimates were obtained for two audience measurement periods (February and May 1976), using

Arbitron's Local Market Books and AID for the six commercial TV markets in Pennsylvania. Arbitron Local Market Books are of limited utility for most public television stations because audience estimates are given for commercially defined market areas, which may not correspond to a given PTV station's service areas. In addition, audience estimates are given only for various day-parts or selected time periods, and not for specific programs. Since purchase of Local Market Books is a condition for using AID, they were received as part of the Arbitron Contract. The chief use made of these books by the Penn State research team was to obtain sign-on to sign-off net weekly reach estimates (see Selected Audience Estimates section) for each of the seven PPTN stations for February and May 1976. The books were then forwarded to the individual stations for their use.

AID, as contrasted with the Local Market Books, was used extensively by the PPTN Audience Research Project. To adapt AID for this project, each of the five service area designations for the seven PPTN stations was programmed into the AID system. Using AID then became a matter, first of all, of defining audiences, using households or combinations of age and sex categories for persons in households, and then of defining programs, using combinations of time(s) and day(s) of week, and in each case specifying the service area and type of AID output (PIC or FLOW) desired.

Specific PIC or FLOW requests, received from each of the seven PPTN stations by the Penn State research team, were entered into the AID system computer via a remote data terminal located at University Park. AID runs were produced by the Arbitron computer on an overnight basis and the PIC and FLOW printouts were mailed to the Penn State research team for distribution to the individual stations.

To provide station managers with estimates of the average quarter-hour audiences for the total broadcast week and to provide estimates of the PPTN state-wide audiences, two routine PIC requests were run for the February and May 1976 measurement periods. Using each station's "P", or in-state service area designation and six sex-age audience definitions, sign-on to sign-off PIC's were run for each station. State-wide audience estimates based on these runs are provided under Selected Audience Estimates.

Having introduced and used the capability of AID for inexpensively producing large amounts of audience rating data tailored to each of the PPTN station's specifications, the problem of interpreting the information and exploring its utility remained. Rather than attempting to interpret on

an individual basis the considerable number of PIC and FLOW printouts generated by each station, it was decided instead to address the problem on a PPTN-wide basis. Accordingly, a workshop, entitled "Using Commercial Audience Rating Information for PTV Programming and Promotion," was held at Hershey on August 4-5, 1976. It was attended by over 20 representatives from the seven PPTN stations who shared their experiences with AID data, and heard presentations by David LeRoy of CPB and Natan Katzman, a consultant.

PROJECT PRODUCTS

This section describes the six principal products generated by the PPTN Audience Research Project: (a) Service Area Designation Printouts, (b) Service Area Maps, (c) General Audience Profiles, (d) Demographic Profiles, (e) PIC Printouts, and (f) FLOW Printouts. Since this report is addressed to each of the seven PPTN stations as well as to the PPTN Network Commission, a complete list of Service Area Designations as well as state-wide and individual station maps are included for the latter audience. Sample pages and a description of the Audience and Demographic Profiles and PIC and FLOW printouts are given for both audiences. No specific PIC and FLOW printouts are shown in this report. However, a complete, state-wide Audience and Demographic Profile printout is included with the report prepared specifically for the PPTN General Manager and complete Audience and Demographic Profiles are included in the reports prepared specifically for each of the PPTN stations.

Service Area Designation Printouts

A complete copy of the seven PPTN station service area designations is shown in Exhibit A (page 23 through 34). Individual station service area designations for each of the 100 counties are shown first, followed by a summary of the five service areas for each of the seven stations. An estimated 5,762,400 TV households are found within the 100 in- and out-of-state counties that form the Total Service Area for the seven PPTN stations. Approximately 3,965,000, or 69% of the total TV households, are in the 67 Pennsylvania counties. It is of interest to note that the size of the Total Service Areas for each of the seven PPTN stations is quite varied, ranging from 225,500 for WQLN to 2,581,200 for WHYY, a magnitude on the order of one to ten. In commercial TV terms, WHYY and WQED are located in markets ranked fourth and tenth in size nation-wide, while WQLN is ranked 137th.

Maps

A map of the PPTN-wide service areas is shown in Figure 1 (page 35). It portrays the in-state Total Service Areas and indicates, by shaded areas on the map, the counties served by one or more of the PPTN stations. The reader will note the omission of indications of signal coverage areas on these figures. They are not shown because they have limited utility in defining service areas on a county-by-county basis and because they would tend to make the maps more difficult to read. Individual station service

area maps, displaying the five service area designations, are shown in Figures 2 through 8 (pages 25 through 31).

Sample General Audience Profile

Sample pages of the General Audience Profile prepared for WHYY are shown in Exhibit B (pages 32 through 35). The first part summarizes audience information for the counties found in each of WHYY's five service areas. The second part lists the same information for each county found in WHYY's Total Service Area. With the exception of "Total TV Viewing Hours/Week" and "Television Households Available," all information shown is for WHYY. WHYY's share of the total TV hours viewed in an average week is followed by five average weekly reach and circulation rates. "Station Average Weekly Maintenance-QH" is an estimate of the number of quarter-hours WHYY is watched by the average PTV household. It should be strongly emphasized that the zeros found in these profiles do not imply that no viewing has taken place. Rather they are used to indicate that the station failed to achieve an average of 0.5% of the total TV viewing in a given county during the May and November 1974 and February 1975 audience measurement periods.

Sample Demographic Profile

The same data presentation format employed in the General Audience Profiles is also used for the Demographic Profiles. That is, demographic data are shown for each county in a station's Total Service Area and then aggregated by service area. A sample page from WHYY's Age-Sex profile is shown as Exhibit C (pages 36 and 37). Since these profiles are straightforward presentations of census data, no interpretive or summary remarks are necessary.

(text continued on page 49)

*** COUNTY DATA ***

*** SERVICE AREA DESIGNATIONS ***

COUNTY	ADT-MARKET	TVHH	KTVHH	CATVHH	KCATVHH	SERVICE AREA DESIGNATIONS						
						WOLN ABCDP	WGED ABCDP	WPKX ABCDP	WVIA ABCDP	WTPP ABCDP	WLVY ABCDP	WHTY ABCDP
ADAMS	PA HRG-YK	18200	95	3100	17					AB P		
ALLEGHENY	PA PITTS	515500	97	95400	19		ABCDP					
ARMSTRONG	PA PITTS	24700	96	8000	32		ABC P	AB P				
BEAVER	PA PITTS	66400	97	27100	41		ABCDP					
BEDFORD	PA JN-ALT	14100	94	4400	31			AB P				
BERKS	PA PHILA	103400	97	38100	37				A P	AB DP	ABCDP	AB P
BLAIR	PA JN-ALT	45900	96	34600	75			ABC P				
BRADFORD	PA BING	19100	95	9000	50				ABC P			
BUCKS	PA PHILA	131800	98	10500	8						A P	ABCDP
BUTLER	PA PITTS	41300	97	6700	16		ABCDP	A P				
CAMBERIA	PA JN-ALT	59700	97	33100	55		AB P	ABC P				
CAMERON	PA JN-ALT	2400	97	1800	75			AB P				
CARBON	PA WB-SCP	17800	96	14300	80				AB P		ABCDP	AB P
CENTRE	PA JN-ALT	29500	94	16000	54			ABCDP				
CHESTER	PA PHILA	86100	97	3400	4							ABCDP
CLAFION	PA PITTS	12200	95	2900	24		AB P	AB P				
CLARFIELD	PA JN-ALT	24700	96	13100	53			ABCDP				
CLINTON	PA JN-ALT	12700	96	8500	67			ABC P	A P			
COLUMBIA	PA WB-SCP	20000	96	5400	27				ABC P			
CRAWFORD	PA ERTS	26000	95	13900	53	ABCDP						
CUMBERLAND	PA HRG-YK	51900	96	21100	41					ABCDP		
DAUPHIN	PA HRG-YK	79700	96	33600	43					ABCDP		
DELAWARE	PA PHILA	184600	98	0	0							ABCDP
ELK	PA JN-ALT	10900	96	7100	66				AD P			
ERIE	PA ERTS	35100	97	3400	4	ABCDP						

SERVICE AREA DEFINITIONS: A-TOTAL SERVICE AREA
 B-EFFECTIVE VIEWING
 C-COPE COUNTY
 D-PCC ASCERTAINMENT AREA
 P-IN-STATE SERVICE AREA

Exhibit A

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>>>PPTN SERVICE AREA DESIGNATIONS<<<

*** COUNTY DATA ***							*** SERVICE AREA DESIGNATIONS ***					
COUNTY	ADJ-MARKET	TVHH	%TVHH	CATVHH	%CATVHH	WOLN ABCDP	WOED ABCDP	WPSX ABCDP	WVIA ABCDP	WITP ABCDP	WLVT ABCDP	WHYY ABCDP
FAYETTE	PA PITTS	51400	95	19900	39		ABC P					
FOREST	PA JN-ALT	1700	97	500	29			AB P				
FRANKLIN	PA WASH	32400	93	13200	41					AB DP		
FULTON	PA JN-ALT	3300	90	700	21			A P				
GREENE	PA PITTS	12200	95	3800	31		AB P					
HUNTINGDON	PA JN-ALT	12300	94	5300	43			AB P				
INDIANA	PA PITTS	25900	96	4600	18		ABC P	ABC P				
JEFFERSON	PA JN-ALT	14800	96	6700	45		AB P	ABC P				
JUNIATA	PA HBG-YK	5000	91	200	4					AB P		
LACKAWANNA	PA WB-SCR	80700	97	17200	21				ABCDP			
LANCASTER	PA HRG-YK	101500	93	46200	46					ABCDP		AB P
LAWRENCE	PA YNGSTN	34000	96	10900	32		AB DP					
LEBANON	PA HRG-YK	32400	95	10100	31					ABCDP		
LEHIGH	PA PHILA	89900	97	73100	81						ABCDP	AB P
LUZERNE	PA WB-SCP	117000	97	37700	32				ABCDP			
LYCOMING	PA WB-SCP	36100	94	29100	81			A P	AB P			
MC KEAS	PA BOPL	16300	95	9500	58			AB P				
MERCER	PA YNGSTN	40300	96	7400	18		AB P					
MIFFLIN	PA JN-ALT	15100	93	10000	66			AB P		A P		
MONROE	PA NEW YK	16900	96	5600	33				A P		AB DP	
MONTEGOMERY	PA PHILA	201000	98	0	0							ABCDP
MONTGOMERY	PA WB-SCP	4100	94	2700	66				ABC P			
NORTHAMPTON	PA PHILA	72800	97	44500	61						ABCDP	AB P
NORTHUMBERLAND	PA WB-SCP	34500	94	25200	73				ABC P	AB P		AB P
PEPPY	PA HBG-YK	10200	95	1200	12						ABCDP	

SERVICE AREA DEFINITIONS: A=TOTAL SERVICE AREA
 B=EFFECTIVE VIEWING
 C=CORE COUNTY
 D=PCC ASCERTAINMENT AREA
 P=IN-STATE SERVICE AREA

Exhibit A (cont'd)

>>>PPTN SERVICE AREA DESIGNATIONS<<<

*** COUNTY DATA ***

*** SERVICE AREA DESIGNATIONS ***

COUNTY	ADT-MARKET	TVHH	TVHH	CATVHH	%CATVHH	WQLN ABCDP	WQED ABCDP	WPSX ABCDP	WVIA ABCDP	WITP ABCDP	WLVY ABCDP	WHYY ABCDP
PHILADELPHIA	PA PHILA	629900	97	0	0							ABCDP
PIKE	PA NEW YK	4700	93	1600	34				A P			
POTTER	PA RUPL	6200	94	1500	24			AB P				
SCHUYLKILL	PA WB-SCP	55200	96	41800	76				ABC P	AB P	A P	AB P
SNYDER	PA HBG-YK	8300	91	1700	20				AB P	AB P		
SOHEFSET	PA JN-ALT	25500	95	4500	18		AB P	AB P				
SULLIVAN	PA BING	1800	95	100	6				ABC P			
SUSQUEHANNA	PA BING	11500	96	3500	30				ABC P			
TIOGA	PA SYE-EL	12200	93	5800	48				A P			
UNION	PA WB-SCR	9100	91	4200	52				AB P	A P		
VENANGO	PA PITTS	19900	94	11800	59	AB P	AB P	AB P				
WARREN	PA RUPL	13600	93	9000	66	A P		AB P				
WASHINGTON	PA PITTS	70200	97	17500	25		ABCDP					
WAYNE	PA WB-SCR	9300	93	3600	39				AB P			
WESTMORELAND	PA PITTS	127400	97	29900	24		ABCDP					
WYOMING	PA WB-SCF	7300	95	1200	16				ABC P			
YORK	PA HBG-YK	93700	96	22900	24					ABCDP		
KENT	DE PHILA	27100	97	7200	27							ABC
NEW CASTLE	DE PHILA	131100	99	40000	31							ABC
SUSSEX	DE SALSBY	28900	96	9200	32							ABC
BALTIMORE	MD BALT	501100	98	0	0					A		
CARPOLL	MD BALT	22800	98	0	0					A		
CECIL	MD BALT	15400	98	2400	16							AB
FREDERICK	MD WASH	28400	98	4400	15					A		
HARFORD	MD BALT	38700	98	5000	13					A		

SERVICE AREA DEFINITIONS: A=TOTAL SERVICE AREA
 B=EFFECTIVE VIEWING
 C=CORE COUNTY
 D=PCC ASCERTAINMENT AREA
 P=IN-STATE SERVICE AREA

Exhibit A (cont'd)



>>>PPN SERVICE AREA DESIGNATIONS<<<

*** COUNTY DATA ***

*** SERVICE AREA DESIGNATIONS ***

COUNTY	ADT-MASKET	TVHH	TVVHH	CATVHH	%CATVHH	WOLN ABCDP	WQED ABCDP	WPSX ABCDP	WVIA ABCDP	WTFP ABCDP	WLVT ABCDP	WHYY ABCDP
ATLANTIC	NJ PHILA	66700	96	44100	66							AB
BURLINGTON	NJ PHILA	94000	98	4700	5							AB
CAMDEN	NJ PHILA	152200	98	1500	1							AB
CAPE MAY	NJ PHILA	24800	96	24600	99							AB
CUMBERLAND	NJ PHILA	41500	97	13600	33							AB
GLOUCESTER	NJ PHILA	54900	98	0	0							AB
MERCER	NJ PHILA	102400	97	3100	3							AB
OCEAN	NJ NEW YK	88300	98	18700	21							AB
SALEM	NJ PHILA	20700	97	2100	10							AB
WARREN	NJ PHILA	24900	97	11600	47						A	AB
BROOME	NY BING	69000	97	35500	51				A			
CHAUTAUQUA	NY PUPL	46700	96	12900	28	AB						
DELAWARE	NY BING	14100	93	6300	45				A			
TIOGA	NY BING	14700	96	5700	39				A			
ASHTABULA	OH CLEVND	31200	98	13600	44	AB						
BELMONT	OH WHEEL	28700	98	12700	44			AB				
COLUMBIANA	OH PITTS	36500	98	10600	29			AB				
HARRISON	OH WHEEL	5800	97	300	5			AB				
JEFFERSON	OH WHEEL	30500	98	13300	44			AB				
MARIONING	OH YNGSTN	99500	99	0	0			A				
BROCKE	WV WHEEL	10100	99	8200	81			AB				
HANCOCK	WV WHEEL	13200	99	7800	59			AB				
MARSHALL	WV WHEEL	12400	98	6000	48			AB				
MONONGALIA	WV PITTS	21300	96	15900	75			AB				
OHIO	WV WHEEL	21800	98	12900	59			AB				

SERVICE AREA DEFINITIONS: A=TOTAL SERVICE AREA
 B=EFFECTIVE VIEWING
 C=CORE COUNTY
 D=PCC ASCERTAINMENT AREA
 P=IN-STATE SERVICE AREA

Exhibit A (cont'd)



>>>PPTN SERVICE AREA DESIGNATIONS<<<

*** COUNTY DATA ***

*** SERVICE AREA DESIGNATIONS ***

COUNTY	ADT-MARKET	TVHH	XTVHH	CATVHH	XCATVHH	WOLN ABCDP	WQED ABCDP	WPSX ABCDP	WVIA ABCDP	WTF ABCDP	WLVT ABCDP	WHYY ABCDP
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SERVICE AREA DEFINITIONS:

- A-TOTAL SERVICE AREA
- B-EFFECTIVE VIEWING
- C-CORE COUNTY
- D-PCC ASCERTAINMENT AREA
- P-IN-STATE SERVICE AREA

TOTAL COUNTIES=100
 TOTAL TV HOUSEHOLDS= 5762400.
 TOTAL CABLE TV HOUSEHOLDS= 1314300.
 CABLE TV HOUSEHOLDS= 22.91

DATE==> 08/24/76

*** SERVICE AREAS ***

COUNTY	STATE	MARKET	TVHH	%TVHH	CATVHH	%CATVHH	A-TOTAL	B-EFFECTIVE	VIPWING	C-CORE COUNTY	D-PCC	P-IN-STATE
CRAWFORD	PA	ERTZ	26000	95	13900	53	X	X		X	X	X
ERIE	PA	ERTZ	85100	97	3400	4	X	X		X	X	X
VENANGO	PA	PITTS	19900	94	11800	59	X	X				X
WARREN	PA	DUFL	13600	93	9000	66	X					X
CHAUTAUQUA	NY	PHFL	46700	96	12900	28	X	X				
ASHTABULA	OH	CLEVND	31200	98	13600	44	X	X				
TOTAL COUNTIES==>							6	5		2	2	4
TOTAL TV HOUSEHOLDS==>							222500.	208900.		111100.	111100.	144600.
TOTAL CABLE TV HOUSEHOLDS==>							64600.	55600.		17300.	17300.	38100.
% CABLE TV HOUSEHOLDS==>							29.03	26.62		15.57	15.57	26.35

Exhibit A (cont'd)

*** SERVICE AREAS ***

COUNTY	ADT-MARKET	TVHH	%TVHH	CATVHH	%CATVHH	A-TOTAL	B-EFFECTIVE VIEWING	C-CORE COUNTY	D-PCC	P-IN-STATE
ALLEGHENY	PA PITTS	515600	97	95400	19	X	X	X	X	X
ARMSTRONG	PA PITTS	24700	96	8000	32	X	X	X		X
BEAVER	PA PITTS	66400	97	27100	41	X	X	X	X	X
BUTLER	PA PITTS	41300	97	6700	16	X	X	X	X	X
CAMBRIA	PA JN-ALT	59700	97	33100	55	X	X			X
CLAYTON	PA PITTS	12200	95	2900	24	X	X			X
PAYETTE	PA PITTS	51400	95	19900	39	X	X	X		X
GREENE	PA PITTS	12200	95	3800	31	X	X			X
INDIANA	PA PITTS	25900	96	4600	18	X	X	X		X
JEFFERSON	PA JN-ALT	14900	96	6700	45	X	X			X
LAWRENCE	PA YNGSTM	34000	96	10900	32	X	X		X	X
NEPHER	PA YNGSTM	40300	96	7400	18	X	X			X
SOMERSET	PA JN-ALT	25500	95	4500	18	X	X			X
VENANGO	PA PITTS	19900	94	11800	59	X	X			X
WASHINGTON	PA PITTS	70200	97	17500	25	X	X	X	X	X
WESTMORELAND	PA PITTS	123400	97	29900	24	X	X	X	X	X
BELMONT	OH WHEEL	28700	98	12700	44	X	X			X
COLUMBIANA	OH PITTS	36500	98	10600	29	X	X			X
HARRISON	OH WHEEL	5900	97	300	5	X	X			X
JEFFERSON	OH WHEEL	30500	98	13300	44	X	X			X
MAHONING	OH YNGSTM	98500	99	0	0	X				X
BROOKE	WV WHEEL	10100	99	8200	81	X	X			X
HANCOCK	WV WHEEL	13200	99	7800	59	X	X			X
MARSHALL	WV WHEEL	12400	98	6000	48	X	X			X
MONONGALIA	WV PITTS	21300	96	15900	75	X	X			X
OHIO	WV WHEEL	21800	98	12900	59	X	X			X

TOTAL COUNTIES==>	26	25	8	6	16
TOTAL TV HOUSEHOLDS==>	1416300.	1317800.	918900.	850900.	1137500.
TOTAL CABLE TV HOUSEHOLDS==>	377900.	377900.	209100.	187500.	290200.
% CABLE TV HOUSEHOLDS==>	26.68	28.68	22.76	22.04	25.51

Exhibit A (cont'd)

COUNTY	ADI-MARKET	TVHH	%TVHH	CATVHH	%CATVHH	*** SERVICE AREAS ***					
						A=TOTAL	B=EFFECTIVE VIEWING	C=CORE COUNTY	D=PCC	P=IN-STATE	
ARMSTRONG	PA PITTS	24700	96	8000	32	X	X				
BEDFORD	PA JN-ALT	14100	94	4400	31	X	X				X
BLAIR	PA JN-ALT	45900	96	34600	75	X	X				X
BUTLER	PA PITTS	41300	97	6700	16	X	X		X		X
CAMBERIA	PA JN-ALT	59700	97	33100	55	X	X		X		X
CAMERON	PA JN-ALT	2400	97	1800	75	X	X		X		X
CENTE	PA JN-ALT	29500	94	16000	54	X	X				X
CLAPION	PA PITTS	12200	95	2900	24	X	X		X	X	X
CLEARFIELD	PA JN-ALT	24700	96	13100	53	X	X				X
CLINTON	PA JN-ALT	12700	96	8500	67	X	X		X	X	X
ELK	PA JN-ALT	10800	96	7100	66	X	X		X		X
FORST	PA JN-ALT	1700	97	500	29	X	X				X
FULTON	PA JN-ALT	3300	90	700	21	X	X				X
HUNTINGDON	PA JN-ALT	12300	94	5300	43	X	X				X
INDIANA	PA PITTS	25900	96	4600	18	X	X				X
JEFFERSON	PA JN-ALT	14800	96	6700	45	X	X		X		X
LYCOMING	PA WB-SCP	36100	94	29100	81	X	X		X		X
MC KEAN	PA BUFL	16300	95	9500	58	X	X				X
MIFFLIN	PA JN-ALT	15100	93	10000	66	X	X				X
POTTER	PA BUFL	6200	94	1500	24	X	X				X
SOMERSET	PA JN-ALT	25500	95	4500	18	X	X				X
VENANGO	PA PITTS	19900	94	11800	59	X	X				X
WARREN	PA BUFL	13600	93	9000	66	X	X				X

TOTAL COUNTIES==>	23	20	7	2	23
TOTAL TV HOUSEHOLDS==>	468700.	388000.	213200.	54200.	468700.
TOTAL CABLE TV HOUSEHOLDS==>	229400.	192900.	116600.	29100.	229400.
% CABLE TV HOUSEHOLDS==>	48.94	49.72	54.69	53.69	48.94

Exhibit A (cont'd)

COUNTY	MKT-MARKET	TVHH	CATVHH	%CATVHH	*** SERVICE AREAS ***					
					A=TOTAL	B=EFFECTIVE VIEWING	C=CORE COUNTY	D=FCC	P=IN-STATE	
BERKS	PA PUNLA	103400	97	38100	37	X				X
BRADFORD	PA BING	18100	95	9000	50	X	X			X
CARBOY	PA WB-SCP	17900	96	14300	80	X	X			X
CLINTON	PA JN-ALT	12700	96	8500	67	X				X
COLUMBIA	PA WB-SCP	20000	96	5400	27	X	X			X
LACAWANNA	PA WB-SCP	80700	97	17200	21	X	X			X
LOZEPH	PA WB-SCP	117000	97	37700	32	X	X		X	X
LYCOMING	PA WB-SCP	36100	94	29100	81	X	X			X
MONROE	PA NEW YK	16900	96	5600	33	X				X
MONTGOM	PA WB-SCP	4100	94	2700	66	X		X		X
NORTHUMBERLAND	PA WB-SCP	34500	94	25200	73	X	X			X
PIKE	PA NEW YK	4700	93	1600	34	X				X
SCHUYLKILL	PA WB-SCP	55200	96	41800	76	X	X			X
SHYDER	PA BRG-YK	8300	91	1700	20	X	X			X
SULLIVAN	PA BING	1800	95	100	6	X	X			X
SUSQUEHANNA	PA PING	11500	96	3500	30	X	X			X
TIOGA	PA SVR-EL	12200	93	5800	48	X				X
UNION	PA WB-SCP	8100	91	4200	52	X	X			X
WAYNE	PA WB-SCP	9300	93	3600	39	X	X			X
WYOMING	PA WB-SCP	7300	95	1200	16	X	X			X
BROOME	NY BING	69000	97	35500	51	X				X
DELAWARE	NY BING	14100	93	6300	45	X				X
TIOGA	NY BING	14700	96	5700	39	X				X

TOTAL COUNTIES==>	23	15	10	2	20
TOTAL TV HOUSEHOLDS==>	677400.	429800.	350200.	197700.	579600.
TOTAL CABLE TV HOUSEHOLDS==>	303800.	196700.	143800.	54900.	256300.
% CABLE TV HOUSEHOLDS==>	44.85	45.77	41.06	27.77	44.22

COUNTY	ADI-MARKET	TVHH	CATVHH	%CATVHH	A-TOTAL	*** SERVICE AREAS ***				
						B-EFFECTIVE VIEWING	C-CORE COUNTY	D-FCC	P-IN-STATE	
ADAMS	PA HPG-YK	19200	95	3100	17	X				
BERKS	PA PHILA	103400	97	38100	37	X				X
CUMBERPLAND	PA HPG-YK	51900	96	21100	41	X			X	X
DAUPHIN	PA HPG-YK	78700	96	33600	43	X		X	X	X
FRANKLIN	PA WASH	32400	93	13200	41	X		X	X	X
JUNIATA	PA HPG-YK	5000	91	200	4	X			X	X
LANCASTER	PA HPG-YK	101500	93	46200	46	X				X
LEBANON	PA HPG-YK	32400	95	10100	31	X		X	X	X
MIFFLIN	PA JN-ALT	15100	93	10000	66	X		X	X	X
NORTHUMBERLAND	PA WB-SCR	34500	94	25200	73	X				X
PERCY	PA HPG-YK	10200	95	1200	12	X				X
SCHUYLKILL	PA WB-SCP	55200	96	41800	76	X		X	X	X
SNYDER	PA HPG-YK	8300	91	1700	20	X				X
UNION	PA WB-SCP	8100	91	4200	52	X				X
YORK	PA HPG-YK	93700	96	22900	24	X				X
BALTIMORE	MD BALT	501100	99	0	0	X		X	X	X
CARROLL	MD BALT	22900	98	0	0	X				
FREDERICK	MD WASH	28400	98	4400	15	X				
HARFORD	MD BALT	39700	98	5000	13	X				

TOTAL COUNTIES==>	19	13	6	8	15
TOTAL TV HOUSEHOLDS==>	1239600.	625400.	368400.	504200.	648600.
TOTAL CABLE TV HOUSEHOLDS==>	282000.	258400.	135100.	186400.	272600.
% CABLE TV HOUSEHOLDS==>	22.75	41.32	36.67	36.97	42.03

COUNTY	ADI-MARKET	TVHH	%TVHH	CATVHH	%CATVHH	*** SERVICE AREAS ***				
						A=TOTAL	B=EFFECTIVE VIEWING	C=CORE COUNTY	D=PCC	P=IN-STATE
BERKS	PA PHILA	103400	97	38100	37	X	X	X	X	X
BUCKS	PA PHILA	131400	98	10500	8	X				X
CARBON	PA WR-SCP	17300	96	14300	80	X	X	X	X	X
LEHIGH	PA PHILA	89900	97	73100	81	X	X	X	X	X
MONROE	PA NEW YK	16800	96	5600	33	X	X	X	X	X
NORTHAMPTON	PA PHILA	72900	97	44500	61	X	X	X	X	X
SCHUYLKILL	PA WR-SCP	55200	96	41800	76	X		X	X	X
WARREN	NJ PHILA	24900	97	11600	47	X				X
TOTAL COUNTIES==>						8	5	4	5	7
TOTAL TV HOUSEHOLDS==>						512500.	300600.	283800.	300600.	487600.
TOTAL CABLE TV HOUSEHOLDS==>						239500.	175600.	170000.	175600.	227900.
% CABLE TV HOUSEHOLDS==>						46.73	58.42	59.90	58.42	46.74

==> SERVICE AREA SUMMARY FOR: WHY? <==

COUNTY	ADI-MARKET	TVHH	%TVHH	CATVHH	%CATVHH	A=TOTAL	*** SERVICE AREAS ***	
							P=PERFECTIVE VIEWING	C=CORE C
BERKS	PA PHILA	103400	97	38100	37	X	X	
BUCKS	PA PHILA	131800	98	10500	8	X	X	
CARON	PA WR-SCP	17800	96	14300	80	X	X	X
CHESTER	PA PHILA	86100	97	3400	4	X	X	
DELAWARE	PA PHILA	194600	98	0	0	X	X	X
LANCASTER	PA HDG-YK	101500	93	46200	46	X	X	X
LEHIGH	PA PHILA	89900	97	73100	81	X	X	
MONTGOMERY	PA PHILA	201000	98	0	0	X	X	X
NORTHAMPTON	PA PHILA	72800	97	44500	61	X	X	
NORTHUMBERLAND	PA WE-SCR	34500	94	25200	73	X	X	
PHILADELPHIA	PA PHILA	629800	97	0	0	X	X	X
SCHUYLKILL	PA WR-SCP	55200	96	41800	76	X	X	
KENT	DE PHILA	27100	97	7200	27	X	X	X
NEW CASTLE	DE PHILA	131100	99	40000	31	X	X	X
SUSSEX	DE SALSBY	28900	96	9200	32	X	X	X
CECIL	MD BALT	15400	98	2400	16	X	X	X
ATLANTIC	NJ PHILA	66700	96	44100	66	X	X	
BURLINGTON	NJ PHILA	94000	98	4700	5	X	X	
CAMDEN	NJ PHILA	152200	98	1500	1	X	X	
CAPE MAY	NJ PHILA	24800	96	24600	99	X	X	
CUMBERLAND	NJ PHILA	41500	97	13600	33	X	X	
GLOUCESTER	NJ PHILA	54900	98	0	0	X	X	
HEPNER	NJ PHILA	102400	97	3100	3	X	X	
OCEAN	NJ NEW YK	89300	98	18700	21	X	X	
SALISBURY	NJ PHILA	20700	97	2100	10	X	X	
WAPPEN	NJ PHILA	24900	97	11600	47	X	X	

TOTAL COUNTIES==>	26	26	8
TOTAL TV HOUSEHOLDS==>	2581200.	2581200.	142040
TOTAL CABLE TV HOUSEHOLDS==>	479900.	479900.	7030
% CABLE TV HOUSEHOLDS==>	18.59	18.59	4.9

- Service Area**
-  A - Total Service
 -  B - Effective Viewing
 -  C - Core Viewing
 -  D - FCC Ascertainment

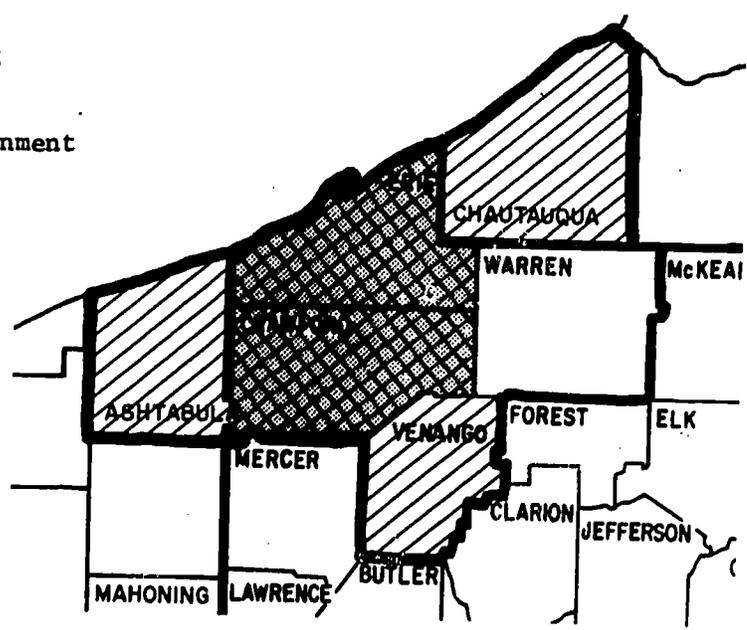


Figure 2. Service Areas for Station WQLN

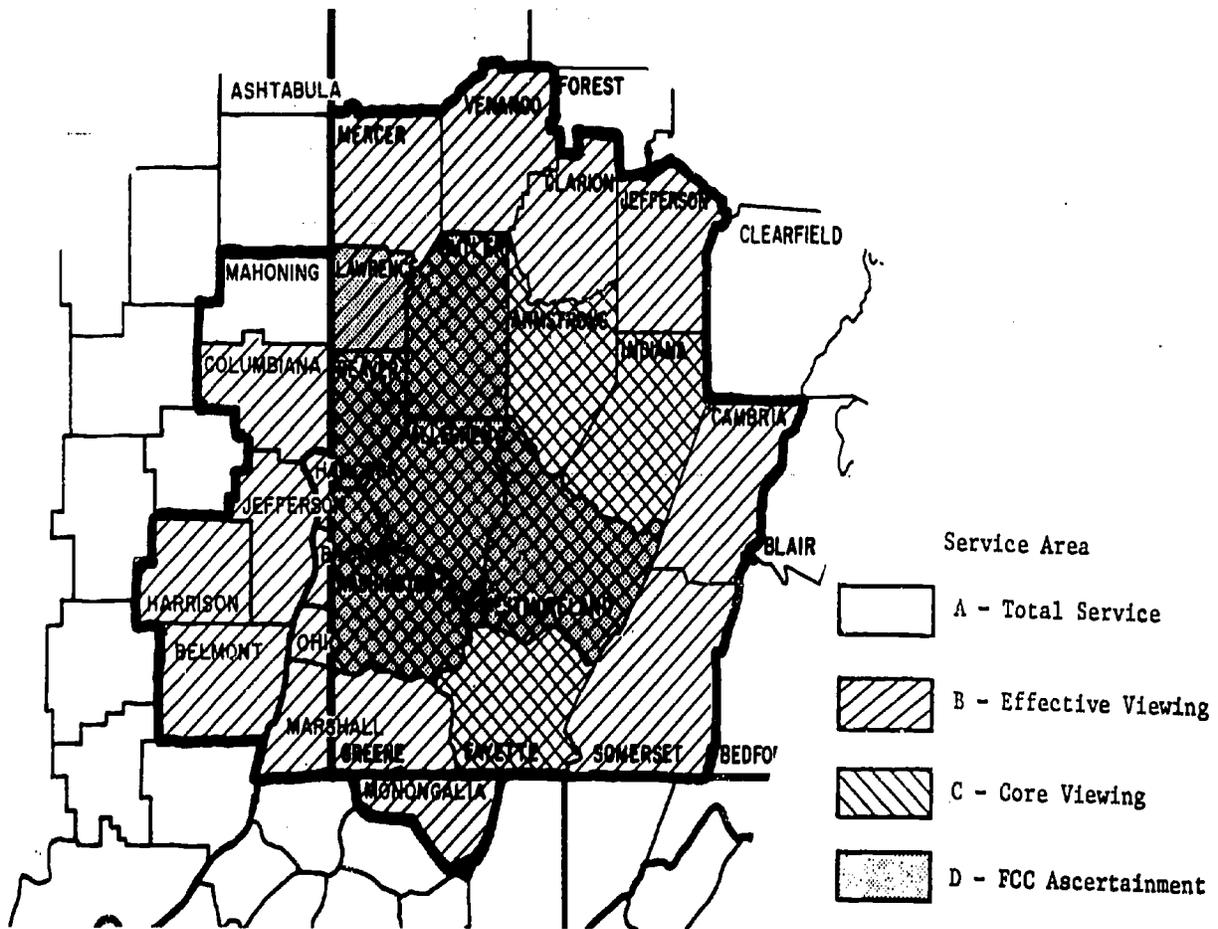
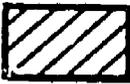


Figure 3. Service Areas for Station WQED

Service Area

-  A - Total Service
-  B - Effective Viewing
-  C - Core Viewing
-  D - FCC Ascertainment

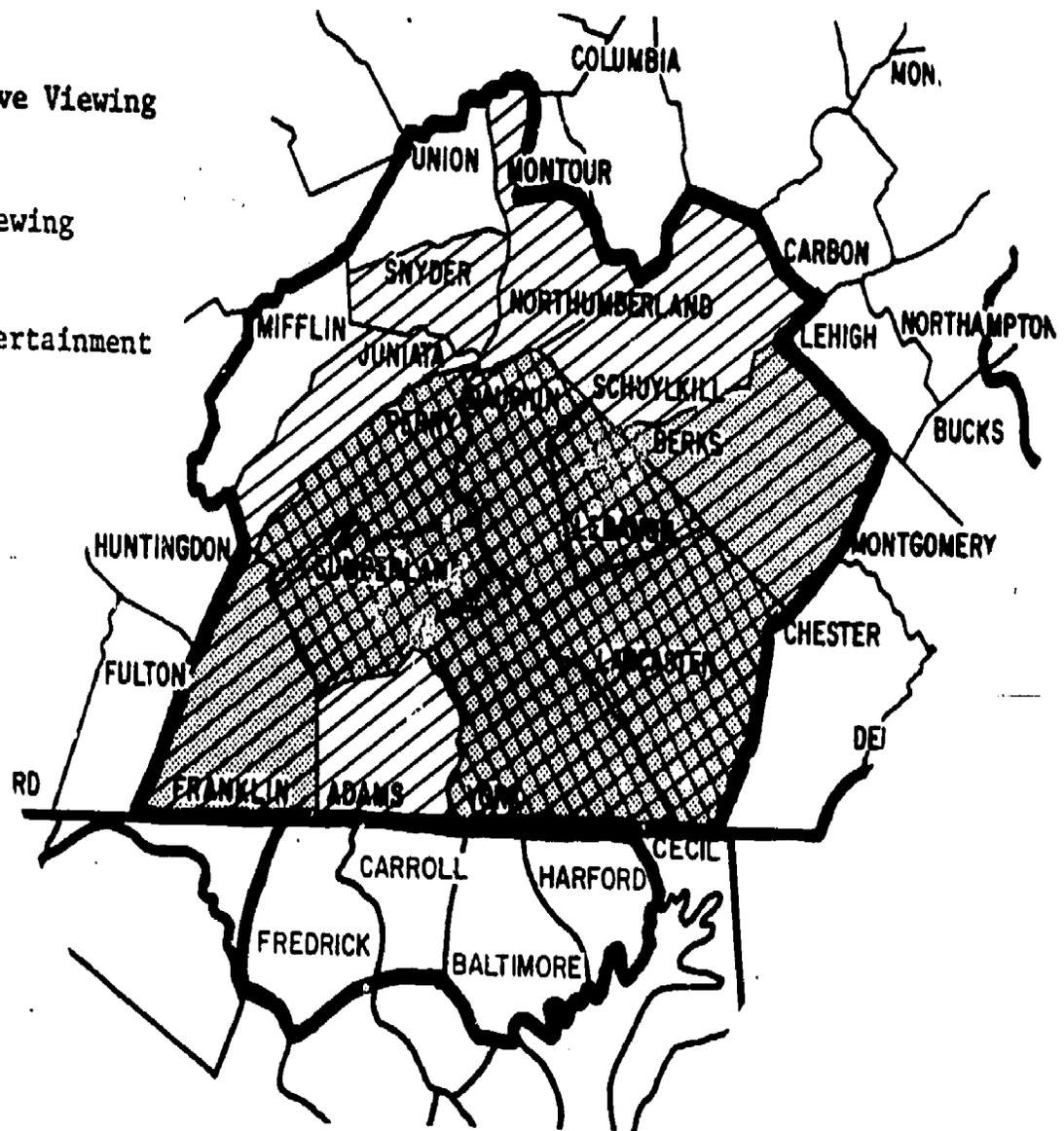
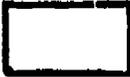
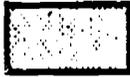


Figure 6. Service Areas for Station WITF

Service Area

-  A - Total Service
-  B - Effective Viewing
-  C - Core Viewing
-  D - FCC Ascertainment

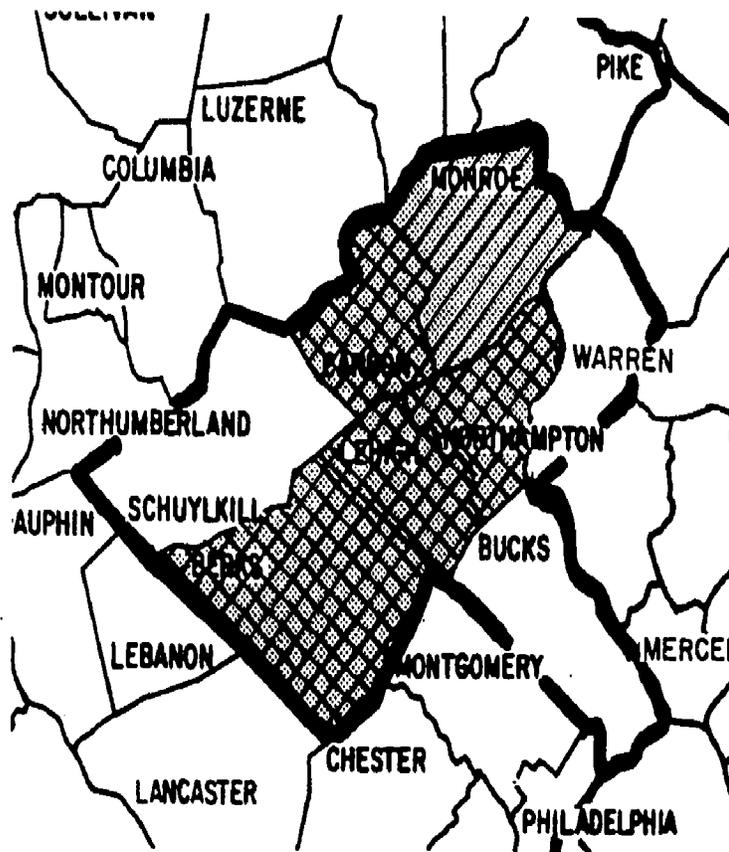
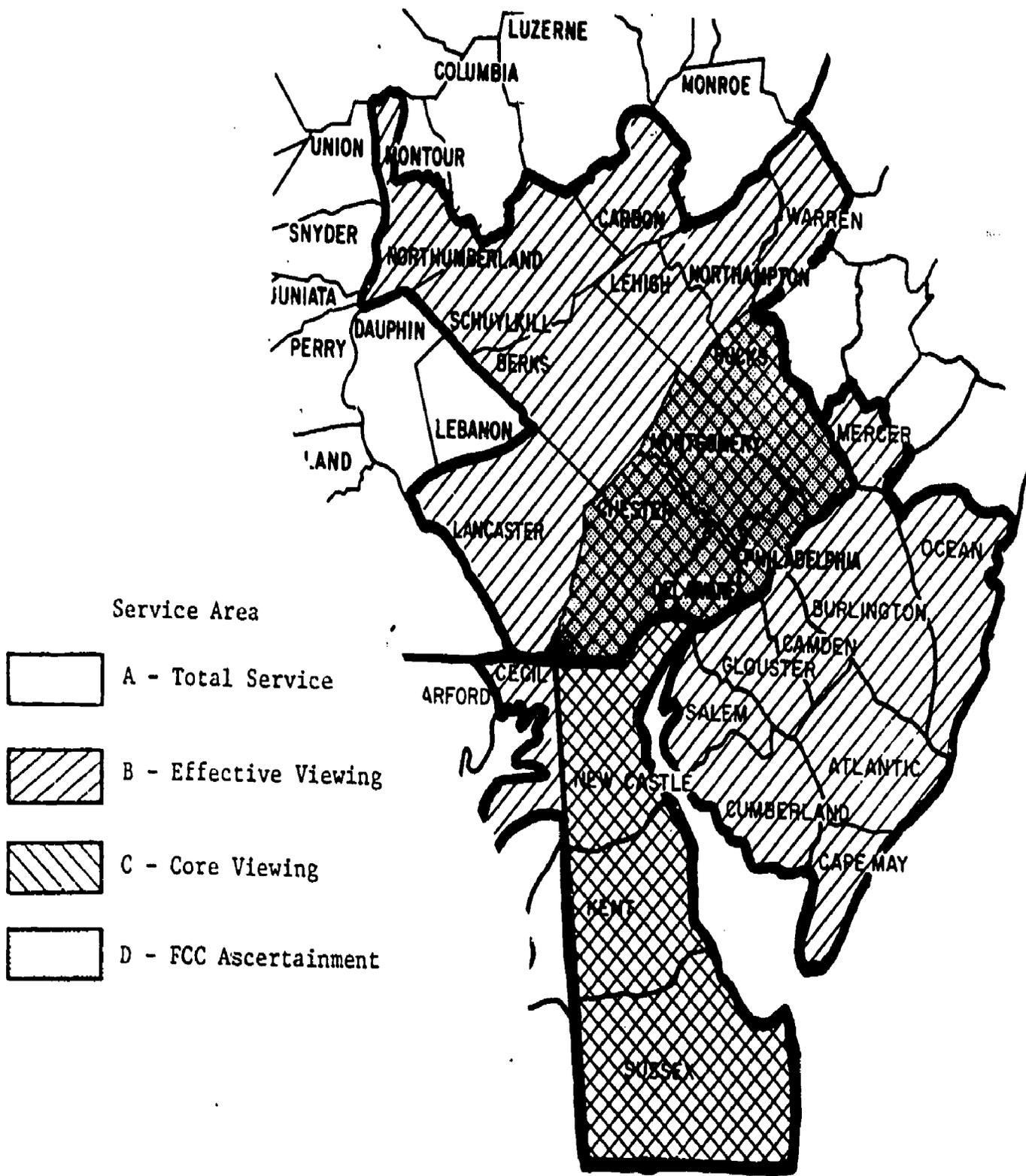


Figure 7. Service Areas for Station WLVT



Service Area

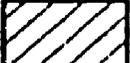
-  A - Total Service
-  B - Effective Viewing
-  C - Core Viewing
-  D - FCC Ascertainment

Figure 8. Service Areas for Station WHY

GENERAL AUDIENCE PROFILE - WHY

AUGUST 1976

COUNTRY/SERVICE AREA	TOTAL TV VIEWING HOURS/WEEK			STATION VIEWING HOURS/WEEK			TELEVISION HOUSEHOLDS AVAILABLE			STATION NET WEEKLY CIRCULATION			STATION NET M-F DAYTIME CIRCULATION		
	TOTAL TVHH	CATV HH	NON-CATV HH	TOTAL TVHH	CATV HH	NON-CATV HH	TOTAL TVHH	CATV HH	NON-CATV HH	TOTAL TVHH	CATV HH	NON-CATV HH	TOTAL TVHH	CATV HH	NON-CATV HH
TOTAL SERVICE # (00)	999999	201594	862498	27905	1610	26295	25812	4799	21013	7556	584	6972	3606	246	3360
# OF COUNTIES=26 %	100	19	81	3	1	3	100	19	81	29	12	33	14	5	16
EFFECTIVE VIEWING # (00)	999999	201594	862498	27905	1610	26295	25812	4799	21013	7556	584	6972	3606	246	3360
# OF COUNTIES=26 %	100	19	81	3	1	3	100	19	81	29	12	33	14	5	16
CORE COUNTY # (00)	569943	24333	545610	18484	627	17857	14704	703	13501	5011	187	4824	2317	90	2227
# OF COUNTIES= 8 %	100	4	96	3	3	3	100	5	95	35	27	36	16	13	16
PCC ASCERTAINMENT # (00)	495630	0	495630	15942	0	15942	12333	139	12194	4377	0	4377	1978	0	1978
# OF COUNTIES= 5 %	100	0	100	3	0	3	100	1	99	35	0	36	16	0	16
IN-STATE SERV. # (00)	691366	124013	567353	17708	526	17182	17083	2971	14112	4917	208	4709	2232	70	2163
# OF COUNTIES=12 %	100	18	82	3	0	3	100	17	83	29	7	33	13	2	15

NOTES:

SHARE..... THE PTV STATIONS PORTION, HOURS AND PERCENTAGE, OF THE TOTAL TV VIEWING DURING THE AVERAGE WEEK. NOTE: ZEROS (0) FOR VIEWING ESTIMATES INDICATE LESS THAN A 0.5% SHARE. IT DOES NOT IMPLY THAT NO VIEWING TOOK PLACE.

CIRCULATION... THE UNDUPLICATED (CUME) NUMBER OF PTV HOUSEHOLDS FOR THE FOLLOWING TIME PERIODS:

- NET WEEKLY - SUNDAY TO SATURDAY, SIGN-ON TO SIGN-OFF
- M-F DAYTIME - MONDAY TO FRIDAY, SIGN-ON TO 4:30 PM
- M-F EARLY PRINCE - MONDAY TO FRIDAY, 4:30 TO 7:30 PM
- WEEKLY PRIME-TIME - SUNDAY TO SATURDAY, 7:30-11:00 PM
- AVERAGE DAILY - AVERAGE DAY, SIGN-ON TO SIGN-OFF

Exhibit B

GENERAL AUDIENCE PROFILE - WHY

AUGUST 1976

COUNTY/SERVICE AREA	STATION NET M-P EARLY-FRINGE CIRC.			STATION NET WEEKLY PRIME-TIME CIRC.			STATION AVERAGE DAILY CIRCULATION			STATION AVG. WEEKLY MAINTENANCE - QH		
	TOTAL TVHH	CATV HH	NON- CATV HH	TOTAL TVHH	CATV HH	NON- CATV HH	TOTAL TVHH	CATV HH	NON- CATV HH	TOTAL TVHH	CATV HH	NON- CATV HH
TOTAL SERVICE # (00) # OF COUNTIES=26 %	2370 9	156 3	2212 11	3219 12	229 5	2991 14	2972 12	204 4	2768 13	15	11	15
EFFECTIVE VIEWING # (00) # OF COUNTIES=26 %	2370 9	158 3	2212 11	3219 12	229 5	2991 14	2972 12	204 4	2768 13	15	11	15
CORE COUNTY # (00) # OF COUNTIES= 8 %	1536 11	42 6	1494 11	2268 16	74 11	2193 16	1994 14	73 10	1921 14	15	13	15
PCC ASCERTNMENT # (00) # OF COUNTIES= 5 %	1291 10	0 0	1291 11	1977 16	0 0	1977 16	1718 14	0 0	1718 14	15	0	15
IN-STATE SERV. # (00) # OF COUNTIES=12 %	1471 9	67 2	1404 10	2195 13	91 3	2104 15	1929 11	74 2	1855 13	14	10	15

MAINTENANCE... THE ESTIMATED NUMBER OF QUARTER HOURS VIEWED PER WEEK,
BY THE AVERAGE PTV HOUSEHOLD

POPULATION AUDIENCE PROFILE - WHY

AUGUST 1976

COUNTY/SERVICE AREA	TOTAL TV VIEWING HOURS/WEEK			STATION VIEWING HOURS/WEEK			TELEVISION HOUSEHOLDS AVAILABLE			STATION NET WEEKLY CIRCULATION			STATION NET M-P DAYTIME CIRCULATION		
	TOTAL TVHH	CATV HH	NON-CATV HH	TOTAL TVHH	CATV HH	NON-CATV HH	TOTAL TVHH	CATV HH	NON-CATV HH	TOTAL TVHH	CATV HH	NON-CATV HH	TOTAL TVHH	CATV HH	NON-CATV HH
BERKS PA # (00) AB P %	39376 100	16408 42	22968 58	1017 3	328 2	689 3	1034 100	381 37	653 63	277 27	118 31	159 24	105 10	27 7	78 12
BUCKS PA # (00) ABCDP %	58002 100	0 0	58002 100	1740 3	0 0	1740 3	1318 100	105 8	1213 92	509 39	0 0	509 42	303 23	0 0	303 25
CARBON PA # (00) AB P %	8429 100	6913 82	1516 18	15 0	0 0	15 1	178 100	143 80	35 20	2 1	0 0	2 6	2 1	0 0	2 5
CHESTER PA # (00) ABCDP %	31052 100	0 0	31052 100	1242 4	0 0	1242 4	861 100	34 4	827 96	293 34	0 0	293 35	141 16	0 0	141 17
DELAWARE PA # (00) ABCDP %	76058 100	0 0	76058 100	3042 4	0 0	3042 4	1846 100	0 0	1846 100	781 42	0 0	781 42	351 19	0 0	351 19
LANCASTER PA # (00) AB P %	39531 100	19163 48	20368 52	204 1	0 0	204 1	1015 100	462 46	553 54	58 6	9 2	49 9	42 4	9 2	33 6
LEHIGH PA # (00) AB P %	38811 100	32351 83	6460 17	129 0	0 0	129 2	898 100	731 81	167 19	37 4	0 0	37 22	28 3	0 0	28 17
MONTGOMERY PA # (00) ABCDP %	79504 100	0 0	79504 100	2385 3	0 0	2385 3	2010 100	0 0	2010 100	798 40	0 0	798 40	302 15	0 0	302 15
NORTHAMPTON PA # (00) AB P %	29435 100	18387 62	11048 38	110 0	0 0	110 1	728 100	445 61	283 39	89 12	24 5	65 23	43 6	9 2	34 12
NORTHUMBERLAND PA # (00) AB P %	14837 100	11008 74	3829 26	38 0	0 0	38 1	345 100	252 73	93 27	4 1	0 0	4 4	4 1	0 0	4 4
PHILADELPHIA PA # (00) ABCDP %	251064 100	0 0	251064 100	7532 3	0 0	7532 3	6298 100	0 0	6298 100	1996 32	0 0	1996 32	882 14	0 0	882 14
SCHUYLKILL PA # (00) AB P %	25267 100	19783 78	5484 22	253 1	198 1	55 1	552 100	418 76	134 24	73 13	57 14	16 12	30 6	25 6	5 4
KENT DE # (00) ABC %	9891 100	2617 26	7274 74	198 2	52 2	145 2	271 100	72 27	199 73	59 22	20 28	39 20	32 12	10 14	22 11
NEW CASTLE DE # (00) ABC %	53259 100	17858 34	35401 66	2306 4	536 3	1770 5	1311 100	400 31	911 69	559 43	151 38	408 45	304 23	76 19	228 25
SUSSEX DE # (00) ABC %	11113 100	3858 35	7255 65	39 0	39 1	0 0	289 100	92 32	197 68	16 6	16 17	0 0	4 1	4 4	0 0

Exhibit B (cont'd)



GENERAL AUDIENCE PROFILE - WHY

AUGUST 1976

COUNTY/SERVICE AREA	STATION NET 4-P EARLY-FRINGE CIRC.			STATION NET WEEKLY PRIME-TIME CIRC.			STATION AVERAGE DAILY CIRCULATION			STATION AVG. WEEKLY MAINTENANCE - QH		
	TOTAL TVHH	CATV HH	NON- CATV HH	TOTAL TVHH	CATV HH	NON- CATV HH	TOTAL TVHH	CATV HH	NON- CATV HH	TOTAL TVHH	CATV HH	NON- CATV HH
BERKS PA # (00)	101	42	59	142	57	85	117	42	75	15	11	17
AB P %	5	11	9	14	15	13	11	11	11			
BUCKS PA # (00)	182	0	182	133	0	133	231	0	231	14	0	14
ABCDP %	0	0	15	10	0	11	18	0	19			
CARBON PA # (00)	2	0	2	2	0	2	1	0	1	30	0	30
AB P %	0	0	5	1	0	5		0	3			
CHESTER PA # (00)	99	0	99	108	0	108	125	0	125	17	0	17
ABCDP %	0	0	12	12	0	13	15	0	15			
DELAWARE PA # (00)	222	0	222	369	0	369	281	0	281	16	0	16
ABCDP %	0	0	12	20	0	20	15	0	15			
LANCASTER PA # (00)	22	0	22	11	0	11	25	2	23	14	0	17
AB P %	1	0	4	1	0	2	2	0	4			
LEHIGH PA # (00)	10	0	10	8	0	8	14	0	14	14	0	14
AB P %	0	0	6	1	0	5	2	0	8			
MONTGOMERY PA # (00)	221	0	221	422	0	422	294	0	294	12	0	12
ABCDP %	0	0	11	21	0	21	15	0	15			
NORTHAMPTON PA # (00)	16	4	11	22	13	8	27	10	17	5	0	7
AB P %	1	1	4	3	3	3	4	2	6			
NORTHUMBRLND PA # (00)	4	0	4	0	0	0	2	0	2	38	0	38
AB P %	0	0	4	0	0	0	1	0	2			
PHILADLPHIA PA # (00)	567	0	567	945	0	945	787	0	787	15	0	15
ABCDP %	0	0	9	15	0	15	12	0	12			
SCHUYLKILL PA # (00)	26	21	5	33	21	12	25	20	5	14	14	14
AB P %	4	5	4	6	5	9	5	5	4			
KENT DE # (00)	14	2	12	23	7	16	26	8	18	13	10	15
ABC %	2	3	6	9	10	8	10	11	9			
NEW CASTLE DE # (00)	227	36	191	256	56	200	246	61	185	16	14	17
ABC %	3	9	21	20	14	22	19	15	20			
SUSSEX DE # (00)	4	4	0	11	11	0	4	4	0	10	10	0
ABC %	2	4	0	4	12	0	1	4	0			

Exhibit B (cont'd)



DEMOGRAPHIC PROFILE - WHY

AUGUST 1976

SELECTED POPULATION COUNTS, REPORTED BY SERVICE AREA AND COUNTY
(SOURCE: 1970 U.S. CENSUS TAPES)

COUNTY/SERVICE AREA	TOTAL POP.	TOTAL 0-5	TOTAL 6-17	TOTAL 18-24	TOTAL 25-34	TOTAL 35-44	TOTAL 45-54	TOTAL 55-64	TOTAL 65+	TOTAL MALES	MALES 0-5	MALES 6-17	MALES 18-24	MALES 25-34

TOTAL SERVICE #	7817539	781093	1822092	834487	915905	917467	973312	767213	805970	3771020	397818	928134	403773	444044
# OF COUNTIES=26 %	100	10	23	11	12	12	12	10	10	48	5	12	5	6
EFFECTIVE VIEWNG #	7817539	781093	1822092	834487	915905	917467	973312	767213	805970	3771020	397818	928134	403773	444044
# OF COUNTIES=26 %	100	10	23	11	12	12	12	10	10	48	5	12	5	6
CORE COUNTY AREA #	4413911	442339	1035452	476583	524230	516493	551000	428599	439215	2116096	225118	526314	224166	253666
# OF COUNTIES= 8 %	100	10	23	11	12	12	12	10	10	48	5	12	5	6
FCC ASCERTAINMNT #	3865810	382697	897955	413026	452946	451771	488042	383784	395599	1848842	194524	456389	194052	218782
# OF COUNTIES= 5 %	100	10	23	11	12	12	13	10	10	48	5	12	5	6
IN-STATE SERVICE #	5261409	512796	1208124	553690	608748	616037	670414	536004	555596	2520727	261019	615026	260730	295019
# OF COUNTIES=12 %	100	10	23	11	12	12	13	10	11	48	5	12	5	6

Exhibit C

SELECTED POPULATION COUNTS, REPORTED BY SERVICE AREA AND COUNTY
(SOURCE: 1970 U.S. CENSUS TAPES)

COUNTY/SERVICE AREA	TOTAL POP.	TOTAL 0-5	TOTAL 6-17	TOTAL 18-24	TOTAL 25-34	TOTAL 35-44	TOTAL 45-54	TOTAL 55-64	TOTAL 65+	TOTAL MALES	MALES 0-5	MALES 6-17	MALES 18-24	MALES 25-34
BERKS PA #	296372	26590	64018	29537	32775	35921	38880	33248	35413	142061	13525	33262	12700	15890
AB P %	100	9	22	10	11	12	13	11	12	48	5	11	4	5
BOCKS PA #	415056	46899	113759	40939	52075	54974	51954	28898	25558	205329	24037	58635	18854	25558
ABCDP %	100	11	27	10	13	13	13	7	6	49	6	14	5	6
CARBON PA #	50573	4624	10895	4165	5276	5571	7455	5995	6592	24260	2390	5581	1975	2588
AB P %	100	9	22	8	10	11	15	12	13	48	5	11	4	5
CHESTER PA #	278311	27705	69632	33701	34134	34904	33915	22554	21766	137076	14081	35727	16051	16589
ABCDP %	100	10	25	12	12	13	12	8	8	49	5	13	6	6
DELAWARE PA #	600035	57333	144845	62849	65309	70472	80381	59755	59091	288318	29327	73739	30918	31518
ABCDP %	100	10	24	10	11	12	13	10	10	48	5	12	5	5
LANCASTER PA #	319643	33146	77049	36080	38537	36791	35826	29202	33062	154719	17302	38748	17434	18960
AB P %	100	10	24	11	12	12	11	9	10	48	5	12	5	6
LEHIGH PA #	255304	23267	55930	25657	30121	31133	33359	27725	28112	122731	11655	29093	11317	14841
AB P %	100	9	22	10	12	12	13	11	11	48	5	11	4	6
MONTGOMERY PA #	623799	59903	151022	59401	70435	79014	82840	61065	61119	300380	30207	77117	26989	34121
ABCDP %	100	9	24	10	11	13	13	10	10	48	5	12	4	5
NORTHAMPTON PA #	214368	19576	47038	23640	23583	25401	30022	22255	22853	105106	9819	23988	13291	11359
AB P %	100	9	22	11	11	12	14	10	11	49	5	11	6	5
NORTHUMPTON PA #	99190	9101	21614	8404	10447	10979	13457	12258	12930	46843	4676	11049	3734	5103
AB P %	100	9	22	8	11	11	14	12	13	47	5	11	4	5
PHILADLPHIA PA #	1948639	191847	418697	216136	230993	212407	238952	211512	228065	917739	96872	211171	101240	110996
ABCDP %	100	10	21	11	12	11	12	11	12	47	5	11	5	6
SCHUYLKILL PA #	160089	13805	33625	13181	15063	18470	23373	21537	21035	76165	7129	16916	6227	7496
AB P %	100	9	21	8	9	12	15	13	13	48	4	11	4	5
KENT DE #	81872	9528	20927	11916	11362	9422	7426	5412	5899	41319	4817	10832	6456	5696
ABC %	100	12	26	15	14	12	9	7	7	50	6	13	8	7
NEW CASTLE DE #	365856	41638	97196	43887	50324	46540	45938	31550	28783	187102	21387	49444	19973	24478
ABC %	100	11	25	11	13	12	12	8	7	48	6	13	5	6
SUSSEX DE #	80363	8486	19374	7754	9598	8760	9594	7853	4931	38833	4390	9649	3685	4710
ABC %	100	11	24	10	12	11	12	10	11	48	5	12	5	6

Exhibit C (cont'd)

Sample PIC Printout

A brief example of the capability of the PIC option for AID is shown in Exhibits D-1 and D-2 (pages 40 and 41), which are copies of an actual run made for WHYY. It displays audience information for only two quarter-hours, but a PIC consisting of up to 560 quarter-hours can be generated in one run.

The heading information shows that the source data are for the March 1976 Survey period in the Philadelphia market. The notation, "WHYY A & B", above each column of audience information, indicates that the data are for WHYY's service areas A and B, which happen to be identical.

Audience Columns. The standard PIC or Reach and Frequency Report allows for six columns of audience information, defined by the user. An audience column may be defined on the basis of

1. a household, which can be delineated by specifying the viewing of a male or female head-of-house
2. combinations of sex/age characteristics
3. geographical location, which includes standard market areas or custom areas defined as a group of counties within a market
4. number of survey weeks to averaged

The six audience columns for WHYY's A and B service areas reported in Exhibit D-1 are:

1. Households with any person aged 2-99 (total households) viewing
2. Persons aged 2-99 (total persons) viewing
3. Persons aged 2-5
4. Persons aged 18-64
5. Females aged 18-64
6. Persons aged 65-99

For each audience column the size of the audience (expressed in thousands) and as a percentage of the audience population are presented.

It should be noted that audience data may differ marginally from published Arbitron reports due to computer rounding, and percentages will be marginally overstated since AID does not account for "not at home" people in its population estimates. This population is in a small segment of households "not available" during the survey and considered to be non-viewing.

Individual Quarter-Hour Audiences. For each run or schedule submitted, the system first produces the audience estimates for each quarter-hour included in the schedule. The first line of audience information in Exhibit B-1 reads as follows:

The station-quarter-hour--WHYY on Tuesday, 10:00 p.m. to 10:15 p.m.--was viewed in an estimated 93,000 TV households, which is 3.5% of the total households in WHYY's A and B service area.

Reach and Frequency Recap. Following the individual quarter-hour audiences is a "Schedule Summary" which recaps the entire schedule as follows:

1. Gross Exposures: the sum of the households or people viewing each quarter-hour in the schedule
2. Average Audience: gross exposures divided by the number of quarter-hours
3. Net Reach: the number of households or people exposed to at least one quarter-hour in the schedule
4. Average Frequency: the average number of quarter-hours the households or people reached were exposed to, calculated by dividing net reach into gross exposures.

Accordingly, the information in the first audience column, regarding WHYY A and B households in Exhibit O-1 reads that

The two quarter-hours deliver 179,000 gross exposures. The average quarter-hour delivers an average audience of 90,000, or a rating of 3.4. The net reach of the schedule is 94,000 or 3.5% of the population, and their average frequency of

viewing is 1.9 quarter-hours.

The other columns provide similar information for the types of audience indicated.

Frequency Distribution. The last section of the PIC report is the frequency distribution (see Exhibit D-2). The section presents the number of households and people that were exposed to a specific number (1, 2, 3, etc.) of quarter-hours in the schedule. For example, from the first audience column in Exhibit D-1:

10,000 WHY A and B Service area households were exposed to 1 of the 2 quarter-hours; 85,000 were exposed to both quarter-hours.

Explanation of FLOW Output

Due to the large number of pages generated by a typical FLOW problem, samples of actual output are not shown. Instead, a general explanation of FLOW, prepared by Arbitron, has been reproduced and is shown as Exhibit E (page 42).

RUN AP26WHYY
 SCHEDULE A
 DATE 04/27/76

ARBITRON SOURCE DATA - MAR 1976

EXHIBIT D-1

ARBITRON
 INFORMATION ON DEMAND
 IN THE TELEVISION MARKET

PHILADELPHIA

	WHYYA&B		WHYYASB		WHYYA&B		WHYYA&B		WHYYA&B	
	HSEHOLDS		PERSONS		PERSONS		PERSONS		PERSONS	
	2-99		2-99		2-5		18-64		18-64	
	-----		-----		-----		-----		-----	
	(000)/RTG		(000)/RTG		(000)/RTG		(000)/RTG		(000)/RTG	
POPULATION	2654		7558		442		4569		2365	
WHYY TUE 1000P-1015P	93	3.5	141	1.9	0	0.0	105	2.3	47	2.0
WHYY TUE 1015P-1030P	86	3.2	132	1.7	0	0.0	98	2.1	43	1.8
*** SCHEDULE SUMMARY ***										
GROSS EXPOSURES	179	6.7	273	3.6	0	0.0	203	4.4	89	3.8
AVERAGE AUDIENCE	90	3.4	137	1.8	0	0.0	101	2.2	45	1.9
NET REACH OF 2 SPOTS	94	3.5	146	1.9	0	0.0	106	2.3	48	2.0
AVERAGE FREQUENCY		1.9		1.9		0.0		1.9		1.9

RUN AP26WHYY
 SCHEDULE A
 DATE 04/27/76

ARBITRON SOURCE DATA - MAR 1976

EXHIBIT D-2

ARBITRON
 INFORMATION ON DEMAND
 IN THE TELEVISION MARKET

PHILADELPHIA

	WHYYA&B	WHYYA&B	WHYYA&B	WHYYA&B	WHYYA&B	WHYYA&B
	HSEHOLDS	PERSONS	PERSONS	PERSONS	FEMALES	PERSONS
			2-5	18-64	18-64	65-99
NUMBER OF EXPOSURES	----- (000)/RTG	----- (000)/RTG	----- (000)/RTG	----- (000)/RTG	----- (000)/RTG	----- (000)/RTG
1	10 0.4	19 0.2	0 0.0	9 0.2	7 0.3	6 0.7
2	85 3.2	127 1.7	0 0.0	97 2.1	41 1.7	6 0.7
NET REACH	94	146	0	106	48	12

Arbitron Information on Demand Audience Flow
In Your City

Women 18-49
February 1975 (Mon-Fri)

Lead-In 5:45PM/Lead-Out 6:00PM

WHERE DOES LEAD-IN AUDIENCE GO?
WHAT IS THE SIZE AND SOURCE OF AUDIENCE IN THE OBJECT TIME PERIOD?

STATION	LEAD-IN AUDIENCE (000)	STATION AUDIENCE (000) FROM LEAD-IN TO LEAD-OUT							
		A	B	C	D	E	F	OTHER	OFF
1 A	84	60	8	1	1	0	0	4	10
B	62	19	31	1	1	0	0	4	7
C	28	7	5	9	0	0	0	2	5
D	8	2	1	0	3	0	0	1	1
E	5	1	0	0	0	0	0	0	0
F	1	0	0	0	0	0	0	0	0
Other	28	5	2	0	0	1	1	16	4
Off	162	31	4	2	3	1	0	10	111
TOTAL	378	124	51	14	8	5	2	38	139

PERCENT OF AUDIENCE FLOW FOR EACH STATION,
PERCENT OF AUDIENCE LOYALTY FOR EACH STATION.

STATION	LEAD-IN AUDIENCE (%)	PERCENT OF LEAD-IN AUDIENCE TO LEAD-OUT							
		A	B	C	D	E	F	OTHER	OFF
4 A	100	72	10	1	1	0	1	4	12
B	100	31	49	1	1	0	0	7	11
C	100	24	18	32	0	1	1	7	17
D	100	21	11	3	42	0	0	11	12
E	100	16	3	0	0	47	0	16	23
F	100	16	9	0	0	0	56	0	18
Other	100	18	8	1	1	3	2	57	14
Off	100	19	2	1	2	1	0	6	69

COMPOSITION OF EACH STATION'S AUDIENCE AS A PERCENT.

STATION	LEAD-IN AUDIENCE (000)	PERCENT OF LEAD-OUT AUDIENCE FROM LEAD-IN							
		A	B	C	D	E	F	OTHER	OFF
A	84	48	16	8	14	3	17	10	7
B	62	15	60	6	6	3	10	12	5
C	28	5	10	66	0	5	17	5	3
D	8	1	2	2	42	0	0	2	1
E	5	1	0	0	0	48	0	2	1
F	1	0	0	0	0	0	18	0	0
Other	28	4	4	3	3	20	23	43	3
Off	162	25	7	15	34	21	15	26	80
TOTAL	378	100	100	100	100	100	100	100	100

STATION "A" SUMMARY REPORT

DAY	LEAD-OUT TIME	STATION AUDIENCE (000)	NUMBER AND PERCENT OF LEAD-IN AUDIENCE GAINED BY STATION			NET GAIN OR LOSS FROM PRIOR QTR. HR. (000)			
			STATION (000)	COMPETITION (%)	OTHER/OFF (%)				
			(000)	(%)	(%)				
M	6PM	129	67	73	24	24	30	26	37
Tu	6PM	117	61	73	24	25	33	17	33
W	6PM	134	59	76	30	31	36	21	55
Th	6PM	130	66	70	31	29	33	19	37
F	6PM	112	48	67	25	29	39	19	40
7 M-F	6PM	124	60	72	28	27	36	19	40

- Line 1 across shows each station's lead-in audience at 5:45-6pm, and where the audience went at 6-6:15pm. For example, Station A had a lead-in audience at 5:45pm of 84,000 ADI Women 18-49. 60,000 stayed with Station A, 8,000 went to Station B, 1,000 went to C, 1,000 went to D. None of Station A's audience went to either E or F; 4,000 went to Other stations (other than the six which can be reported), and 10,000 tuned out at 6pm.
- Column 2 shows a total audience to Station A of 124,000 Women 18-49. Reading down, you see the contribution to this total from each source; i.e., 60,000 from A, 19,000 from B, etc.
- Diagonal line 3 illustrates the net change in audience from the lead-in quarter hour to the object time period of 6-6:15pm. Station A increased from 84,000 to 124,000.
- Line 4 across shows, in terms of percents, what happens to Station A's lead-in audience: 72% stayed tuned to A, 10% switched to B, 1% switched to C, etc.
- The diagonal shaded area 5 provides you with an overview of the holding power of each station in the market. At a glance you can readily see that Station A (with 72%) has the greatest loyalty, and C (with 32%) has the poorest loyalty.
- Column 6 shows the composition of Station A's 6-6:15pm audience in terms of percents. For example, 48% of A's 6-6:15 audience came from its lead-in audience; 15% from B; 5% from C, etc.
- This summarizes the audience to Station A from 6-6:15pm in terms of its origin. It is shown as a M-F average and by individual days.

Line 7 shows that from 6-6:15pm Station A has 124,000 viewers; 60,000 or 72% came from its own lead-in audience, 28,000 or 27% came from the competition, 36,000 or 19% from other stations or from non-viewers. The last number shows that Station A had a gain of 40,000 viewers over its audience in the lead-in quarter hour.

The same information is also shown for each individual day.

Exhibit E

SELECTED AUDIENCE ESTIMATES

In presenting and discussing PPTN audience size estimates, it is useful and instructive to place them in a context of other PTV stations. However, establishing a context involves a selection of audience rating definitions for appropriate geographical service areas and finding comparable data for the ratings. The context decisions made for the present purposes are not optimum because there is no one best method for reporting audience rating estimates and it is difficult to locate comparable data for a large number of PTV stations. Fortunately, Allen Cooper of the Public Broadcasting Service (PBS) has begun recently to compile and report audience size for PTV stations based on A. C. Nielsen VIP or Local Market Report books. The data in his July 12, 1976 memo to PTV stations are the source used for the context chosen for this report (Cooper, 1976).

From a national perspective, during May 1976 there were 126 "reportable" stations out of the more than 200 PTV stations in the U.S. These 126 stations were viewed during the average week (Sign-on to Sign-off) in 18,450,000 households, approximately 26.5% of the more than 70 million TV households in the U.S. During this same period, approximately 1,400,000 Pennsylvania households viewed the seven PPTN stations, representing about 35% of the 4,000,000 TV households in the Commonwealth. If PPTN station viewers from the states surrounding Pennsylvania are included in the average weekly cumulative audience, the total rises to 1,715,000 TV households, or slightly less than 10% of the U.S. total PTV audience generated by the 126 reportable stations.

An individual station context is provided by the data in Table 1. It shows the average weekly reach (Cumulative TV households) for the top ten PTV stations and for the seven PPTN stations. Table 1 illustrates some of the problems encountered in attempting to develop "comparable" data for PTV stations. First, the data are based on PTV station audiences found in commercially-defined market areas, a practice which the Penn State research team avoided by developing tailor-made service areas for the seven PPTN stations. Second, the geographical areas for the reach data are A. C. Nielsen's "Metro" market definition, a useful service area for stations located within metropolitan areas, but not for stations located outside population centers. This problem is quite apparent for two of the PPTN stations, WPSX and WLVT, since their "Metro" audience is not reportable by A. C. Nielsen. WPSX is approximately 50 miles from its commercial metropolitan market, Johnstown-Altoona,

while WLVT's "Metro" area is Philadelphia. Given those caveats, it is still of interest to examine the average weekly reach data shown in Table 1.

The first point to be noted is that individual station audience ratings are dynamic. There are substantial differences in the net weekly reach between May 1975 and May 1976, for most of the 17 stations shown in Table 1. We cannot speculate as to the reasons for the differences but can point out that ratings can both increase and decrease from one year to the next.

Second, while none of the seven PPTN stations are in the top 10 PTV stations ranked according to net weekly reach in the "Metro" market area, four of the seven are well above the national average of 27%. And in fact, the seven PPTN stations collectively reached 35% of Pennsylvania TV households during May 1976. From our examination of the data for the 17 stations shown in Table 1 and for other PTV stations (not shown), it can be observed that four of the seven PPTN stations have a net weekly reach at or above the average for all reportable TV stations and that the collective reach of the PPTN stations is also above the national average. More definitive and precise observations about the audiences of the PPTN stations vis-a-vis the other PTV stations must await the development of commonly accepted service area and audience size definitions on the part of the public telecommunications community.

November 1975-May 1976 PPTN Audience Trends

A comparison of the total (in- and out-of-state) and in-state PPTN net weekly reach estimates is given in Table 2. The well-known seasonal fluctuations in the viewing of television are illustrated for the seven PPTN stations in this table. Based on Arbitron TSA estimates, there is an increase between November and February of almost 10% in the number of TV households reached by the seven PPTN stations during the average week, followed by an almost identical decrease between February and May. The amount of change differs for each of the stations, ranging from an increase of 2.0% for WQLN to 30.1% for WLVT. But the increase-decrease pattern is common to all stations except WITF, which showed a net increase between November and May, and WLVT, which maintained the same audience for February and May.

In-state net weekly reach data were available only for February and May. During this period, two of the PPTN stations, WITF and WLVT, showed increases of 1.6% and 8.2%, respectively, while the other four showed decreases.

Table 1

Top Ten PTV Stations and Other PPTN Stations
 Showing Cumulative Households Reached
 During Average Week in May, Sign-on to Sign-off

Location	Station/Channel	Metropolitan Area Households (%)	
		May 1976	May 1975
Chicago	WTTW 11	59	38
New York	WNET 13	50	49
Tucson	KUAT 6	48	42
Madison	WHA 21	48	42
Boise	KAED 4	47	50
Honolulu	KHET 11	46	37
Albuquerque	KNME 5	46	37
Phoenix	KAET 8	45	40
Boston	WGBH 2	45	44
Milwaukee	WMVS 10	45	36
Wilkes-Barre/Scranton	WVIA* 44	39	42
Erie	WQLN* 54	36	36
Pittsburgh	WQED* 13	35	33
Philadelphia	WHYY* 12	34	36
Hershey	WITF* 33	22	21
Clearfield/ University Park	WPSX* 3	(17)	(17)
Allentown/Bethlehem	WLVT* 39	(16)	(16)
	PPTN Total (State-wide Service Area)	35	NA
	U.S. PTV Total (126 Stations)	27	26

* PPTN Station

() Estimated

NA -- Not available because PPTN Audience Research Project not initiated until January 1976.

Source: A. C. Nielsen via Allen Cooper of PBS, except for PPTN total which is based on Arbitron's AID for May 1976.

Table 2

PPTN Total Net Weekly Reach Trends

Station	Arbitron TSA Market Area		PPTN In-State Service Area		TV HH Net Weekly Reach ^{a,b}			Change (%)	
	Name	TV HH Number (000)	TV HH Number (000)	% Arbitron TSA	November 1975 (000)	February 1976 (000)	May 1976 (000)	Nov-Feb %	Feb-May %
WHYY	PHIL	3,342	1,756	53	793 NA	865 (576)	775 (498)	9.1 --	-10.4 -13.5
WQED	PITT	1,742	1,165	67	431 NA	466 (410)	421 (363)	8.1 --	- 9.7 -11.5
WVIA	WB-SCR	1,122	604	54	171 NA	191 (185)	170 (167)	11.7 --	-11.0 - 9.7
WITF	HB-YK	2,816	676	24	116 NA	123 (124)	128 (126)	6.0 --	4.1 1.6
WPSX	JN-ALT	1,820	491	27	79 NA	84 (84)	75 (74)	6.3 --	-10.7 -11.9
WLVT	PHIL	3,342	508	15	73 NA	95 (85)	95 (92)	30.1 --	0.0 8.2
WQLN	ERIE	785	152	19	54 NA	55 (47)	51 (45)	1.9 --	- 7.3 - 4.3
TOTALS:			3,965	--	1,717 NA	1,879 (1,511)	1,715 (1,365)	9.4 --	- 8.7 - 9.7

^a Source: Arbitron Local Market Books (first number) and Arbitron AID (number in parentheses below first) for survey periods.

^b Average weekly reach (unduplicated) in Arbitron TSA and in-state service areas.

^c Not available because PPTN Audience Research Project not initiated until January 1976.

Table 2 also displays for each station the number of TV households in its Arbitron Total Survey Area Market and in its in-state Total Service Area. Not surprisingly, the percentage of in-state to Arbitron Total Sample Area TV households varies markedly for the PPTN stations, ranging from 67% for WQED to 15% for WLVT.

The net weekly reach data shown in Table 2 are estimates of the total number of households (both in- and out-of-state) which view the seven PPTN stations during an average week. But since this study is concerned primarily with Pennsylvania audiences, it is of interest to note what percentage of the total PPTN audience is from in-state households. Two comparisons are possible -- for February and May. An estimated 80.5% of the February and 79.6% of the May total PPTN audience were Pennsylvanians. Given the two data points and the large numbers involved, it is unlikely that this percentage (about 80% Pennsylvanians) would fluctuate very much during other periods of the year.

PPTN In-State Net Weekly Circulation

The net weekly reach estimates for Pennsylvania households shown in Table 2 are graphically portrayed in Figure 9. In addition, Figure 9 displays the number of TV households in each station's in-state Total Service Area and net weekly reach data for February and May 1976. The net weekly circulation rate, or percentage of households reached during an average week, is also graphically shown. The slight decrease in PPTN weekly reach between February and May 1976, shown in Table 2, is also seen for the in-state audience. In terms of percentages, the state-wide net circulation was 38% and 35% for February and May, respectively.

The data for Figure 9 were obtained from Arbitron's ACD system using each station's in-state Total Service Area definition.

PPTN In-State Audience Profile

To give the reader an understanding of the composition of the average weekly PPTN audience, net weekly circulation ratings are shown in Figure 10 for eight age and sex categories. These categories, selected by the PPTN Advisory Group, are representative of major target groups for PPTN programming. Figure 10 shows both the state-wide estimated number for each target group and the estimated number reached, or circulation, during the average week. For example, during the average broadcast week in February 1976, over 1,500,000 households were reached by the seven PPTN stations, or 38% of the total TV households in Pennsylvania. Similarly, slightly more than one out of four (27%) of the nearly 12,000,000 persons in Pennsylvania viewed the seven PPTN stations. The best penetration by far of the eight target groups shown in Figure 10 is for young children (2-5) with an estimated 80% reached during the average week. Persons over 65 are next in penetration with an estimated 30%, while adult males (18-64) have the lowest penetration (21%).

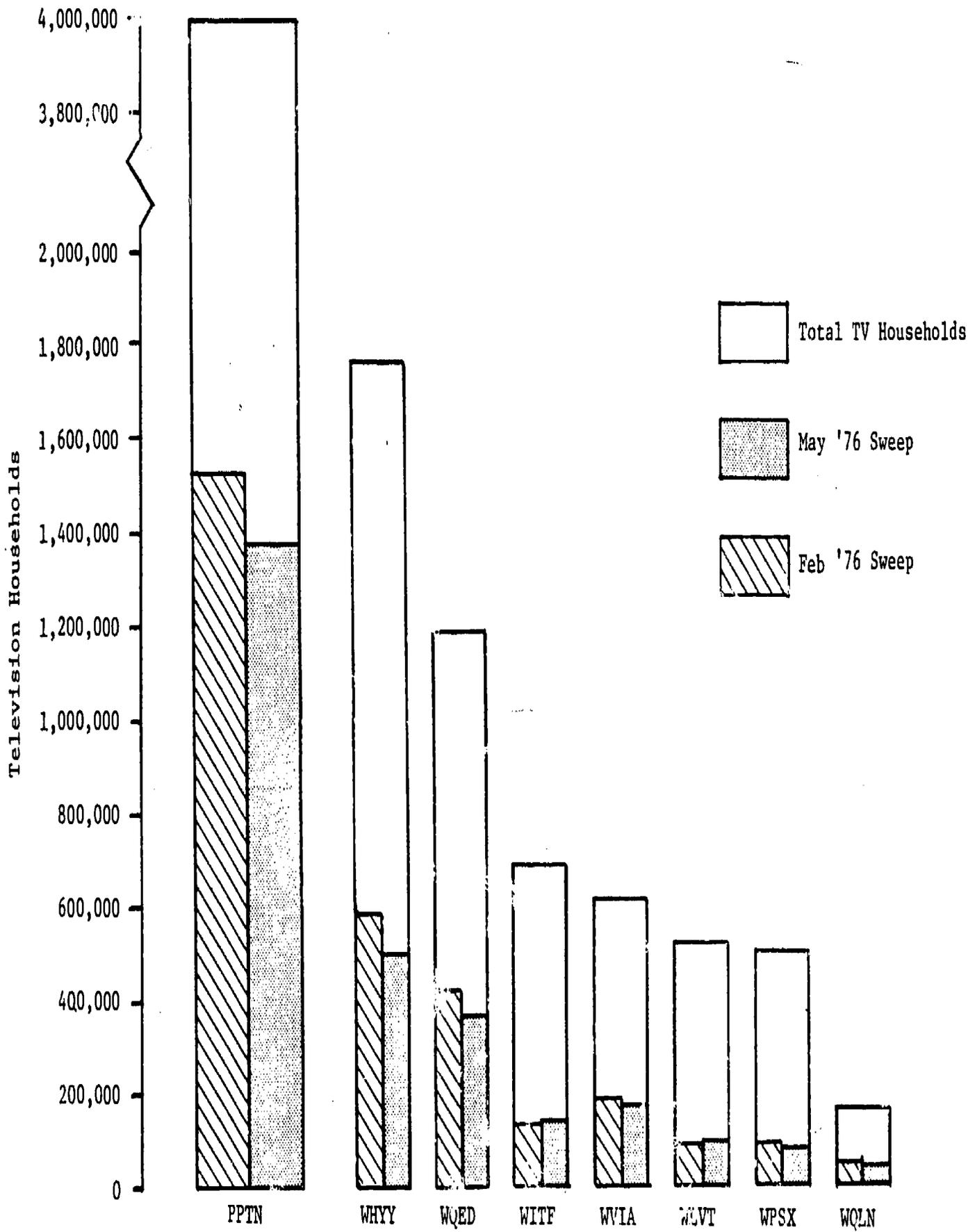


Figure 9. PPTN and PPTN station in-state TSA's and TV household net weekly reach for March and May 1976.

Demographic Units, in Thousands

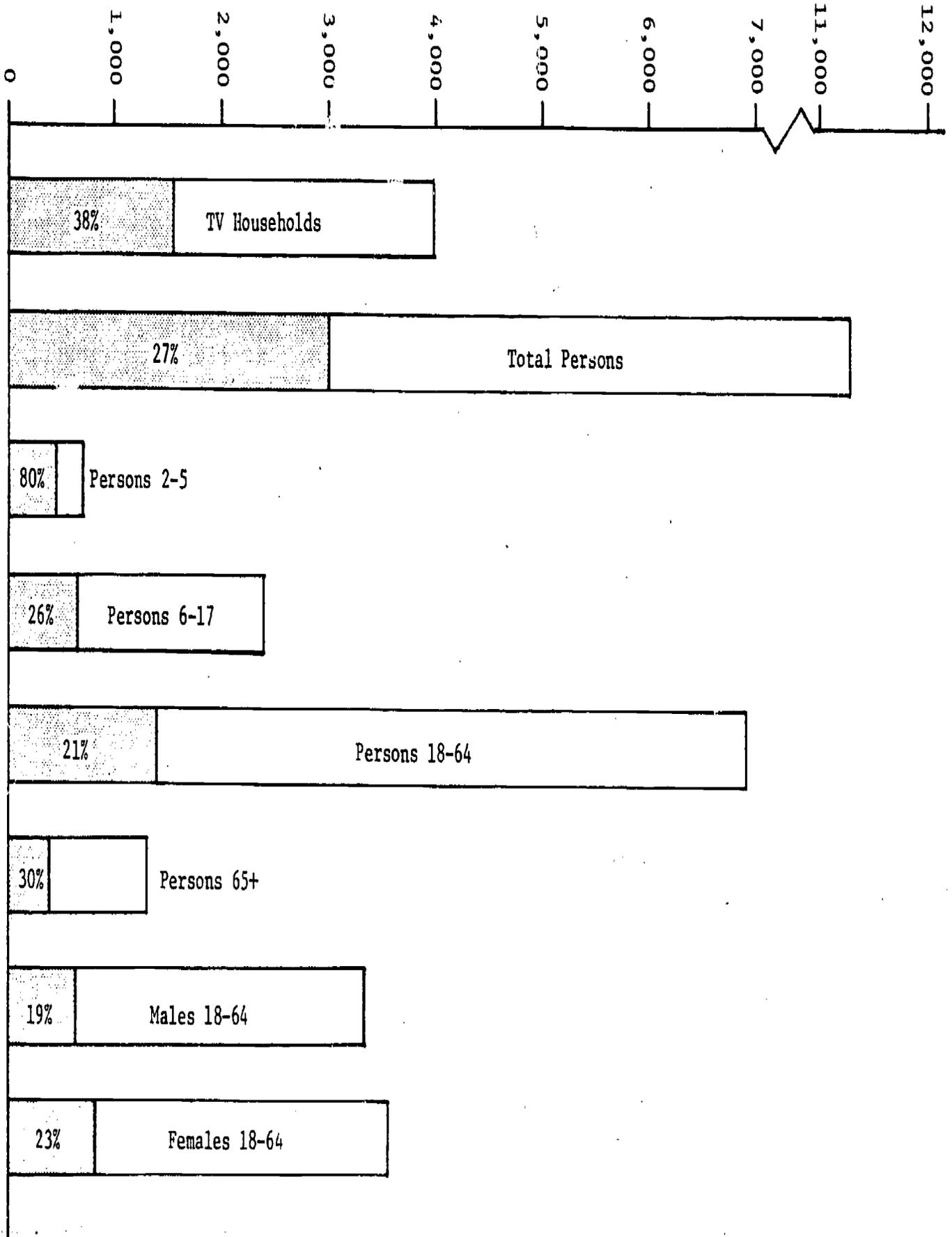


Figure 10. PPTN In-state audience profile for February 1976 showing the average weekly circulation for each demographic category.

NOTES

1. An Arbitron Total Survey Area is a geographic area comprising those counties in which approximately 98% of the net weekly circulation of commercial home market stations occurs.

2. Since the viewing of a given television station in a particular county is a dynamic and changing phenomenon, it is recognized that the Effective Viewing Area counties can change from year to year.

3. Due to a technical problem in using AID, six out-of-state counties which were reportable for 1975 are not included in this total. However, their absence has no effect on in-state audience size estimates and very little effect on the out-of-state estimates for the two stations (WPSX and WVIA) affected.

4. All County Coverage viewing estimates are given for TV households within counties.

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APPENDIX A
GLOSSARY OF TERMS AND ABBREVIATIONS

AID - Arbitron Information on Demand. AID is a computer-based interactive system of in-tab diary files which allows customers to query the files for specified audience/program time/geographic combinations for a particular sweep period.

AID provides two principal kinds of audience information, People Instant Cume (PIC), and Audience Flow (FLOW). PIC provides information, both for (a) tailor-made service areas and for (b) up to six user-specified combinations of audience sex and age categories, estimates of average quarter-hour audiences, and cumulative audiences for a specified number of quarter-hours (from one to a maximum of 560).

FLOW provides, for tailor-made service areas and one user-specified age-sex category of the audience, a means for tracking the flow or movement of the average audience between TV stations for any combination of contiguous quarter-hours.

ADI - Area of Dominant Influence. An exclusive geographic area defined by Arbitron consisting of those counties in which the home market stations receive a preponderance of total viewing hours. The comparable Nielsen area is the Designated Market Area (DMA).

Average Daily Circulation - (See Circulation).

Average Frequency - (See Maintenance).

Average Quarter-Hour Audience - (See Quarter-Hour Audience).

CATV HH - Cable Television Household. Any Television Household (TVHH) that receives its television signal from a commercial or other group cable service.

Circulation - The estimated number of unduplicated (different) television households which viewed a station for at least five continuous minutes in a given time period, such as a week (Net Weekly Circulation), a day (Average Daily Circulation), or a day part (e.g. Prime-Time

Circulation). (cf. "CUME" and "REACH").

Cume - Generally synonymous with "Circulation" and "Reach", but specifically used by Arbitron to mean the total number of different viewing households viewing a station in the Total Survey Area (TSA).

Cumulative Audience - Nielsen's term for the unduplicated count of television households viewing a station for one or more quarter hours during a given time period. (cf. "Circulation").

DMA - (See "ADI").

Early Fringe, Early Evening - The Monday to Friday day part from 4:30 to 7:30.

Exposure - A quarter hour of viewing by a given audience.

FLOW - (See "AID")

Gross Exposures - The total number of quarter hours generated by an audience in a given period of time.

In-Tab Diaries, In-Tab Sample - The number of household survey returns (diaries) used to project audience estimates.

Lead-In - In Arbitron's description of FLOW, the quarter hour out of which the audience flows into the "object time" quarter hour.

Maintenance - In this report, the estimated number of station quarter hours viewed in a given time period (often a week) by a given audience. The comparable Arbitron term for this is "Average Frequency."

Market - The specific geographic area, defined in terms of counties, for which audience estimates are presented. Standard Markets used by Arbitron and Nielsen are METRO, ADI, and TSA, and METRO, DMA, and NSI, respectively. Arbitron AID customers may define additional geographical areas called Trading Areas (TAR) within existing TSA's.

METRO - The market area comprising counties within the Standard Metropolitan Statistical Area (SMSA) as defined by the Office of Management and

Budget.

NSI Area - (See "TSA").

Net Weekly Circulation - (See "Circulation")

Object Time - In arbitron's description of FLOW, the quarter-hour into which the audience flows.

PIC - (See "AID").

Prime Time - The Monday to Sunday day part from 7:30 to 11:00.

QH - Quarter Hour. The standard time unit used in collecting and reporting television viewing data.

Quarter-Hour Audience - A projected estimate of the unduplicated audience having viewed a station for a minimum of five continuous minutes within a specific quarter hour. These quarter-hour audiences, when combined in time, become Average Quarter-Hour Audiences.

Rating (RTG) - Generally, any ratio, usually expressed as a percentage. Audience reports use a more restrictive definition: the estimated audience (TVHH or Persons) viewing a station for at least five continuous minutes during a given time period, expressed as a percentage of the total potential audience (Total TVHH or Total Persons).

Reach - Synonymous with "Circulation" and "Cume"; an unduplicated count of a station audience in a given geographic area, for a given time period.

Service Area - A term used in this report for the individual coverage areas established for each of the PPTN affiliate stations (See "Market").

Share - A ratio of the unduplicated station audience to the total audience viewing television during a given time period, usually expressed as a percentage. (cf. "Rating").

Spot - A specific quarter-hour.

Sweep - The time period during which television viewing data are collected by the rating services. For most markets there are three sweeps each year

(Feb-Mar., May, Nov.) each lasting four weeks. Each sample television household reports only one week's viewing out of the four, thus viewing estimates for each sweep are limited to a so-called average week (i.e. a four-week average).

TSA - Total Survey Area; the geographic area defined by Arbitron comprising those counties in which an estimated 98% of the net weekly circulation of a commercial market occurs. Roughly equivalent to the NSI Area of Nielsen, which is estimated to contain 95% of the circulation.

TVHH - Television Households. An occupied dwelling unit having one or more television sets.

Weekly Reach - (See Reach).

For additional information the reader is directed to "Standard Definitions of Broadcast Research Terms," published by The National Association of Broadcasters, 1771 N Street, N.W., Washington, D.C. 20036.

PENNSYLVANIA STATEWIDE
AUDIENCE AND DEMOGRAPHIC PROFILES

PENNSYLVANIA
STATEWIDE PPTN AUDIENCE PROFILE

(Source, Arbitron 1975 County Coverage Books)

		Total TV HH	CATV HH	NON-CATV HH
Total TV Viewing Hours/Week	#(00) %	1,628,314 100.0	427,954 26.3	1,200,360 73.7
PPTN Viewing Hours/Week	#(00) %	44,535 2.7	10,579 2.5	33,956 2.8
Television Households Available	#(00) %	38,440 100.0	9,604 25.0	28,836 75.0
PPTN Net Weekly Circ.	#(00) %	12,423 32.3	3,103 32.3	9,320 32.3
PPTN Net M-F Daytime Circ.	#(00) %	5,284 13.8	1,263 13.2	4,021 13.9
PPTN Net M-F Early Fringe Circ.	#(00) %	4,943 12.9	1,427 14.9	3,516 12.2
PPTN Net Weekly Prime Time Circ.	#(00) %	5,541 14.4	1,352 14.1	4,189 14.3
PPTN Net Average Daily Circ.	#(00) %	4,680 12.2	1,129 11.8	3,551 12.3
PPTN Average Weekly Maintenance (QH/WK) #		14.3	13.6	14.6

NOTES:

Share..... The PTV stations' portion, hours and percentage, of the total TV viewing during the average week. Note: Zeros (0) for viewing estimates indicate less than a 0.5% share. It does not imply that no viewing took place.

Circulation..... The unduplicated (CUME) number of PTV households for the following time periods:
 Net Weekly - Sunday to Saturday, Sign-on to Sign-off
 M-F Daytime - Monday to Friday, Sign-on to 4:30 PM
 M-F Early Fringe - Monday to Friday, 4:30 to 7:30 PM
 Weekly Prime-Time - Sunday to Saturday, 7:30-11:00 PM
 Average Daily - Average Day, Sign-on to Sign-off

Maintenance..... The estimated number of quarter hours viewed per week, by the average PTV household.



PENNSYLVANIA
STATEWIDE DEMOGRAPHIC PROFILE

August, 1976

Selected Census Counts. Source: 1970 U.S. Census Tapes

Table 1 - Persons by Sex and Age

	Total	Male	Female
Total Persons.	11,793,907	5,664,044	6,129,863
0-5	1,133,505	577,525	555,980
6-17	2,727,851	1,390,453	1,337,398
18-24	1,242,613	583,275	659,338
25-34	1,314,740	636,995	677,745
35-44	1,367,777	655,053	712,724
45-54	1,517,064	722,093	794,971
55-64	1,217,410	571,595	645,815
65 +	1,272,947	527,055	745,892

Table 2 - Persons by Race

Total Persons.	11,793,907
Total Whites.	10,744,513
Total Blacks.	1,016,551
Total Spanish Americans	44,535

Table 3 - Persons by Nativity and Mother Tongue

Total Persons.	11,793,864	Hungarian.	46,182
English	9,272,459	Yiddish.	120,962
French.	33,723	Italian.	433,560
Swedish	14,412	Spanish.	74,819
German.	454,683	Portuguese	3,337
Polish.	273,094	All Other.	497,477
Russian	43,117	Not Reported	526,039

PENNSYLVANIA
STATEWIDE DEMOGRAPHIC PROFILE

Selected Census Counts. Source: 1970 U.S. Census Tapes

Table 4 - Family Income

Total Families.	3,011,130		
\$ 0 - 4,999.	510,178		
\$ 5,000 - 7,999.	609,556	\$ 0 - 9,999.	1,610,453
\$ 8,000 - 9,999.	490,719		
\$10,000 - 14,999.	848,781	\$10,000 - 14,999.	848,781
\$15,000 - 24,999.	434,007		
\$25,000 - 49,999.	96,779	\$15,000 and up.	551,896
\$50,000 and up.	21,110		

Table 5 - Selected Families by Presence of Children

Total Families:

With children under 3	422,750
With children under 12.	1,194,932
With children 13-19 years	868,301
With children 18-24 years	474,835
With children under 25.	1,799,409

PENNSYLVANIA
STATEWIDE DEMOGRAPHIC PROFILE

August, 1976

Selected Census Counts. Source: 1970 U.S. Census Tapes

Table 6 - Persons 25 Years + by Sex and Years of School

	<u>Total</u>	<u>Male</u>	<u>Female</u>
Population 25 Years +	6,689,938	3,112,791	3,577,147
No School	94,285	42,210	52,075
1-4 Years Elementary.	184,069	91,545	92,524
5-6 Years Elementary.	383,273	183,276	199,997
7 Years Elementary.	304,140	150,732	153,408
8 Years Elementary.	986,276	462,761	523,515
1-3 Years High School	1,377,241	637,336	739,905
4 Years High School	2,306,108	957,807	1,348,301
1-3 Years College	469,256	224,748	244,508
4 Years College	338,713	187,471	151,242
5 + Years College	246,577	174,905	71,672

Table 7 - In-School Population

	<u>Total</u>	<u>Public</u>	<u>Parochial</u>	<u>Private</u>
Total Population in School	3,298,810	-	-	-
Population 3-34 Years in School	3,257,288	2,496,570	466,767	293,951
Nursery School	41,610	13,830	2,061	25,719
Kindergarten	174,152	156,783	7,612	9,757
Elementary	1,826,141	1,450,793	349,343	26,005
High School.	854,044	714,539	107,751	31,754
College.	361,341	160,625	-	200,716
Population 35 Years + In School	41,522	-	-	-

PENNSYLVANIA
STATEWIDE DEMOGRAPHIC PROFILE

Selected Census Counts. Source: 1970 U.S. Census Tapes

Table 8 - Employed Persons by Occupation

Total Employed Persons, 16 years + . . .	4,536,903	Operatives, except Transport.	805,039
Professional, Technical, Kindred . . .	625,823	Durable Goods Manufacturing	347,781
Engineers, Technical	67,114	Non-Durable Goods Manufacturing . . .	316,932
Doctors, Dentists, etc.	32,573	Non-Manufacturing Industries.	140,326
Other Medical Workers.	76,707	Transport Equipment Operatives.	184,910
Elementary* & Secondary Teachers. . .	137,089	Truck Drivers	83,049
Technicians, except Health	58,903	Other Transport Operatives.	101,861
Other Professional Workers	253,437	Laborers, Non-Farm.	220,286
Managers, Administrators, Non-Farm . .	315,785	Construction Laborers	37,508
Salaried Managers & Administrators .	260,749	Freight & Stock Handlers.	79,006
Manufacturing.	59,585	Other Non-Farm Laborers	103,772
Retail Trade	58,336	Farmers & Farm Managers	37,831
Other Industries	142,828	Foremen & Farm Laborers	27,429
Self-Employed Managers &		Unpaid Family Workers	4,151
Administrators	55,036	Other Farm Laborers	23,278
Retail Trade	29,649	Service Workers	492,427
Other Industries	25,387	Cleaning Service.	112,916
Sales Workers.	316,610	Food Service.	159,621
Manufacturing, Wholesale	67,109	Health Service.	61,449
Retail Trade	191,974	Personal Service.	59,250
Other Sales.	57,527	Protective Service.	56,272
Clerical & Kindred Workers	786,897	Other Service	42,919
Bookkeepers.	79,243	Private Household Workers :	48,388
Secretaries, Stenos, Typists	229,493		
Other Clerical	478,161		
Craftsmen, Foremen, Kindred.	675,478		
Auto Mechanics, Repairmen.	55,638		
Non-Auto Mechanics, Repairmen. . . .	92,411		
Machinists	27,043		
Metal Craftsmen.	54,951		
Carpenters	45,410		
Construction Craftsmen	117,654		
Other Craftsmen.	282,321		

STATEWIDE DEMOGRAPHIC PROFILE

Selected Census Counts. Source: 1970 U.S. Census Tapes

Table 9 - Employed Persons by Industry

Total Employed Persons, 16 years + . . .	4,536,903	Consumer Services	478,566
Agriculture, Forestry, Fisheries . . .	80,184	Banking & Credit Agencies	68,722
Mining	41,708	Insurance, Real Estate.	121,807
Construction	247,055	Business Services	62,290
Manufacturing.	1,547,806	Repair Services	62,458
Furniture, Lumber, Wood.	39,661	Private Households.	45,104
Primary Metal Industries	231,375	Other Personal Services	118,185
Fabricated Metal Industries.	114,406	Entertainment & Recreation.	27,330
Machinery, except Electrical	139,999	Health Services	250,538
Electrical Machinery	146,710	Hospital Services	168,112
Motor Vehicles, Transportation		Other Medical Services.	82,426
Equipment.	86,448	Education	328,603
Other Durable Goods.	168,887	Public Schools & Colleges	199,761
Food & Kindred Products.	87,996	Private Schools & Colleges.	112,556
Textile Products	224,014	Other Educational Services.	16,286
Printing, Publishing	72,241	Welfare, Religious, NonProfit	
Chemical Products.	57,138	Organizations	68,844
Other Non-Durable Goods.	178,931	Legal, Engineering, Miscellaneous	
Transportation Services.	164,216	Professional Services	109,296
Railroad, Railway Express.	53,286	Public Administration	214,184
Trucking, Warehousing.	68,098		
Other Transport Services	42,832		
Utilities.	124,209		
Communications	50,722		
Utility & Sanitary Services.	73,487		
Wholesale Trade.	161,107		
Retail Trade	693,257		
Food, Bakery, Dairy Stores	118,216		
Eating/Drinking Places	123,174		
General Merchandise Retailing	131,470		
Motor Vehicle, Service Station	85,443		
Other Retail Trade	234,954		

