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ABSTRACT

After study of the methods and level of financing of public television today, the authors conclude that the political and economic problems of public television are tied together. They note that public television receives far less support per capita in the United States than in other leading countries, and efforts to increase the amount and quality of local programing at the present level of funding are academic -- parceling all the Federal revenues out to local stations would purchase only a few minutes weekly of low-cost programs. An adequate schedule of local, regional, and national programs, they suggest, would cost over two and a half times the system's existing budget, and the situation is likely to grow worse unless planning to prevent duplicative new stations is introduced. An examination of potential sources of funding did not provide grounds for any optimism -- it appears that the Federal Government cannot abdicate its responsibility for this system. (An appendix contains some recommendations made by participants at a conference convened by the Aspen program to discuss this report.) (RH)

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The Financing of Public Television

Aspen Program on Communications and Society

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The Financing of Public Television

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Introduction

The Aspen Program on Communications and Society is concerned about the fate of Public Broadcasting in America. Barely five years have passed since the Act bearing that name was signed into law, enlarging in a major way the federal commitment to build a non-commercial broadcast system of genuine worth. Measured quantitatively, public broadcasting has managed miraculous growth during the past decade -- a fourfold increase in TV stations, and six times as many hours of weekly broadcasting nationwide. Yet public broadcasting today is in serious crisis. The threat of catastrophe looms over its future.

In an effort to develop better understanding of this situation, Professors Wilbur Schramm and Lyle Nelson, of Stanford University, were requested to make a study of the Financing of Public Television -- the first independent evaluation since the Carnegie Report which preceded the legislation of 1967. Several conclusions emerge clearly from their analysis:

- The political predicament of public broadcasting is inextricably tied up with its economic plight. Despite growth, both the system and the local stations are in a greater bind than ever before. Revenues have not kept pace with increased costs and expanded obligations.

- Compared to non-commercial systems in other leading countries, public television in America exists on a pittance, receiving less than one-fourth as much per capita as Britain's BBC TV, and just over one-fourth Japan's NHK .

- Any effort to increase the amount and quality of local programming is purely academic at the present level of funding. To parcel out all the federal revenues among the stations would purchase only a few minutes weekly of low-cost programs.

- An adequate schedule of local, regional, and national programs would cost over two and a half times as much as the system's existing budget.

- Unless an overall plan is developed -- which includes "family planning" to control duplicative new stations -- the situation is likely to grow worse.

These are grim findings and they are not relieved by the Schramm-Nelson assessment of potential sources for increased funding. One additional conclusion appears evident: the federal government, having launched public broadcasting on its present course, cannot now abdicate its responsibility for helping this system achieve its potential.

Even to mention a sizable increase in budget throws fear into those who are bewildered by the current uncertainties. It is difficult to contemplate how to reach a new plateau when the system has so much difficulty at the present one. But the greater danger lies in standing still while public broadcasting is torn apart by economic stresses.

During this decade we will be entering the era of "television of abundance." The myriad-channel cable, together with the satellite, the video cassette, and other new technologies, will bring about an explosion of the ways by which we communicate. Public broadcasting has a major claim to stake in this communications revolution -- for education, health services, and social purposes as yet unexplored. To default on this challenge could mean closing off an opportunity that may not return once the wired nation has become a reality.

Last July, the Aspen Program convened a small conference to review a draft of the Schramm-Nelson study and assess its implications. A number of proposals which came out of that meeting are included as an Appendix to this document. The most urgent conclusion is the need to enlarge the constituency of those who are concerned about the present peril and future promise of public broadcasting. No large and noisy bands are likely to march behind its banner. Indeed, the nation's communication system is not a subject which seizes the popular imagination. Yet, less fateful causes have been advanced by purposeful citizens who take the trouble to understand the choices that lie ahead. We hope that this report will contribute to wider public concern for Public Broadcasting's future.

Douglass Cater

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Foreword

That public television is in serious financial difficulty is a statement which will surprise no one. It has ever been thus.

From the day in 1953 when the nation's first "educational television" station limped onto the air in Houston, those closest to this evolving system of broadcasting have warned that inadequate financing posed the biggest single obstacle to its continued growth and stability.

Now, it would seem, the system -- and the nation -- are reaping the harvest of years of financial neglect. The national program service, largely supported by annual funds appropriated to the Corporation for Public Broadcasting and by foundations, is struggling to stay alive under increasingly severe attacks from several quarters. Local stations are experiencing financial problems which have stymied development in many cases and have been seriously crippling in others.

It is not the purpose of this paper to enter into the political arena or to attempt to assess the forces which have contributed, and are contributing, to the present embattled state of public broadcasting. Rather, our assignment is limited to an examination of the financial condition of public television -- its needs, resources, and some of the policy implications stemming from various funding possibilities.

We do not mean to downgrade the importance of public radio or to overlook the potential of instructional television. Both are important, but public television is where the crunch is.

Neither do we consider it the function of a paper of this kind to propose final solutions or to set forth detailed policy recommendations. Its purpose is to present and analyze alternatives, together with the background relevant to whatever policy judgment is made. In an area of such vital importance to the long-run public interest, it is essential that these issues and alternatives be as widely known and as fully discussed as possible.

If this paper does nothing more than bring the issue to the attention of some who have only vaguely considered it, if it provokes a wider public discussion of the current problem and the various solutions which have been put forward, and if it results finally in a congealing of public attitudes into a public position, then it will have more than served its purpose.

The authors have reviewed carefully a great deal of documentation dealing with this subject, including almost all public records, the Carnegie Commission report on Educational Television, the analyses and recommendations for that report by Arthur D. Little, Inc., and papers by Dr. Joseph A. Pechman and Professor Dick Netzer. We owe a special debt of gratitude to the Corporation for Public Broadcasting, especially to Ralph Nicholson, Robert Tolbert, and Young Lee, for assistance in assembling the financial statistics. We have also had exceptional cooperation from the Public Broadcasting Service, WNET/13, U.S. Office of Education, Department of Health, Education and Welfare, the National Association of Educational broadcasters, and other agencies.

To a great extent, however, the statistical base rests on new data gathered by Trevor Brown, a doctoral candidate at Stanford University, as part of a four-month study of records available at CPB, PBS, WNET/13, and several local stations. Bruce McKay, another Stanford graduate student, provided assistance in preparing some sections of the original draft, in revising the draft paper for presentation at the Aspen Conference, and in coordinating the final revisions of the report.

Taken together, the information which we have gathered presents on the one hand a striking picture of progress in the face of adversity, and on the other the effects of slow decay resulting from neglect of basic needs over a long period of time. The question which emerges is the extent to which this nation is actually willing to stand behind its committment to public broadcasting.

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October 1972

1. A Decade of Growth

In 1961, when there were only 56 non-commercial television stations in the United States, operating at an annual cost of under $15 million, optimistic predictions were being made concerning the future of that kind of television. The most widely quoted of these were in the publication *ETV: The Next Ten Years* (1961) and resulted from a detailed survey of plans in various communities, long-range plans of universities, colleges, and school systems, and expansion expectations of stations already on the air.

In essence, this study resulted in a "low," a "medium," and a "high" forecast which provided for the addition, respectively, of 50, 75, and 125 new stations in the next ten years. Actual figures, said the report, should be somewhere near the "medium" estimate, "barring the possibility of substantial federal and state support."

But there was more local interest than might have been anticipated, and there was considerable federal and state support. As a result, the growth of what was then called educational television (now public television) was greater than even the most optimistic of the estimates made in 1961. Although the "high" estimate predicted 180 stations by 1971, the actual growth was to 207 stations in 1971, and to 224 at this writing. Table 1 on the next page shows the growth in the number of stations and in financial support which actually took place, compared with the 1961 forecast.

PROGRAM SERVICES

The 56 non-commercial stations on the air in 1961 were broadcasting each week a little more than *2,100 hours* of "educational television." In 1971, the 207 stations operating were putting on the air in an average week *over 12,650 hours* of "public television." This sixfold increase in broadcast hours in the short span of a decade is even more dramatic evidence of service where it counts -- service to viewers -- than sheer numbers of stations and increases in operating budgets.

Table 1. The Growth of Public Television, 1961-1971

		Number of Stations	Cumulative Capital Costs ($ millions)	Annual Operating Budgets ($ millions)
1961 Forecast of System Size in 1971	Low estimate	105	53	29
	Medium	130	66	33
	High estimate	180	84	46
Actual System Sizes	Year: 1961	56	29	15
	1966	117	108	34
	1971	207	211	113
Actual Systems in purchasing power of 1961 dollars	1961	(56)	29	15
	1966	(117)	100	31
	1971	(207)	156	84

Sources: The forecast is from "The Financing of Educational Television," in *ETV: The Next Ten Years* (Stanford, California: Institute for Communication Research, Stanford University, 1961), pp. 166-190.

The figures on actual size of systems were supplied by the Corporation for Public Broadcasting.

The figures on purchasing power are projected from tables in *Economic Indicators*, prepared by the U.S. Council of Economic Advisers.

Tables 2 and 3 indicate the size of the present program service, and Table 4 tells something of the rate of growth since 1961 -- from an average of 39 hours per week per station to 49.5 hours in 1966 and to 74.6 hours in 1971. Obviously, these figures reflect both the larger number of stations and the growing adequacy of local station staffs, and they also are indicative of the rising quantity of the national program service during that time. Unfortunately, there is no way to take quantitatively into account the notable rise in the *quality* of that service.

COVERAGE

As of November 1, 1971, with 212 stations (90 VHF, 122 UHF) on the air, public television was providing a signal which included within its Grade "A" coverage contour areas about 71.5 percent of the people in the United States, or about 148 million Americans. (See Table 5.) CPB reported that coverage

Table 2. Average Weekly Broadcast Hours
Public Television Stations, Fiscal Year 1971

	Peak Season (35-36 school weeks)			Summer Season (16-17 non-school weeks)		
	Total hours per station per week	Percent School Programs	Percent General Programs	Total hours per station per week	Percent School Programs	Percent General Programs
193 public TV stations	74.6	43.4	56.6	44.2	5.0	95.0
52 community stations	79.2	40.8	59.2	47.4	5.4	94.6
23 school stations	62.1	52.9	47.1	40.2	10.6	89.4
60 state and municipal stations	81.7	48.8	51.2	45.8	4.8	95.2
58 university stations	68.0	35.9	64.1	41.0	3.2	96.8

Source: Corporation for Public Broadcasting, 1971 Survey.

Table 3. Total Year Broadcast Hours
Public Television Stations, Fiscal Year 1971

	School Programming		General Programming		Total Hours
	Hours	Percent	Hours	Percent	
193 public TV stations	226,165	35.4	413,446	64.6	639,611
52 community stations	58,864	32.4	122,795	67.6	181,659
23 school stations	27,997	45.5	33,552	54.5	61,549
60 state and municipal stations	89,989	40.5	132,173	59.5	222,162
58 university stations	49,315	28.3	124,926	71.7	174,241

Source: Corporation for Public Broadcasting, 1971 Survey.

Table 4. Average Weekly Broadcast Hours
Non-commercial Stations, 1960-71

	1960	1962	1964	1966	1968	1970	1971
Stations reporting	56	62	88	115	153	190	193
Average hours per station per week	39.0	41.9	42.3	49.5	56.1	65.3	74.6

Sources: 1960-1970 figures are from *One Week of Educational Television* (Bloomington, Indiana: National Instructional Television Center, 1971).

1971 figures are from the Corporation for Public Broadcasting, 1971 Survey.

Table 5. Grade "A" Coverage Populations
Public Television Stations, November 1, 1971

	(Population figures in millions)							
	VHF Coverage			UHF Coverage			Total Coverage	
	Stations	Population	%	Stations	Population	%	Population	%
212 public TV stations	90	59.7	100	122	88.5	100	148.3	100
59 community stations	23	31.0	52.0	36	50.4	56.9	81.4	54.9
23 school stations	7	2.9	4.8	16	10.1	11.4	13.0	8.8
68 state and municipal stations	28	11.0	18.3	40	19.7	22.2	30.6	20.6
62 university stations	32	14.9	24.9	30	8.4	9.5	23.2	15.7

Source: Corporation for Public Broadcasting.

area populations increased from 144 million in 1969 to 156 million by the end of 1971 -- from about 71 percent to about 75 percent of the total US population. [A 1971 study by Louis Harris and Associates, Inc. taking into account UHF penetration problems placed effective coverage at 63 percent of the population -- still some 131.5 million Americans.]

In summary, the growth of non-commercial television during the Sixties far outran even the most optimistic predictions made at the beginning of the decade. Non-commercial television went into the Sixties with a few more than 50 stations, and at the end of the decade was just passing 200. It was available to twice as many people, and on a nationwide basis offered over six times as many broadcast hours, many of them in color.

More importantly, it accepted the challenge of a new and more professional standard of programming, and was able to present a national program service of high quality offered first through NET, and later through PBS.

Financially, the decade of growth saw a capital investment of more than $ 150 million, a near-tripling of employees (to 5,385 full-time and 2,257 part-time in 1970), and a multiplication of annual operating budgets by a factor of more than five.

Not only did the system grow internally but it reached more and more viewers. By the end of 1971, CPB reports, over 51,000,000 Americans were tuning in to public television programs each week.

In spite of this spectacular expansion, however, one statement in the 1961 report, *ETV: The Next Ten Years*, remains unchanged. On page 175 that report said: "Educational television is in financial difficulty." To analyze why this is still true, taking stock of the situation and the needs, is the primary purpose of the remainder of this paper.

2. Public Television Today

As this report was being prepared, another new public television station signed onto the air for the first time, bringing the national total to 224 stations. But the phenomenal growth in the number of stations is in many ways a misleading indicator of the overall health of the national public television system. In this section we will look more closely at public television in comparison to its commercial counterpart, and at the PTV stations themselves: the services they provide, their sources of support, and how they spend their money.

COMMERCIAL AND NON-COMMERCIAL TELEVISION

It needs to be remembered at the outset that public television is still only a little brother of commercial television. Only about 15 percent of television program transmission in this country is public television, and less than 5 percent of the money for support of television goes into this form of broadcasting.

Table 6 provides a comparison of non-commercial with commercial television station operations in recent years. While there were 28.2 percent as many non-commercial as commercial stations in 1970, for instance, these stations were operating on only 6.2 percent as much revenue.

Even more significant are the differing rates of growth behind these figures. The revenue of PTV stations increased by about 143 percent between 1966 and 1971 (46 percent of that in the last year, and part of that -- as noted in Table 6 -- due to accounting changes), but the number of stations also increased 83 percent during the same period. As a result, the mean expenditure per station increased only 36 percent during a period when inflation alone would have raised expenditures by 25 percent. For the average station, therefore, the increase was insufficient to provide for technical improvements, much less to expand local program services or embark on color conversion projects.

Table 6. US Non-Commercial Compared with US Commercial Television Stations

STATIONS	(Financial figures in $ thousands) 1966	1967	1968	1969	1970	1971
NON-COMMERCIAL						
Number of stations	*113*	*119*	*146*	*189*	*195*	*207*
Total station revenue	58,315	54,324	66,719	84,928	103,641	141,982*
Mean per station	516	457	457	449	530	686
Total station expense	57,492	62,238	67,091	96,938	107,228	142,838
Mean per station	509	523	460	513	550	690
COMMERCIAL STATIONS						
Number of stations	*613*	*626*	*655*	*680*	*690*	*695*
Total station revenue	1,291,000	1,322,100	1,504,400	1,652,200	1,663,600	#
Mean per station	2,106	2,112	2,297	2,391	2,408	
Total station expense	888,900	963,300	1,066,200	1,191,200	1,259,800	
Mean per station	1,450	1,539	1,628	1,752	1,823	
NON-COMMERCIAL AS A FRACTION OF COMMERCIAL STATIONS						
Number of stations	*18.4 %*	*19.0 %*	*22.3 %*	*27.8 %*	*28.2 %*	*29.8 %*
Total station revenue	4.5 %	4.1 %	4.4 %	5.1 %	6.2 %	#
Mean per station	24.5 %	21.6 %	19.9 %	18.8 %	22.0 %	
Total station expense	6.5 %	6.5 %	6.3 %	8.1 %	8.5 %	
Mean per station	35.1 %	34.0 %	28.3 %	29.3 %	30.2 %	

Notes: 1. Revenues and expenditures reported are for stations *only*, and do not include network operations.

* 2. To some extent apparent increases in 1971 PTV station revenues and expenditures are the result of the consolidation of NET operations into New York *station* WNET/13.

3. If the non-commercial figures were analyzed by *licensees* rather than by *stations*, the revenue and expenditures would in each case be larger, and the difference between non-commercial and commercial stations therefore less than in the table above. Thus, for the last three years (in $ thousands):

	1969	*1970*	*1971*
Mean revenue per licensee	690	773	1,068
Mean expense per licensee	788	800	1,074

Sources: 1966-68 figures for non-commercial stations are from the NAEB annual surveys. 1969-71 non-commercial figures are from CPB surveys. [The reporting agency for non-commercial station data changed in 1969 from NAEB to CPB. The reporting bases of these two organizations may not be strictly comparable.]

Figures for commercial stations are from FCC annual reports.

\# FCC figures for 1971 were not yet available at this writing.

It should also be noted that although there were significant increases in 1971, many stations still bear the scars of their 1966-1970 struggles. During that period, station income increased 78 percent but the number of stations went up 73 percent so that the average station was able to spend only 8 percent more at the end of the period than in 1966.

Comparable figures for commercial stations are not yet available to us for 1971. However, those through 1970, when compared with PTV stations for the same period, show the commercial stations to be in a very much healthier situation, although the sharp increase in PTV station income in 1971 may have offset the differences slightly. (In part, the PTV increase in 1971 may be misleading because a considerable share of it apparently results from the shift in accounting classifications of NET operations from "network" to "station" income. Sufficiently detailed figures to allow compensation for this accounting change were not available as this report was being prepared.)

What *is* clear, however, is that public television entered the period on a precarious financial base and was able to increase the average income per station only slightly at a time when technical and programming obligations were growing considerably.

TYPES OF STATIONS AND THEIR FINANCES

A further consideration in assessing the fiscal condition of public television -- and perhaps the most serious flaw in any thinking that would lead to the creation of a national network similar to the BBC -- is the different types of ownership of non-commercial VHF and UHF stations in the United States. Essentially, there are four ownership groups: community, school system, state and municipal, and university stations. Table 7 indicates some of the differences in characteristics of these various types of stations.

It is significant that 59 (27 percent) of the 212 public television stations on the air as of November 1, 1971 were responsible for 55 percent of the total national coverage of PTV, 57 percent of the local programming expenditures, and probably at least half of the total public television audience. These are the *"community" stations*, licensed to non-profit organizations, mostly in large cities. During the day they typically provide services for local school systems and children's programming. In the evening they offer a varied program service for the community. Several of these community stations also serve as chief producing agencies for national programs distributed by the Public Broadcasting Service and the regional networks.

Table 7. Characteristics of PTV Station Types, 1971

Station Ownership	Number of Stations	PTV Population Coverage	Local Programming Expenditures	Total Operations Expenditures	Total Station Revenues
Community	27 %	55 %	57 %	53 %	48 %
School	11	9	4	8	7
State and municipal	32	20	23	23	27
University	30	16	16	16	18

Read this table as follows: 27 % of all the PTV stations in the country, as of 1971, were community stations. 11 % were owned by school systems. The community stations were responsible for 53 % of all PTV operating expenditures; the school stations, for 8 %.

Source: Corporation for Public Broadcasting.

Of the 212 total, 23 stations were licensed to local *school systems*, these stations representing about 9 percent of the national coverage. Their primary function is to provide instructional programs as needed by the schools, with "public television" being something of a bonus. A look at the program logs of these stations reveals that many of the school programs are locally produced, but that increasingly programs are being borrowed or rented from national or regional instructional libraries for use in whole or in part. For most of these stations, the evening fare generally consists of programs from PBS with a small amount of local production.

The 68 *state and municipally-owned stations* made up 32 percent of the 212 station November 1971 total, with many of these linked together in state networks. Alabama, Georgia, Kentucky, Nebraska, New Hampshire, Ohio, Oklahoma, and South Carolina are among the states with such state networks. Typically these networks have one or two production centres, the other stations serving chiefly to transmit programs from a central source. Because of the nature of their funding, stations of this kind essentially serve different needs and have different objectives than, for example, community-owned operations.

The chief responsibility of *university stations* is usually to the extension services of their institutions. They also attempt, insofar as resources permit, to provide for local public affairs programming in the evening in addition to carrying the national service. These stations represent about 16 percent of the total national coverage, and there is a rather remarkable correlation in the case of these university stations between their proportion of the national coverage and their

proportions of total PTV income, operating costs, and local programming costs, as Table 7 earlier demonstrated.

To translate the proportion of PTV operations represented by these different types of stations into hard dollar figures, a look at Tables 8 and 9 is instructive. Table 8 includes 1969-71 figures for both *licensees* and *stations* to show the substantially greater sums at the disposal of licensees of multiple stations.

In relative terms, the financial position of the community stations stands out in these tables. Community stations typically operate at a level of about $ 1 million annually now, the other types of stations at about half that. Community stations put correspondingly larger sums into local production and, of the four types of PTV stations, they come closest to a goal of general interest. This is not only because they are responsible for much of the national program service, but also because they are required to serve large heterogeneous communities.

School stations are primarily responsive to the needs of their school systems, state stations to the needs of the state units that established them, and university stations to the needs of university extension and continuing education objectives. Community stations, although devoting a considerable portion of their daytime schedule to school programs and special group programs, still must try to produce evening programs of wider general interest.

Each of the types of stations has had its own financial problems related to its own major sources of support. But the various types of stations have had one problem in common: uncertainty. Total income and capital expenditures have varied considerably from year to year because of fluctuations in federal, state, local, and foundation grants, and because of major expansion projects. Increases in the mean operating expenditures leveled off during the 1968 through 1970 period for all types of stations, and it is difficult to tell whether the 1971 increases actually strengthened the stations or merely allowed them to begin recovery from the lean years.

CURRENT SOURCES OF SUPPORT

Where has the money for PTV come from? For nearly 15 years, the Ford Foundation was the chief supporter of the national program service, and, through the Fund for the Advancement of Education, of instructional uses of television. All told, the Foundation has put more than $ 225 million into this activity. The Federal Government, through the Educational Broadcasting Facilities Act, has contributed substantially to capital funds for new stations and for modernizing the facilities of older stations. From this source, over $ 67 million has gone into improving and extending the facilities of public television.

Table 8. Mean Income and Expenditures By PTV Station Type, 1966-71

STATION TYPE	(Financial figures in $ thousands) 1966	1967	1968	1969	1970	1971
COMMUNITY						
Stations reporting	*41*	*37*	*41*	*52*	*52*	*56*
Mean Income	677	866	829	777	907	1194
Mean Expenditures						
Operations	426	601	682	683	791	1078
Capital	185	293	151	181	144	196
Licensees reporting				*44*	*46*	*47*
Mean Income				918	1025	1423
Mean Expenditures						
Operations				807	994	1284
Capital				214	163	234
SCHOOL						
Stations reporting	*19*	*21*	*22*	*22*	*24*	*23*
Mean Income	246	275	356	412	409	424
Mean Expenditures						
Operations	206	242	311	320	319	374
Capital	168	44	45	90	85	106
Licensees reporting				*21*	*23*	*22*
Mean Income				432	427	443
Mean Expenditures						
Operations				335	333	391
Capital				94	89	111
STATE AND MUNICIPAL						
Stations reporting	*24*	*34*	*52*	*57*	*60*	*67*
Mean Income	642	251	260	333	394	569
Mean Expenditures						
Operations	270	204	187	302	302	384
Capital	322	152	74	129	136	124
Licensees reporting				*16*	*20*	*20*
Mean Income				1186	1182	1906
Mean Expenditures						
Operations				1076	906	1286
Capital				460	408	412
UNIVERSITY						
Stations reporting	*29*	*27*	*31*	*58*	*59*	*61*
Mean Income	362	296	367	291	320	422
Mean Expenditures						
Operations	223	240	280	270	283	304
Capital	160	170	94	47	47	120
Licensees reporting				*42*	*45*	*44*
Mean Income				402	420	585
Mean Expenditures						
Operations				373	371	421
Capital				65	62	166

Sources: 1969-71 figures from annual surveys of the Corporation for Public Broadcasting. Earlier figures from NAEB surveys.

Table 9. Operations and Production Expenses By PTV Station Type Fiscal Year 1971

TYPE OF LICENSEE	(Financial figures in $ thousands) Program Operations exclusive of Production	Production of General Programs	Production of School Programs	Total
1971 Total	17,316	32,674	8,776	58,766
(132 licensees)	*100 %*	*100 %*	*100 %*	*100 %*
COMMUNITY	9,774	20,759	3,152	33,685
(46 licensees)	*56.4 %*	*63.5 %*	*35.9 %*	*57.3 %*
SCHOOL	721	2,303	1,855	4,880
(22 licensees)	*4.2 %*	*7.1 %*	*21.1 %*	*8.3 %*
STATE AND MUNICIPAL	4,046	5,361	1,911	11,319
(20 licensees)	*23.4 %*	*16.4 %*	*21.8 %*	*19.3 %*
UNIVERSITY	2,775	4,250	1,858	8,882
(44 licensees)	*16.0 %*	*13.0 %*	*21.2 %*	*15.1 %*

Read this table as follows: During 1971, 132 PTV licensees spent a total of $ 32,674,000 on production of general (non-school) programs. Of this sum, 63.5 % was spent by the 46 community licensees.

Source: Corporation for Public Broadcasting.

In recent years, the Corporation for Public Broadcasting has contributed substantially to the support of programming and public service activities of local stations. And the U.S. Office of Education, together with CPB, has furnished much of the support for making such programs as *Sesame Street* and *The Electric Company*. Table 10 indicates trends in this pattern of support.

Perhaps surprisingly, the largest source of income in this tabulation is state governments and their agencies (providing for state services and supporting state networks), and the second in magnitude is schools and local governments (largely paying for instructional programs). Over the six-year period represented in Table 10, these contributions taken together show a steady increase in dollars, but remain about the same in terms of proportion of total support. State universities, on the other hand, are a little higher in dollar support at the end of the

Table 10. Sources of Funds for Public Television Stations, 1966-71 (Financial figures in $ thousands)

Source	1966		1967		1968		1969		1970		1971	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Schools and Local Government	11,058	19.0	12,305	22.7	15,519	23.3	20,192	23.8	20,900	20.2	20,152	14.2
State Governments and Agencies	15,792	27.1	8,861	16.3	16,273	24.4	24,667	29.0	29,863	28.8	46,684	32.9
State Universities	6,560	11.2	5,615	10.3	7,443	11.2	5,154	6.1	9,283	9.0	8,844	6.2
Federal Government other than CPB. (EBFA support, etc.)	6,835	11.7	5,196	9.6	3,692	5.5	5,744	6.8	4,982	4.8	9,885	7.0
Foundations	8,426	14.4	8,073	14.9	6,041	9.1	6,573	7.7	8,576	8.3	15,933	11.2
Public Broadcasting Agencies & Contracts	-	-	2,688	4.9	4,897	7.3	6,871	8.1	11,706	11.3	17,778	12.5
Underwriting	1,095	1.9	788	1.5	1,056	1.6	2,538	3.0	2,514	2.4	3,295	2.3
Auction Income	-	-	677	1.2	1,340	2.0	2,177	2.6	3,453	3.3	3,883	2.7
Other contributions from Business and Industry	2,052	3.5	3,093	5.7	2,681	4.0	2,072	2.4	2,126	2.1	3,066	2.2
Subscribers or Individuals	3,217	5.5	3,866	7.1	5,358	8.0	5,747	6.8	6,762	6.5	8,448	6.0
All other sources	3,281	5.6	3,163	5.8	2,420	3.6	3,194	3.8	3,477	3.4	4,014	2.8
TOTAL	58,316	100	54,325	100	66,720	100	84,929	100	103,642	100	141,982	100

Note: Columns may not always appear to total 100 % exactly because of rounding.

Source: 1969-71 figures are from the Corporation for Public Broadcasting; earlier figures from NAEB.

period, but slightly less in proportion to the total. In the federal area, contributions through the Educational Broadcasting Facilities Act have fluctuated: down in 1970, up considerably in 1971.

Another important factor is the growth in income resulting from production of programs for the national service. In the last five years, the number of contracts given to individual stations to produce programs and series for wider distribution has increased significantly. At first, this money went through NET; currently, in larger amounts, it comes through CPB. In 1971, production grants to individual stations represented a total of 17.8 million. By way of comparison, this sum is well over the *total* income of PTV in 1961; in 1971 it represented less than 12 percent of the total.

Of special interest and significance, moreover, is the increase in contributions from private sources. Income from subscribers or other individuals has increased 159 percent in the space of five short years. Income from station auctions was recorded first in 1967, but by 1971 auction proceeds had risen to nearly 3.9 million. Taken together, local private sources (subscribers, auction proceeds, and contributions from business and industry) passed 15 million in 1971.

Again, these trends need to be seen in terms of different types of stations if a clear picture of the financing problem is to be gained. That breakdown is shown in summary form in Table 11, and in detail in Table 12.

In several respects, Table 11 may prove surprising. For example, about two-thirds of the support of public television comes from tax sources. Much of this, as Table 12 shows, is from local school systems, local and state governments, and state universities, with a relatively small part coming from federal funds. School, state and municipal, and university stations derive more than 80 percent of their income from state and local tax funds. Only the community stations receive any considerable portion of their income from private sources. In 1971, that was roughly 55 percent. A further glance at the detailed listing of fund sources in Table 12 will show that it is chiefly these community stations that have developed television auctions into a major source of support and have built up substantial lists of PTV subscribers. It is chiefly to the community stations, also, that foundation grants and production contracts have gone, although university stations have received substantial sums from foundations since 1966.

In summary, the trends to the end of the 1966 through 1971 period are fairly clear: tax support fell each year (notably in community stations where less money was provided for the support of instructional television), foundation support fluctuated throughout the period, there was a slight but uncertain gain in private support, and public broadcasting agencies (notably CPB) each year accounted for an increased share of the total support.

Table 11. Sources of Funds By PTV Station Type, 1966-71, Summary

Sources	% of all income for that column classification				
	All PTV Stations	Community	School	State and Municipal	University
Tax Sources *					
1966	69.0	39.1	97.8	98.8	91.6
1968	64.4	38.1	93.6	95.9	85.9
1970	62.8	29.4	93.5	95.7	83.3
1971	60.3	23.5	91.3	97.5	86.6
Foundations					
1966	14.4	29.5	0.1	0.3	1.9
1968	9.1	16.7	0.1	1.6	0.4
1970	8.3	15.0	0.2	1.9	4.4
1971	11.2	23.3	0.4	0.2	0.9
Private Sources					
1966	10.9	21.4	2.0	0.7	2.1
1968	15.6	28.3	5.2	1.3	2.1
1970	14.3	29.0	2.2	0.5	2.8
1971	13.2	26.0	2.3	0.6	2.8
Public Broadcasting Agencies & Contracts					
1966	-	-	-	-	-
1968	7.3	11.6	0.3	0.2	8.0
1970	11.3	20.2	3.9	1.5	7.6
1971	12.5	22.0	6.0	1.7	7.4
Other Sources					
1966	5.6	10.1	0.1	0.1	4.3
1968	3.6	5.4	1.0	0.9	3.6
1970	3.4	6.2	0.3	0.3	2.0
1971	2.8	5.2	-	-	2.3

Note: * "Tax Sources" includes all state and local support, and federal support *exclusive of* that distributed by Public Broadcasting Agencies.

Sources: 1970 and 1971 figures from CPB annual surveys
1966 and 1968 figures from NAEB surveys.

The most striking differences in support are between stations of different types of ownership, rather than between sources. Community stations are attempting to operate, as much as possible, with private support; the others depend chiefly on support from tax sources. With economic conditions currently making money tighter from both these sources (at a time when both operations and capital money are badly needed), the acid test will be whether private or public support stands up better.

Table 12. Sources of Funds By PTV Station Type, 1966-71, Detail

(Financial figures in $ thousands)
Italicized figures are percentages of total revenues for that type of station for that year.

Sources	Community Stations						School Stations						State and Municipal Stations						University Stations					
	1966	1967	1968	1969	1970	1971	1966	1967	1968	1969	1970	1971	1966	1967	1968	1969	1970	1971	1966	1967	1968	1969	1970	1971
Schools and Local Government	5,954	6,456	7,695		8,144	7,867	4,128	5,118	6,337		8,476	7,596	345	50	504		1,136	1,531	631	681	983		2,984	2,885
	21.5	*20.2*	*22.6*		*17.3*	*11.7*	*88.3*	*88.7*	*81.0*		*86.4*	*77.9*	*2.2*	*0.6*	*3.7*		*4.8*	*4.0*	*6.0*	*8.5*	*8.7*		*15.4*	*11.2*
State Governments and Agencies	2,059	2,323	2,996		4,229	5,537	203	180	553		194	634	12,118	5,719	10,950		18,731	31,468	1,412	638	1,775		4,433	8,914
	7.4	*7.3*	*8.8*		*9.0*	*8.3*	*4.4*	*3.1*	*7.1*		*2.0*	*6.5*	*78.6*	*67.0*	*80.9*		*79.2*	*82.5*	*13.5*	*8.0*	*15.7*		*22.9*	*34.7*
State Universities	601	369	396		148	275	-	3	-		108	143	35	1,600	821		407	207	5,924	3,644	6,225		8,156	8,289
	2.2	*1.2*	*1.2*		*0.3*	*0.4*	-	*0.1*	-		*1.1*	*1.5*	*0.2*	*18.7*	*6.1*		*1.7*	*0.6*	*56.5*	*45.7*	*55.3*		*42.2*	*32.2*
Federal Government other than CPB	2,216	3,130	1,853		1,334	2,104	240	228	428		395	526	2,740	886	708		2.369	3,967	1,639	952	703		533	2,189
	8.0	*9.8*	*5.5*		*2.8*	*3.1*	*5.1*	*4.0*	*5.5*		*4.0*	*5.4*	*17.8*	*10.4*	*5.2*		*10.0*	*10.4*	*15.6*	*11.9*	*6.2*		*2.8*	*8.5*
Foundations	8,181	7,841	5,674		7,175	15,556	4	-	7		16	35	41	130	218		453	42	200	101	42		855	247
	29.5	*24.5*	*16.7*		*15.0*	*23.3*	*0.1*	-	*0.1*		*0.2*	*0.4*	*0.3*	*1.5*	*1.6*		*1.9*	*0.2*	*1.9*	*1.3*	*0.4*		*4.4*	*0.9*
Public Broadcasting Agencies & Contracts	-	2,157	3,943		9,497	14,676	-	57	26		382	581	-	-	30		363	646	-	474	899		1,463	1,897
	-	*6.7*	*11.6*		*20.2*	*22.0*	-	*1.0*	*0.3*		*3.9*	*6.0*	-	-	*0.2*		*1.5*	*1.7*	-	*5.9*	*8.0*		*7.6*	*7.4*
Underwriting	1,018	651	937		2,315	2,829	2	54	47		22	53	53	76	46		33	108	23	7	26		248	306
	3.7	*2.0*	*2.8*		*4.9*	*4.2*	-	*0.9*	*0.6*		*0.2*	*0.5*	*0.3*	*0.9*	*0.3*		*0.1*	*0.3*	*0.2*	*0.1*	*0.2*		*1.3*	*1.2*
Auction Income	-	645	1,233		3,167	3,577	-	32	107		98	71	-	-	-		63	74	-	-	-		126	161
	-	*2.0*	*3.6*		*6.7*	*5.3*	-	*0.6*	*1.4*		*1.0*	*0.7*	-	-	-		*0.3*	*0.2*	-	-	-		*0.7*	*0.6*
Other contributions from Business and Industry	1,773	2,850	2,416		2,055	2,952	84	77	111		1	3	35	24	28		7	13	160	142	125		59	76
	6.1	*8.9*	*7.1*		*4.4*	*4.4*	*1.8*	*1.3*	*1.4*		-	-	*0.2*	*0.3*	*0.2*		-	-	*1.5*	*1.8*	*1.1*		*0.3*	*0.3*
Subscribers and Individuals	3,138	3,743	5,029		6,104	8,113	8	21	137		94	105	30	52	103		33	47	41	50	88		102	179
	11.3	*11.7*	*14.8*		*13.0*	*12.1*	*0.2*	*0.4*	*1.8*		*1.0*	*1.1*	*0.2*	*0.6*	*0.8*		*0.1*	*0.1*	*0.4*	*0.7*	*0.8*		*0.5*	*0.7*
All other Sources	2,809	1,874	1,821		2,901	3,378	4	-	72		26	5	11	-	126		62	30	456	1,290	400		379	592
	10.1	*5.8*	*5.4*		*6.2*	*5.2*	*0.1*	-	*1.0*		*0.3*	-	*0.1*	-	*0.9*		*0.3*	-	*4.3*	*16.2*	*3.6*		*2.0*	*2.3*
TOTAL	27,749	32,039	33,993	40,397	47,069	66,872	4,673	5,770	7,825	9,073	9,812	9,953	15,408	8,537	13,534	18,954	23,657	38,135	10,486	7,979	11,266	16,864	19,338	25,735

Sources: 1969-71 figures are from the Corporation for Public Broadcasting's annual surveys.
Earlier figures are from NAEB surveys.

CURRENT PROGRAMMING EXPENDITURES

Any analysis of PTV financing would be strictly academic if it were not related to the program services offered by the stations. Consequently, we turn next to an examination of the various programming services provided by PTV stations, with particular emphasis on the costs to the stations of providing these services.

Table 13 shows the sources of the programs broadcast by the 193 PTV stations reporting in 1971. Just under one-fourth of the broadcast time was devoted to local programs, almost one-half came from national services, and the remainder originated in regional centres and other sources.

Table 13. Public Television Programming Sources, 1971

Program source	Proportion of hours broadcast from each source		
	Total Programming	Programming for Schools	General Programming
Produced locally	23.0 %	35.9 %	16.0 %
Delivered by national interconnection	27.5 %	6.9 %	38.8 %
Delivered by regional interconnection	5.1 %	3.2 %	6.1 %
Delivered by other interconnection	3.9 %	5.5 %	3.0 %
Film and tape distributed from:			
National Educational Television	6.9 %	1.8 %	9.7 %
Regional networks	5.2 %	6.5 %	4.5 %
ETS/Program Service	3.4 %	1.1 %	4.7 %
National Instructional Television	3.8 %	10.6 %	0.1 %
Great Plains National Instructional Television Library	3.4 %	9.0 %	0.3 %
Other PTV stations	3.3 %	5.6 %	2.0 %
Commercial syndicates	3.1 %	0.8 %	4.4 %
All other sources	11.4 %	13.1 %	10.4 %
TOTAL	100 %	100 %	100 %
Total hours broadcast (193 stations)	639,611	226,165	413,446
Proportion for School & General use	*100 %*	*35.4 %*	*64.6 %*

Source: Corporation for Public Broadcasting, 1971 Survey.
Based on 193 PTV stations on the air during the entire 1971 fiscal year.

It is especially interesting, in Table 13, to compare programming for schools with "general" PTV programming in terms of the proportions of broadcast hours contributed by the various sources. For example, of the school programs (which on the average represented about one-third of the time of PTV stations), about 30 percent came from national sources: from PBS, NET, and the program libraries. Another 15 percent came from regional networks, regional interconnection, and other stations, *with about 36 percent made locally.* Many local ITV programs, however, are repeated in later years.

On the other hand, only about 16 percent of general PTV programs represented local production. More than half came from the PBS interconnection and the distribution services. About 13 percent of the general programming resulted from regional and station exchange.

The natural -- and important -- question follows: Why is the proportion of local school programming so much higher than the proportion of local general programming? For one thing, because school systems feel strongly about their own special needs, the unique qualities of their own curricula, and the requirements of their own students and teachers. Instructional programs made by local teachers are therefore more likely to be acceptable to a local curriculum committee, other things being equal, than are programs from outside produced by persons not under local control.

A second reason is the historically greater cost of general PTV programming. Although instructional television holds great potential for making very significant contributions to education in this country, to date relatively modest levels of production have been considered acceptable for ITV. Non-school programs, however, are compared directly with the production quality of the national commercial networks. Many commercial network prime-time programs cost in the neighborhood of $ 200,000 per hour. In contrast, local non-school PTV production usually costs less than $ 5,000 an hour, with the bulk of national PTV production ranging between $ 25,000 and $ 75,000 an hour.

These figures illustrate why a PTV station, whose total annual production budget would not be enough to produce two hours of commercial network prime time programming, relies so heavily on its ability to share a core of high-quality programs with other PTV stations. In essence, this is the function which PBS and other distribution services perform. PBS operates the interconnection service which supplies to stations programs which have been commissioned or acquired from those PTV stations which are equipped and staffed for national production -- such as New York's WNET (which produced *The Great American Dream Machine,* for example), Boston's WGBH (Julia Child, the Boston Pops concerts) and San Francisco's KQED *(World Press)* -- and from non-profit production operations such as the Childrens Television Workshop *(Sesame Street, The Electric Company)* and the National Public Affairs Center for Television. PBS also distributes to the stations acquired features such as Kenneth Clark's program *Civilisation* and the dramatization of Galsworthy's *Forsyte Saga,* both from BBC. Thus a typical

public station can count on filling 20 or more hours of its air time per week, including repeats, with quality programs for which it has to pay none of the production costs directly.

When we consider the effect upon programming services of changes in station finances, therefore, we must consider both local and shared programming. Table 14 shows the trends in local programming over the years 1962-1971. These figures are from *One Week of Educational Television*, and some of the base figures are not precisely the same as those in Table 3, which are from a source using a somewhat different method of classification. However, the trends should be reliable, and *the significant fact is that although broadcast time rose during the last decade, the hours and proportion of local programming fell steadily from 1962 through 1970.*

Table 14. Distribution of Public Television Stations' Broadcast Time Per Week By General and School Programming, 1962-71

	1962	1964	1966	1968	1970	1971
Number of stations reporting	*62*	*88*	*115*	*153*	*190*	*193*
Average total hours per station per week	42.9	42.3	49.5	56.1	65.3	63.7
Average hours General Programming per station per week	22.5	22.6	28.2	30.7	41.1	41.2
Locally produced hours General Programming per station per week	6.5	4.6	4.3	4.1	4.5	*
Proportion of General Programming locally produced	*29.0%*	*20.3%*	*15.2%*	*13.4%*	*11.0%*	
Average hours School Programming per station per week	19.9	19.6	21.2	25.4	24.2	22.5
Locally produced hours School Programming per station per week	13.0	11.0	9.0	9.0	6.6	*
Proportion of School Programming locally produced	*77.9%*	*56.2%*	*42.4%*	*35.4%*	*27.2%*	

Note: * Figures not yet available for 1971.

Sources: 1962-70 figures calculated from *One Week of Educational Television, 1968, 1970.*

1971 figures from the Corporation for Public Broadcasting, 1971 Survey.

To anyone concerned with policy in the field of broadcasting, such a trend is not only significant but also disturbing. One of the important functions of public television is to be a local voice, to cover local events and local problems, and to serve local groups not served by the generality of commercial television, and it appears that the ability to perform that function has been significantly lessened in recent years.

Why has local programming decreased relative to other programming? For one thing, because public television has been seeking a higher standard of quality. In the early years of the medium, *any* instructional television in the classroom was considered better than none, and *any* public television on the picture tube at home was better than not having public television at all. But the novelty of the medium wore off. Something rather special in quality, comparable to the speciality of the subject matter, came to be demanded. Higher quality in programming and production naturally costs more money. NET and later PBS were better able to meet this rising challenge than were the stations individually, especially given overall PTV financial resources which hardly even kept up with inflation.

The financial crunch continued through 1971. Alone among the public television stations, as we have seen, only the community licensees have been able to generate any considerable amount of private support, and even they have not received appreciable support from business and industry. But there is a ceiling on the amount of such support that seems to be available in a culture that believes it does not have to pay, at least directly, for television. Both businesses and individuals have been feeling the economic pinch. As a result, some community stations report that their membership renewal rates are down and that other sources of private gifts also are off. Moreover, the other major sources of support -- school systems, state and local governments, and universities -- have also been hard hit. An increasing number of school systems have been unable to pass bond issues to raise their tax rates. Facing rising salaries and spiraling operational costs, many of them have been in desperate financial straits. As a consequence, some have been forced, for no wish of their own, to discontinue their use of local ITV. Similarly, federal, state, and city governments have struggled with rising costs of social welfare and governmental services. Universities, unable in many cases even to raise their own faculty and staff salaries, have found it virtually impossible to increase allocations to their television stations.

In summary, the average public television station -- whether depending upon private community support or state or local tax dollars -- has had to contend with rising costs, rising appetites for quality programming, rising demands to serve special groups and to help in meeting local problems, rising needs to modernize facilities (color, more adequate studio and remote coverage facilities, improved signals and VHF channels where possible) -- all with no corresponding rise in support.

Further complicating the problem has been the high proportion of relatively fixed costs in this type of enterprise. The costs of simply keeping the station on the air, which in the case of some of the smaller stations account for almost half of all expenditures, are not at all elastic. As a consequence, virtually the only cuts that can be made are in staff and in funds available for the direct costs of local programming. Regardless of how a station makes these cuts in expenditures, the result is a cut in local programming, and most particularly in the special things -- remote coverage of an event or a meeting, a new program, a few hours on the air that might be used for special interest programming, a larger budget for program talent and studio sets, etc.

As a result, stations have come to depend more and more upon the programs provided by PBS interconnection, by the regional and state networks, and by other distribution services. But these national and regional sources also have felt the economic pinch. The Corporation for Public Broadcasting, which is now the largest single source of program support, had roughly $ 10 million for programs and $ 5 million for station support in 1971. (The remainder of its $ 27.8 million budget went chiefly for live interconnection, support of public radio, program promotion, and administration.) Even if this entire $ 15 million were divided among 200 stations for local programming, it would provide only approximately *15 hours of local programming per station per year* at $ 5,000 an hour -- the present cost of a starkly simple panel discussion program produced by station KQED in San Francisco. Or, at the most, it would provide one hour a week of very low-cost programming.

Given the limited current PTV financial resources, the alternative is clear. CPB, through the PBS facilities, is providing approximately 14 hours a week of original programming and another 6 to 8 hours of repeats, much (but not all) of it of high quality. Against this, the same funds spread out over 200 or so stations would produce only a few minutes per week of programming of comparable quality.

3. Assumptions and Cost Projections

THE COSTS OF A NATIONWIDE PTV SERVICE

Any responsible approach to national policy with respect to public television requires a hard look at the potential long-range financial commitments involved. Furthermore, the social benefits from such a service, to the extent that it is dependent on federal funding, have to be weighed against those which would come from other possible uses of the same federal resources.

Inevitably, projections of this kind involve a great many assumptions, few of which are universally accepted by all parties concerned. The *quality* as well as the quantity of program service to be provided, the extent of interconnection, the kind of national structure that will be most responsive to viewer needs, and the impact of new technologies (such as CATV, home video playback devices, and satellite transmission) -- all these influences must somehow be considered in making a final decision.

Some of the technological developments mentioned above have such great potential for changing the structure of broadcasting that it is impossible to carry cost projections very far into the future with any real certainty. It is difficult enough simply to project costs based on the present system, but even more difficult to estimate the costs of a system whose profile in five or ten years is likely to be very different from what we know now.

In spite of these obstacles and limitations, however, it is necessary to develop a cost estimate for a national public television service, if only for a short-run period of, say, five years. A number of estimates have been made by individuals, and there have been three rather comprehensive attempts to arrive at precise figures -- by Arthur D. Little and Associates for the Carnegie Commission, by economists engaged by the Ford Foundation, and by a government task force on financing public television.

In general, these studies have used an approach based on the number of PTV stations required to serve the majority of American households (usually 90 to 95 percent), the costs of interconnection of these stations, and the amount required to provide a national program service for this "network." Because of this approach, they have been criticized for being "station" oriented, and for not taking into account the potential of other perhaps more cost/effective alternatives such as CATV and video cassettes.

Profs Call For Increased P

Public television requires more than twice its present level of support "to achieve even its minimum potential of service to the American people," Profs. Lyle M. Nelson and Wilbur Schramm declare in a newly published report for the Aspen Program on Communications and Society.

The first independent evaluation of public television financing since the Carnegie report preceding the legislation of 1967, their report says "a balanced service, responsive to diverse audience needs" would cost $432 million to operate annually — just over $2 per person. The present cost of $165 million (80 cents per person) represents one fourth the support that Britain provides the BBC per person ($3.29), they note.

Warning that public television now faces what may be the most serious financial crisis in its 19-year history, Nelson and Schramm state: "The system, and the nation, are reaping the harvest of years of financial neglect." The national program service is "struggling to stay alive under increasingly severe attacks from several quarters" and local programming has been curtailed in the face of "seriously crippling "financial constraints.

Contents of the report were disclosed at the National Association of Education Broadcasters meeting in Las Vegas, Nevada, Monday.

The study, in projecting a minimum annual budget for national public television, recommends $287 million for local programming (an increase of $125 million) and $115 million for national programming (an increase of about $100 million). Regional programming, interconnection, innovation, and nonbroadcast activities also would be strengthened. In addition, it makes a rough estimate of $237 to $347 million is needed in capital outlays for public television, mainly to improve existing stations.

Many stations are "operating with obsolete equipment, some of it in danger of breaking down completely," the authors note. "Many are without color origination or transmission capability and some are still using equipment purchased when stations first went on the air in the 1950's."

In a foreward to the study, former Presidential Assistant Douglass Cater, director of the Aspen Program on Communications and Society, writes: "The federal government, having launched public broadcasting on its present course, cannot now abdicate its responsibility for helping this sytem achieve its full potential. . . .

"During this decade," Cater adds, "we will be entering the era of 'television of abundance.' The myriad-channel cable, together with the satellite, the video casette, and other new technologies, will bring about an explosion of the ways by which we communicate.

"Public broadcasting has a major claim to stake in this communications revolution — for education, health services, and social purposes as yet unexplored. To default on this challenge could mean closing off an opportunity that ma not return, once the wired nation has become reality."

Following a detailed review of potenti revenue sources, Nelson and Schramm conclu that "direct appropriation by Congress seems offer the only real possibility for meeting th support needs of public television over the ne five years." While making no single set recommendations, they observe that "the mo realistic road to more adequate funding" appea to be appropriations authorized within the Publ Broadcasting Act and the Education Broadcasting Facilities Act. These now provi $15 million for programming and $11 million f facilities, respectively.

A dedicated tax, such as one which might b imposed on manufacturers of TV sets, wit proceeds earmarked for public television migh be desirable, "but may be politically infeasible the present time," they observe. "Any system government funding which is devised mu attempt to balance the objectives accountability for government funds with thos of providing freedom, flexibility, an independence in the program service. Such a objective argues for a great deal of local statio participation and control."

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Nelson and Schramm report a "significant, but disturbing" trend in both the hours and proportion of public TV programming developed locally from 1962 through 1970. Data from the Corporation for Public Broadcasting show that the average public television station produces roughly four and a half hours of local programs per week. But the authors say that checks with representative stations suggest this figure may have declined further in the past two years because of local fiscal belt-tightening. Moreover, "there is evidence visible on TV sets across the country that much of this local programming consists of rockbottom budget production."

Conversations with a variety of station managers indicate that any trend toward centralization of programming has stemmed from "financial necessity, rather than design," they add. "With local programming severely limited by budgets, and with other 'outside' materials too expensive to purchase, a station manager who does not want to use a Public Broadcasting Service supplied program has but one alternative — a shorter broadcast day."

Their financial estimates would enable 160 stations to significantly upgrade the quality of local production (based on four hours per week, 39 weeks of the year, at a cost of $5,000 per hour). Emphasis should be given to improving existing programming before starting new ones at the local level, they indicate. To stimulate regional production and networking, they would provide nearly $20 million annually. This would finance 10 regional operations for two hours a week, 39 weeks a year, at a production cost of $25,000 an hour — still well below the $200,000 cost of many commercial TV shows in prime time.

On a cost-effectiveness basis, they add, the argument for increased investment in a national program service is "equally persuasive." In brief, they explain, "A dollar spent on a national service will raise quality a great deal higher for more audiences than the same dollar divided among stations for local programming." Even if all the 1971 budget of the Corporation for Public Broadcasting were used for local programs, they note, it would support only 15 hours of programming per year among each of the 200 stations originating programs. This would cover only $5,000 an hour — the cost of "a starkly simple panel discussion. . . .

"One of the best ways to insure station independence from a national program service — which all stations need, but few would ever achieve entirely — is to finance enough programs in the national service so that local stations will have a choice among the offerings," Nelson and Schramm add.

"If additional funding, by formula, is provided for stations, then the idea of a modest subscription fee paid by stations for the national service has some appeal."

Graduate students Trevor Brown and Bruce McKay assisted the authors in the study. Copies of the report on "The Financing of Public Television," priced at $2 each, may be obtained from the Aspen Program on Communications and Society. 770 Welch Rd., Palo Alto, Ca. 94304.

The highest of these estimates, one based on the assumptions listed above, places the total annual expenditure in the neighborhood of $750 million, including all affiliated costs, with approximately another $250 million needed for regionally produced programming and interconnection--a $ 1 billion a year total. This estimate, it should be pointed out, assumes complete interconnection of all stations, and a general level of program expenditure and administration roughly equivalent to current commercial network operations.

In his analysis for the Ford Foundation, Joseph Pechman estimated an annual requirement of approximately $200 million (at 1967 prices) for a *minimum* national service. Most other estimates have ranged between these two figures, although some -- based on different assumptions about the number of stations and the amount and kind of local production -- have been lower.

The most widely quoted and certainly the most detailed estimate is that of the Carnegie Commission in its 1967 report, *Public Television: A Program for Action*. Assuming 380 stations (of which about 170 would be "repeater" types with no production facilities), the Commission estimated annual total costs of $ 270 million at 1967 prices (amounting to about $ 338 million in 1972 dollars). This estimate covers annual operating costs, including capital depreciation and replacement, and is in addition to a basic capital outlay requirement of $ 621 million. A breakdown of the Commission's estimates is shown in Table 15.

It needs to be emphasized that these are *total* system costs. Based on 1971 total station revenue of $ 142 million, this would leave in the neighborhood of $ 200 million required in the way of new annual funding.

But there are several assumptions in the Carnegie Commission report which can be questioned, chief among them the total number of stations required. That report, like most approaches to the costing question, seems dominated by the *broadcast station* concept. A non-commercial *broadcast station* is assumed to be the most effective and most economical method of providing public television to most communities, an understandable assumption given the stage of development at the time the estimates were made.

Now, however, this approach does not account for the emerging importance of CATV and video cassettes or the long-range potential of direct reception from satellites. Nor does it give adequate consideration to the local programming resources and needs of individual communities. Given these factors, along with the financial and other problems which have arisen from permitting uncontrolled expansion of stations (especially in areas where new stations duplicate the services of existing ones), it seems reasonable that the number of additional stations needed may well be quite small -- perhaps 30 to 50 more than the 224 presently on the air.

Table 15. Carnegie Commission Cost Estimates, 1967 for a fully developed educational television system

	Number	(Financial figures in $ millions) Basic Capital Required	Annual Costs		
			Operating	Capital	Total
Stations					
Key	20	124	60	12	72
Flag	40	132	47	11	58
Standard	75	127	37	12	49
Basic	75	95	12	10	22
Repeater	170	93	6	8	14
Total	380	571	162	53	215
National Programs 520 hours/year, excluding key station productions		8	23	-	23
Interconnection					
Interstate		-	9	-	9
Intrastate		42	4	4	8
Total		42	13	4	17
Corporation for Public Broadcasting (Non-broadcast activities)		-	15	-	15
TOTAL COSTS (1967)		621	213	57	270
Approximate 1972 Equivalents		776	266	71	338

THE "SERVICE" APPROACH TO COST ESTIMATING

Our approach to cost estimating begins with consideration of the *service* itself, by asking what kind of non-commercial television service would best meet the public interest, in what quantity and quality, and in what kind of a mix between national, regional, and local programming. From there we move to the question of how best to organize and deliver such a service.

Implicit in this approach are two basic assumptions upon which our projections are based: a non-commercial television service of some kind is desirable, even necessary, as an alternative to the programming which is available on a strictly commercial television system, *and* the nation can well afford such a system. (In fact, we would go further

and say that it can ill afford *not* to have such a system, given the increasing complexities of our society and the need for a well-informed population.)

Let us take up the latter point first: that the nation can well afford such a system. Perhaps the comparative figures set forth in Table 16 on the next page make the point more dramatically than words can. They show in detail the levels of support which a number of other countries feel they should, and do, provide for public television. For an annual public television budget of, say, $400 million in the United States, the costs would be less than $2 per capita. It would seem difficult indeed to argue that such an expenditure would create a national hardship, faced with the fact that the Canadian government provides close to $6 per capita annually for public television, and the British government over $3 per capita. The 1971-72 CPB federal appropriation amounted to 17¢ per person, a figure that suffers in comparison not only with the support levels in other countries but also -- and perhaps even more dramatically -- with the close to $14 per person which U.S. commercial television costs annually.

It is significant that only about one in five of all the countries in the world which have television in some form -- and virtually none of the major ones -- relies solely on a private ownership system. Government ownership predominates, of course, but significantly about two-thirds of the nations depend upon some form of mixed private and public ownership.

To accept the proposition that some form of non-commercial television service is needed is not in any way to depreciate the contribution of commercial television. Far from it. Were there only publicly-supported television in the United States, we would argue just as forcefully, and from the same position, that a strong commercial network or networks were needed to provide flexibility and freedom of choice in a field so significant in its impact.

Commercial television's primary objective is, of course, to reach the greatest number of people at any given time. This is not an objective to be condemned or minimized in its importance, given the functions and purposes of such a system. It serves a vital purpose in our kind of society which requires freedom of choice in the market place of ideas as well as in the market place of commodities.

On the other hand, the primary objective of non-commercial television, in its truest form, is to cater to *all* of the audience (within realistic limits, of course) *some* of the time -- not at any given hour, but cumulatively over days, weeks, and months, and differentially to each viewer in accordance with his or her particular needs. This obviously requires special concern for *local* audiences and local programming needs.

Nowhere has this basic view of the role of public television been more clearly stated than by Charles Siepmann, formerly Professor of Communication at New York University and for many years a key program officer of the BBC, who in 1966 wrote:

> The prime responsibility of educational television ... is to take us for what we have in us to become, to feed and foster emergent and often as yet unrealized interests. The consequences of a restricted

Table 16. Television Service Costs By Country

Note	Service	Total ($)	Per person expenditure
	CBC (Canada) Television, 1970/71		
1.	All CBC TV expenditures, including commercial programming	166,583,800	$ 7.70
2.	Parliamentary Grant - Television	123,733,400	5.81
3.	BBC (UK) Television, 1970/71 (Totally non-commercial)	183,241,000	3.29
4.	NHK (Japan) Television, 1971/72 Estimated TV share of budget	300,000,000	2.90
	US Commercial Television		
5.	Station and Network revenues, 1970	2,808,200,000	13.71
6.	Network revenues only, 1971	1,487,500,000	7.32
	US Public Television		
7.	Total System Revenues, FY 1971	165,632,100	.80
7.	PTV Station Revenues, FY 1971	141,982,200	.69
8.	CPB Federal Appropriation, FY 1972	35,000,000	.17

Notes:

1. CBC operates other broadcasting services in addition to television. Expenditures shown are for direct television costs and a calculated portion of CBC common costs. The CBC TV networks operate as commercial services for parts of each broadcast day.
2. "Grant" amount shown is net cost to taxpayers, based on calculated television share of total CBC parliamentary grant of $ 166,000,000 less commercial television revenues of $ 42,850,000.

   Source: *CBC/Société Radio-Canada Annual Report, 1970-1971.*
3. Source: *BBC Handbook, 1972*, p. 210.
4. NHK operates both radio and television services. Budget amount shown is calculated television portion of total NHK 1971/72 budget of $ 372,190,000.

   Source: *NHK Handbook, 1971*, p.33.
5. Source: *FCC Release, May 12, 1972.*
6. Source: *FCC Annual Report, Fiscal Year 1971.*
7. Source: Corporation for Public Broadcasting.
8. Appropriation is for the support of public *broadcasting*, including both radio and television.

> diet for mind and spirit ... is pellagra. It is the business of educational television to cast its bread upon the waters, hoping that it will return after many days. It must be satisfied to play *for* time, not to be dictated to *by* time.

Another basic assumption which underlies our approach to the kind of national PTV service which is needed (and thus to how much it will cost) is that a large measure of local independence and control are desirable policy objectives. To meet the diverse needs of communities and population groups across the nation, instead of attempting to appeal to the broadest possible mass audience, public television needs to program, as we have noted, with special attention to minority preferences of all kinds.

Again the case has been well made by Charles Siepmann, and also by John Fischer, former editor of *Harper's* magazine. Siepmann had this to say on the subject:

> Great as are its advantages, I believe that centralization is the one thing to avoid in setting up an educational network .... Institutions are no better and no worse than the men composing them, and the risk of monopoly is the human frailty and limitations of the man, or men, at the controls. In a world of imperfect men -- and in broadcasting, particularly, which merchandises ideas and values -- the risk of concentrated power is too great to take. No man combines the degree of trained intelligence, of leadership, initiative, and organizing ability that network broadcasting requires.

And Fischer, speaking of the former NET, adds:

> In the long run, however, I think it would be a pity if NET were to remain the sole dominant factor in ETV production. That would mean that the ideas of a relatively few people in NET headquarters would determine what sort of programming was done by all ETV stations .... However good, broadminded, and impartial these people may be, such a concentration of power would tend to create uniformity rather than diversity.

However, it should be quickly added -- and this point bears underscoring -- that these comments do *not* argue against a national service. They argue for diversity and flexibility, which in the long run means achieving a balance between strong and effective national programming and equally strong and effective regional and local programming. Achieving such a balance is the essence of the policy decision now facing the nation, and we believe that a satisfactory balance point can only be reached by a new scale of funding at all levels.

If there has been a trend towards "centralization," it seems clear to us from conversations with a variety of station managers that the primary reason has been one of financial necessity rather than design. At present stations can, and occasionally do, decide not to carry a particular program provided by the national service. In reality, however, most carry nearly all that is offered through PBS because little else is available from other

sources at costs which the stations can afford. With local programming severely limited by budgets, and with other "outside" materials too expensive to purchase, a station manager who does not want to use a PBS-supplied program has but one realistic alternative: a shorter broadcast day.

The Corporation for Public Broadcasting has estimated that about one-fourth of all programming carried by PTV stations is locally originated. However, it appears that much of this is actually instructional television intended for classroom use and carried during the daytime. An examination of station logs reveals that the overwhelming volume of prime time (6:30 to 10:30 pm) programming is provided by the national service.

That a major share of prime-time PTV programming will continue to come through a national service, and should continue to be so provided, is a proposition with which few will disagree. Only through such a service can PTV provide programs of exceptional quality which, for lack of funds or locally available resources, individual stations themselves cannot produce.

Furthermore, there are *national* resources which need to be shared with all Americans. There is a national heritage which belongs to all the people, and there are national and international problems, policies, and decisions which demand the widest possible understanding and participation. A national service planned by, for, and with the stations it serves is the cornerstone upon which rests the entire public television structure. Without it, local public television (but not necessarily ITV) would probably collapse in all but a few isolated cases.

The argument for investment in a national program service from a cost/effectiveness point of view is equally persuasive. As we have already noted, if the entire 1971 CPB budget for program production were divided evenly among 200 stations for local production, it would provide for approximately *15 hours per station per year* at a modest $5,000 per hour, the cost of a starkly simple panel discussion. In short, *a dollar spent on a national service will raise quality a great deal higher for more audiences than the same dollar divided among stations for local programming.*

Regional programming, that significant resource once hailed as "the most promising development since the inauguration of ETV" (in the US Office of Education report, *ETV: The Next Ten Years*), has largely been overlooked or brushed aside in most projections of PTV needs and costs. But the growth of this form of programming, and its increasing importance in many station schedules, requires that it be considered as a key element in any plans for a truly balanced nationwide public television service.

There are at present five "regional" networks and nine state networks. They range from the extensive Eastern Educational Television Network (EEN) with its 32 member stations to state networks of four or five stations as in New Hampshire and Georgia. In the case of these regional networks, there are sometimes several primary production stations although in many of the state networks the system is fed by programs originated at one central source.

There are a number of arguments which support the regional programming approach, including the following:

(a) Independent regional operations complement national services by assuring diversity rather than conformity in program control, initiative, and creative production.
(b) Coverage of issues which are regional in nature is equally as important as coverage of national and strictly local issues, and such coverage is most effectively achieved through regional cooperation.
(c) The educational and cultural resources of the nation, unlike commercial television talent and resources, are not confined to one or two cities but are for the most part clustered around key regional centers.
(d) The financial strength of PTV is enhanced because regional network production shared by several stations is less expensive than individual local programming.
(e) Regional production introduces a highly desirable -- independent -- yardstick by which to measure national programming efforts.

There seems to us to be a strong case for both national and regional programming. But clearly, national and regional programming alone are not enough if PTV is to fulfill a vital public service role in a nation as diverse and with as many varied interests and needs as there are to be found in the 50 states. Strong local program services are essential, but it has been development of this local programming that has suffered most from the financial constraints under which public television has operated since its inception in 1953.

According to statistics compiled by CPB, the average PTV station now produces roughly 4.5 hours of local programs per week, exclusive of instructional programming. This doesn't mean, of course, that each station produces 4.5 hours. Some, especially the larger community stations, produce more whereas others originate no programming at all.

Two additional points need to be made with respect to local programming. In the first place, there is reason to believe -- after checking with representative stations -- that the number of hours has dropped in the past couple of years as a result of station financial belt tightening. Secondly, there is evidence visible on television sets across the country that much of this local programming consists of rockbottom budget production, often simple "talk" shows displaying little, if any, attempt to use television as a visual medium.

As a consequence, the service concept from which we approach the projection of costs contains as its major element the strengthening and improving of local program production. Although we have already argued that production by a large number of local stations is expensive on a nationwide scale, we believe that a significant increase in the quantity and quality, especially quality, of local programming is essential to provide the level of balanced program service which should be the national objective.

As we said at the outset, our approach to the cost projections which follow concerns itself with the *service* and not the vehicle by which it is delivered. How the program reaches the viewer is important only to the extent that the most effective and cost/efficient possible means be used.

It is clear that in the next decade cable television will grow in importance and will have a profound impact on the provision of television service of all kinds. Further, as we have already indicated, home video playback devices, and perhaps even direct reception from satellites in the more distant future, are likely to influence the shape and size of whatever public television system exists in five or ten years.

Given these considerations, the concept of a nationwide network of broadcast stations linked by an elaborate interconnection system may be neither realistic nor economical. Already the compulsion to "fill in the gaps" (in the map of PTV coverage of the United States) has resulted in new stations coming on the air in areas where they largely duplicate the coverage of existing PTV stations and where there are few or no community resources, financial or program, to support the operation.

What is required for a rational judgment -- and on this point there is virtually unanimous agreement ranging from Members of Congress to station managers -- is a national "master plan" which will establish guidelines for determining and implementing the most economical and effective method of providing a public television service to the greatest number of citizens in any given locality.

It is probable that such a study would demonstrate that the establishment of more new stations, or even the broadcast mode of operation, is not the most effective way of reaching many of the communities now without PTV service. In fact, it might well show that some stations now struggling to remain alive are not economically or socially justifiable in terms of their costs and services. Certainly until there is such a plan, it would seem sensible to place strict limits on the number of new stations which will be supported by federal funds and attempt to control the apparently aimless expansion which has characterized much of the growth to date.

OPERATING COST ESTIMATE

Based on the considerations and assumptions set forth in the preceeding pages, we conclude that a *minimum* national program service consisting of at least 24 hours of new programming per week, exclusive of "repeats" and daytime children's programming, is desirable. In addition, the cost projections which follow provide for an average of approximately 6 hours of quality local and regional programming, to be encouraged by direct national support to stations and regional production units.

Such a "package" would, we believe, provide a balance in program offerings, would encourage diversification in production and control, and would give individual station managers the variety and flexibility they require to

respond more effectively to the needs of their own communities and audiences. Additional provisions which would not affect the overall cost estimates might well enhance balance, diversity, and responsiveness to local realities. Stations might, for instance, be limited to the use of a given proportion, say 75 percent, of the national program service. Subscription fees might be established for the national service, scaled to produce, as an example, sufficient funds to support the public affairs portion of the service. Such a provision would tend to remove, at least by one step, control of the vital public affairs area from the appropriations process, and it would also help to insure responsiveness to local needs and wishes.

Given these priorities, and the background provided in Chapter 2 on current sources of funding, what would be the total national bill for a *minimum* nationwide public television service of the kind contemplated? The figures in Table 17 on the next page attempt to arrive at a rough estimate of the probable costs. *It is significant that these operating costs would average about $ 2.07 per person, certainly low when compared to the per capita expenditures of the other nations listed in Table 16.*

A few comments may help to give perspective to the figures in Table 17. Perhaps the first point of significance is clear: An entirely new level of funding is required if public television is to achieve even its minimum potential of service to the American people. Further, this funding is needed at all levels - local, regional and national - if a balanced service responsive to diverse audience needs is to be provided.

Moreover, the estimates contained in Table 17 represent the kind of funding which would be required for a minimum service consisting of approximately the following mixture of national, regional, and local original prime-time production (excluding "repeats"):

National Service	-	24 hours per week
Regional Service	-	2 hours per week
Local Service	-	4 to 8 hours per week

It is assumed that stations would have the option of selecting up to about 18 hours per week from the national service without the payment of additional fees. They would then fill the remainder of their prime-time hours (6:30 to 10:30 pm) with regional and local production (6 hours per week) and with another 4 hours of "repeats" in much the same pattern as at present. In addition, the national service would be expected to provide approximately 12 hours of children's programs per week for daytime viewing by younger children.

The total operating cost figure of $ 432 million in Table 17 is an all-inclusive one representing all facets of the service. Perhaps more important is the basic incremental cost representing the *additional* annual funding required -- $ 266 million -- to bring all program services up to a minimum standard.

We have made two separate and inconclusive attempts to determine the stations' current actual costs for local programming. A random

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Table 17. Total Annual Minimum Operating Cost, National PTV Service

Service	Cost
1. National Program Service	
a) Daytime Children's Programming, Regular Season 12 hours/week, 39 weeks/year @ $ 54,000/hour average	$ 25,272,000
b) Prime-time Programming, Regular Season 24 hours/week, 39 weeks/year, subdivided as follows:	
- Programming for Older Children and Teens 6 hours/week @ $ 80,000/hour average	18,720,000
- Music, Drama, Performance, & Criticism 8 hours/week @ $ 70,000/hour average	21,840,000
- Public Affairs Programming 6 hours/week @ $ 74,000/hour average	17,316,000
- Special Programming and Special Events Coverage 4 hours/week @ $ 100,000/hour average	15,600,000
c) Summer Programming Assume primarily re-runs, but with some new public affairs production and special events coverage. 13 weeks @ 50 % regular season rate	16,458,000
[Total, National Program Service]	[115,206,000]
2. Regional Program Services	
To stimulate regional production. Assume 10 regional production operations 2 hours/week, 39 weeks/year @ $ 25,000/hour	19,500,000
3. Local Program Services	
a) To maintain current services Total PTV Station Expenditures, Fiscal Year 1971*	142,838,000*
b) To upgrade local programming Assume 160 stations engaged in production 4 hours/week, 39 weeks/year @ 5,000/hour	124,800,000
[Total, Local Program Services]	[267,638,000]
4. Innovation Support	
To develop new sources of programs, and to experiment in new production techniques, etc.	8,000,000
5. Interconnection	
Assume expansion of the current system to include new stations	12,000,000
6. Non-broadcast Activities	
Administration, promotion, research, etc.	9,500,000
Estimated Total Annual Minimum Operating Cost	$ 431,844,000
Less: Total Unduplicated PTV System Revenues Fiscal Year 1971	165,632,000
NET MINIMUM INCREMENT IN ANNUAL OPERATING COST	$ 266,212,000

Note: * Total PTV Station Expenditures provide a realistic *approximation* of current local programming costs. Stations reported Direct Operating Costs of $ 113,242,000 in FY 1971. The total figure used here includes some funds for capital purchases and national production to offset the fact that in few cases do stations include depreciation in Operations.

sample of 25 stations produced an average cost of well under $ 2,500 per hour for their local programs. Detailed analysis of the records of some of the larger stations indicated that their average costs are over $ 5,000 per hour. The differences result mainly from the fact that many stations do not include overhead (indirect costs) in their per hour operating figures. In order to control for these differences in accounting in our local program services estimate, we have included total station expenditures as an approximation of the actual costs of the approximately 4.5 hours per week currently being produced, with the capital and national production portions of those total expenditures making some allowance for unreported indirect costs.

It should also be noted that although we have calculated the cost of upgrading local program services in terms of hours of production, this is not to suggest that stations would automatically produce an additional 4 hours per week of local programming. The first priority must be to upgrade the *quality* of local programming. In most cases the $ 5,000 per hour provided in our estimate should be used to improve their current productions, although some stations may be able to increase their local programming hours. This would depend on the amount and quality of a station's current local production, its production resources, and the level of facilities utilization.

In considering these cost estimates for local production, two additional bits of information are pertinent. First, the BBC charges the "Open University" $ 20,000 per hour for broadcast services, exclusive of salaries for teaching and other instructional personnel. Second, an extensive cost study of "Educational Media Systems and their Components" by the General Learning Corporation in 1968 placed the cost of "good quality" materials at approximately $ 2,000 per 20 minutes ($ 6,000 per hour).

The total of 160 producing stations is based on the number of "licensees" (139) operating the 224 stations already on the air plus the assumption that there would be about 20 more producing stations (largely in the bigger cities still without PTV) among the additional 30 to 50 stations to come on the air.

Funds for regional production would need to flow through some national organization such as CPB or PBS. Such support could, for example, be made available to any group of stations, say five or more, which wanted to cooperate on a series of programs whether or not the stations happened to belong to a formal network organization.

Finally, it needs to be pointed out that the projected costs do *not* include public radio which *is* important and which will require separate funding. Nor do they provide for any expansion or improvement in instructional television, the assumption being that funds for that purpose will come from other sources directly related to the uses to which such programs are put.

It has been suggested that it would be helpful if the items in the minimum "budget" were put in priority order, or if a long - range plan for financing were developed showing moves by stages to the total level of funding suggested. Given the services needed at all levels, however, it

is virtually impossible to say that one is more important than another. Further, we do not believe it is within the scope of this paper to suggest how funding should be accomplished; we have merely tried to assess the needs for the service outlined and to develop a realistic cost estimate.

But budget decisions require a tough look at alternatives. For that reason, therefore, and for whatever value they may have, our own order of priorities would probably be as follows:

PHASE I

1. Local station support - approximately 1/3 the minimum amount suggested in Table 17.
2. Regional production - 1/2 of the total shown. (This represents a cost/efficient resource which has not been developed nearly to its potential.)
3. National programming - 1/4 to 1/3 the increment suggested, mostly for children's programming.
4. Interconnection and other support - at about the same fractions.

PHASE II

1. Local station support - an additional 1/3 (to 2/3 suggested total).
2. Regional production - full funding suggested.
3. National programming - an additional 1/3 (to 2/3).
4. Innovation support - full funding.
5. Interconnection - full funding.

PHASE III

Addition of remaining amounts necessary to provide the minimum basic service at all levels.

CAPITAL COST ESTIMATE

A good many projections of the basic capital requirements of a national PTV system have been made over the years. The range of these estimates -- from a high of $621 million by the Carnegie Commission to low of $155 million by NAEB -- should emphasize the difficulty encountered in trying to arrive at a reliable figure. This range is dramatically shown in the table below.

Table 18. Nationwide PTV System Capital Cost Estimates, 1966-1972

Year	Source	Stations	Amount
1966	NAEB/ETS Report	364	$ 392 million over 5 years
1967	Carnegie Commission	380	$ 621 million (See Table 15)
1969	HEW-USOE Staff Report	380	$ 177 million over 5 years
1970	CPB Memo (October)	339	$ 270 million over 5 years
1970	NAEB Memo (November)	300	$ 155 million over 10 years
1972	CPB Staff Report	340	$ 540 million over 5 years

At the end of the 1971 fiscal year, CPB reported that total cumulative expenditures by PTV stations for capital were approximately $ 211 million. Federal support, largely through the Educational Broadcasting Facilities Act administered by HEW/USOE, has accounted for over $ 67 million of this total.

An area of immediate concern -- in our opinion more critical at this time than provisions for new stations -- is that a considerable number of stations currently on the air are operating with obsolete equipment, some of it in imminent danger of breaking down completely. Many are without color origination or transmission capability, and some still are using equipment purchased when the stations first went on the air in the 1950's. Financial constraints have not allowed stations to make replacements, much less to take advantage of technological advances.

Accordingly, we believe that the emphasis should now shift from bringing new stations on the air to upgrading and modernizing those already broadcasting. Certainly the haphazard growth which has characterized the field to date should be brought into some reasonable order.

We have suggested a leveling off of the number of stations at the 255 to 275 level, with these stations supplemented by perhaps 50 to 75 additional "repeater" transmitters. Given the potential impact of new technologies, we are convinced that such a limitation makes sense in terms of the allocation of national resources. Moreover, if a national "master plan" is adopted, we assume that it would reserve most of the new activations (exclusive of repeaters) for the approximately 18 communities of more than half a million now without PTV service.

Realistically, the only way to arrive at a firm estimate of capital requirements is to conduct a survey of all stations and of all communities planning stations. This has now been done by CPB. We have not, however, been able to examine the requests in sufficient detail to be confident of their validity. Predictably, each station sent in its entire "Santa Claus" list, so a hard look needs to be taken at each single request to determine basic needs. In the absence of such a detailed analysis, we are hesitant to accept any estimates or to develop even rough figures of our own. Faced with the need for some estimate -- however rough -- and based on the information at hand, we suggest the following "ball park" figures.

Table 19. Capital Cost Estimate

Expenditure grouping	Range of expenditure
New Station Activations 30 to 50 new stations @ $ 1,500,000 average	$ 45 to 75 million
"Repeater" Stations 50 to 75 installations @ $ 250,000 average	$ 12.5 to 16.8 million
Existing Stations Expansions and improvements (Based on USOE applications plus additional needs reported by stations)	$ 180 to 255 million
TOTAL	$ 237.5 to 346.8 million

Again, it needs to be emphasized that these estimates do not include public radio. HEW estimates the needs for capital expenditures for public radio at approximately $ 13 million for both new stations and expansions and improvements of existing ones.

Two problems remain: that of providing for annual depreciation costs, and that of finding a method for handling initial capital needs while preventing (or discouraging) duplication, overlapping of services, and the creation of unnecessarily elaborate facilities just because the federal government is providing the funding. We think the latter *has* been a problem in the past. There are a good many PTV stations on the air today which have little or no economic or service justification and there are some whose facilities are used so seldom as hardly to justify the expenditures.

But first to the annual depreciation question: past experience clearly demonstrates the necessity for building into any PTV capital grant program some requirement that stations set up an adequate capital depreciation plan. Otherwise, the system is almost certain to find itself in 10 to 20 years in exactly the same predicament as at present: with an obsolete and inefficient physical plant, and with no means (except the federal government) of bringing it up to date.

While a maximum of local control and flexibility and a minimum of federal requirements are desirable objectives, common sense makes necessary some provisions which will assure an adequate capital depreciation system. Such provisions should not be difficult to write into federal grant programs. Although modest, the station program grants which we have proposed will help to meet these annual depreciation charges.

Now as to a method for meeting initial capital needs, both for establishing new stations and for modernizing those now on the air. The most direct method, of course, would be an extension and expansion of the current Educational Broadcasting Facilities program. There are advantages to this approach in that it is directly responsive to station needs, requires local matching (although we think these requirements could be tightened up), and can be handled with a minimum of rules and regulations.

Another suggestion which has been made is the "development loan bank" approach. Such a plan would have the federal government create in effect a development loan bank similar to those from which loans to foreign governments and agencies are made. Both grants and loans would then be made directly to PTV stations and would-be stations, with the loans made at considerably less than normal interest rates.

The aspect of this approach which appeals to us is the built-in control it would provide over wholesale and uneconomical expansion prompted by the availability of federal grants. If a station or community knew it would have to repay some part of the total cost, even at low interest rates, it would be less inclined to overexpand or to begin a new service duplicating an existing one.

In this chapter we have tried to take a careful and realistic look at the probable costs of an effective nationwide public television service. We have emphasized the service to be provided and not the number and type of stations, the kind of interconnection, etc. The latter have relevance only insofar as they stem from the service which is contemplated.

Without attempting to assess any of the political arguments which now swirl about the field of public television or to join the national debate which seems to be dividing the field into hostile camps, we have concluded that public television's main thrust should be to serve special and minority needs (intellectual, ethnic, age, regional, etc.) rather than to attempt to appeal to the mass audience which is the province of commercial television. Further, as a consequence of this objective, we believe that there needs to be a maximum of local flexibility and control, with a balanced program "package" consisting of high quality national, regional, and local programming.

Based upon these considerations, a close look at the situation today clearly shows that the local and regional components are sadly lagging in terms of effectiveness and in terms of the overall goal of program balance. For the most part, the local stations simply have not had the financial resources to produce even enough minimum quality programming to be able to exercise choice in the selection of national programming to be broadcast.

To provide at least a start toward such a basic service -- local, regional, and national -- a minimum budget has been suggested. Although this budget represents a new "order of magnitude" for the nation's public television service, it remains far under what other major nations are spending and represents a modest per capita expenditure for this country.

4. Funding

The problem of devising a method of financing for a nationwide public television service can be dealt with in two parts: the method for raising revenues, and the method for distributing funds among the components of the system.

SOURCES OF SUPPORT

Funding for public television ideally should be *adequate* to the need, *long-term* to permit planning ahead, and *free from any control* by specific donors over the content of programs. With these requirements in mind, let us examine the most commonly suggested sources of funding.

1. The Private Sector

These contributions come, for the most part, from:

(a) Subscribers and other individuals,

(b) Community fund-raising projects, including auctions,

(c) Business and industry, and

(d) Foundations.

(a) Subscribers and other individuals

In 1971 these sources contributed $ 8.4 million to PTV station budgets, an increase of 24.9 percent over 1970. In a few cases their contributions represented a substantial part of a station's income. For example, the PTV station in San Francisco has more than 54,000 subscribing members at rates ranging from $ 10 (for students) up; the station in Boston has over 50,000 subscribers. However, for the

most part it is the large community stations that benefit from individual membership or subscription as a funding device; other types of stations have in the past made relatively little use of it, although more are beginning to do so.

Obviously this is a preferred source of income. It makes a station directly responsible for support to the people it serves. Although subject to change resulting from economic fluctuations and other factors, such funding is not subject to one single annual appropriation nor likely to be cut off suddenly by a political decision.

The question is whether this source of funding can be increased substantially over the 6.0 percent of station budgets it represented in 1971. Certainly the rate of increase has been slow, and has not kept pace with the expansion needs of public television.

Studies of subscribers to a number of PTV stations have indicated that a person's status, rather than his use or appreciation of a station, tends to determine whether he will contribute. Subscribers typically have been highly-educated members of the upper middle class. They represent only a tiny fraction of the station audience and they tend to watch PTV on the average only slightly more than non-subscribers. Americans simply are not accustomed to paying for broadcast television. Those who do subscribe apparently do so out of a sense of community responsibility -- because this is something they feel they *should* support -- and therefore the link between station performance and individual contributions has not held for a majority of the audience.

Since subscription revenue has increased slowly in recent years at the large community stations, it has appeared that individual contributions might be approaching the saturation point, or at least the point where the cost of adding new subscribers would almost equal the revenue gained. However, the stations themselves point out that even at average costs of $ 9 each for attracting new subscribers, subscription fund raising is profitable. The limiting factor appears to be the amount of money which the station is *able* to allocate for fund-raising projects, given the constant demands for programming funds. Recently a new effort has begun, involving four stations in an attempt to refine strategies for attracting new subscribers to PTV, which may eventually help many stations increase their levels of individual support.

Nevertheless, there seems to be little chance even for metropolitan community stations to get a large part of their costs back from this source. It may be possible for stations owned by universities, municipalities, state governments, and school systems (Denver now receives about $ 100,000 from individuals) to seek subscribers and thus enlarge their own sources of support. However, in some cases this would require changes in stations' legislative mandates, and in most cases the number of potential subscribers is not especially large.

(b) Community fund-raising projects, including auctions

Auctions, in which viewers bid by telephone for donated articles and services (everything from a basket full of groceries to an African safari) which are displayed and sold over the air with all proceeds going to the station, have contributed significantly to revenues, especially in the last five years. A few community stations each raise in the neighborhood of half a million dollars in this manner. Auctions and other community campaigns provided 2.6 percent of station revenue in 1969, 3.3 percent ($ 3.4 million) in 1970, and 2.7 percent ($ 3.9 million) in 1971. This contribution can doubtless be increased further as more and more stations adopt aggressive fund-raising tactics. However, there is little likelihood that the increase will bulk large in the total PTV requirements, particularly since the FCC has given some signs that it may be about to put constraints on these activities. And there is the additional consideration that auctions seriously tax station staff energies and volunteer support.

(c) Donations from business and industry

These donations provided about 4.5 percent of all station support in 1971, amounting to $ 6.4 million. Approximately half of this support took the form of "underwriting" grants toward the production, acquisition, and/or transmission costs of particular programs. Underwriting accounted for $ 2.5 million (2.4 percent of total revenues) in 1970, and $ 3.3 million (2.3 percent) in 1971.

The extent to which business and industry can be expected to increase their donations is not clear. Although the dollar amounts contributed have risen, the percent of total revenues remains about the same and it is difficult to predict how much, if any, this support can be increased beyond the current 4.5 percent of total income.

It should also be noted that donors are much more likely to underwrite the costs of prestige programs of a non-local origin *(Civilisation, Sesame Street, Masterpiece Theatre, Firing Line, etc.)* than to support a station's effort in producing a local series or acquiring relatively untried programs from elsewhere. Therefore, while grants of this type represent an important contribution to operating expenses, they usually do not contribute to a station's greatest need: funds for local programming of high quality.

(d) Grants from Foundations

These grants have been essential to the growth of public television. As we have indicated, the Ford Foundation has carried a large share of national programming expenses for 15 years and, before the Educational Broadcasting Facilities Act, a large share of the contributions to station facilities and equipment. In 1971, total foundation grants were $ 15.9 million, a little over 11 percent of total revenues.

There is little likelihood of increasing this support dramatically. Foundations are facing new rules and a new tax on their income, and have long preferred to operate on the strategy of providing "seed" money for developments which will, if successful, be progressively financed from other sources of income. Although foundation support increased from 8.2 to 11.2 percent of total station revenues from 1970 to 1971, the implication is that stations should count on it for help with innovations rather than for general support.

Up to this point we have been talking about sources that presently represent a little over 24 percent of total station income. It is a highly desirable type of income, to be sure. If total station costs, with the exception perhaps of ITV services, could be paid for in this way, it would be a healthy situation for public television. Much of this kind of income now goes to community stations, although there is some hope that local contributions may come to bulk larger in the budgets of other types of stations too. But very few observers or station managers are confident that any forseeable increase in this source of income will be proportionate to the increasing needs of the stations. The most hopeful area is that of individual subscriptions and contributions, but if these are to increase in any substantial way there will have to be a change of attitude on the part of most Americans towards the idea of "paying" for television.

2. State and Local Tax Support

Under this heading we are talking about just over half of the total support for public television stations at the present time. In 1971 for example, about 14.2 percent of total PTV station revenues came from school systems, 32.9 percent from state boards of education and other state agencies, and 6.2 percent from state universities. The total was $ 75.7 million, representing the bulk of support for all except the community stations.

This kind of support illustrates why school, state university, and state network stations are somewhat less stable financially than are community stations, and also why they tend to grow less swiftly than community stations in the field of general programming. School systems and municipal agencies are more likely to be willing to pay for measurable educational services than for general cultural services. Consequently, they are more likely to support instructional television more heavily than general programming for public television audiences. If a school system owns its own station, it is more likely to keep that station broadcasting to its classrooms than is a school system which pays a fee to a community station for a certain number of hours of instructional television. School boards, city councils, state legislatures, and boards of trustees of state universities are likely to be sensitive, and in some cases responsive, to the political

complaints sometimes generated against public service programming. Non-community stations, therefore, have usually been less daring than community stations in public affairs programming, and community stations have been the first to feel in their local ITV grants the displeasure of elected boards with some of their non-ITV programming.

Although the dollar amount increased 26 percent from 1970 to 1971, the proportion of the total PTV outlay fell from 58.0 to 53.3 percent. The 1966 share was 57.2 percent.

Can this source of support be substantially expanded? The general outlook is that it will continue to expand slowly and gradually, but that it will be inadequate, without considerable help, either to meet the need for coverage expansion or the rehabilitation of existing facilities and equipment. It will not contribute greatly to the cost of improving local PTV programming. Nor will it contribute in any large degree to improving the situation of community stations, especially as school stations are established to take over the delivery of ITV programming from community stations presently providing that service.

3. Revenue-producing Operations

A number of schemes have been advanced for using the facilities of public television stations to generate commercial revenue as a substitute for or supplement to other income, notably tax money. Attractive as these possibilities seem, each suggestion of this kind has certain serious defects or limitations.

(a) Commercial advertising on PTV

It is argued that the step from an "acknowledgement" of a grant from industry or business in support of a program to an actual "commercial" for the donor is a very small one, and that taking such a step represents a way in which PTV stations might generate their own income and eventually be able to pay all or most of their own way. Although the change in what appears on the screen might be minimal, it is an incredibly long step in terms of the nature and purpose of public television.

For one thing, such a change in policy would require the FCC at once to review the terms of PTV licenses and the reservation of PTV channels. It would face strong opposition from commercial stations and networks. More importantly, it would make a fundamental difference to PTV itself. It would require PTV to *compete* in the ratings market for large audiences in order to attract advertisers. This is contrary to the concept of PTV which we have tried to outline: a service focusing mostly on specialized audiences and specialized local needs and interests. It would be conceivable, of course, to think of a system of commercial stations owned by non-profit organizations, devoting a number of daytime hours to ITV and being able to afford to carry a few programs like "Civilisation" and "Sesame Street" that ordinarily do not appear on commercial stations. However, even if

there were no legal objections and no opposition from Congress, it seems too big a price for PTV to pay, because the differences between public and commercial television would very probably fade out and there would soon be no alternative service.

(b) Revenue from satellite operations

This was the proposal of the Ford Foundation in 1966: that a domestic satellite or satellites be launched to distribute both commercial and public television throughout the United States, and that a certain proportion of the profits from the satellite operations be used in support of PTV.

A domestic satellite system will doubtless be available within a few years, and the idea of distributing television programs by means of it to local stations is attractive to the networks. However, the creation of a separate corporation to manage such a space link and to pay some of its profits into PTV is even less likely now than in 1966.

(c) "Production house" operations

It is argued that independent production companies are establishing studios to provide facilities or to make programs and advertisements for commercial broadcasters while at the same time many PTV production facilities stand idle. Why not take in a little business and plow the profits back into PTV programming?

Apart from the tax implications for PTV stations, which are non-profit corporations or parts of public institutions, the area is not very attractive to PTV broadcasters. They are not staffed to do this kind of work, and "production house" operations, if not kept separate, might interfere with PTV production schedules. The profit margins, for organizations not specifically set up to do this kind of work, would probably not be large anyway.

(d) Non-broadcast operations

One revenue-producing scheme which does appear to have some limited potential for offsetting PTV costs is the operation of non-broadcast divisions or affiliated non-profit corporations. Although the "Sesame Street" and "Electric Company" programming has been widely praised,

the initiative of the Children's Television Workshop in augmenting its income with revenue from the sale of educational products is often overlooked. CTW expects net income of $ 1.9 million from its non-broadcast division by 1973, and although not all stations in the PTV system have CTW's potential market, this is an approach which deserves consideration. Currently one local effort, Philadelphia's *Mynah* project, is taking the approach of fund-raising through an affiliated non-broadcast corporation.

(e) "Pay TV"

Direct payment for television services may well be in the future of public television. It is probable that payment for some television services -- sports, new movies, drama -- may be linked closely to the development of Community Antenna Television (CATV) systems on cable. If so, it is wholly probable that adult education courses, home study work towards degrees, and perhaps some special cultural programs will be paid for by users in this way. Much of this programming probably will be produced by PTV stations. This might contribute substantially to PTV's income. And if, as many observers anticipate, the public television broadcaster 15 years from now will be concerned chiefly with programs rather than with broadcasting them, then this source of income may become quite significant indeed.

However, the development we are talking about seems to belong to the 1980's rather than to the present decade. It is difficult to anticipate the pace of technological change, and the prospects of Cable and Pay-TV are likely to be much more interesting to public television stations five or ten years hence than they are at present. But there seems to be no immediate likelihood of much addition to station income from this source in the next five years.

To sum up, then, the possibilities of partly commercial operations do not seem to hold out a greal deal of promise for significantly improving the financial health of public television in the immediate future.

4. Dedicated Tax Revenue

Almost everyone who has thought about the financing of public television has lingered for awhile over the idea of a trust fund, into which dedicated revenue could be paid, and which would be available to public television without annual appropriation or political control. Thus it would be long-term, it would be free from political strings, and the revenue could be adjusted to make the fund adequate to the need.

Many of the national non-commercial, or partly-commercial, television systems of the world (the BBC, for example) are financed in such a manner out of receiver license fees. This was the general

intent of the 1966 Ford proposal, which would have assigned to public television a certain proportion of the revenue from domestic satellite operations, and this was what the Carnegie Commission had in mind when, in its 1967 report, it proposed a manufacturer's tax on television receiving sets.

There are two serious problems connected with such a trust fund. One is finding the source of money for the fund. The other is the principle of public finance that holds that the expenditure of public funds should be subject to legislative and administrative review at regular intervals.

Considering the first of these problems, it is well to try to specify the criteria which the source for such a trust fund should meet. The tax system, it appears, should have five characteristics:

(a) There should be a clear link between those taxed and those who benefit. For example, a tax on gasoline purchases to be used for highway construction has that kind of link.

(b) The tax should be practical and easy to administer. For example, it should be a percentage of proceeds or a fixed fee per unit, rather than something as complex as a personal income tax.

(c) The tax should be capable of generating the required level of funding without serious inconvenience to the persons paying it.

(d) The tax should not impose an excessive burden on any sector of the populace.

(e) The tax proposed should be politically acceptable.

With these requirements in mind, let us review some of the most promising sources of tax revenue for a PTV trust fund.

(a) Receiver license fees for households able to receive public television

As we have said, this is a common device in many parts of the world. A study by Arthur D. Little, Inc. in 1970 estimated that an annual fee of approximately $ 4.50 per TV household within PTV coverage areas would have generated enough revenue to finance a PTV system. If households with an annual income of less than $ 4,000 were excluded from these license fees, the required amount could have been raised by charging approximately $ 9 per year. However, the study pointed out a number of arguments against such a plan, and it is easy to add more.

For one thing, it probably would meet immediate opposition from the American public, which is not used to paying for television. Again, the fee would be charged without differentiation between those

who view PTV and those who do not. It would also be extremely evasion-prone. Experience in other countries indicates that to undertake collection of such a new tax would be impractical because of the high cost of enforcement relative to the return.

(b) Manufacturer's excise tax on television receivers

This tax was first suggested several years ago when the number of color television sets was still very small, and a great amount of receiver replacement was anticipated. This suggests one difficulty with such a tax -- that the income is likely to be unstable, high when new technology comes on the market, low at other times. However, it would be a simple tax to collect. Evasion would be difficult, and it would be collected from so relatively few organizations that it could be easily enforced. The serious difficulties are of other kinds.

In the first place, there is not a very satisfactory link between the manufacturer of the set or the purchaser (to whom the tax would probably be passed along) and the persons who would benefit from PTV. In many communities, 25 percent of all television viewers say they never watch PTV, and the amount of viewing of PTV is only a small part of all TV viewing. Furthermore, if the tax were passed on to the purchasers of receivers, it might be argued that the additional cost, though seemingly small, would be sufficient to keep a certain number of disadvantaged families from having television, and thus the possibility of enriching the lives of the poor and the disadvantaged by means of television would be lost. Finally, it is likely that both manufacturers and consumer groups would resist the tax.

Nevertheless, as the Carnegie Commission noted, this particular form of tax may be the most palatable one if it is decided to try to create a trust fund from dedicated revenues. (That Commission recommended an excise tax beginning at 2 and rising to 5 percent of set cost.)

(c) A tax on broadcasting or telecommunications

Among the taxes suggested which fall under this heading are:

(i) license fees to be collected by the FCC from commercial users of frequencies in the broadcast spectrum,

(ii) taxes on long distance communication licensees -- including long line telephone and telegraph services,

(iii) a tax on all commercial broadcasting revenue, and

(iv) a tax on the *profits* of commercial broadcasting.

It is evident that all these sources fail to provide a direct link from those taxed to those benefiting thereby; they are much less defensible in this respect than the highway tax on gasoline, for example.

If a case can be made for higher license fees to be paid by commercial users of the spectrum, the obvious use of the revenue from this tax would be to support the FCC itself, rather than non-commercial users. Users of telephone and telegraph services might justifiably complain at being taxed to pay for public television.

It should be pointed out that these tax schemes appear to have been proposed as methods for establishing a trust fund relatively free from political control rather than as means for taxing those who should support public television.

It is not the purpose of this paper to pass final judgments on the funding schemes which have been proposed, but despite the attractiveness of these sources of dedicated funds, most of the suggestions seem "politically" unrealistic at the present time. The most palatable is the tax on manufactured television sets, and this -- as we have seen -- has a number of drawbacks and also has to face the major objection to all dedicated taxes, the insulation from review and control provided by the trust fund structure.

5. Federal General Revenue Funds

The most realistic road to more nearly adequate funding at the moment appears to be the kind of appropriations authorized within the Public Broadcasting Act and the Educational Broadcasting Facilities Act, through which in 1971-72 $ 35 million per annum was going to the Corporation for Public Broadcasting (and a part of that through CPB to local stations) and $ 11 million was going to HEW for grants to stations for equipment and facilities.

To put this possibility in perspective, let us sum up the situation with respect to the other possible sources of funding we have discussed.

Contributions from individuals, business, and industry

- now going mainly to community stations,
- total likely to increase as stations decide to or are able to step up fund-raising activities, but
- unlikely to cover a much larger proportion of station costs than at present.

Foundations

- unlikely to play a much increased role in the financing of PTV.

Support for school systems and government below the federal level

- will contribute chiefly to school, municipality, state, and state university stations,

- will contribute chiefly to instructional and official services, rather than to general "public television" programming,
- support from school systems to community stations, for ITV, is subject to (among other factors) school budget fluctuations.

Revenue-producing operations

- legally and administratively awkward, and
- unlikely to contribute significantly to increasing PTV income.

Dedicated revenue for trust funds

- a manufacturer's tax on receivers is perhaps the most palatable of a politically unpopular group of possibilities,
- unlikely to be adopted in the near future despite the desirability, from many points of view, of a trust fund for operating public television.

Direct appropriation by Congress, therefore, seems to offer the only real possibility for meeting the support needs of public television over the next five years. An amount adequate to PTV's needs can be supplied, and the tax system which provides general revenue funds is not only already in existence but provides perhaps the most equitable possible system for distributing the costs of national public television service. Certainly the source/benefit linkage problems are much less severe, and would diminish as national PTV coverage increases. And the use of the existing taxation system would avoid the "unjust burden" charges that could be levelled against special taxes.

Compared to other possibilities, such Congressional support admittedly offers less hope of real long-term planning, and less freedom from political influence over specific program content. But if Congress so decides, *it can provide adequate funding* and, as we have seen, at a minimum national cost.

There is no necessity that this type of funding be on an uncertain one-year-at-a-time basis. Congress can, if so moved, provide for long-term authorizations and multiple-year appropriations which would permit planning over a longer term while still retaining provisions for annual reviews.

SUPPORT DISTRIBUTION

The problem of providing the necessary support can be separated from the problem of allocating it: the characteristics of an acceptable distribution system are not necessarily dependent on the identity of the source of the funds.

The design of the distribution system itself can be broken down into two problems: the choice or establishment of an administrative agency or agencies, and the establishment of guidelines or a formula to govern the actual distribution of the funds.

1. Distribution Agencies

At the present time, the chief sources of federal support for public television are CPB (for program and general operating support), and HEW/OE (for facilities and equipment grants). Having two separate agencies handle different parts of the federal funding has caused some problems of coordination, but the system, with limited funds, has worked reasonably well.

With any substantial increase in the level of funding, however, it would seem more efficient to have all funding (both operating and capital grants) flow through a single agency, although that would be a matter of secondary importance once the Congress had decided upon a given formula for the distribution.

2. Distribution Formula Proposals

The idea of a "formula" for determining the distribution of financial support to the various PTV stations and agencies has received considerable attention recently. Taken together, the suggestions for factors to be included indicate that any formula probably should operate as follows:

(a) It should provide *basic support for local stations and regional systems* adequate for a significant expansion of local program production.

(b) It should provide for *interconnection facilities* for the distribution of programs of nationwide interest.

(c) It should provide for a *national program service* of sufficient quality and scope to permit individual stations to select programming which they consider suitable for their local audiences.

(d) It should provide *special support for innovative activities* at both the local and national levels.

In distributing funds to stations:

(e) It should be structured so as to *encourage growth* of the nationwide PTV system where expansion is really needed, and to *discourage unnecessary duplication.*

(f) It should encourage the *continuation and expansion of the raising of funds* from non-governmental sources.

(g) It should take into account *some measure of the size of the audience* served by the stations (in addition to providing basic support to all stations).

(h) It should *reward stations* providing exceptionally high levels of local service.

(i) It should take into account the *relative disadvantage of UHF stations* in audience building and fund-raising.

And finally:

(j) It should strike a widely accepted balance among the above priorities.

The design of a formula which meets all these proposed criteria, even given the necessary funding, appears to be a tall order. The basic factors which should be included are relatively obvious, although the proportional weighting of each is certain to be the subject of much discussion.

A formula of this kind, for example, might provide for a small general grant to each public television station, plus a larger sum proportional to the station's present level of expenditure, and/or to the audience within its coverage area.

It is an especially attractive idea that the formula might take into account the amount of local support from subscribers and donors -- as an index of appreciation of the kind and amount of service the station may be providing -- although there is the danger of thus inducing stations to pursue fund-raising as an end in itself. If such a formula proved unacceptable to the majority of stations, another approach might be to tie a part of the funding to the number of hours of local PTV programming produced by the station (although of course such an approach would not take into account program quality).

Thus, for example, a formula for distributing station support might be developed along these lines:

- one-quarter to all stations evenly across the board,
- one quarter on the basis of the unduplicated PTV audience within the coverage area of the station,
- one quarter on the basis of individual contributions, and
- one quarter on the basis of combined state, local, and private support of the station.

Such a formula, rather than a straight across-the-board allocation of funds, would have the advantage of encouraging the objectives of local independence and local programming.

Funds for national interconnection of the PTV stations, and for the production of programs for national distribution could be given, as at present, to CPB for administration. Any degree of local station

participation could be built into the programming services provided, through CPB and PBS. Indeed, one of the best ways to insure station independence from a national program service -- which all stations need but few would ever achieve entirely -- is to finance enough programs in the national service so that local stations will have a choice among the offerings, as we have already suggested.

If additional funding, by formula, is provided for stations, then the idea of a modest subscription fee paid by stations for the national service has some appeal. Presumably it could be scaled in accordance with the audience in the coverage area (much as some commercial payments for films and other such special programs) or the station budget -- there is a direct correlation between the two -- and would entitle the station to a specified proportion of the basic national service package.

A fee of this kind would have two major advantages: it would help to make the national program service more responsive to the wishes and needs of the stations themselves, and it would insulate, by at least one step, a part of the national program service (public affairs programming, for example) from federal political influence. Naturally it would also make possible quality programming which local stations themselves could not afford individually but could as a group.

It has also been suggested, as a further step towards local control of PTV, that virtually all funds be distributed to the stations. They would then purchase programming from national sources in much the same way that commercial stations acquire "syndication" programming. An extension of this approach would be the creation of a "program cooperative" in which the individual stations would pool their funds for national programming. At first glance, the potentially increased costs of such a "market place/consumer" system, especially taking into account the administration and "marketing" activities required, seem to be a disadvantage, but it may well be that the advantages in giving local stations financial control over the operation of such a cooperative far outweigh the drawbacks.

Some aspects of the cooperative plan still require careful study. Some "central influence" will be required to make the system work, but the type or amount of central influence which would be required is still not clear. A careful look needs to be taken at the costs of administering the cooperative and at the extent to which local control over national programming would actually be increased.

It would seem that the cooperative would work best if complemented by an independent national programming operation outside the cooperative which could provide balance by supplying those types of programming not being produced by the cooperative itself. Work on these proposals is continuing, and although there are many questions to be answered, the overall approach seems promising.

FEDERAL FUNDING CONSIDERATIONS

If there is to be growth of federal funding, two problems need to be examined very carefully.

One of these is the nature of the formula for distribution of funds to local stations. Although we have discussed above a number of factors which should be considered, any fair and effective solution to this problem requires a much more detailed study of the costs and needs of local stations than we have been able to make. This activity itself would generate a great deal of additional information useful to stations, the Congress, and the national programming services.

A second problem is the extent to which such support can be given in some manner which will permit long-term planning. If "permanent insulated" funding (such as a trust fund) is not politically feasible at this time, what other possibilities exist?

Is one prototype the current provision of public assistance funds by Congress to the states (in the case of public assistance) on the basis of a formula which provides them with sums proportional to their own expenditures for that purpose ? The federal expenditure is thus determined by activity at a more local level, just as a formula for distribution of funds to local stations might be. In that case, Congress could be concerned with the formula and the level of support, and the public television stations could work for a period of years with appropriations "guaranteed" (to the extent that any such funds are guaranteed) by a predetermined formula.

Another prototype might be long-term contracts and grants. Some agencies are now permitted to make long-term arrangements for research and development, always subject to the availability of funds, but generally quite secure because of commitments at the outset.

These are problems which can be worked out if Congress, the Administration, and the representatives of public television wish to do so. In considering questions of distribution systems and the extent and method of funding, we must not lose sight of the main goal: *to provide a significant informational, cultural, and educational service to the American people* -- a service which includes not only a strong, dynamic, and effective national component, but vigorous and responsive regional and local services as well.

5. Conclusions

The purpose of this paper, as we stated at the outset, is to provide the background necessary for an understanding of the alternatives available in the development of a sound national policy basis for the financing of public television. We have tried to assess the various options realistically and in the light of the national policy implications inherent in each.

To do this, we have presented a brief historical survey -- admittedly all too brief -- of where PTV in this nation has been and where it is now. Running throughout this history has been the single, undeniable fact of PTV's persistent poverty -- of inadequate support both for local station operations and for the national program service. Expenditures, by whatever standards of comparison, are less than a minimum national commitment to the concept of public television should justify.

As a result, public television today faces what may be the most serious financial problems in its nearly 20 years of existence. Indeed, some would argue that whether this nation is to have an effective service of this kind or not hangs in the balance. It is clearly evident that public television is not making the contribution to the life of this nation which it can, and that this contribution is now being limited primarily by financial constraints. Only the American people, through their elected representatives in the Congress and in the Administration, can make the final decisions which will determine the fate of public television in the United States.

It is our hope that this paper will provide the basis for a greater understanding of some of the issues and problems involved and will make possible a more widespread discussion of the alternative courses of action, together with their public policy ramifications.

For this reason, we have tried not to advance any single "plan of action" designed to solve all problems. However, we do think that certain

conclusions logically and inevitably follow from the data which we have presented. In brief, these are as follows:

1. *The nation can well afford a quality nationwide public television service.* Although it is impossible to assign a dollar figure to the benefits from such a service, the levels of support for public television in other countries provide an indication of the value placed on such services outside the United States. Federal government support for public television amounts (on a per capita basis) to $ 5.81 in Canada, to $ 3.29 in the United Kingdom, and to $ 2.90 in Japan. In contrast, total public television system support in the United States amounts to 80 ¢ per capita, only 17 ¢ of which was provided by the 1971-72 CPB appropriation. Our estimates indicate that an increase of $ 1.27 per capita a for annual operations is required.

2. *Support for operations and programming at the local, regional, and national levels must be provided in any plan of financing which is developed.* The evidence of station needs is too overwhelming to ignore the important local aspects of the nationwide problem. On the other hand, funds spent on national program production -- programs which are then shared by all the stations -- go much further towards the provision of a high quality service than if the same amount were spread over all participating stations. And thus, striking a reasonable balance between local, regional, and national support becomes necessary.

3. *The central objective should be the provision of a service, not a concern with how it is delivered.* In other words, creating complete new broadcasting stations is not in itself the objective. Rather, that objective needs to be to provide a different television viewing experience for the American people -- different from the kind of fare available from other sources. Such an approach must of necessity take cognizance of the potential contribution of CATV, repeater transmitters, and regional services, and -- for the future -- of home video cassettes, satellite transmission, and related developments.

4. *Regional programming services should not be overlooked, as they have tended to be to date, as an extremely cost/effective means of providing public television service of a localized nature while benefitting from shared cost advantages.* Independent regional services contribute to diversity in the overall public television system, allow individual stations to share costs with others, and are uniquely suited to take advantage of regional talent and opportunities and to focus on essentially regional problems.

5. *The insulation of funding from program control is a necessary and desirable objective, but one which is most difficult to achieve.* A dedicated tax with proceeds going into an earmarked trust fund would be desirable, but may be politically infeasible at the present time. Therefore, any system of government funding which is devised must attempt to balance the objectives of accountability for government funds with those of providing freedom, flexibility, and independence in the program service. Such an objective argues for a great deal of local station participation and control.

6. *The diversity of station ownership -- essentially four different types of licensees -- and the differences in their objectives and needs of their communities are characteristics which should be preserved as important assets.* Diversity in ownership and differences in local operations bring public television closer to the people it serves.

7. *The development of public television in this country has reached the point, not only because of finances but also because of the potential impact of other methods of transmission, where "family planning" is necessary.* The "service" objective should be remembered: new stations should be established only where clearly justified in terms of increasing effective nationwide public television service in the most cost-efficient way possible. This is especially important in view of the critical need for assistance to stations currently operating to improve and upgrade what are in most cases inadequate and in many cases obsolete facilities.

The implications for the future are enormous. The public interest requires a reasoned, dispassionate, and farsighted approach.

Appendix: Aspen Conference

Recommendations for Public Broadcasting's Future

On July 28-30, 1972, the Aspen Program on Communications and Society brought together a group to study the first draft of the Schramm-Nelson Report and to consider its implications. While no effort was made to reach unanimity, a number of proposals were offered which constitute the beginning agenda of a Plan of Action for Public Broadcasting. The proposals include:

1. Reaffirm the commitment to the concept of public television.
   - Develop evidence of the achievements of PTV in its first five years under the CPB legislation and communicate this record to the public, the Congress, and the Administration.
   - Restate the purposes and the potential of PTV, using the Killian Commission report as a prime source.
   - Stress the evolutionary character of the system.
   - Underscore that PTV must not be drawn into partisan political debate.
2. Build up a national constituency which supports public television.
   - Involve local communities across the nation in events such as town meetings.
   - Each PTV licensee should move voluntarily and immediately to make an ascertainment of the needs and desires of the community it serves.
   - Form a "Committee of 100" of distinguished citizens.
   - Enlist the top people in various fields and organizations to help broaden the support for PTV.
3. Develop a strong and definitive statement of public television's urgent need for a significant increase in financial support on a long-term basis. Steps essential to construct the case for increased, long-range funding:

- Make a solid assessment of the current financial status of PTV.
- Develop a statistically sound description of current PTV income and expenditures, using recognized cost accounting and standard reporting procedures.
- Revise and extend the Schramm-Nelson report on the financing of public television, incorporating available cost accounting data, to provide an independent assessment.

4. Develop a long-range (perhaps five-year) plan of the financial needs of the system, including full documentation of the funds required and how they would be spent.
   - Key role to be played by the CPB Committee on Long-Range Financing.
   - Supplementary effort could be "systems analysis" to assess the current situation, to make cost projections on that basis and also on proposed modifications, and to run simulations.

5. Specify the long-term objectives and actual services to be provided by public television, as the basis for the long-range financial plan.

6. Review and evaluate structural modifications of the public broadcasting system, designed to provide checks and balances and insulation. Include for consideration:
   - Market plan which sets up a "programming cooperative" financially dependent on decision-making by stations on programs to be produced. Plan to include:

     Majority of funds distributed to licensees on the basis of a formula which sets base grant for individual stations plus supplement related to audience and/or budget.

     Incentive in formula to assure maintenance of contributions from other than federal sources.
   - Allocate to CPB a certain percentage of programming funds as "venture capital" to assure innovative and balanced national programming.

7. Amend Public Broadcasting Act to provide longer terms for CPB Board members, in order to increase political insulation and enhance the Board's status.
   - Establish consultation processes to aid in the selection of CPB Board members, including slate preparation by the Board itself.

8. Support the development of a "family planning" policy for public broadcasting to ensure the development of comprehensive but cost-effective service to the nation.
   - Immediate step: move for the adjustment of criteria used by HEW in administering Educational Broadcasting Facilities Act. Financing of new facilities needs to be coordinated with a master PTV service plan.

9. Extend the scope of the Act to provide for public broadcasting's participation in new delivery services resulting from technological development, such as cable television, satellite broadcasting, and home video playback devices.

10. Clarify the roles and responsibilities of the various elements of the public broadcasting system in guaranteeing "fairness" in programming, either through a policy statement by the CPB Board or by legislative explanation of the phrase "objectivity and balance."

11. Involve the private sector in program production, especially when cost efficiency is improved.

12. Attempt to involve the best available talent of the nation in the public broadcasting programs.

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