OVERCOMING BARRIERS TO THE LIVE ARTS: CAN THE MEDIA COMPENSATE?

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Introduction

With often high expectations, a variety of electronic media--recordings, radio, broadcast television, and most recently cable television and videocassettes--have presented themselves as newfound means to extend the reach of "live" arts and cultural activities beyond the confines of symphony halls, theaters, and even museums and art galleries. In this study, we address two related questions concerning the relationship between live and media participation in the arts:

(1) To what degree do electronic media successfully extend the reach of the arts by permitting individuals to overcome barriers (such as cost or geographic location) to live participation?

(2) Does participation in arts activities via the media serve as a substitute, in the economic sense, for individuals who face such obstacles?

Our analysis is relevant to policy issues. Public funding supports not only a wide variety of non-profit live arts activities, but also non-profit productions of arts and cultural programs on public radio and television stations. The commercial recording industries and advertiser-supported radio and television, while primarily unsubsidized, provide income to producing artists and non-profit arts organizations. If these media extend the arts to new and different individuals, especially those unable to take advantage of the live arts, the rationale for government support of those media may be increased.

A tradition of literature has investigated how audience participation in the arts is affected by economic, sociological, and other factors, although nearly all of this work has been concerned with live rather than media participation. (See Baumol and **Bowen,** 1966, Dimaggio, **Useem,** and Brown, 1978, and Andreason and Belk, 1980, among many other contributors.) In 1982 and 1985, the Survey of Public Participation in the Arts (SPPA) was collected for the National Endowment for the Arts by the U.S. Bureau of the Census, and has made possible a number of more recent contributions. The SPPA survey instrument covers not only live participation, but the use of three different media--television, radio, and recordings (records or tapes)--as means to participate in seven arts activities: jazz music, classical music, opera, musical stage plays or operettas, non-musical stage plays, ballet, and the collections of art museums or galleries.

In subsequent reports to the Arts Endowment, Robinson, Keegan, Hanford, and Triplett **(1986),** and Robinson, Keegan, **Karth** and Triplett **(1987),** provide comprehensive overview analyses of the 1982 and 1985 SPPA data, respectively, including one chapter in each volume covering media audiences. These chapters investigate demographic, lifestyle, and other characteristics of media audiences, and the relationship of these audiences to those for live activities. A central finding of these authors is "the more-the more;" participants in the arts via one medium had a strong tendency to also participate through live events and activities, and via other media.

Table 1, compiled from **Robinson,** et al. (1986) and Waterman, Schechter, and Contractor (1987) provides a preliminary answer to the question of how successfully media extend the reach of the arts.(l) Column 1 indicates the percentage of all respondents who reported participation at least once during the past year by means of each one of 16 different art form-media combinations included on the questionnaire, compared with live participation. Arts participation via the media was substantially higher than live participation in nearly all cases, especially for television. Moreover, column 2 of Table 1 shows that relatively large proportions of these media audiences also reported no participation in the same art form via live events or activities during the past year; those individuals, that is, were reached exclusively by the media. While participation at least once in the past year is an extremely broad definition of total "reach," these data appear to **confirm** that the arts reach new and in some cases far larger audiences via the media.

Table 1
Overall Reach of Arts Activities: 1982
(Percent of U.S. Adults Participating in the Past Year).

Activity	Media	(1) % of All Adults Participating	(2) % of Media Participants who did Not Also Participate Live in the Same Art Form
Jazz	N	16%	71%
	Radio	18	68
	Recordings	20	66
	Live	10	
Classical Music	N	25	77
	Radio	20	67
	Recordings	22	65
	Live	11	
Opera	N	12	
	Radio	7	90
	Recordings	7	83
	Live	2	86
Musical Stage Play or operetta	N	20	60
	Radio	4	62
	Recordings	8	48
	Live	19	
Non-Musical Stage Play	N	26	75
	Radio	.	67
	Live	11	
Ballet	TV	16	85
	Live	4	
Art Museums and Galleries	TV	23	53
	Live	16	

Source: Column (1): Compiled from Robinson, et al., (1966). pp. 331-333; Column (2): Complied from Waterman. Schechter, b Contractor (1967). p. 24

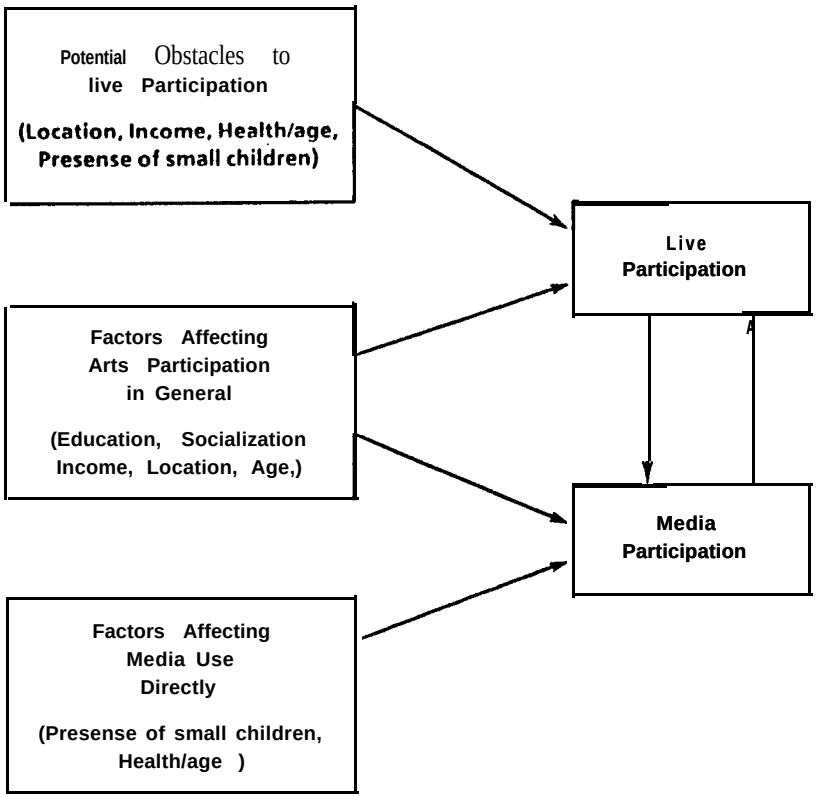
Such data, however, offer little understanding about which potential barriers (eg., income resources, health, or geographic location) may inhibit live participation and which barriers the various media may serve to eliminate. They also tell us little about whether the media serve as good alternatives to live participation for the individuals who face these barriers. We further emphasize that the "more-more" finding of the Robinson, et al. studies does not (as those authors recognize) necessarily imply an absence of substitutability between live and media participation in the arts. The "more-more" phenomenon, which has parallels in other contexts, is to be expected; individuals particularly interested in the arts are likely to use a variety of alternative methods to participate in them.(2) As we elaborate below, the key question is the extent to which individuals may substitute one means for the other, given their interest in the arts.

Hypotheses

We propose an economic model of consumer behavior in order to study the questions about media reach and substitutability which we have advanced. Consider, for example, an individual with some given interest in an art form, say classical music. In terms of basic principles of demand theory, this individual can be thought of as making choices between live participation (via concerts) and the use of various media (listening or watching concerts via radio, recordings, and television) for classical music enjoyment. These choices can be assumed to depend on the physical and financial accessibility of live concerts vs.the various media which present them, and on the quality of the arts experience the alternatives offer. In economic terms, the relative physical and financial availability of these activities can be interpreted as their relative costs. If live and media participation in classical music concerts are in fact substitutes in the economic sense, it follows that other things being equal, those who face relatively high obstacles to live participation (due, for example, to poor geographic location, low income, the presence of small children, advanced age, physical handicap, etc.) will not only attend live concerts relatively less often, but will use the media to participate relatively more frequently. In terms of our example individual, obstacles to live concert attendance would lead him or her to reduce live concert attendance, which in turn would tend to increase the individual's media use for classical music enjoyment.

These hypothesized relationshipsarerepresented in the schematic diagram of Figure 1 by the links from "Potential obstacles to live participation" to "Live participation," and in turn from "Live participa-

Figure 1. **General Schematic Model.**



tion" to "Media participation." Evidence of negative links from potential obstacles to live participation would tend to confirm the actual significance of those obstacles. Evidence of negative links from live to media participation would tend to confirm that media are effective in overcoming those obstacles.

Potential barriers to live arts participation due to geographic location are of particular political interest; federal and state funding agencies are continuously under pressure from legislative bodies for the disproportionately heavy support of premiere arts institutions in New York and a few other large cities they have historically maintained (Netzer, 1978). Performing arts organizations, especially those of highest quality, tend to be disproportionately concentrated in major urban centers. Such a geographical skew is suggested by available data for states from the 1982Census of Business (U.S. Bureau of the Census, 1985). California and New York accounted for 19 percent of adult U.S. residents in 1982, but for 41 percent of live theater producers, 40 percent of dance companies, 32 percent of classical music groups and 33 percent of jazz groups.In terms of receipts, California and New York accounted for 58 percent of live theater, 58 percent of dance and 28 percent of classical music organization revenues. (Jazz receipts were not available.) These contrasts mostly reflect the economic reality that a large local population base is necessary to provide a pool of artistic talent and an adequate audience base to support the high production costs of first quality arts activities. Comparable data for art museums were not available, but it seems evident that the largest U.S. cities have a disproportionate share of art museums both in number and in terms of their exhibition quality. Performing arts organizations and art collections do, of course, tour around the country. Available data suggest, however, that the actual extent of this touring is relatively minor (see e.g., American Symphony Orchestra League, 1986; Holley, 1987).

Media, on the other hand, would appear to be more accessible to non-urban residents, thereby offering a viable substitute. Recordings, of course, can be played in any location, although the availability of retail software outlets may be a hindrance. Classical and ethnic music programs on radio are also offered nationwide, although their practical availability is *more* problematical since only relatively large cities are able to support an exclusively classical music or jazz radio station. The case seems especially clear for television; a steady supply of arts programming is available for free on public television to over 95 percent of television households (PBS *Reports,* various).

The media would also appear to offer an alternative for those who face financial barriers. With the notable exception of many visual arts collections, tickets to professional quality five arts performances are notoriously beyond the means of many individuals. Broadcast television and radio broadcasts are, of course, free.(3) Recordings, on the other hand, require purchase and the hi-fi equipment on which to play them can be very expensive. Given the equipment investment, however, a recording of the finest performance can usually be purchased for less than the price of admission to the recorded event. Similar arguments that media use presents fewer barriers than five attendance can be made in terms of advanced age or physical handicaps, and the household presence of small children.

There may be other causal relationships in the model which tend to counteract whatever substitution effects between five and media participation may exist. One such possibility is that media and live participation in the arts also have certain complementary relationships. In general, complementarity in the economic sense is implied if the act of live participation itself induces media use, or vice versa. The conventional wisdom of the recorded music industry, for example, is that the uplifting experience of a live concert is an important motivation for younger patrons, at least, to purchase records and tapes. To this extent, the lowering of a barrier to five attendance will tend to increase both live and media participation. Conversely, participation in the arts via media may stimulate individuals to seek out more frequent five participation. Any such complementary effects will limit our observation of substitution effects because the former will be reflected by a positive link leading from media use to live participation.

Another reason that live-media substitution effects might be counteracted is that some or all of the hypothesized "obstacle" variables may have direct as well as indirect effects on media use, or they may have opposite effects on five participation. Consider the category of variables in the schematic model labelled "Factors directly affecting arts participation in general." We would expect socialization to the arts and education to have unambiguously positive effects on arts participation overall, with no *a priori* reason to expect that live participation would be influenced any differently than would media participation. It is plausible, however, that some of the "obstacle" factors, notably income, geographic location, and perhaps age, could have positive "environmental" effects on arts participation in the sense that social pressures or behavioral norms may induce greater participation. With

respect to age, one's interests in the arts is also likely to change for reasons of taste unrelated to physical difficulties with attendance.

Consider also the category of variables labelled "Factors affecting media use directly." Implicit in the discussion of substitution effects above has been a presumption that live participation is a preferred alternative to media use. This is not necessarily the case. The presence of children or advanced age, for example, might induce individuals interested in the classical arts or jazz to prefer media use because of the greater solitude, comforts, or other differentiating characteristics (such as those produced by versatility of the camera) which it offers.

In summary, our primary hypothesis is that obstacles to live attendance--in the form of low income, poor geographic location, age or health related handicaps, or the presence of small children--should tend to directly reduce live participation, but to indirectly encourage individuals who face those barriers to substitute, i.e., increase, media participation instead. "Complementary,""environmental," and other direct effects of these samevariables could prove to counteract or even dominate these substitution effects. We attempt to statistically estimate these relationship below, using the SPPA data base. We then supplement this analysis with an exploration of the SPPA respondents' own perceptions of barriers to live participation in the arts.

Method: The General Model

The SPPA data cover approximately 16,000 and 18,000 U.S. adults in 1982 and 1985 respectively. The data reported in this study, however, were collected during only November and December of 1982 (N = 2561). These were the only two months during which the SPPA also queried respondents about their participation via three different media--television, radio and recordings (records or tapes)--for the seven arts activities. The restricted time interval should not limit our abiity to generalize in the present study, since Robinson et al. (1987) indicate that results of the SPPA were highly consistent over the three year interval.

The names, acronyms and summary descriptions of the variables used in the hypothesized model appear in Table 2.

Dependent Variables

Participation via the media was measured as the number of possible art form-media combinations offered on the questionnaire that were participated in at least once during the past year. Media

Table 2
Variable Definitions.

Variable	Definitions
TVINDEX (O-7).	number of the 7 art forms *watchedon TV* at feast once in the past year
RADINDEX (OS):	number of the 5 possible art forms *listened to on radio* at least once in the past year
RECINDEX ((O-4):	number of the 4 possible art forms *listened* to on *recordings* at least once in the past year
MINDEX (O-16):	TVINDEX + RADINDEX + RECINDEX
ATTINDEX7 (O-7):	number of the 7 art forms *attended at* least once in the past year
ATTINDEX5 (O-5):	number of the 5 art forms corresponding to RADINDEX *attended* at least once in the past year
ATTINDEX4 (O-4):	number of the 4 art forms corresponding to RECINDEX *attended at* least once in the past year
AGE (continuous)	18- 96 years
INCOME (I-11):	$0-3,000 to Over $50,000
SMSA (I-3):	1: not in *SMSA; 2:* SMSA, not in central city; 3: SMSA, central city
URBRURAL (1-2)	1: rural (places with population under 2500) 2: urban (places with population of 2500 or more)
POP (1-11):	population of place: O-999 to 1,000,000 or more
EDUC (I-6):	less than High School to Graduate School
SOCINDEX (O-4):	index of socialization to the ens by parents
U12 (O-I):	0: no children in home under 12 1: presence of at least one child in home under 12

participation was operationalized for each of the three media as well as across all three media. The first, TVINDEX, was measured as the number of the seven art forms watched on television at least once in the past year. Likewise, RADINDEX and RECINDEX measured, respectively, the number of the possible five and four art forms that were listened to on radio and recordings during the year. Finally, a composite measure of participation via the media, MINDEX, was computed as the sum of the three separate media indices. Participation in the live arts (ATTINDEX7) was measured as the number of the seven art forms attended at least once during the preceding year. ATTINDEX5 and ATTINDEX4 were live participation measures including only the art forms relevant to RADINDEX and RECINDEX.

Ideally, we would measure media and live participation in terms of frequency of use. A major restriction of the SPPA data base is that respondents were asked only if they had participated in an art form via a medium at least once during the past year. Because this question is asked separately for each of 16 art form-media combinations, however, we are able to construct these measures of participation "intensity" by counting the number of "yes" answers to these questions for each respondent. The meaningfulness of these indices is suggested by positive and significant correlation coefficients between all pairwise combinations of the 16 media-arts participation combinations (Robinson, et al., 1986). These positive correlations reflect the very substantial overlaps among all media audiences for all seven art forms also reported by Robinson et al. (1986), although these overlaps are relativelyweak for jazz High zero-order correlations of ATTINDEX7 with TVINDEX, RECINDEX, RADINDEX, and MINDEX, (486, .485, 391, 546, respectively) are further consistent with the "more-more" relationship between live and media audiences.

To what extent can we expect these "intensity" indices to be valid proxies for actual frequency of participation? It is intuitively appealing that individuals who report using the media to participate in a relatively wide variety of art forms are likely to participate in each one of these art forms relatively frequently. Statistical evidence strongly suggests this to be the case. Specifically, data directly measuring both the "intensity" of art form participation and the frequency of participation are available for live activities in the SPPA survey. The correlation between two overall indices constructed from these data, the "intensity" index ranging from O-7 and the frequency index from O-35, was extremely high, .920, showing the former to be an almost perfect substitute for the latter. The relationship of "intensity" of use to frequency of use could of course be different for media participation than for live participation. Strong similarities in the correlation matrix among live activities to that among media activities found by Robinson et al. (1986), however, suggest this to be very unlikely.

Independent Variables

Demographic variables available in the SPPA data base were used to represent each of the four hypothesized barrier factors. Three of these were age (AGE), income (INCOME), and the number of children under I2 (U12). Three alternative variables defined by the Bureau of the Census, SMSA, URBRURAL, and POP, were used to represent the degree of urbanization of the respondents residence. Finally, we included two other dependent variables which previous research indicated to be consistent predictors of live arts participation: education (EDUC) and a constructed index measuring the extent of socialization to the arts (SOCINDEX).(4)

Of the three variables representing urbanization, SMSA has the advantage that its three categories generally correspond to central city, suburban, vs. all other locations, and are of roughly equal size. By contrast, approximately 69 percent of all respondents were in the more urbanized of URBRURAL's two categories. POP has relatively finely divided categories in terms of population, but actual proximity of the respondent to large population centers is not directly represented, as it is in the other two cases. Because of its evidently superior representation of geographic obstacles to live arts participation, we used SMSA as our primary variable, but substituted URBRURAL and POP as confirming variables in a subset of equations.@)

Four versions of the hypothesized general model were tested, one across all three media (Model I) and one for each medium separately (Models II to IV). Ideally, we would measure substitution, complementary or other relationships between the demand for two products by estimating the cross-elasticities of demand with respect to the relative prices, travel distances, etc., which are faced by a sample of potential consumers (Stone, 1954; Intriligator, 1978). Using the SPPA data base, however, we can infer the net magnitude of the combined positive and negative effects of each of the six independent variables in the hypothesized model (including the effects of the four "obstacle" variables) by estimating reduced form linear equations for live participation and for media participation using ordinary least squares.(6) All models were estimated using SMSA. The MINDEX

and ATTINDEX7 equations were also estimated with URBRURAL and then POP in place of SMSA.

Results: The General Model

The results of the four hypothesized models (using SMSA) are reported in Table 3. As anticipated, education and socialization had strongly positive and generally comparable effects on both live participation and media use in all four models.

With respect to the four "obstacle" variables, results did not suggest the presence of substitution effects. Negative coefficients for U12 in the attendance equations did suggest the presence of small children to be an obstacle to live participation as expected. In none of the media equations, however, were there indications that media provide an alternative for those who face that obstacle. Neither was there evidence of direct positive effects of this variable on media use.

In the cases of urbanization and income, results of the attendance equations also suggested these factors to be obstacles to live participation. But there were again no indications of substitution effects. In fact, the effects of urbanization on media use as indicated by SMSA appeared to be comparably strong and positive in all four cases, suggesting the dominance of complementary or environmental effects. Very similar results were obtained for the equations using URBRURAL and POP in place of SMSA; coefficients were significant and strongly positive in all of these cases.(7) With respect to income, coefficients were also positive for the television and combined media cases, but insignificant for the radio and recording relationships.

The results provided limited support for the presence of substitution effects with respect to age. As expected, age was positively associated with participation via all of the media taken together and for each of the three media separately. Contrary to the hypothesis that age is an obstacle to live participation, the results indicate that older people were also more likely to participate in live arts activities, although after age 65, participation drops off sharply. The positive coefficients may thus indicate a predominant tendency for interest in the SPPA arts forms to generally increase with age. Since participation in live art forms typically peaks at some age level and then declines, however, the relationship between age and participation is not linear. The effect of this non-linearity was tested by partitioning the sample into four approximately equal age quartiles and estimating the models

Table 3

Ordinary Least Squares Regression Results

	Constant	U12	SMSA	EDUC	INCOME	AGE	SOCINDEX	
Model I: All Media Combined								
MINDEX	-2.657 (8.5)	.0004 (.0)	.108 (6.0)	.224 (10.5)	.048 (2.5)	.119 (6.0)	.340 (16.8)	$F = 133.0$ $R^2 = .25$
ATTINDEX7	-1.223 (9.7)	-.047 (2.5)	.093 (5.2)	.332 (15.5)	.057 (3.0)	.067 (3.4)	.222 (11.0)	$F = 132.0$ $R^2 = .25$
Model II: Television								
TVINDEX7	-1.700 (8.9)	.009 (.5)	.096 (5.2)	.183 (8.4)	.077 (4.0)	.157 (7.8)	.322 (15.5)	$F = 109.0$ $R^2 = .22$
ATTINDEX7*	-1.223 (9.7)	-.047 (2.5)	.093 (5.2)	.332 (15.5)	.057 (3.0)	.067 (3.4)	.222 (11.0)	$F = 132.0$ $R^2 = .25$
Model III: Recordings								
RECINDEX	-.590 (6.0)	-.016 (.8)	.074 (3.9)	.219 (9.8)	.026 (1.3)	.047 (2.3)	.268 (12.7)	$F = 87.4$ $R^2 = .18$
ATTINDEX5	-.634 (8.2)	-.041 (2.1)	.089 (4.8)	.289 (13.0)	.045 (2.3)	.064 (3.1)	.196 (9.3)	$F = 93.2$ $R^2 = .19$
Model IV: Radio								
RADINDEX	-.377 (3.9)	-.0004 (.0)	.099 (5.1)	.175 (7.6)	-.021 (1.0)	.040 (1.9)	.239 (11.0)	$F = 58.9$ $R^2 = .13$
ATTINDEX4	-.871 (9.1)	-.041 (2.1)	.080 (4.4)	.317 (14.4)	.052 (2.6)	.075 (3.7)	.191 (9.2)	$F = 103.9$ $R^2 = .21$

( ): t-ratios
*repeated equation

separately for each quartile. However, the results did not reflect significant differences in model estimates across the four samples.

In terms of our central research questions, these tests of the general model tend to confirm that distance from an urbanized area, low income, and the presence of children under 12 are obstacles to live arts participation. We failed to fmd evidence of substitution effects, however, and at least in the cases of income and urbanization, a dominance of complementary or environmental effects was suggested.

Perceived Barriers to Live Attendance

An additional category of data available in the SPPA data base avoids reliance on our constructed "intensity" indices of arts participation; respondents who expressed a desire to increase their live participation were asked which of a list of 15 given factors they themselves perceived to be reasons they did not participate in more live events and activities. At least four of these perceived factors, "not available," "cost", "babysitter problems," and "problems related to age/health," are at least partially representative of the four potential "barrier" variables we investigated above. Our attempts to include thesevariables directly in the four models did not yield significant coefficients or a logical pattern of signs, positive or negative. Some descriptive statistics employing these variables, however, supplement results of the general model.

One explanation for the lack of observed live to media substitution effects in the general model is that the live arts are in fact sufficiently accessible to those with low incomes, who live in non-urbanized areas, or who face other obstacles to five participation. Many amateur and semi-professional artists and arts organizations, for example, provide performances and exhibitions in non-urban areas; these and many other performances are also available, at least occasionally, for a nominal charge or for free. Religious and educational institutions, for example, frequently sponsor such events.

To investigate this possibility, we correlated the four demographic variables used in the general model with individuals' own perception of those barriers as identified above. As Table 4 shows, we found relatively high and significant correlations between factual suggestion of the barrier and perception of the barrier in the cases of urbanization, the presence of children and the age/health factor for all seven art forms. The correlations of income with the perception of "cost" as a barrier were consistently lower and insignificant in some cases, al-

Table *

Correlation of Model Variable with

Perception of Relevant Barriers to Live Participation

Art Form	SMSA with "Not Available"	NCOME with "Cost"	U12 with "Babysitter Problems"	AGE with "Problems Related to Age/Health"
Jazz	-.22*	-.07*	.36*	.6*
Classical Music	-.31*	-.13*	.42*	.28*
Opera	-.23*	-.01	.36*	.24*
Musical Stage Play or Operetta	-.28*	-.09*	.38*	.21*
Non-Musical Stage Play	-.30*	-.03	.4*	.19*
Ballet	-.20*	-.00	.34*	.24*
Art Museums & Galleries	-.34*	-.06*	.32*	.25*

* $p < .05$ (Kendall's Tau B)

Base: Those individuals who say they would like to participate "live" in the indicated art form more often.

though all had the expected sign. These results tend to confirm that low income, non- urbanized location, the presence of children, and at least to an extent, low income, are significant barriers to live participation.(8)

We then investigated whether those respondents who perceived barriers to live participation had a greater tendency to participate in the arts via media than those who did not perceive barriers. Specifically, we correlated respondents' reported perceptions of barriers with whether or not they reported using media for each of the 16 possible media-art form combinations (Table 5). We calculated these correlations for each of the four obstacle variables identified above, and also for the total number of the 15 possible perceived barriers the respondent indicated (including, for example, "tickets sold out," "not enough time," and "feel uncomfortable."). In seven of the 16 cases involving "babysitter problems," correlations were significant and in the expected direction, as was the case with five of the 16 cases involving "cost." With respect to the perceived barriers of "not available" and "problems related to age/health," signs were sporadically significant, but nearly all in the wrong direction to indicate substitution effects. The consistently negative and sporadically significant relationship between the perception of age/health related problems and media use, in fact, suggests that such handicaps may also be an obstacle to media use. In only two cases was there a significant correlation in the expected direction between reliance on media and the index of the total number of barriers perceived.

In summary, these correlations provide weak evidence of substitution effects with respect to financial constraints and the presence of children, but appear to support results of the general model that overall, such effects are relatively small.

Summary and Conclusions

We find that the media, especially television, clearly extend the reach of the arts to vast numbers of individuals, including those who face obstacles to live participation due to unfavorable geographic location, low income, the presence of small children, or advanced age. Yet for all the potential opportunities the media provide, our analysis also suggests that those who face obstacles to live participation take little or no more advantage of the media to participate in the arts than those who do not face such obstacles.

Table 5

Correlation of Perception of Barriers to live Participation with Media Participation.

Activity	Perceived Barrier: 'Not Available'	Perceived Barrier: [illegible]	Perceived Barrier: "Baby Sitter Problems"	Perceived Barrier: "Problems Related to Age/Health"	Total # of the 15 Possible Barriers Perceived
Television					
Jazz	-.01	.04	.03	-.09*	.06
Classical Music	-.02	.03	.07*	-.07*	.11*
Opera	-.03	.00	-.02	-.06	-.06
Musical Stage Play	-.01	.01	.02	-.06*	-.00
Non-Musical Stage Play	-.02	.16*	.07*	.07*	.00
Ballet	.04	.08	.11*	-.06	.05
Art Museums & Galleries	-.02	-.01	.08*	-.05	.04
Radio					
Jazz	-.02	.05	.06	-.07	.05
Classical Music	-.09*	.12*	-.03	-.13*	.08*
Opera	-.10	.05	.09	-.00	-.04
Musical Stage Play	-.01	.06*	.08	-.01	.04
Non-Musical Stage Play	.01				
Records					
Jazz	.02	.07	-.01	-.11*	.05
Classical Music	-.01	.06	.10*	-.09*	.03
Opera	-.04	.14*	.07	-.02	-.00
Musical Stage Play	-.00	.12*	.07*	-.08*	.03

* $p < .05$ (Kendall's Tau B)

Bare: Those individuals who say they would like to participate live in the indicated art form "more often."

This lack of evidence of substitution effects in the case of geographical obstacles is of particular interest. In qualification, we hypothesized certain complementary or environmental factors which could dominate whatever substitution effects may exist with respect to location. Another likely factor is that those with a personal interest in arts events and activities tend to self-select urban areas where these events are more accessible. The equally strong tendency we found for urban location to be associated with intense media use as with intense live participation nevertheless suggests that any substitution effects with respect to geographic location are relatively minor.

Particularly surprising, perhaps, is the apparent dominance of environmental or other positive influences on media participation with respect to income. Even the relatively ubiquitous and generally free medium of television appears to be no more intensively used by those having relatively meager financial resources to participate in the arts via live events and activities.

These conclusions do not, of course, suggest that the mediated arts are unworthy of public support. The media offer obvious opportunities to everyone for enjoyment of the arts, especially of events and activities produced by the world's most renowned institutions and artists. The media furthermore serve the interests of artists and arts organizations by means of small but valuable sources of revenue they provide. This is not to mention the forum for creative expression which the media provide in their own right. Our results nevertheless fail to reinforce arguments for public support of media as a vehicle for extending the reach of the arts primarily to those who are disadvantaged from a lack of live participation.

A possible explanation for the observed lack of substitution effects is that electronic media offer participants a relatively unrelated, evidently more casual arts experience than that of live participation. For the art forms included in this study, those who find live participation out of their reach might thus be unable to find compensating satisfaction through media participation.

Some support for this hypothesis is suggested by further descriptive data reported in our earlier study (Waterman, et al., 1987, p.44). In our investigation of "overlaps" between live and media participants, we confirmed Robinson and coauthors' (1986,1987)"the more-the more" result that those who participated in live events and activities were more likely than others to participate via the media. We also found, however, that relatively large percentages of live participants

reported not having used media at all during the past year to participate in the same art form. Specifically, we found that on average, 46 percent, 65 percent, and 50 percent of those reporting live participation during the past year in one of the SPPA art forms via television, radio, and recordings, respectively, did not participate in the same art form via these media at all during the same period. Only slightly smaller fractions, 43 percent, 60 percent, and 45 percent, of respondents who had participated in a live arts events or activity during the past month (individuals who are evidently more frequent live participants) reported that they had not participated in the same art form via television, radio, or recordings, respectively, even once during the past year.

In some cases, relative inaccessibility or obscurity of certain art forms on media, such as musical stage plays on radio or records, is clearly a factor. Cost or availability may be factors in both radio and recording use as well. Perhaps of particular interest, however, are the relatively large proportions of live audiences who reported essentially never watching performing arts or visual arts programs on television, in spite of the steady supply of these programs available for free to nearly all households in the U.S.

One suggestion of these data is that there is an essential difference in the nature of the live and mediated cultural experience. An element of this difference might simply be the basic quality of the experience offered by media performances when compared to their live counterparts. At least until very recently, for example, television video and audio reproduction has been widely regarded as woefully inadequate for arts presentations.

Implicit in this study has been the more fundamental issue of compatibility between the live arts experience and that available through the media. An underlying assumption behind conveyance of live art forms via the media is that their integrity remains vital-and thus desirable and fulfilling--to those who experience them. The question of the "authenticity" of original works in classic modes (opera, legitimate theater, painting, etc.) in an age dominated by mechanical reproduction has been central to aesthetic debate in the twentieth century (eg, Benjamin, 1969). The mass media certainly retain an authenticity of their own based upon works inherent to those forms, but do art forms originally developed in live fora survive the process of mediation?

Around the corner, ever-higher fidelity recording and playback systems, and the diffusion of stereo television and high definition television further the promise of media as a means to provide arts experiences. One can argue that such improvements in audio and video technologies--particularly for the one medium with the greatest potential to replicate the live arts experience, television, will bring arts experiences substantially closer to the live experience. But while the experience through the window of the media is obviously of value, it must remain, perhaps, a different, more distanced experience.

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Footnotes

Note: We are indebted to **Elihu** Katz, Jennifer **Monahan,** Peter Monge, and anonymous referees for very helpful comments, but we remain responsible for all shortcomings. We gratefully acknowledge support from the National Endowment for the Arts (Contract # RFQ-86-02) and from the **Annenberg** School for Communication.

1. The National Endowment for the Arts funded 12 follow-up studies to the **Robinson,** et al. reports focussing in detail on particular aspects of the SPPA data base, of which Waterman, Schechter, and Contractor (1987) is one. Our report covers media participation in the arts and forms a partial basis for this paper. See also an internal Arts Endowment study by Horowitz (1987). All of these reports are available on the ERIC system.

2. In hi study of audiences for religious programming on cable television, Hoover (1988) found a strong tendency for relatively frequent viewers of evangelists on television to be relatively heavy churchgoers as well. The phenomenon of "the more-the more" has been implicitly paralleled as well by an empirical study **finding** substitutability of live arts performances for each other (Gapinski, 1986).

3. Arts programs have been available on cable television channels such as BRAVO and Arts and Entertainment since about **1980** as well, but their audiences have typically been small fractions of those attracted by public television arts programs.

4. Two more demographic variables in the SPPA data commonly appearing in previous studies, but omitted from our models, are sex and race. We found both variables to be generally **insignificant** in preliminary estimations of our models.

5. Among these three alternatives, most other studies using the SPPA data have relied principally on SMSA. See Horowitz (1987) and Blau and Quets (1988) for further discussion of their advantages and disadvantages.

6. Ordinary least squares estimates serve only as approximations since we are estimating the probability of events. Ideally, we would use **probit** models, but it would be very complex to construct them for all cases.

7. Coefficients for URBRURAL in the MINDEX and **ATTINDEX7** equations were **.09** and **.07** respectively. For POP, coefficients were **.11** and **.12** respectively.

8. These results with respect to geographic barriers to live participation are consistent with findings of Blau and Quets (1988) in their follow up report to the Arts Endowment. See also West **(1988),** which covers barriers to live participation more generally.

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