

Background and History

Planning for the 1997 SPPA began in 1994. Two studies were sponsored by the Arts Endowment's Research Division: one to investigate the questions that should be asked, and a second to investigate the alternatives to the U.S. Bureau of the Census conducting the SPPA as an add-on to the National Crime Survey, as was the procedure in 1982, 1985, and 1992. The major considerations in these investigations were the following:

- The population that was sampled should be the same as in previous SPPAs, i.e., U.S. resident noninstitutionalized population 18 years of age and older.
- The number of responses should be more than 12,000; there were 12,736 responses in 1992, and the earlier surveys had larger samples
- Basic demographic information should be collected about the respondents: gender, race, age, educational attainment, household income, and geographic location.
- Telephone interviews, possibly supplemented by face-to-face interviews of those unreachable by telephone, should be the method of data collection.
- The SPPA data constituted a time series from which trends could be inferred, so the stability of the questions and the data collection process should be preserved as much as possible.
- Questions should determine whether respondents participated by attending live arts performances or exhibitions, by listening or watching arts via broadcast or recorded media, by personally performing or creating art, and by owning art objects.
- Questions should be asked about participation in at least eight arts disciplines: jazz, classical music, opera, non-musical theater, musical theater, ballet, dance other than ballet, and art exhibited in museums and galleries.
- Questions previously asked about participation in these eight disciplines should be repeated to allow comparisons over time.
- Questions should include advances in technology such as compact disks, cable television, and personal computers.

NEA convened a meeting of arts researchers to gather opinions about the usefulness of the information collected by and presented from the previous SPPAs. The first contractor also conducted a mail survey with the same objective. A major finding was that the total participation information appeared to be the most useful product of the survey. Some users wanted more coverage of arts and crafts and ethnic arts. Many people wanted additional information about classes and training in the arts. Several users wanted religious affiliation and national origin

included in the demographic data and others wanted data on respondent's employment and occupation. Many users wanted to know about ticket prices and whether subscriptions to a series or membership in an organization increased attendance. A frequently-stated complaint was that the geographical information available from prior SPPAs too limited to be useful. In 1992 the Census Bureau only furnished information broken down into the four major regions of the country, and three metropolitan areas.

In July 1995 the first study, conducted by Communication Research, resulted in a final report recommending that most of the questions be retained. The findings of this study strongly influenced the design of the questionnaire that was used in the 1997 SPPA.

The second study, conducted by Jack Fawcett Associates, examined the conduct of the 1997 SPPA and evaluated several alternatives to conducting the SPPA as an add-on to the National Crime Survey (NCS). The NCS is a national survey conducted monthly throughout the year. The demographic and geographic information available was determined by the Department of Justice, which sponsors the NCS.

The NCS is a household survey: that is, households are the sampled unit and all members of the household are questioned, using multiple visits or phone calls if necessary. A rotating sample of households are questioned every six months for three years. The SPPA was added to the sixth (and exit) rotation of the sample, after the respondents were accustomed to the NCS questions and methods. The SPPA questions were asked every month for a year. In 1992 the SPPA was conducted by telephone for about 75 percent of the households and the others were visited. By 1995 the Census Bureau was using the telephone interview for almost all the households in the NCS.

The NCS was the baseline case. It had several advantages. The greatest advantage was that its use gave the greatest assurance of comparability of the 1997 SPPA data with the data from previous SPPAs. Surveys conducted by Census tend to have high response rates. The response rate in the 1992 SPPA was about 85 percent at the beginning of 1992 and dropped to just over 70 percent at the end of the year, still a respectable response rate. Any survey which is an add-on should offer economies, because this method saves the cost of designing the sample, selecting the sample, establishing contact, and asking the demographic questions. Because Census had conducted the survey three times before, NEA's risks were relatively low if Census conducted the SPPA.

The major alternatives to the NCS were the following:

1. Addition of the SPPA to another nationwide Census survey, such as the Current Population Survey or the National Health Interview Survey or to a Federal survey not conducted by Census.
2. Inclusion of the SPPA in a new survey funded jointly by NEA and other Federal agencies interested in Americans' use of their discretionary time.
3. A separate, stand-alone survey conducted by Census or by a private survey organization under contract.

The investigations included a discussion with Census of the full list of periodic data collections. The investigators agreed that the National Crime Survey was the most suitable vehicle available from Census for an add-on survey. Several alternatives, including the CPS, were re-

jected because the only respondent was a non-random “informant” within the household who was asked to provide information about other members of the household. Using such a vehicle would have resulted in relatively more elderly people and females in the sample because they are more likely to be at home than the other demographic groups. The NCS is one of the few Census data collections in which all household members provide responses.

No other current Federal survey was found that was as good a vehicle as NCS. However, one alternative given serious consideration was to modify procedures in the CPS to allow either random selection of an individual within a CPS household or to allow interviews with all members of the household. The modification would have applied only to the SPPA add-on. Although modification of the CPS procedures had distinct advantages, Census warned that additional training and operational procedures might be costly and introduce errors.

Contacts with other Federal organizations that might wish to join in a new survey revealed that several agencies already were participating in a one-time National Survey of Recreation and the Environment. This survey was in the data collection stage and concentrated on outdoor leisure-time activities.

The only strong contender to the NCS was a new, stand-alone survey conducted by Census or by a private survey firm. The contractor surveyed 85 survey organizations in the private sector and obtained cost quotations from 14 of them. The contractor, assisted by an advisory board of experts, evaluated the experience and response rates of these firms and concluded that at least three and perhaps as many as six firms could conduct the SPPA at costs comparable to or lower than the cost of adding the SPPA to the NCS in 1997.

In August 1995 the contractor, Jack Faucett Associates, submitted a final report on the study. The report concluded that the most satisfactory alternative available through the Census Bureau was a modification of the CPS in which all members of the household are interviewed. The most cost-effective survey alternative was to contract with a private-sector firm, academic or commercial, to conduct the 1997 SPPA with the desired response rate and quality of reporting.

In 1996 the Research Division of NEA decided to contract with a private-sector organization to conduct the 1997 SPPA as a stand-alone survey sponsored by NEA alone. In August 1996 Westat, Inc. of Rockville, MD was awarded the contract through the competitive bidding process. NEA chose to use a stand-alone survey conducted by a private organization for several reasons.

1. The contractor could obtain a response from only one individual, randomly selected, in each household, thus increasing the effective sample size by eliminating the household clustering errors inherent in the NCS, or any household survey in which all members of the household are interviewed.
2. The demographic categories could be chosen by NEA.
3. The geographic information about the respondents could be reported in greater detail than in Census surveys.
4. The interviewers could be thoroughly trained and motivated to encourage complete and accurate responses about arts interests and participation from the interviewees.

5. The respondents would be less fatigued because there was no prior questionnaire lasting 20-minutes (approximate time to administer the NCS questionnaire in 1992).
6. Interviewers could be required to follow up respondents who initially refused to be interviewed or who were not available for the initial telephone call.
7. The survey could be designed to permit multiple sets of questions, including experimental questions, to be asked of parts of the sample population.
8. The results of the survey could be made available more quickly and in a more user-friendly format (e.g., CD-ROM) than the results of a Census survey.
9. The cost of the stand-alone telephone survey was less than the cost of an add-on to the NCS.



Changes in Survey Procedures and Their Potential Effects on Estimates of Arts Participation

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The purpose of this appendix is to explore the comparability of arts participation estimates based on the 1997 Survey of Public Participation in the Arts (SPPA) and on earlier SPPA studies in 1982, 1985, and 1992. The 1997 SPPA arts participation rates are higher than those observed in previous SPPAs. The extent to which these higher rates are due to changes in American adults' behavior and to the changes in the methodologies of conducting the 1997 SPPA is not known. The 1997 SPPA was the first to be conducted as a "stand-alone" survey by Westat, rather than as a supplementary interview to the National Crime Victimization Survey (NCVS) conducted by the U.S. Census Bureau. In addition, the methods used to select households and adults to be interviewed for the study differed between the 1997 SPPA and earlier SPPAs. In particular, the 1997 SPPA used a random sample of telephone numbers to select households, while past SPPAs used samples of both telephone and nontelephone households. Also, a single adult from each household was selected for the 1997 SPPA interview by using what is called the "birthday method," instead of using the past method of interviewing all adults in the household. These differences in methodologies, and their potential implications for introducing differences in arts participation estimates, are discussed in this report.

Another factor that is important to consider when comparing the 1997 SPPA estimates to previous estimates are the differing rates of response to the studies. The response rate for the 1997 SPPA was quite a bit lower than those obtained before. The 1997 response rate was 55 percent, compared to rates which ranged from a low of 75 percent in 1992 to a high of 89 percent in 1982. Thus, the potential effects of nonresponse on differences in arts participation rates are also discussed.

Before discussing the methodological and response rate differences between the 1997 SPPA and the 1982–1992 SPPAs, arts participation estimates from each of these studies are presented. Also shown are recent estimates related to arts participation which are available from the General Social Survey (GSS)¹, in order to provide another independent source of arts participation data from which to evaluate the reasonableness of the 1997 SPPA estimates.

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COMPARISON OF 1997 SPPA ESTIMATES

Tables B1–B6 (see pages 64–68) show some estimates from the 1997 SPPA along with comparable estimates from the 1982–1992 SPPAs to illustrate the extent of the differences. Included are tables showing rates of attending live arts events (Table B1), taking part in other types of leisure activities (Table B2), expressing interest in attending live arts events more often (Table B3), using broadcast and recorded media for viewing or listening to arts performances (Table B4), preferences for specific music types (Table B5), and participation in lessons or classes in the arts (Table B6). The data from 1982 through 1992 shown in these tables were taken from the NEA Research Division Report #27, *Arts Participation in America: 1982–1992* (Jack Faucett Associates & Robinson, 1993).

The data in all six tables suggest that the 1997 SPPA estimates of arts-related behaviors are consistently higher than estimates obtained in earlier SPPAs. In Table B1, which shows estimates for benchmark arts and other arts activities, most differences are relatively modest, with some exceptions. These include the relatively large increases from 1992 to 1997 in estimates of attendance at musical plays, other dance performances, historic places, and reading literature. Estimates of participation in other types of leisure activities, such as exercising, working on home improvements, gardening, and outdoor activities, are also relatively high in the 1997 SPPA (Table B2). Percentages of adults expressing interest in attending live arts performances more often are also higher in 1997, particularly for plays, dance, and art museums (Table B3). In Table B4, there appear to be increases in the 1997 rates of using media to experience jazz and classical music within each media type, as well as in rates of watching musicals, dance, and visual arts programs on television. Many of the 1997 music preference estimates are also high compared to 1992, across all types of music, from classical and jazz, to blues, rock, easy listening, and gospel (Table B5). Estimates of ever taking classes or lessons in the arts are also uniformly higher in 1997, but not dramatically so. The largest 1992–1997 difference is for classes in visual arts; however the 1997 rate is similar to those from the 1982 and 1985 SPPAs. It is also worth noting that the rank order of different types of participation was very similar in the 1997 SPPA and the earlier surveys, even though participation rates were generally higher.

To provide another point of comparison for the 1997 SPPA estimates, some estimates from the 1993 General Social Survey are shown in Table B7 (page 69). While the range of data on arts-related behaviors is somewhat limited in the GSS, those shown in Table B7 indicate that the 1997 SPPA estimates are closely comparable to those obtained by an in-person household survey of a probability sample of the U.S. adult population. The percentages of adults reporting they like various types of music are very similar between the two studies, as are the percentages who reported having attended a classical music or opera performance and having played a musical instrument in the last year. This comparison suggests that rather than the 1997 SPPA estimates being unusually high, estimates from earlier SPPAs may have been unduly low.

Thus, the 1997 SPPA data seem to provide reasonable estimates of adults' arts participation; however, it is important for those analyzing these data to be aware of the methodological differences between the 1997 SPPA and previous SPPAs. The extent to which these methodological differences contributed to higher estimates in 1997 is difficult to quantify, or even estimate. Nevertheless, we examine the relevant methodological issues below, discussing the potential effects each may have had.

Table B1. 1982–1997 SPPA Estimates of Attendance Rates at Arts Events

Arts Activity	Percent Attending in the Last 12 Months			
	1982	1985	1992	1997
Attended				
Jazz performance	9.6%	9.5%	10.6%	11.9%
Classical music	13.0	12.7	12.5	15.6
Opera performance	3.0	2.6	3.3	4.7
Musical play	18.6	16.6	17.4	24.5
Non-musical play	11.9	11.6	13.5	15.8
Ballet	4.2	4.3	4.7	5.8
Other Dance	NA	NA	7.1	12.4
Visited				
Art museums	22.1	21.9	26.7	34.9
Art/craft fair	39.0	40.0	40.7	47.5
Historic park	37.0	36.0	34.5	46.9
Reading literature*	56.9	56.1	54.0	63.1

*The questions on reading literature differed across years. In 1992 and 1997, separate questions were asked about reading plays, poetry, or novels and short stories. A positive response to any of these questions was considered as “reading literature.” In 1982 and 1985 only one question was asked about all four types of literature.

NA: Data not collected in that year.

Table B2. 1982–1997 SPPA Estimates of Participation in Leisure Activities

Leisure Activity	Percent Participating in Last 12 Months			
	1982	1985	1992	1997
Exercise	51%	57%	60%	76%
Movies	63	59	59	65
Gardening	60	55	55	65
Amusement Parks	49	45	50	57
Home Improvements*	60	58	48	66
Active Sports	39	41	39	45
Sports Events*	48	50	37	41
Outdoor Activities	36	37	34	44
Volunteer/Charity Work	28	30	33	43
TV Watching (Average number of hrs/day)*	3.0	2.8	3.0	3.0

*Questions asked in 1982 and 1985 were different from questions in 1992 and 1997.

POTENTIAL EXPLANATIONS FOR HIGHER ARTS PARTICIPATION RATES OBSERVED IN THE 1997 SPPA

There are several possible reasons for why the 1997 SPPA may have generated higher arts participation rates compared to previous SPPAs, above and beyond any changes American adults may have made in their arts participation behaviors. The reasons explored below are all related to the different methods of administering the survey that were undertaken in 1997 and the lower response rates that were obtained compared to previous SPPAs. The different methodologies used in the 1997 SPPA included the sample selection methods, and the conduct of the study as a “stand-alone” survey rather than as a supplement to another main interview.

The higher estimates of arts participation rates observed in the 1997 SPPA are not entirely surprising, given Westat’s recent experience with conducting a survey about American adults’ participation in educational activities. This study was conducted by Westat for the U.S. Department of Education in 1991 and 1995, and is called the National Household Education Survey (NHES). Prior to the existence of the NHES, the primary source of nationally-representative data on participation in adult education came from interviews conducted by the U.S. Census Bureau as supplements to the Current Population Survey (CPS). The CPS is a monthly survey of the civilian, noninstitutionalized adult population of the United States, with the main purpose of obtaining estimates of employment, unemployment, and other characteristics of the labor force. The CPS periodically includes supplements to its main survey to gather information on different topics, such as education.

The estimates of participation in adult educational activities generated by the NHES are significantly higher than those obtained from the CPS supplement interviews. Because of this, research was undertaken by Westat to help explain these differences, and findings are published in a U.S. Department of Education report entitled *Measuring Participation in Adult Education* (Collins, Brick, Kim, & Stowe, 1997). In that research, several of the methodological differences between the NHES and the CPS supplementary interviews are explored for their potential contribution to differences in estimates of adult education participation.

Table B3. 1982–1997 SPPA Estimates of Interest in Attending Arts Events More Often

Arts Event	Percent Interested in Attending More Often			
	1982	1985	1992	1997
Jazz performances	18%	19%	25%	35%
Classical music	18	16	25	38
Operas	7	8	11	18
Musical plays	33	29	36	54
Non-musical plays	25	23	34	54
Ballet performances	12	12	18	27
Other dance performances	NA	NA	24	50
Art museums or galleries	31	31	38	67

NA: Data not collected in that year.

Table B4. 1982–1997 SPPA Estimates of Arts Participation Via Broadcast and Recorded Media

Art Form	Percent Using Media in the Last 12 Months			
	1982	1985	1992	1997
Jazz				
Television/vcr*	18%	17%	21%	31%
Radio	18	18	28	39
Recording	20	19	21	29
Classical music				
Television/vcr*	25	24	25	32
Radio	20	21	31	41
Recording	22	21	24	34
Opera				
Television/vcr*	12	12	12	15
Radio	7	7	9	11
Recording	8	7	7	11
Musical play				
Television/vcr*	21	18	15	25
Radio	4	5	4	5
Recording	8	7	6	12
Non-musical play				
Television/vcr*	26	21	17	23
Radio	4	4	3	6
Ballet				
Television	16	15	NA	NA
Dance				
Television/vcr*	NA	NA	19	39
Visual Arts				
Television/vcr*	23	25	32	45

* vcr usage was added in 1992 and 1997.

NA: Data not collected in that year.

Because of the parallels between Westat’s experience with the NHES and the 1997 SPPA, it is appropriate to examine many of the same issues that were addressed in *Measuring Participation in Adult Education*. For instance, many of the methodological differences between the 1997 SPPA and earlier SPPAs parallel those between the NHES Adult Education component and the CPS supplementary interviews. Also, in both circumstances higher estimates of participation were obtained in the “stand-alone” surveys done by Westat versus the supplementary interviews conducted by the Census Bureau. And finally, in both cases the response rates obtained in the Westat studies were lower than those obtained by the Census Bureau. Thus, the issues examined below parallel those in the *Measuring Participation in Adult Education* report.

Household Selection Methods and Coverage Bias

In 1982, 1985, and 1992, the SPPA was administered as a supplementary interview to the NCVS, and thus, those SPPAs were based on the NCVS samples of respondents. In very general terms,



Table B5. 1982–1997 SPPA Estimates of Music Preferences

Music Type	Percent Liking Each Type of Music			
	1982	1985	1992	1997
Classical/Chamber	28%	30%	33%	48%
Opera	10	10	12	19
Show Tunes/Operettas	23	24	28	44
Jazz	26	30	34	48
Reggae	NA	NA	19	32
Rap	NA	NA	12	17
Soul ¹	26	33	24	40
Blues/R&B ¹			40	63
Latin/Salsa	NA	NA	20	29
Big Band	33	32	35	45
Parade/Marching Band	NA	NA	18	32
Country-Western	58	53	52	65
Bluegrass	25	24	29	42
Rock	35	42	44	60
Ethnic/National	NA	NA	22	31
Folk (Contemporary) ²	25	25	23	38
Mood/Easy	48	52	49	67
New Age	NA	NA	15	31
Choral Glee Club	NA	NA	14	26
Hymns/Gospel	36	40	38	58

¹ In 1982 and 1985, Soul, Blues, and R&B were grouped together in a single category.

² The wording of the question was changed between 1985 and 1992.

NA: Data not collected in that year.

Table B6. 1982–1997 SPPA Estimates of Participation in Arts Classes or Lessons

Class/Lesson	Percent Ever Participating			
	1982	1985	1992	1997
Music	47%	47%	40%	49%
Visual Arts	24	25	18	29
Acting/Theater	9	10	7	12
Ballet	7	8	7	8
Modern/Other Dance	NA	NA	16	20
Creative Writing	18	18	16	25
Art Appreciation	20	19	23	24
Music Appreciation	20	20	18	23

NA: Data not collected in that year.

the sampling procedures for the NCVS involved systematically selecting addresses of households from defined geographic areas. These household selection procedures were informed by data collected by the Census Bureau in the decennial census and supplemental data on the construction of new housing units.

In contrast, the 1997 SPPA sampled households by using randomly selected telephone numbers, using a method called list-assisted random digit dialing (RDD). The list-assisted RDD method involves randomly selecting telephone numbers from “100-banks,” which are groups of phone numbers with the same first 8 digits of the 10-digit telephone number. The method is called “list-assisted” because each 100-bank included in the sample frame must include at least one number that is listed in the residential White Page telephone directory (this is called the listed stratum). Thus, the 100-banks in the frame include both listed and unlisted numbers (and both types of numbers are selected for the sample), but 100-banks that include only unlisted or nonresidential numbers (called the zero listed stratum) are never included in the frame. Consequently, numbers in the unlisted stratum can never be selected for the sample.

Thus, the 1997 SPPA sample included only households with telephones, and furthermore only telephone households in the listed stratum, while the 1982–1992 SPPA samples were drawn irrespective of whether or not households even had telephones. This raises the possibility that the higher 1997 arts participation estimates may at least in part be related to the exclusion of nontelephone households and of telephone households in the zero listed stratum. However, there is good reason to believe that these exclusions would not lead to significant coverage biases in estimates for the SPPA, as illustrated below.

The term “coverage bias” as used here refers to bias introduced into sample estimates because all households did not have the chance to be selected for the sample. Bias is the expected difference between an estimate obtained from the sample and the actual value in the population. For any potential coverage biases in SPPA estimates to be problematic, two conditions must be true. First, there must be relatively large differences between the characteristics of people in the “covered” population and those in the “uncovered” population. For example, if the percentage of adults who read literature in the last 12 months is very different between the cov-

ered and uncovered populations, there could be important coverage biases in this estimate. If the percentages are similar, coverage bias would be negligible. The second condition that must hold for significant coverage biases to be present is that the proportion of the population not covered in the sample must be relatively large compared to the size of the estimates. Coverage bias will be minimal if this is not true, for example, if only 5 percent of the population is not covered and estimates include 20 percent of the population.

Note that both of these conditions have to hold for there to be significant coverage biases in the estimates. In the following discussion, we explain that these two conditions do not hold for the populations of concern here: telephone vs. nontelephone households, and the telephone households in the listed vs. zero-listed strata.

TELEPHONE VS. NONTELEPHONE HOUSEHOLDS

There is certainly research to suggest that there are some important differences between persons living in telephone and nontelephone households. In general, such studies have found that persons living in telephone households tend to be of higher socioeconomic status than those in nontelephone households. For example, having a telephone has been found to be significantly related to educational attainment (Collins, Brick, Kim, and Stowe 1997), socioeconomic status and lifestyle (e.g., Smith 1990), and also health (e.g., Thornberry and Massey 1988).

This suggests that arts participation rates are also likely to vary significantly between telephone and nontelephone households, given the positive relationship between arts participation and elements of socioeconomic status, such as education level. However, this would only result in coverage biases in arts participation estimates if the second condition holds, that is, if the percentage of the population not covered in the SPPA sample (i.e., adults living in nontelephone households) is large. Since only about 6 percent of adults live in households without telephones, there is little potential for introducing substantial coverage bias.

As an illustration, in the *Measuring Participation in Adult Education* report, it was found that even when adults in telephone households were twice as likely as those in nontelephone households to have participated in an adult education activity in the last 12 months (25 versus 12 percent), the coverage bias was less than 1 percent, because the proportion of nontelephone households is so low. That report used CPS data on participation in adult education to examine several estimates among adults in telephone and nontelephone households, and found that almost all of the coverage biases were less than 0.5 percent. Doing such an analysis is out of the scope of this report; however, some hypothetical examples illustrate that telephone coverage bias is not a significant concern for the 1997 SPPA.

Table B7. Selected 1993 General Social Survey (GSS) and 1997 SPPA Estimates

Music Type	Percent Liking Each Music Type	
	1993 GSS ¹	1997 SPPA
Classical	47%	48%
Jazz	49	48
Rap	13	17
Blues/Rhythm & Blues	54	63
Big Band	52	45
Country-Western	61	65
Rock ²	55	60
Gospel	57	58
Percent attending classical music or opera performances in last year	16	18
Percent visiting art museums or galleries in the last year	41	35
Percent playing a musical instrument in the last year	24	22

¹ In the 1993 GSS, respondents were asked to respond to each music type within the following categories: like it very much, like it, have mixed feelings, dislike it, dislike it very much, or don't know much about it. Responses of "like it very much" and "like it" were grouped together for this comparison with the 1997 SPPA.

² In the 1993 GSS, this category was called Contemporary pop/rock.

The mathematical equation for calculating telephone coverage bias is

$$\text{Bias } (E_t) = P_n (E_t - E_n)$$

where E_t is the estimate based on telephone households only, E_n is the estimate based on non-telephone households only, and P_n is the proportion of nontelephone households. Using this equation, let's say that the percentage of adults visiting art museums during the last 12 months is 41 percent for telephone households only (this is the unweighted percentage estimate from the 1997 SPPA) and the percentage visiting art museums among nontelephone households is only half as high, at 20 percent. In this example, the bias would be only about 1.3 percent (.06 * (41-20)). In other words, in this scenario the telephone household sample yields an estimate of 41 percent, but a sample also including nontelephone households would have yielded an estimate of about 40 percent (41-1.3). Similarly, if the percentage of adults attending opera in the last 12 months is 6 percent among telephone households (this is the unweighted 1997 SPPA estimate) and 0 percent among nontelephone households, the telephone coverage bias would be about 0.4 percent.

Even these biases are overstated, because the weights developed for the 1997 SPPA help to compensate for undercoverage of nontelephone households. The weights were calibrated to known population totals that contain both adults in telephone and nontelephone households. For instance, the unweighted estimates for art museum visits (41 percent) and opera performance attendance (6 percent) are reduced to 35 percent for art museums and 5 percent for operas when the weights are applied. All this suggests that telephone coverage biases, especially when using the adjusted weights, would contribute very little to differences between the 1997 SPPA estimates and estimates from earlier SPPAs.

TELEPHONE HOUSEHOLDS IN THE LISTED VS. ZERO LISTED STRATA

The extent of potential bias associated with excluding telephone households whose numbers are in the zero listed stratum is even smaller than that for excluding nontelephone households. This is because neither of the two conditions described above hold for the listed versus zero listed groups (Brick, Waksberg, Kulp, and Starer 1995). That is, the characteristics of households in the listed stratum and zero listed stratum are similar, and importantly, economic characteristics are similar. Thus, there is no reason to believe that the arts participation rates between these two types of households would be significantly different. Even if households in the zero-listed stratum were found to be different, the potential for introducing bias is negligible because the percentage of telephone households in the zero listed stratum is only 3 to 4 percent. Consequently, the use of the list-assisted method of sampling telephone numbers would play a very small role in any differences in 1997 SPPA estimates of arts participation.

Respondent Selection Methods

The procedures for selecting respondents within households for the 1997 SPPA differed quite a bit from the procedures used in previous SPPAs. As a supplement to the NCVS, the SPPA followed within-household sampling procedures that selected *all* adults age 18 and older in sampled households. This approach for selecting adults had a clustering effect that resulted in a loss of

effective sample size due to intracluster (i.e., within-household) correlations of the respondents' characteristics, and possibly the arts-related behaviors of household members (Jack Faucett Associates and Robinson 1993). To avoid this clustering effect in the 1997 SPPA, only one adult per sampled household was selected to respond to the 1997 SPPA study. The procedure used for selecting adults is called the "birthday method." With this method, the interviewer asks an adult household member to identify the adult in the household who had the most recent birthday. The birthday method has some advantages over and above that of not introducing clustering in the sample. These include the time and resource efficiencies of not enumerating household members, and the nonthreatening nature of this method for respondents.

There is no apparent reason to believe that the use of the birthday method has the potential to significantly inflate estimates of arts participation over those obtained in previous years. Certainly, a disadvantage of using the birthday method is that sometimes the household informant identifies the incorrect person for the interview, that is, someone other than the one with the most recent birthday. Of particular concern is that some informants select themselves at a higher rate than would be expected by chance (Romuald & Haggard 1994). However, researchers have not consistently found any significant differences between correctly and incorrectly identified respondents, as far as demographic characteristics and responses to the substantive topics of the surveys studied (Lavrakas, Bauman, & Merkle 1993; Romuald & Haggard 1994; O'Rourke & Blair 1983, Salmon and Nichols 1983). While this same issue cannot be directly studied with the 1997 SPPA data, the existing research on the birthday method gives no basis to expect that this sampling approach would generate artificially high arts participation rates.

SPPA as an Independent Study Versus a Supplemental Interview

As mentioned above, from 1982 to 1992 the SPPA was conducted by the Census Bureau as a supplement to another main interview called the National Crime Victimization Survey (NCVS). Thus, the context of these interviews was very different from the 1997 SPPA, which was conducted independently as its own main survey. Respondents for the 1982–1992 SPPAs were contacted in person by interviewers and asked to respond to a survey regarding crime victimization, which was then followed by the SPPA supplement interview. In contrast, 1997 SPPA respondents were approached by interviewers over the telephone and at the outset told they would be taking part in a study focusing on adults' participation in arts and leisure activities. There is no methodological research on the issue of how estimates may differ between "stand-alone" surveys and survey supplements. However, we can speculate about some circumstances surrounding the context of previous SPPAs and the 1997 SPPA that could potentially impact data quality, and in turn, result in differing estimates.

One factor may be that supplemental interviews are viewed as being of secondary importance by both interviewers and respondents. Just by virtue of being a supplement, interviewers may place less importance on that portion of the study, and in turn, be somewhat less diligent about carefully administering the questions and gathering responses (e.g., do less probing to obtain accurate responses). As an example, Census interviewers were instructed that follow-up contacts were not necessary if the NCVS was completed but the SPPA was not, which may

have conveyed a message to interviewers that SPPA data were of less importance. Respondents may also put forward less effort in responding to supplement questions, if they are perceived as being of secondary importance. This could have been a factor for the 1982–1992 SPPAs, if interviewers had that impression and relayed it to respondents. Another possibility is that this message was implied given the very different subject matter between the main survey on criminal victimization and the supplement on participation in arts and leisure activities. If previous SPPAs were viewed this way, it may be that relatively less effort was put forth by both respondents and interviewers to recall and record accurate data, resulting in underestimates of arts participation.

Another potential factor is simply respondent fatigue after a 20 minute survey on crime victimization. From the respondent's perspective, recalling arts participation in activities over a 12 month period is a relatively demanding cognitive task. Respondents may be less willing to put forth great effort to recall their participation in arts activities after already going through a 20 minute interview which, given its topic, could very well have been cognitively and emotionally taxing for them. If respondents were fatigued, it is also possible that some may have deliberately underreported participation in arts activities in order to avoid follow-up questions. The fact that all adults in households were selected for the study may have encouraged underreporting, if household members in some way informed each other about the content of the survey, that is, that reporting participation would lead to follow-up questions.

Differences in interviewer training may also have played a role in the higher 1997 estimates. The 1997 SPPA interviewers received about 10 hours of project-specific training to administer the study. This training included instruction on the purpose and importance of the study, practice interviews illustrating definitions of terminology in the survey and how to probe for accurate answers from respondents, and "role-play" interviews in which trainees paired up to practice interviews with one playing the respondent and one playing the interviewer. All of this instruction took place under the supervision of the SPPA trainer and other telephone center supervisors. In contrast, Census interviewers received minimal training for the SPPA supplement interviews, which consisted primarily of home-study materials they were required to read. It is feasible that the more extensive interviewer training for the 1997 SPPA could have contributed to the higher estimates for two reasons. First, it may have better prepared interviewers to carefully administer the survey questions. Second, it could have sent a stronger message to interviewers as to the importance of collecting the most accurate data possible than would a more limited training program.

Survey Nonresponse

The final issue considered in this report is the extent to which differences in survey response rates may have contributed to differences in arts participation rates between 1997 and previous years. As mentioned earlier, the response rate for the 1997 SPPA was quite a bit lower than those obtained in previous SPPAs. The 1997 response rate was 55 percent, compared to 75 percent in 1992, 85 percent in 1985, and 89 percent in 1982. The concern arising from lower response rates is similar to that for the telephone coverage issue discussed above. In this case, the concern is that households and persons who were sampled but did not complete SPPA inter-

views (i.e., nonrespondents) are somehow systematically different than those who did complete interviews (i.e., respondents).

There are several reasons for nonresponse, including the inability to reach any household member after repeated calls, difficulties converting respondents who have refused to take part in the study, and the inability to complete interviews in the time allotted in the data collection period. Among these types of nonresponse, of greatest concern are the refusals to cooperate with the study. This is because the refusal group tends to be the largest component of all nonrespondents in household surveys, and the characteristics of people who refuse are potentially different from those of respondents who willingly completed interviews. That is, it is reasonable to expect that the arts participation rates of people who refuse would be lower on average than the arts participation rates of those who willingly cooperate, if interest in the arts is related to interest in responding to the SPPA. However, this expectation is impossible to evaluate, given the lack of data for nonrespondents.

Nevertheless, this issue was explored as part of a separate report for the NEA (Loomis, Rizzo, and Krawchuk, 1998). In that report, it was proposed that persons who first refused but then cooperated with the 1997 SPPA (i.e., “reluctant” respondents) may have much in common with the final nonrespondents. Working under this assumption, the arts participation rates among the reluctant respondents were compared to those of willing respondents (i.e., those who never refused). Overall rates of arts participation and rates within other variables known to be related to arts participation (e.g., gender, age, education level, race and ethnicity) were examined, and no consistent evidence was found of significant differences in arts participation between reluctant and willing respondents. This analysis provided some assurances that nonresponse biases in the 1997 SPPA data may not be substantial.

However, if one is interested in estimating the potential for nonresponse bias, the bias formula outlined above can be used. Using the examples similar to those used earlier, let’s say that 41 percent of respondents and 20 percent of nonrespondents visited art museums in the last 12 months. In this scenario, the nonresponse bias would be about 9.5 percent ($.45 * (41-20)$), implying that the “true” estimate of art museum attendance is closer to about 32 percent ($41-9.5$). Similarly, if 6 percent of respondents and 0 percent of nonrespondents attended opera performances in the last 12 months, the nonresponse bias would be 2.7 percent ($.45 * (6-0)$). It is evident in these scenarios that the potential for nonresponse bias is larger than for telephone coverage bias, because of the higher percentage of the “uncovered” population. However, these are probably extreme examples and potential nonresponse bias should account for a smaller portion of the difference in arts participation rates between 1997 and previous years. It is also important to remember that the weights developed for the 1997 SPPA data help to adjust for potential nonresponse biases by “weighting up” population subgroups with lower response rates². (See Loomis, Rizzo, and Krawchuk, 1998 report for more details on 1997 SPPA weighting procedures.) Thus, any nonresponse biases present in the 1997 SPPA data are somewhat alleviated by applying the weights to analyses.

Summary

The rates of arts participation found in the 1997 SPPA are consistently higher than those produced from previous SPPA studies, raising the question of whether this reflects actual differences

in adults' behaviors or also changes that were made in the methodological procedures for conducting the studies. Comparisons with the 1993 General Social Survey suggest that the 1997 SPPA estimates are reasonable, so that the changes in methodologies did not result in artificially high estimates. Nevertheless, one of the goals of the SPPA is to produce estimates of arts participation over time, so it is necessary to consider elements of the 1997 SPPA study design that may influence the results of over-time analyses. While it is not possible to definitively quantify the influence of the methodological changes on the 1997 estimates, this report discussed the relevant issues and speculated on the possible effects.

The changes in procedures for administering the 1997 SPPA included the use of the list-assisted RDD method for sampling households, the birthday method for sampling adults within selected households, and a "stand-alone" survey instrument rather than a supplementary interview. Another methodological issue discussed was the lower response rate obtained in the 1997 SPPA. Across these issues, it can be said that bias in estimates resulting from the use of the list-assisted RDD method which excludes nontelephone households is probably quite negligible. The same is probably true regarding bias from the use of the birthday method for sampling adults. Of greater influence may be potential nonresponse biases, although the weights developed for the study help to adjust for this. It is impossible to estimate the effect of the move to a "stand-alone" SPPA interview; however, this may have also played a relatively important role, as far as influencing interviewer and respondent perceptions about the importance of gathering quality data. Even though the magnitude of the effects of all these factors is uncertain, analysts using the 1997 SPPA data should be confident in using the data, but keep these issues in mind when making inferences in their time series analyses.

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¹ The GSS is a recurring study of American adults age 18 and older sponsored by the National Science Foundation and conducted by the National Opinion Research Center (NORC) at the University of Chicago. Since 1972, the GSS has gathered data on social indicators covering a wide range of topics. The GSS is based on a multistage probability sample of adults, in which a single adult was selected from each sampled household. Addresses of households were sampled from within defined geographic areas. GSS interviews were conducted in-person. In 1993, the GSS sample size was 1,606 adults and the response rate was 82%.

² For instance, the unweighted 1997 SPAA data suggest that the educational attainment levels of respondents are higher on average than would be expected based on Census Bureau data. Because of the positive relationship between educational attainment and arts participation, it is possible that the overrepresentation of adults with higher education levels played a role in the higher 1997 SPAA participation rates. However, the weighting procedures for the 1997 SPAA data helped to adjust for this possibility by weighting up respondents with relatively low educational attainment levels.



Data Collection Experiences, Response Rates, and Weighting Procedures

This appendix presents a much-simplified summary of a Westat report prepared for the 1997 SPPA by Laura Loomis, Lou Rizzo, and Sheila Krawchuk: *Report on Data Collection Experiences, Response Rates, and Weighting Procedures* dated January 1998. Readers may learn the details of the selection of the respondents and of the weights that were assigned to their responses from this report, which may be obtained from the Research Division of the NEA.

Telephone numbers in the United States can be grouped into “100-banks,” or sets of 100 telephone numbers with the same area code and five-digit prefix (e.g., 301-555-67). Westat drew a random sample of telephone numbers from all banks that contained at least one residential number. This sample was purged of nonworking and nonresidential numbers that could be identified before data collection started. Each remaining telephone number was called to identify and screen households as sources of potential respondents using a screening interview.

The field test in April 1997 suggested that there might be response rate difficulties for the main data collection effort. Therefore, advance letters were sent to the households for which mailing addresses could be obtained. The response rate to the household screening interview was higher for those sent letters than for other households. Many of the screening telephone calls were not answered or were answered by a machine. These households were called again many times. The vast majority of numbers that were abandoned had been called at least 13 times over a period of several weeks. Some households that answered refused to be interviewed. Letters were sent by Federal Express to encourage these households to cooperate. This procedure significantly increased the rate of conversion from nonparticipation to participation in the survey. Reasons for not completing the screening included failures ever to reach an answering person, language or illness difficulties, and outright refusal to participate.

The adult member of the household with the most recent birthday was selected as the respondent for that household. A significant fraction of the selected respondents could not be reached or did not complete the full questionnaire. Nationwide 12,349 respondents, 55 percent of those selected, completed the interview. The range was from 42 percent in New Jersey to 65 percent in the region consisting of North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, and Missouri.

Weights were developed for the data. The weights took into account the probabilities (a) of each telephone number’s being selected from the 100-banks in defined geographic areas, (b) of households being sampled through one or more-than-one residential telephone number, and (c) of adults being selected within their households. The weights were adjusted for survey nonresponse to help reduce potential nonresponse bias in the survey estimates. Nonresponse bias is a concern if the characteristics of respondents and nonrespondents are signifi-

cantly different., particularly with respect to their participation in the arts. Westat did an analysis to try to assess the extent to which nonresponse bias may exist over and above the weighting adjustments that were made, termed “nonignorable nonresponse.” Because data from nonrespondents are, by definition, not available, the analysis compared the arts participation rates of willing participants in the survey to those of “reluctant ” survey participants, i.e., individuals who initially refused to participate but later were persuaded to do so. The results showed that there were not significant differences between the two groups, suggesting that nonignorable nonresponse is not a significant issue for the data. The weights were also calibrated to population totals from the Census Bureau’s Current Population Survey.



1997 SPPA Survey Design

The 1997 SPPA survey instrument and sample had a more complex design than prior SPPA's for two reasons: First, the need to address the variety of interests in new data on arts participation that was identified in the Arts Endowment's planning study referred to in Appendix A, Background and History; second, because the 1997 SPPA was being conducted as a stand alone survey by a private contractor, it was possible to be more flexible in both the survey instrument and sample design.

An advisory panel of experienced arts researchers was convened in 1996 to assist in designing the 1997 questionnaire. The objectives used to guide the design were (1) retention of as much as possible of the previous SPPA questionnaires, (2) inclusion of as many as possible of the desired changes (identified in the planning study), and (3) limit the duration of the interview to no more than an average of 15 minutes. The design matrix shown on the next page is the product of the compromise between these competing objectives. Most of the questions in the 1992 SPPA were retained exactly as they were asked previously. The questions about attendance at live arts performances and exhibitions (module A) were asked of all the respondents in just the way they were asked in 1992. Almost the same questions were asked about participation through listening or watching arts activities through the broadcast and recorded media, including CD recordings (module B). However these questions were asked of only about half of the respondents. The questions about personal participation by performing or creating works of art (module E) were asked of about 4,500 respondents.

Questions about interest in increased participation in arts activities (module C) were asked of about 7,000 respondents. Most of these people were not asked questions about personal arts participation (module E), about music preferences (module F), or about arts socialization (module G). However every module overlaps with every other module, so researchers can look for unions in the sample sets, although the number of responses may be small.

The number of responses to some questions is small because the questions were asked only of those respondents who gave affirmative answers to a previous question. For example, only the people who said they had attended an opera or had visited a museum were asked how many times they did so. In order to maximize the amount of information collected and minimize the respondent burden, many of the questions were asked of only a relatively small number of interviewees. A complete list of questions from the survey instrument is presented in Appendix F.

1997 SPAA Survey Design Matrix

Sub-Sample Number	1	2	3	4	5	6	7	8	Completed Interviews per module
Completed interviews per sample	3,057	1,484	1,529	1,449	1,522	1,519	892	897	
Module (Questions included; survey time)									
A	Participation in Art Activities (A1–A23; 3 minutes)	X	X	X	X	X	X	X	11,452
TM-1	Participation in Art Activities with last month frequency (A2a–A22a; 3 minutes)							X	897
TM-2	Participation Follow-up (A24–A40; 3 minutes)						X		892
B	Participation Through Media (B1–B25; 3 minutes)	X	X	X					6,070
C	Interest in Increased Participation (C1, C2; 1 minute)	X			X	X		X	6,920
TM-3	Barriers to Participation (C3; 1 minute)	X						X	3,949
D	Participation in Other Leisure Activities (D1–D14; 2 minutes)	X			X	X			6,028
E	Personal Arts Participation (E1–E30; 2 minutes)		X		X		X		4,452
F	Music Preferences (F1, F2; 1 minute)		X		X		X		4,452
G	Arts Socialization (G1–G35; 4 minutes)			X		X	X		5,467
TM-4	Additional Arts Socialization Items (G36–G39; 1 minute)							X	897
H	Personal Background and Household Characteristics (H1–H27; 5 minutes)	X	X	X	X	X	X	X	12,349
Total Survey Time	15	14	15	14	15	15	13	13	

* Includes additional cases supported by the University of San Francisco.

TM = Test Module

Estimating Variance for 1997 SPPA Data Items

Because the 1997 SPPA used a complex sample design, direct estimation of variance assuming a simple random sample will tend to underestimate the variability in the estimates. Using replicate weights is one way to compute sampling errors to reflect the complex sample design.

In general, the replication method involves splitting the full sample into smaller groups, or replicate samples, each one constructed to “mirror” the composition of the full sample. Each replicate consists of almost the full sample, but with some respondents removed. The variation in the estimates computed from the replicate samples is used to estimate the sampling errors of survey estimates from the full sample.

For the 1997 SPPA, 50 replicate weights (FWGT1- FWGT50) were developed and reflect 50 replicate samples that were created. These weights, adjusted for nonresponse and calibrated to add up to the Census Bureau’s Current Population Survey (CPS) control totals, are needed and were used to calculate the variance (or standard error) of survey estimates.

The computation of sampling errors using replicate weights can be done using the WesVarPC Windows-based software. The WesVarP software and documentation can be obtained free of charge through the Internet (<http://www.westat.com>) or by sending an e-mail message to wesvar@westat.com. Note that there are several replication methods available in the WesVarPC software. When using WesVarPC for analyzing the 1997 SPPA data, the “JK1” option should be used.¹

Table E.1 shows variance estimates for a variety of the SPPA questions. The first column presents the estimated participation rates. Columns two through four present the standard error and the associated 95% confidence levels. Coefficients of variation (CV), which are simply the standard errors translated into percentages of the actual estimate, are shown in column five. The final column displays the effect that the survey design has on the variance of the estimate. It is computed as the estimated variance (calculated using the replicate method) divided by the theoretical variance that would be obtained for a simple random sample with the same sample size.

On average, leisure activities have the lowest coefficient of variation while personal participation items have the highest. Also, media participation items show relatively more variation than shown by the live attendance. In terms of design effect, the live attendance were the least effected on average while the media items were the most effected. Nonetheless, the design effect for the media items is still lower than most of the design effects seen in 1992.

Much of this material was drawn from “1997 Survey of Public Participation in the Arts: List of Administrative, Derived, and Weighting Variables”, an unpublished document prepared by Westat for the NEA.

¹ For more information on how the replicate weights were developed and how WesVarPC computes variance estimates using replicate weights, see Westat’s technical memorandum of January 1998: Report on 1997 SPPA Data Collection Experiences, Response Weights, and Weighting Procedures (available through the NEA’s Research Division).

Table E1. Variance Calculations: 1997 SPPA Data

	Estimate	Standard Error	95% Confidence Interval		Coefficient of Variation	Design Effect
			Lower	Upper		
Live Attendance						
Jazz	11.9%	0.317	11.3%	12.5%	2.7	1.18
Classical	15.6	0.366	14.9	16.3	2.4	1.26
Opera	4.7	0.199	4.3	5.1	4.3	1.10
Musicals	24.5	0.355	23.8	25.2	1.4	0.84
Plays	15.8	0.345	15.1	16.5	2.2	1.11
Ballet	5.8	0.238	5.3	6.3	4.1	1.27
Other Dance	12.4	0.334	11.7	13.1	2.7	1.27
Art Museums	34.9	0.495	33.9	35.9	1.4	1.33
Historic Parks	46.9	0.475	46.0	47.8	1.0	1.12
Art/ Craft Fairs	47.5	0.477	46.6	48.4	1.0	1.13
Read Books	63.1	0.576	62.0	64.2	0.9	1.83
Media						
Video Jazz	30.7	0.761	29.2	32.2	2.5	1.65
Radio Jazz	39.3	0.798	37.7	40.9	2.0	1.62
CD Jazz	29.0	0.741	27.5	30.5	2.6	1.62
Video Classical	32.2	0.817	30.6	33.8	2.5	1.85
Radio Classical	41.0	0.948	39.1	42.9	2.3	2.26
CD Classical	34.3	0.796	32.7	35.9	2.3	1.71
Video Opera	15.0	0.632	13.8	16.2	4.2	1.90
Radio Opera	10.8	0.537	9.7	11.9	5.0	1.81
CD Opera	10.7	0.538	9.6	11.8	5.0	1.84
Video Musical	25.0	0.840	23.4	26.6	3.4	2.28
Radio Musical	4.8	0.361	4.1	5.5	7.5	1.73
CD Musical	11.5	0.550	10.4	12.6	4.8	1.80
Video Play	23.4	0.755	21.9	24.9	3.2	1.92
Radio Play	6.0	0.323	5.4	6.6	5.4	1.12
Video Dance	39.4	0.920	37.6	41.2	2.3	2.15
Video Visual Art	45.1	0.955	43.2	47.0	2.1	2.23
Leisure Activities						
Movies	65.5	0.747	64.0	67.0	1.1	1.49
Sports Events	41.2	0.812	39.6	42.8	2.0	1.64
Amusement Park	57.0	0.799	55.4	58.6	1.4	1.57
Exercise	75.7	0.607	74.5	76.9	0.8	1.21
Sports Activity	44.9	0.855	43.2	46.6	1.9	1.78
Outdoor Activity	44.3	0.791	42.7	45.9	1.8	1.53
Volunteer Work	43.2	0.943	41.4	45.0	2.2	2.18
Home Improvements	65.9	0.817	64.3	67.5	1.2	1.79
Gardening	65.4	0.715	64.0	66.8	1.1	1.36
Personal Computing	40.4	0.848	38.7	42.1	2.1	1.80
Personal Participation						
Craft	15.1	0.706	13.7	16.5	4.7	1.73
Sew	27.6	0.814	26.0	29.2	3.0	1.48
Photography	16.6	0.715	15.2	18.0	4.2	1.62
Draw	15.9	0.658	14.6	17.2	4.1	1.44
Write	12.1	0.490	11.1	13.1	4.0	1.00
Composed Music	3.7	0.407	2.9	4.4	11.2	2.10
Played Instrument	21.8	0.820	20.2	23.4	3.8	1.75
Jazz	2.2	0.297	1.6	2.8	13.5	1.83
Classical	11.0	0.594	9.8	12.2	5.4	1.60
Sang Opera	1.8	0.184	1.4	2.2	10.0	0.84
Sang Musical	7.7	0.545	6.6	8.8	7.1	1.86
Dance Ballet	0.5	0.134	0.2	0.8	25.9	1.55
Dance Other	12.6	0.590	11.4	13.8	4.7	1.41

1997 Survey Questions

Participation in Arts Activities

- A1. With the exception of elementary, middle, or high school performances, did you go to a live jazz performance during the last 12 months?
- A2a. How many times did you do this last month?
or
- A2b. About how many times did you do this during the last 12 months?
- A3. [With the exception of elementary, middle, or high school performances,] Did you go to a live classical music performance such as symphony, chamber, or choral music during the last 12 months?
- A4a. How many times did you do this last month?
or
- A4b. About how many times did you do this during the last 12 months?
- A5. [With the exception of ...] Did you go to a live opera during the last 12 months?
- A6a. How many times did you do this last month?
or
- A6b. About how many times did you do this during the last 12 months?
- A7. [With the exception of ...] Did you go to a live musical stage play or an operetta during the last 12 months?
- A8a. How many times did you do this last month?
or
- A8b. About how many times did you do this during the last 12 months?
- A9. [With the exception of ...] Did you go to a live performance of a non-musical stage play during the last 12 months?
- A10a. How many times did you do this last month?
or
- A10b. About how many times did you do this during the last 12 months?
- A11. [With the exception of ...] Did you go to a live ballet performance during the last 12 months?
- A12a. How many times did you do this last month?
or
- A12b. About how many times did you do this during the last 12 months?
- A13. [With the exception of ...] Did you go to a live dance performance other than ballet, such as modern, folk, or tap during the last 12 months?
- A14a. How many times did you do this last month?

or

A14b. About how many times did you do this during the last 12 months?

A15. [During the last 12 months,] Did you visit an art museum or gallery?

A16a. How many times did you do this last month?

or

A16b. About how many times did you do this during the last 12 months?

A17. [During the last 12 months,] Did you visit an art fair or festival, or a craft fair or festival?

A18a. How many times did you do this last month?

or

A18b. About how many times did you do this during the last 12 months?

A19. [During the last 12 months,] Did you visit an historic park or monument, or tour buildings or neighborhoods for their historic or design value?

A20a. How many times did you do this last month?

or

A20b. About how many times did you do this during the last 12 months?

A21. With the exception of books required for work or school, did you read any books during the last 12 months?

A22a. How many books did you read last month?

or

A22b. About how many books did you read during the last 12 months?

A23. [During the last 12 months,] Did you read any ...

- a. Plays? b. Poetry? c. Novels or short stories?

Participation Follow-up Questions

INTRODUCTION. You said that in the last 12 months you attended [event]. I'd like to ask you a few questions about the last time you went to this type of performance.

A24. First, what was the name of the performance or the performer[s]?

A25. In what type of place was the [event] held?

A26. How did you find out about this [event]?

A27. Was the [event] free, or was there an admission fee?

A28. Was your ticket bought as part of a subscription?

A29. About how much did your ticket (or subscription) cost?

A30. Did you attend this [event] alone, or did at least one other person go with you?

A31. Who went with you to this performance? For example, your spouse or partner, your friend or a date, your parent, child, brother or sister, or someone else?

INTRODUCTION. You said that in the last 12 months you visited an art museum or gallery. I'd like to ask you just a few questions about the last time you went to an art museum or gallery.

A32. First, was the art displayed for viewing only, or was it also there for sale?

- A33. Were you a member of this art museum or gallery at the time you visited?
- A34. Did the art museum or gallery have an admission fee?
- A35. What was the cost of your admission ticket?
(If free) Was your admission to the art museum or gallery free because you were a member?
- A36. What type of art or exhibit did you go to see at this museum or gallery?

INTRODUCTION. You said that in the last 12 months you read [plays, poetry, novels or short stories]. I'd like to ask you just one or two questions about the types of things you read..

- A37. What was the name of one of the plays you read, or the name of the playwright?
- A38. What was the name of a poem you read, or the name of a poet?
- A39. What was the name of one of the novels or short stories you read, or the name of the author?
- A40. What type of novel or short story (was that/did you read by that author)? For example, was it a mystery, science fiction, or romance novel, or something else?

Participation Through Media

- B1. During the last 12 months, did you read any critical reviews of artistic works, such as reviews of art museum or gallery exhibits, plays, books, or musical performances?
- B2. [During the last 12 months,] Did you listen to ...
a. A reading of poetry, either live or recorded?
b. A reading of novels or books either live or recorded?
- B3. [During ...] Did you watch a jazz performance on television or a video (VCR) tape?
- B4. [During ...] Did you listen to jazz on radio?
- B5. Did you listen ...
Almost every day,
3-5 days a week,
1-2 days a week, or
Less often?
- B6. [During ...] Did you listen to jazz records, tapes, or compact discs?
- B7. Did you listen ...
Almost every day,
3-5 days a week,
1-2 days a week, or
Less often?
- B8. [During ...] Did you watch a classical music performance on television or a video (VCR) tape?
- B9. [During ...] Did you listen to classical music on radio?
- B10. Did you listen ...
Almost every day,
3-5 days a week,
1-2 days a week, or
Less often?

- B11. [During ...] Did you listen to classical music records, tapes or compact discs?
- B12. Did you listen ...
 Almost every day,
 3–5 days a week,
 1–2 days a week, or
 Less often?
- B13. [During ...] Did you watch an opera on television or a video (VCR) tape?
- B14. [During ...] Did you listen to opera music on radio?
- B15. [During ...] Did you listen to opera music records, tapes, or compact discs?
- B16. With the exception of movies, did you watch a musical stage play or an operetta on television or a video (VCR) tape during the last 12 months?
- B17. [During ...] Did you listen to a musical stage play or an operetta on radio?
- B18. [During ...] Did you listen to a musical stage play or an operetta on records, tapes, or compact discs?
- B19. With the exception of movies, situation comedies, or TV series, did you watch a non-musical stage play on television or a video (VCR) tape during the last 12 months?
- B20. [During ...] Did you listen to a radio performance of a non-musical stage play?
- B21. With the exception of music videos, did you watch on television or video (VCR) tape dance such as ballet, modern, folk, or tap during the last 12 months?
- B22. [During ...] Did you watch a program about artists, art works, or art museums on television or a video (VCR) tape?
- B23. During the last 12 months, did you use a personal computer to listen to or watch any type of performance or artistic work?
- B24. Please tell me which of the following you watched or listened to on a personal computer. How about ...
- a. Paintings, sculpture, or other works of visual art, such as copies of those displayed in a museum or gallery?
 - b. Musical performances, such as classical, jazz, opera, or musical plays?
 - c. Any other type of performance or artistic work?
- B25. During the last 12 months, did you use a personal computer to find out about art shows or live performances of music, dance, operas, musicals, or plays, or to order tickets for such performances?

Interest in Increased Participation

- C1. Now I'm going to read a list of events that some people like to attend. If you could go to any of these events as often as you wanted, which ones would you go to more often than you do now? How about ...
1. Jazz music performances
 2. Classical music performances
 3. Operas
 4. Musical plays or operettas
 5. Non-musical plays

6. Ballet performances
 7. Dance performances other than ballet
 8. Art museums or galleries
- C2. Of the events you just mentioned, which would you like to do most?

Barriers to Participation

C3. There are many reasons why people do not go to performances or art museums as often as they would like. I'm going to read a list of some reasons, please tell me (which ones have kept you from attending [event*] more often)(which ones are true for you). How about . . .

- a. Tickets sell out before you have a chance to buy them?
- b. Tickets are too expensive?
- c. There are not many (performances held/art museums or galleries) in your area?
- d. You think you may feel uncomfortable or out of place?
- e. There is no one who would go with you?
- f. Child care responsibilities, or it is too difficult to get a babysitter?
- g. A health problem or disability?
- h. The location is usually not convenient?
- i. The location is usually not in a safe area?
- j. The quality of the (performances/exhibits) is poor?
- k. It is difficult to make time to go out?

** the event reported in question C2*

Participation in Other Leisure Activities

INTRODUCTION. These next questions are about your participation in other leisure activities.

- D1a . About how many hours of television do you watch on an average weekday, that is, Monday through Friday?
- D1b . And about how many hours do you watch on an average day during the weekend, that is on Saturday and Sunday?
- D2 . During the last 12 months, did you go out to the movies?
- D3. About how many times did you do this during the last 12 months?
- D4. With the exception of youth sports, did you go to any amateur or professional sports events during the last 12 months?
- D5. About how many times did you do this during the last 12 months?
- D6. During the last 12 months, did you go to an amusement or theme park, a carnival, or a similar place of entertainment?
- D7. During the last 12 months, did you jog, lift weights, walk, or participate in any other exercise program?
- D8. During the last 12 months, did you participate in any sports activity, such as softball, basketball, golf, bowling, skiing, or tennis?
- D9. Did you participate in any outdoor activities, such as camping, hiking, or canoeing during the last 12 months?
- D10. Did you do volunteer or charity work during the last 12 months?

- D11. Did you make repairs or improvements on your own home during the last 12 months?
- D12. Did you work with indoor plants or do any gardening for pleasure during the last 12 months?
- D13. Not counting using a computer at work or at school, did you use a personal computer for hobbies or enjoyment, such as playing games or “surfing” the Internet, during the last 12 months?
- D14. About how many hours did you do this in an average week?

Personal Arts Participation

INTRODUCTION. The following questions are about other types of activities you may do.

- E1. During the last 12 months, did you work with pottery, ceramics, jewelry, or do any leatherwork or metalwork?
- E2. Did you publicly display any of your works?
- E3. [During the last 12 months,] did you do any weaving, crocheting, quilting, needlepoint, or sewing?
- E4. Did you publicly display any of your works?
- E5. [During the last 12 months,] Did you make photographs, movies, or video tapes as an artistic activity?
- E6. Did you publicly display any of your works?
- E7. [During the last 12 months,] Did you do any painting, drawing, sculpture, or printmaking activities?
- E8. Did you publicly display any of your works?
- E9. With the exception of work or school, did you do any creative writing such as stories, poems, or plays during the last 12 months?
- E10. Were any of your writings published?
- E11. Did you write or compose any music during the last 12 months?
- E12. Was your musical composition played in a public performance or rehearsed for a public performance?
- E13. During the last 12 months, did you play a musical instrument for your own pleasure?
- E14. Can you play music well enough to perform for other musicians or with other musicians?
- E15. Do you own any original pieces of art, such as paintings, drawings, sculpture, prints, or lithographs?
- E16. Did you purchase or acquire any of these pieces during the last 12 months?
- E17. [During the last 12 months,] did you perform or rehearse any jazz music?
- E18. Did you play any jazz in a public performance or rehearse for a public performance?
- E19. [During the last 12 months,] did you play any classical music?
- E20. Did you play classical music in a public performance or rehearse for a public performance?
- E21. [During the last 12 months,] did you sing any music from an opera?
- E22. Did you sing in a public opera performance or rehearse for a public performance?
- E23. [During the last 12 months,] did you sing music from a musical play or operetta?

- E24. Did you sing in a public performance of a musical play or operetta or rehearse for a public performance?
- E25. [During the last 12 months,] did you sing in a public performance with a chorale, choir, or glee club or other type of vocal group, or rehearse for a public performance?
- E26. [During the last 12 months,] Did you act in a public performance of a non-musical play or rehearse for a public performance?
- E27. [During the last 12 months,] Did you dance any ballet?
- E28. Did you dance ballet in a public performance or rehearse for a public performance?
- E29. [During the last 12 months,] Did you do any dancing other than ballet such as modern, folk, or tap?
- E30. Did you dance modern, folk, or tap in a public performance?

Music Preferences

- F1. Now I'm going to read a list of some types of music. As I read the list, tell me which of these types of music you like to listen to. How about . . .
 - 1. Classical or Chamber music
 - 2. Opera
 - 3. Operetta, Broadway musicals, or Show tunes
 - 4. Jazz
 - 5. Reggae
 - 6. Rap music
 - 7. Soul
 - 8. Blues or Rhythm and blues
 - 9. Latin, Spanish, or Salsa
 - 10. Big band
 - 11. Parade or Marching band
 - 12. Country-western
 - 13. Bluegrass
 - 14. Rock
 - 15. Music of a particular Ethnic or National tradition
 - 16. Contemporary folk music
 - 17. Mood or Easy listening
 - 18. New age music
 - 19. Barbershop
 - 20. Choral or Glee club
 - 21. Hymns or Gospel
- F2. Of the music types you mentioned liking, which one do you like best?

Arts Socialization

INTRODUCTION. These next questions are about lessons or classes you may have taken.

- G1. First, have you ever taken lessons or classes in music — either voice training or playing an instrument?
- G2. Did you take these lessons or classes when you were ...
- Less than 12 years old?
 - 12–17 years old?
 - 18–24 years old?
 - 25 or older?
- G3. Did you take any of these lessons or classes in the past year?
- G4. Were the lessons or classes you took at age 17 or younger offered by the elementary, middle, junior high, or high school you were attending or did you take these lessons elsewhere?
- G5. [Have you ever taken lessons or classes] in visual arts such as sculpture, painting, print making, photography, or film making?
- G6. Did you take these lessons or classes when you were ...
- Less than 12 years old?
 - 12–17 years old?
 - 18–24 years old?
 - 25 or older?
- G7. Did you take any of these lessons or classes in the past year?
- G8. Were the lessons or classes you took at age 17 or younger offered by the elementary, middle, junior high, or high school you were attending or did you take these lessons elsewhere?
- G9. [Have you ever taken lessons or classes] in acting or theater?
- G10. Did you take these lessons or classes when you were ...
- Less than 12 years old?
 - 12–17 years old?
 - 18–24 years old?
 - 25 or older?
- G11. Did you take any of these lessons or classes in the past year?
- G12. Were the lessons or classes you took at age 17 or younger offered by the elementary, middle, junior high, or high school you were attending or did you take these lessons elsewhere?
- G13. [Have you ever taken lessons or classes] in ballet?
- G14. Did you take these lessons or classes when you were ...
- Less than 12 years old?
 - 12–17 years old?
 - 18–24 years old?
 - 25 or older?
- G15. Did you take any of these lessons or classes in the past year?
- G16. Were the lessons or classes you took at age 17 or younger offered by the elementary, middle, junior high, or high school you were attending or did you take these lessons elsewhere?
- G17. [Have you ever taken lessons or classes] in dance, other than ballet such as modern, folk or tap?

- G18. Did you take these lessons or classes when you were ...
- Less than 12 years old?
 - 12–17 years old?
 - 18–24 years old?
 - 25 or older?
- G19. Did you take any of these lessons or classes in the past year?
- G20. Were the lessons or classes you took at age 17 or younger offered by the elementary, middle, junior high, or high school you were attending or did you take these lessons elsewhere?
- G21. [Have you ever taken lessons or classes] in creative writing?
- G22. Did you take these lessons or classes when you were ...
- Less than 12 years old?
 - 12–17 years old?
 - 18–24 years old?
 - 25 or older?
- G23. Did you take any of these lessons or classes in the past year?
- G24. Were the lessons or classes you took at age 17 or younger offered by the elementary, middle, junior high, or high school you were attending or did you take these lessons elsewhere?
- G25. [Have you ever taken a class] in art appreciation or art history?
- G26. Did you take this class when you were ...
- Less than 12 years old?
 - 12–17 years old?
 - 18–24 years old?
 - 25 or older?
- G27. Did you take this class in the past year?
- G28. Was the class you took at age 17 or younger offered by the elementary, middle, junior high, or high school you were attending or did you take this class elsewhere?
- G29. [Have you ever taken a class] in music appreciation?
- G30. Did you take this class when you were ...
- Less than 12 years old?
 - 12–17 years old?
 - 18–24 years old?
 - 25 or older?
- G31. Did you take this class in the past year?
- G32. Was the class you took at age 17 or younger offered by the elementary, middle, junior high, or high school you were attending or did you take this class elsewhere?
- G33. Have you ever used a personal computer on your own to learn something about music, visual arts, theater, dance, or creative writing, or to teach yourself an artistic, musical, or literary skill?
- G34. I recorded earlier that there are children under age 18 living in your household. Are any of these children age 6 to 17 years old?
- G35. Are any of these 6 to 17-year-old children taking lessons or classes in any type of visual arts, music, theater, dance, or creative writing?

Additional Arts Socialization Items

- G36. Are you the parent or guardian of any of these 6 to 17 year old children?
- G37. In the last 12 months, did you take any of these children to art museums or galleries?
- G38. In the last 12 months, did you take any of these children to any plays, musical plays, operas, dance, or classical music performances? Please do not include elementary, middle, or high school performances.
- G39. In the last 12 months, did you encourage any of these children to read books that were not required for school or religious studies?

INTRODUCTION. These next few questions are about activities in your home when you were growing up.

- G40. Did your parents or other adult members of your household . . .
- Listen to classical music or opera often, occasionally, or never?
 - Take you to art museums or galleries often, occasionally, or never?
 - Take you to plays, dance, or classical music performances [often, occasionally, or never]?
 - Encourage you to read books that were not required for school or religious studies [often, occasionally, or never]?

Personal Background and Household Characteristics

INTRODUCTION. Finally, I have a few questions about your background and your household.

- H1. First, in what month and year were you born?
- H2. Are you . . .
Hispanic,
White, but not of Hispanic origin,
Black, but not of Hispanic origin,
American Indian or Alaskan Native, or
Asian or Pacific Islander?
- H3. In what country were you born?
- H4. How old were you when you first moved to the United States?
- H5. From what countries or parts of the world did your ancestors come?
- H6. Which, if any, of these countries do you feel closest to?
- H7. What is your marital status?
- H8a. During the last 12 months, were you enrolled in a high school, college, or university?
- H8b. Were you enrolled in school as a full-time or part-time student?
- H9. What is the highest grade or year of regular school that you completed?
- H10. Do you have a high school diploma or its equivalent, such as a GED?
- H11. What is the highest grade or year of regular school your father completed?
- H12. What is the highest grade or year of regular school your mother completed?
- H13. Did you work at a job or business at any time during the past 12 months?

- H14. For how many months did you work at a job or business in the past 12 months?
- H15. (So,) last week, (you did/did you do any) work for either pay or profit?
- H16. Were you on leave or vacation from work during the past week?
- H17. About how many total hours per week do you usually work, counting all jobs or businesses?
- H18. Now, thinking about your main job, what type of business or industry is that?
- H19. What is your job title and what are your usual activities or duties?
- H20. What best describes your situation at this time? Are you . . .
 Retired from a job or business,
 Looking for work,
 In school,
 Taking care of house or family,
 Disabled or ill, or
 Something else?
 What is that?
- H21. Now I have a few questions about your health. Would you say that your health in general is . . .
 Excellent,
 Very good,
 Good,
 Fair, or
 Poor?
- H22. Do you have any trouble seeing, even when wearing glasses or contact lenses?
- H23. Do you have any trouble hearing, even when wearing a hearing aid?
- H24. Do you have any trouble walking a quarter of a mile--about 3 city blocks?
- H25. Do you . . .
 Own your home,
 Rent your home, or
 Have some other arrangement?
- H26. In studies like this, households are sometimes grouped according to income. What was the total income of all persons in your household over the past year, including salaries or other earnings, interest, retirement, and so on for all household members?
- H27. So that we can group households geographically, may I have your ZIP code?