



Research Division Note #30 - November 30, 1988

THE ARTS IN THE GNP REVISITED AND REVISED: FOR THE THIRD YEAR  
CONSUMER EXPENDITURES FOR PERFORMING ARTS EVENTS  
EXCEED SPECTATOR SPORTS

1987 consumer expenditures for admissions to performing arts events were \$3.7 billion dollars in current terms and \$2.8 billion dollars in constant dollar terms (1982=100). This means that for the third consecutive year expenditures on performing arts admissions have surpassed those for spectator sports. In 1987 consumers spent \$400 million more to attend performing arts events than they did to attend sporting events. Over the five years of consumer expenditure statistics examined in this report (1983-1987), per capita expenditures on performing arts admissions increased 21 percent in constant dollar terms as compared to a decrease of 2 percent for spectator sports.

A recent exploration of unpublished materials from the Bureau of Economic Analysis that describe the components of the individual recreation expenditure categories resulted in the following findings:

- 1) The recreational expense category previously identified in Research Division Notes #1, 6, 13, 20 and 28 as "Nonprofit Theaters, Opera and other Entertainments of Nonprofit Institutions" does not exclusively contain data on nonprofit organizations, but includes Broadway theater, dance performances, symphonies and expenditures on music concerts beyond nonprofit music performances. Consequently, this Note, and future "Arts and the GNP" Notes, will refer to this category as "Admissions to Performing Arts Events."
- 2) The category previously identified as "radio and TV receivers, records and musical instruments," includes personal computer expenditures, therefore, the title of this category has been changed to reflect the inclusion of this expenditure item.
- 3) Other arts-related consumption expenditures have been identified within the National Income and Product Accounts (NIPA) that heretofore have not been included in these "Arts and the GNP" Notes (e.g., expenditures on admissions to museums or on subscription television fees.) These are available in unpublished tabulations from the Bureau of Economic Analysis and will be discussed in a future Research Note.

The data in this Note reflect the latest estimates available from the Bureau of Economic Analysis which are based on an Input/Output Model developed in five year cycles but updated annually, often retrospectively. For a fuller discussion of this system see Research Notes #13 and #20 and this paper: Horowitz, Harold, "The Arts in the National Income and Product Accounts," The Economics of Cultural Industries, Volume 1, Proceedings of the Third International Conference on Cultural Economics and Planning, April 25-28, 1984; University of Akron, 1984. Bureau of Economic Analysis revisions to the GNP and certain recreation expenditures affect figures previously reported for the years 1985, 1986 and can be examined by a comparison of this Note with Note #28 (Revised figures in all tables are designated with an "r").

An analysis of the three entertainment components to the GNP (i.e., performing arts, motion picture and spectator sport admissions) reveals that motion picture theater admissions continue to lead admissions to either performing arts events or spectator sports, but by a margin that has diminished. Consumer expenditures on radios and TV sets, records, musical instruments and personal computers continue to be the largest category examined holding to 18.5 percent of recreational expenditures, three times the size of the next largest category, books and maps, at 4.3 percent.

Additional observations on the proportion of the GNP for the five (of ten) components of the Recreation Expenditure section that are of principal interest to the Arts Endowment:

1) Consumer expenditures in 1987 for radios and TV sets, records, musical instruments, and personal computers are estimated at 0.91 percent of GNP and 18.45 percent of recreation expenditures. The five year period covered in the tables attached to this Note shows a growing importance of this durable equipment component of the GNP. As a component of recreation expenditures, however, it increased for several years, peaking in 1985, and then decreased, returning to its previous level. Overall, this category maintains the largest share of the GNP and recreation expenditures of all categories examined in this Note.

2) Consumer expenditures in 1987 for books and maps were 0.21 percent of the GNP and 4.34 percent of the recreation expenditures. The trend for the five years covered in this Note with some yearly variation, appears downward for books and maps as a component of recreation expenditures. As a component of the GNP, books and maps have fairly consistently stayed at 0.21 percent.

3) Consumer expenditures in 1987 for admissions to performing arts events were 0.08 percent of the GNP and 1.66 percent of the recreation component. This component has increased over the five years covered as a part of both the GNP and recreation expenditures.

4) Consumer expenditures in 1987 for admission to motion picture theaters were estimated at 0.09 percent of GNP and 1.84 percent of recreation expenditures. This component has declined substantially over the five year period covered in this Note, both as an element of the GNP and of recreation expenditures.

5) Consumer expenditures for admission to spectator sports in 1987 were estimated at 0.07 percent of GNP and 1.48 percent of recreation expenditures. As previously mentioned, this component has now slipped below admissions to the performing arts for three consecutive years. Overall, the trend for the five years covered in this Note has been downward for admissions to spectator sports.

As first examined in Note #28, another way of thinking about the changes in these five components is to factor in the number of persons in the population. Since the population is increasing, there will be an increase in total expenditures even if the average individual continues to spend the same amount because there are more individuals. In order to examine these effects, per capita expenditures have been calculated for the five years covered in this Note. For this second examination of per capita expenditures, unpublished tabulations from the Bureau of Economic Analysis have been made available which have allowed for more precise calculations. Changes in certain categories have occurred, particularly in constant dollar amounts. For example, per capita constant dollar expenditures on radio and TV sets, records, musical instruments, and personal computers were increased in these revisions. This is due to a decrease in the price of those items since 1982, so that in constant 1982 dollars these items cost more than they do in current dollars.

In 1987, the average individual spent about \$916 for recreational goods and services according to the Bureau of Economic Analysis. In constant dollar terms (1982=100), this was about \$862 and compares with \$625 in 1983, an increase of about 38 percent for that five year period. The proportion of the change differs for each of the five components.

1. Radio and TV sets, recordings, musical instruments and personal computer expenditures per capita in 1987 were about \$169. In constant dollar terms, this was \$213, which compares with \$124 in 1983, for a significant five year increase of nearly 72 percent.

2. Expenditures for books and maps per capita in 1987 were just about \$40. In constant dollar terms, this was \$31 and compares with just about \$28 in 1983, for a slight increase in five years of 2 percent.

3. Performing arts admission expenditures in 1987 were about \$15 per capita. In constant dollar terms, this was about \$11.50 and compares with about \$9.50 in 1983, an increase of about 21 percent for that five year period.

4. Motion picture admission expenditures per capita were almost \$17 in 1987. In constant dollar terms, this was about \$12.60 and compares with \$14.26 in 1983, a five year decrease of about 13 percent.

5. Spectator sports admission expenditures per capita were \$13.63 in 1987. In constant dollar terms, this was about \$10.25 and compares with about \$10.50 in 1983, a decrease of 2 percent.

CAVEATS: This note uses the latest data as published in "National Income and Product Account," Survey of Current Business, July 1988 and in unpublished materials obtained from the Bureau of Economic Analysis. Retrospective revisions for the two most recent years should be anticipated.

TABLE 1. ADMISSIONS RECEIPTS COMPARED FOR PERFORMING ARTS EVENTS  
WITH MOTION PICTURES AND SPECTATOR SPORTS, 1983-1987

	<u>1983 (\$ Millions)</u>		<u>1984 (\$ Millions)</u>		<u>1985 (\$ Millions)</u>		<u>1986 (\$ Millions)</u>		<u>1987 (\$ Millions)</u>	
	<u>Current</u>	<u>Constant</u>	<u>Current</u>	<u>Constant</u>	<u>Current</u>	<u>Constant</u>	<u>Current</u>	<u>Constant</u>	<u>Current</u>	<u>Constant</u>
<u>Admissions Receipts to Specified Entertainments</u>	\$8,600 (10%)	\$8,000 (3%)	\$9,500 (10%)	\$8,300 (4%)	\$9,500r (0%)	\$7,800r (-6%)	\$10,200r (7%)	\$8,100r (4%)	\$11,100 (9%)	\$8,400 (4%)
Motion Pictures (change from previous year)	3,600 (9%)	3,300r (0%)	3,900 (8%)	3,400 (3%)	3,600r (-8%)	3,000r (-12%)	3,800r (6%)	3,000r (0%)	4,100 (8%)	3,100 (3%)
Performing Arts Events* (change from previous year)	2,400 (14%)	2,200 (5%)	2,700 (13%)	2,300r (4%)	3,000 (11%)	2,500 (9%)	3,400 (13%)	2,700 (8%)	3,700 (9%)	2,800 (4%)
Spectator Sports (change from previous year)	2,600 (13%)	2,500r (9%)	2,900 (12%)	2,600r (4%)	2,900 (0%)	2,400 (-8%)	3,100 (7%)	2,400r (0%)	3,300 (6%)	2,500 (4%)

\* does not include sports

NOTE: Constant (1982=100) \$ values are based on implicit price deflators used for these expenditures by the Bureau of Economic Analysis, U.S. Department of Commerce in unpublished tabulations.

Research Division Note #30  
National Endowment for the Arts  
November 1988

r = revised

TABLE 2. TOTAL PERSONAL CONSUMPTION EXPENDITURES AND RECREATION EXPENDITURES AS A PERCENT OF GNP, 1983-1987

	<u>1983</u>		<u>1984</u>		<u>1985</u>		<u>1986</u>		<u>1987</u>	
GNP in Billions (current \$)	\$3,405.7		\$3,772.2		\$4,014.9r		\$4,240.3r		\$4,526.7	
Total Personal Consumption Expenditures as a % of GNP	65.61%		64.43%		65.48%r		66.21%		66.54%	
Recreation Expenditures as a % of GNP	4.47%		4.46%		4.63%r		4.76%r		4.93%	
<u>Selected Recreation Expenditures as a % of GNP and of all Recreation Expenditures</u>	<u>GNP</u>	<u>Recreation</u>								
Radio and TV Receivers, Records, Musical Instruments and Personal Computers	0.83%	18.54%	0.84%	18.72%	.92%r	19.92%r	0.92%r	19.29%r	.91%	18.45%
Books and Maps	0.21%	4.73%	0.21%	4.63%	0.20%	4.36%r	0.21%	4.31%r	.21%	4.34%
Admissions to Performing Arts Events	0.07%	1.58%	0.07%	1.60%	0.07%	1.62%r	0.08%	1.69%r	.08%	1.66%
Admissions to Motion Picture Theaters	0.11%	2.37%	0.10%	2.32%	0.90%	1.94%r	0.09%	1.88%r	.09%	1.84%
Admissions to Spectator Sports	0.08%	1.71%	0.08%	1.72%	0.07%	1.57%r	0.07%	1.54%r	.07%	1.48%

Source: Tables 1.1 and 2.4, "National Income and Products Accounts." Survey of Current Business, Bureau of Economic Analysis, U.S. Department of Commerce, July 1988.

r = revised

Research Division Note #30  
National Endowment for the Arts  
October 1988

TABLE 3. PER CAPITA EXPENDITURES FOR SELECTED SUBDIVISIONS OF PERSONAL CONSUMPTION FOR RECREATION, 1983-1987

	<u>1983</u>		<u>1984</u>		<u>1985</u>		<u>1986</u>		<u>1987</u>	
	<u>Current</u>	<u>Constant</u>								
Recreation Expenditures \$ Per capita	\$647.58r	\$634.05r	\$710.22r	\$688.49r	\$776.02r	\$746.56r	\$834.72r	\$800.65r	\$915.80	\$862.48
Radio & TV Receivers, Records, Musical Instruments and Personal Computers \$ per capita	\$120.03r	\$124.11r	\$132.75r	\$145.19r	\$154.49r	\$177.78r	\$160.96r	\$199.13r	\$168.89	\$212.81
Books & Maps \$ per capita	\$ 30.60r	\$ 28.22r	\$ 32.93r	\$ 29.63r	\$ 33.89r	\$ 28.31r	\$ 35.52r	\$ 28.27r	\$ 39.91	\$ 30.98
Performing Arts Admissions \$ per capita	\$ 10.17r	\$ 9.51r	\$ 11.30r	\$ 9.89r	\$ 12.42r	\$ 11.29r	\$ 13.87r	\$ 10.99r	\$ 15.26	\$ 11.47
Motion Picture Admissions \$ per capita	\$ 15.26r	\$ 14.26r	\$ 16.60r	\$ 14.53r	\$ 14.92r	\$ 12.36r	\$ 15.72r	\$ 12.45r	\$ 16.83	\$ 12.63
Spectator Sports Admissions \$ per capita	\$ 11.20r	\$ 10.46r	\$ 12.32r	\$ 10.79r	\$ 12.16r	\$ 10.07r	\$ 12.74r	\$ 10.10r	\$ 13.63	\$ 10.24

Note: 1983-1986 current and constant (1982=100) values were revised pursuant to unpublished tabulations obtained from the Bureau of Economic Analysis. 1987 figures were also calculated using this source. Population estimates for 1983-1987 were taken from Statistical Abstract of the United States 1988, 108th Edition, Bureau of the Census, U.S. Department of Commerce, December 1987.

Research Division Note #30  
National Endowment for the Arts  
October 1988