# Employment and Unemployment of Artists: 1970-1975

National Endowment for the Arts



April 1976

# Employment and Unemployment of Artists: 1970-1975

# CONTENTS

Tables and Figures	3
Introduction	•• 4
Summary of Employment and Unemployment Changes from 1974 to 1975	•• 6
How Many Artists	9
Appendix I - Data Reliability and the Standard Error	21
Appendix II - Employment and Unemployment Trends	22
Appendix III - Need for Additional Employment	23

# TABLES AND FIGURES

Table 1	Comparison of Unemployment for Selected Occupations with all Professional, Tech- nical and Kindred Workers: 1974 and 1975	7
Table 2	Comparison of Unemployment for Writers, Artists and Entertainers with all Pro- fessional, Technical and Kindred Workers: 1970 - 1975	8
Table 3	Total Writers, Artists and Entertainers, Growth of Labor Force and Unemployment: 1970 - 1975	10
Table 4	Total Labor Force and Unemployment for Selected Artistic Occupations and Sex: 1970	15
Table 5	Total Labor Force and Unemployment for Selected Artistic Occupations and Sex: 1971	16
Table 6	Total Labor Force and Unemployment for Selected Artistic Occupations and Sex: 1972	17
Table 7	Total Labor Force and Unemployment for Selected Artistic Occupations and Sex: 1973	18
Table 8	Total Labor Force and Unemployment for Selected Artistic Occupations and Sex: 1974	19
Table 9	Total Labor Force and Unemployment for Selected Artistic Occupations and Sex: 1975	20
Table 10	Class of Worker of Employed Persons by Detailed Occupation and Sex: 1970	25
Table 11	Self-employment as a Percent of Selected Artistic Occupations Labor Force: 1970	26
Table 12	Employed, Experienced Unemployed, Not in Labor Force, But Worked 1960 to 1970, by Detailed Occupation and Sex: 1970	28
Table 13	Persons Not in Labor Force But Last Worked in Artistic Occupations 1960 to 1970, as a Percent of Selected Artistic Occupation Labor Force: 1970	29
Figure l	Total Writers, Artists and Entertainers Labor Force, Employed and Unemployed, 1970 - 1975	11
Figure 2	Diagram of Possible Shifts in Labor Force Status Within the Artistic Occupations	<b>2</b> 7

#### Introduction

The employment of persons in artistic occupations and the complementary number of unemployed in artistic occupations are the subjects of this report. Information about unemployment is always more urgent since it is a measure of a serious deficiency. However, the two subjects cannot be isolated from each other since they are based on the same data. The relationship has been described as that  $\frac{1}{2}$ 

Compilation of data on the unemployment and employment of artists on a base comparable with the data for the total U. S. population is possible because of the work of the Bureau of the Census and the Bureau of Labor Statistics. The data used in this report for 1970 is from the 1970 Census of Population. The data for subsequent years is from annualized monthly averages from the monthly Current Population Studies conducted for the Bureau of Labor Statistics by the Bureau of the Census. The Bureau of

-4-

<sup>&</sup>lt;u>1</u>/ Shiskin, Julius, Commissioner of Labor Statistics, "Employment and Unemployment: The Doughnut or the Hole?" <u>Monthly Labor Review</u>, February 1976, p. 3.

Labor Statistics has released to the National Endowment for the Arts detailed data on artistic occupations for 1971 - 1975 that has not been made available through its regular publications.

The style adopted for this report uses tables to present the main body of information about employment and unemployment. Tables 1 - 3, and Figure 1, are a summary data presentation in simple form. The following Tables 4 - 9 are very detailed and provide data that should be helpful to readers interested in the statistical basis for the percent unemployment that is reported. The text is a brief summary of highlights from the tables. Three Appendices with several tables and a figure complete the report. This final material is very technical and is intended for persons who are specially concerned about the reliability of the data and its use for trend projection as well as needs for additional research.

In reading the report, the differences in the data source for 1970 and 1971 - 1975 should be remembered. The statistical reliability of the data for the latter years is much less because of the differences in sample size. "Standard Errors" are shown in Tables 3 - 9. The use of this measure for data reliability is discussed in the appendices.

#### Summary of Employment and Unemployment Changes From 1974 to 1975

The most striking observation from the examination of employment and unemployment data for the artistic occupations is the increase in the total work force that has occurred in recent years. In 1975, the employment of artists continued to increase and the total experienced Writers, Artists, and Entertainers labor force grew at a rate of 5.5%. Changes in unemployment followed the general trend of the U.S. population and was substantially greater in 1975 than in 1974. Table 1 summarizes the percent unemployment for selected artistic occupations in 1974 and 1975. The percent unemployment increased for most of the selected occupations and was substantially greater than for all Professional, Technical, and Kindred Workers. The increase or decrease in the percent unemployment for these two years should be interpreted carefully in the light of the Standard Errors shown in Tables 8 and 9 and Appendix II on Employment and Unemployment Trends. Table 2 compares percent unemployment for Writers, Artists, and Entertainers with that of all Professional, Technical, and Kindred Workers for the period 1970 - 1975.

-6-

# COMPARISON OF UNEMPLOYMENT FOR SELECTED OCCUPATIONS WITH ALL PROFESSIONAL, TECHNICAL AND KINDRED WORKERS: 1974 and 1975

	<u>1974</u>	1975	<u>Change</u> 1/
All Professional, Tech- nical & Kindred Workers	2.3%	3.2%	+.9%
Architects	2.7%	5.4%	+2.7%
Actors	47.4%	35.0%	-12.4%
Authors	2.1%	4.3%	+2.2%
Dancers	*	*	*
Designers	2.3%	7.4%	+5.1%
Musicians & Composers	4.1%	7.9%	+3.8%
Painters & Sculptors	3.2%	5.8%	+2.6%
Photographers	3.8%	6.2%	+2.4%

\* Data base is too small to provide a meaningful estimate.  $\underline{1}$ / See Appendix II and Standard Errors in Tables 8 and 9. Source: See Tables 8 and 9 for data source.

# COMPARISON OF UNEMPLOYMENT FOR WRITERS, ARTISTS AND ENTERTAINERS WITH ALL PROFESSIONAL, TECHNICAL AND KINDRED WORKERS: 1970 - 1975

*.*?-

6.0

۰.

	% Unemployment Writers, Artists _& Entertainers	% Unemployment All Professional, Technical and <u>Kindred Workers</u>
1970 <u>1</u> /	4.6%	1.8%
1971 <u>2</u> /	7.1%	2.9%
1972 <u>2</u> /	5.6%	2.4%
1973 <u>2</u> /	4.8%	2.2%
1974 <mark>2</mark> /	4.8%	2.3%
1975 <u>2</u> /	7.4%	3.2%

1/ Table 51, U.S. Bureau of the Census, Census of Population: <u>1970 Subject Reports</u>, Final Report PC(2)-7A, Occupational Characteristics.

2/ Unpublished data furnished by the Bureau of Labor Statistics.

#### How Many Artists?

In the 1970 Census, the total of Writers, Artists, and Entertainers in the labor force was 797,574 persons. The Bureau of Labor Statistics data for 1975 is 1,055,000 persons in the same group. The increase reflects a compounded annual growth rate for the 5 year period of 5.7%. At this rate of growth, the labor force of artists would double in a period of about 12.5 years. Data on the growth of the artistic occupations labor force for the 1970 - 1975 period is presented in Table 3. Figure 1 illustrates graphically the rise in this labor force during the period and the changes in the subgroups of the unemployed and employed.

#### Unemployment of Artists

For 1975, the percent unemployment of all Professional, Technical, and Kindred Workers is 3.2%. This compares with 7.4% for the Writers, Artists, and Entertainers occupational group. Among the selected artistic occupations in 1975, the following unemployment rates are reported:

Architects -- 5.4%, Actors -- 35.0%, Authors -- 4.3%, Designers -- 7.4%, Musicians and Composers -- 7.9%, Dancers -- (inadequate data), Painters and Sculptors -- 5.8%, and Photographers -- 6.2%.

TOTAL WRITERS, ARTISTS AND ENTERTAINERS, GROWTH OF LABOR FORCE AND UNEMPLOYMENT: 1970 - 1975

		Growth Rate From Previous	Number Unem-	%	Standard Error of
Year 1/	Total	Year	ployed	ployed	& unem- ployment
1970	797,574	ł	36,480	4.6%	.1%
1971 2/	846,000	6.1%	60,000	7.1%	• 5%
1972 2/	897,000	6.0%	50,000	5.6%	. 4%
1973 2/	929,000	3.6%	45,000	4.8%	. 4%
1974 2/	1,000,000	7.6%	48,000	4.8%	.4%
1975 2/	1,055,000	5 <b>.</b> 5%	78,000	7.4%	<b>.</b> 5%
<u>1/</u> Table ject ]	51, U.S. Bured Reports, Final I	au of the Census Report PC(2)-7A,	, Census of Occupationa	Population: l Character	1970 Sub- istics.
<u>2</u> / Unpub.	lished data furr	nished by the Bu	reau of Labo	r Statistic	ß

**#**: •

الن

4...

\*~

.

•

\*\*

÷

-10-

#### FIGURE 1

TOTAL WRITERS, ARTISTS AND ENTERTAINERS LABOR FORCE, EMPLOYED AND UNEMPLOYED: 1970 - 1975



#### Source: Table 3

Unemployment of Writers, Artists, and Entertainers as a broad occupational group was 4.6% in 1970. In the five years since 1970, the percent of unemployment of Writers, Artists, and Entertainers fluctuated annually and roughly followed the trend in unemployment of all Professional, Technical, and Kindred Workers but at a rate 2 to 2½ times greater.

Tables 4 - 9 present a detailed analysis of the total experienced labor force for selected artistic occupations, the number and percent unemployed, and Standard Errors of the percent unemployed statistics. This data is provided for Architects, Actors, Authors, Dancers, Designers, Musicians and Composers, Painters and Sculptors, and Photographers, for both sexes combined and separately. Similar statistics are provided in these tables for the larger group of all Professional, Technical, and Kindred Workers for comparison. Separate tables are provided for each year from 1970 to 1975.

As a result of the difference in the basis for the 1970 Census and the annualized averages from the Current Population Studies data for the subsequent years, standard Errors of percent unemployment are fairly large for some of the occupations in 1971 - 1975. Users of

this report are cautioned against plotting an unemployment trend line with the data for individual artistic occupations reported in Tables 4 - 9 before considering the information in Appendix II, Employment and Unemployment trends.

A very significant observation from the examination of the tables for the six years is the very great difference in unemployment in the artistic occupations. Unemployment is most severe among Actors ranging from a high percentage of 47.4% recorded in both 1971 and 1974 to a low of 33.4% recorded in 1970. The percent unemployment of Actors in 1975 is 35%, close to the low of 33.4% in 1970, and contrasts with unemployment among the other artistic occupations as the only one in which there was a decrease in 1975. As the Standard Errors of percent unemployment of Actors are fairly high, caution should be taken in making trend comparisons.

Dancers are second in percent unemployment ranging from a low of 14.5% in 1970 to a high of 30% in 1971. The data on unemployment of Dancers is considered unreliable except for the Census Year 1970 and comparisons with other occupations should be limited to that year. This is because of

-13-

the relatively small number of Dancers and the difficulty of obtaining satisfactory data for this occupational group in the sample used for the monthly Current Population Studies.

In contrast to Actors and Dancers, the other selected artistic occupations in Tables 4 - 9 are represented by a sufficiently large number of persons in the labor force so that the data on percent unemployment is more useful.

## TOTAL LABOR FORCE AND UNEMPLOYMENT FOR SELECTED ARTISTIC OCCUPATIONS AND SEX: 1970

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
All Professional, Tech nical & Kindred Worker Male Female	$\frac{1-}{6,992.3}$ 4,674.7	215.1 116.4 98.7	<u>1.8%</u> 1.7% 2.1%	<u>.1%</u> .1%
Architects Male Female	57.1 54.9 2.1	0.8 .04	$\frac{1.4\%}{1.3\%}$ 2.0%	<u>.4%</u> .4% 1.7%
Actors Male Female	$\frac{14.1}{8.2}$ 5.9	4.7 2.6 2.1	<u>33,4%</u> 32,2% 35,0%	2.2% 2.9% 3.4%
<u>Authors</u> Male Female	26.0 18.1 7.9	<u>1.1</u> .7 .4	$\frac{4.1\%}{4.1\%}$ 4.1%	<u>.6%</u> .8% 1.2%
Dancers Male Female	<u>6.9</u> 1.3 5.7	$\frac{1.0}{.3}$	14.5% 20.9% 13.3%	2.2% 5.5% 2.3%
Designers Male Female	<u>112.3</u> 85.2 27.1	$\frac{3.5}{2.0}$ 1.5	<u>3.1%</u> 2.4% 5.5%	2% 3% 7%
<u>Musicians &amp; Composers</u> Male Female	<u>96.5</u> 63.7 32.9	<u>6.5</u> 5.1 1.4	<u>6.7%</u> 8.0% 4.1%	<u>3%</u> . 7% . 7%
<u>Painters &amp; Sculptors</u> Male Female	$\frac{107.5}{67.9}$ 39.6	$\frac{4.1}{2.0}$ 2.1	<u>3.8%</u> 2.9% 5.3%	<u>2%</u> . 3% . 6%
<u>Photographers</u> Male Female	66.0 56.5 9.4	$\frac{2.0}{1.4}$ .6	<u>3.0%</u> 2.4% 6.7%	<u>.3%</u> .4% 1.1%

Source: Table 51, U.S. Bureau of the Census, Census of Population: <u>1970 Subject Reports</u>, Final Report PC(2)-7A, Occupational Characteristics.

,,

# TOTAL LABOR FORCE AND UNEMPLOYMENT FOR SELECTED ARTISTIC OCCUPATIONS AND SEX: 1971

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
All Professional, Tec nical & Kindred Worke Male Female	<u>h-</u> <u>rs</u> 1 <u>1,416</u> 6,933 4,483	<u>331</u> 188 143	<u>2.9%</u> 2.7% 3.2%	<u>.1%</u> .1% .1%
Architects Male Female	70 67 3	1 1 0	<u>1.4%</u> 1.5% *	<u>.8%</u> .8% -
<u>Actors</u> Male Female	19 11 8	<u>9</u> 4 5	47.4% 36.4% *	7.7% 9.1%
<u>Authors</u> Male Female	<u>33</u> 21 12	2 1 1	<u>6.1%</u> 4.8% 8.3%	<u>2.5%</u> 2.8% 4.6%
<u>Dancers</u> Male Female	<u>10</u> 1 9	3 1 2	<u>30.0%</u> *	<u>8.7%</u> _ _
<u>Designers</u> Male Female	<u>106</u> 78 28	7 4 3	<u>6.6%</u> 5.1% 10.7%	<u>1.4%</u> 1.4% 3.5%
<u>Musicians &amp; Composers</u> Male Female	<u>126</u> 82 45	<u>10</u> 8 2	7.9% 9.8% 4.4%	<u>1.5%</u> 1.9% k.9%
<u>Painters &amp; Sculptors</u> Male Female	130 82 48	5 2 3	<u>3.8%</u> 2.4% 6.3%	$\frac{1.0\%}{1.0\%}$ 2.0%
<u>Photographers</u> Male Female	<u>81</u> 67 13	4 2 1	<u>4.9%</u> 3.0% 7.7%	$\frac{1.3\%}{1.2\%}$ 4.5%

\* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

-16-

# TOTAL LABOR FORCE AND UNEMPLOYMENT FOR SELECTED ARTISTIC OCCUPATIONS AND SEX: 1972

All Professional, Tech-       11.741       282       2.4%       .19         Male       7.110       153       2.2%       .19         Pemale       4,631       129       2.8%       .19         Architects       68       2       2.9%       1.19         Male       66       2       3.0%       1.29         Pemale       2       0       *       -         Architects       68       2       2.9%       1.11         Male       66       2       3.0%       1.29         Female       2       0       *       -         Actors       18       8       44.4%       8.19         Male       13       5       36.5%       8.7%         Female       5       3       *       -         Authors       31       1       3.2%       1.99         Male       18       1       5.6%       3.4%         Female       13       0       *       -         Dancers       11       10       -       -         Male       91       3       2.7%       .99         Female       11       4.8%<		Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- <u>ployment</u>
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All Professional, Tech nical & Kindred Worker Male Female	<u>1-</u> <u>55</u> 1 <u>1,741</u> 7,110 4,631	<u>282</u> 153 129	2.4% 2.2% 2.8%	<u>.1%</u> .1%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Architects Male Female	68 66 2	$\frac{2}{2}$	2.9% 3.0% *	<u>1.1%</u> 1.2%
Authors $31$ $1$ $3.2\%$ $1.99$ Male $13$ $0$ $*$ $-$ Dancers $6$ $1$ $0$ $*$ $-$ Designers $113$ $3$ $2.7\%$ $.99$ Female $5$ $1$ $*$ $-$ Designers $113$ $3$ $2.7\%$ $.99$ Female $21$ $1$ $4.8\%$ $2.99$ Musicians & Composers $130$ $9$ $6.9\%$ $1.39$ Male $92$ $8$ $8.7\%$ $1.89$ Painters & Sculptors $137$ $8$ $5.8\%$ $1.39$ Male $78$ $4$ $5.1\%$ $1.49$ Photographers $80$ $32$ $3.8\%$ $1.29$ Photographers $80$ $32$ $3.30\%$	Actors Male Female	18 13 5	8 5 3	<u>44.4%</u> 38.5% *	<u>8.1%</u> 8.7%
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Authors Male Female	$\frac{31}{18}$ 13	$\frac{1}{1}$	<u>3.2%</u> 5.6% *	$\frac{1.9\%}{3.4\%}$
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Dancers Male Female	6 1 5	$\frac{1}{0}$	<u></u> *	
Musicians & Composers $130$ 9 $6.9\%$ $1.39$ Male       92       8 $8.7\%$ $1.89$ Female       39       1 $2.6\%$ $1.49$ Painters & Sculptors $137$ 8 $5.8\%$ $1.39$ Male       78       4 $5.1\%$ $1.49$ Female       60       4 $6.7\%$ $1.99$ Photographers       80 $3$ $3.8\%$ $1.29$ Male $67$ $2$ $3.0\%$ $1.29$ Photographers       80 $3$ $3.0\%$ $1.29$ Male $67$ $2$ $3.0\%$ $1.29$ Male $67$ $2$ $3.0\%$ $1.29$	Designers Male Female	113 91 21	3 2 1	2.7% 2.2% 4.8%	<u>9%</u> .9% 2.9%
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Musicians & Composers Male Female	<u>130</u> 92 39	9 8 1	6.9% 8.7% 2.6%	$\frac{1.3\%}{1.8\%}$ 1.4%
Photographers $80$ $3$ $3.8\%$ $1.2\%$ Male $67$ $2$ $3.0\%$ $1.2\%$ Female $32$ $1$ $7.7\%$ $1.2\%$	Painters & Sculptors Male Female	<u>137</u> 78 60	8 4 4	5.8% 5.1% 6.7%	$\frac{1.3\%}{1.4\%}$ 1.9%
	Photographers Male Female	80 67 13	3 2 1	<u>3.8%</u> 3.0% 7.7%	$\frac{1.2\%}{1.2\%}$ 4.5%

\* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

# TOTAL LABOR FORCE AND UNEMPLOYMENT FOR SELECTED ARTISTIC OCCUPATIONS AND SEX: 1973

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
All Professional, Technical & Kindred Worke Male Female	$\frac{h-}{rs} \frac{12,037}{7,186} \\ 4,852$	260 120 141	<u>2.2%</u> 1.7% 2.9%	<u>.1%</u> .1%
Architects Male Female	74 72 2	1 1 0	<u>1.4%</u> 1.4% *	<u>.8%</u> .8% -
Actors Male Female	<u>16</u> 7 8	7 3 4	<u>43.8%</u> * *	<u>8.3%</u> - -
Authors Male Female	<u>39</u> 18 20	1 0 0	<u>2.6%</u> *	<u>1.5%</u> -
Dancers Male Female	$\frac{10}{3}$	2 1 1	<u>20.0%</u> *	7.5%
Designers Male Female	<u>125</u> 98 27	2 1 1	$\frac{1.6\%}{1.0\%}$ 3.7%	<u>.7%</u> .6% 2.1%
Musicians & Composers Male Female	<u>129</u> 88 41	9 6 3	7.0% 6.8% 7.3%	$\frac{1.3\%}{1.6\%}$ 2.2%
Painters & Sculptors Male Female	<u>141</u> 80 60	5 3 2	<u>3.5%</u> 3.8% 3.3%	$\frac{.9\%}{1.2\%}$ 1.3%
Photographers Male Female	76 63 13	1 1 0	1.3% 1.6% *	<u>.7%</u> .9% -

\* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

-18-

# TOTAL LABOR FORCE AND UNEMPLOYMENT FOR SELECTED ARTISTIC OCCUPATIONS AND SEX: 1974

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
All Professional, Tec nical & Kindred Worke Male Female	<u>h-</u> rs 1 <u>2,623</u> 7,482 5,142	285 136 150	<u>2.3%</u> 1.8% 2.9%	<u>.1%</u> .1% .1%
Architects Male Female	73 71 2	2 2 0	<u>2.7%</u> 2.8% *	$\frac{1.0\%}{1.1\%}$
<u>Actors</u> Male Female	19 11 8	9 5 4	47.4% 45.4% *	7.2% 9.7% -
Authors Male Female	47 27 21	1 1 1	2 <u>1%</u> 3.7% 4.8%	$\frac{1.2\%}{2.1\%}$ 2.8%
<u>Dancers</u> Male Female	7 1 5	2 0 1	*	 
<u>Designers</u> Male Female	<u>132</u> 99 33	3 1 2	2.3% 1.0% 6.1%	<u>.8%</u> .6% 2.5%
<u>Musicians &amp; Composers</u> Male Female	146 102 44	<u>6</u> 4 1	4.1% 3.9% 2.3%	$\frac{1.0\%}{1.1\%}$ 1.3%
<u>Painters &amp; Sculptors</u> Male Female	<u>154</u> 89 65	5 2 3	<u>3.2%</u> 2.2% 4.6%	<u>.9%</u> .9% 1.5%
<u>Photographers</u> Male Female	79 67 13	3 1 1	<u>3.8%</u> 1.5% 7.7%	$\frac{1.2\%}{.9\%}$ 4.5%

\* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

# TOTAL LABOR FORCE AND UNEMPLOYMENT FOR SELECTED ARTISTIC OCCUPATIONS AND SEX: 1975

	Total Experienced Labor Force (thousands)	Number Unemployed (thousands)	% Unem- ployment	Standard Error % Unem- ployment
All Professional, Tech nical & Kindred Worke: Male Female	h- rs 13,173 7,700 5,474	<u>425</u> 219 207	<u>3.2%</u> 2.8% 3.8%	<u>1%</u> .1% .1%
Architects Male Female	74 71 3	4 4 0	5.4% 5.6% *	<u>1.5%</u> 1.6%
Actors Male Female	20 13 7	7 3 4	35.0% 23.1% *	<u>6.9%</u> 7.2%
Authors Male Female	47 26 20	2 0 1	<u>4.3%</u> * 5.0%	<u>1.6%</u> 3.0%
Dancers Male Female	8 3 5	2 1 1	* *	 
Designers Male Female	135 103 34	$\frac{10}{9}$	7.4% 8.7% 5.9%	$\frac{1.4\%}{1.6\%}$ 2.4%
<u>Musicians &amp; Composers</u> Male Female	151 104 47	12 9 3	7.9% 8.7% 6.4%	<u>1.4%</u> 1.7% 2.1%
<u>Painters &amp; Sculptors</u> Male Female	<u>155</u> 84 72	9 5 4	<u>5.8%</u> 5.9% 5.6%	<u>1.1%</u> 1.5% 1.6%
Photographers Male Female	81 67 14	5 4 1	<u>6.2%</u> 6.0% 7.1%	$\frac{1.6\%}{1.7\%}$ 4.4%

\* Data base is too small to provide a meaningful estimate.

Source: Unpublished data furnished by the Bureau of Labor Statistics.

+----

34

-20-

#### APPENDICES

# I. Data Reliability and the Standard Error

"Standard Error" (S. E.) is a commonly used measure of sampling variability, that is, a measure of the degree of confidence that can be attached to a statistic which is estimated by a sampling method rather than a complete count.

An individual statistic estimated from a sampling procedure will vary from the "true" figure that would have been obtained from a complete count by an unknown amount due to chance. However, if the Standard Error of an estimated number is known, statistical theory permits a specific interpretation of the estimated number's reliability in terms of probabilities. There is approximately a 2 out of 3 chance (68%) that the difference (either plus or minus) between a sample estimate and the true figure is greater than the estimate's standard error. There is about a 95% probabability that the difference between the estimate and the true figure is less than twice the Standard Error. For example, (from Table 3), there is approximately a 95% probability that the true percent unemployment of all Writers, Artists, and Entertainers in 1975 was between 6.4% and 8.4% [7.4% - 2 (.5) to 7.4% + 2 (.5)]. About a 5% chance remains that the true value falls outside of this range. This range is sometimes called the "95% confidence range," and is a commonly used benchmark as an indication of data reliability. The Standard Errors shown in this report have been computed using error tables furnished by the Bureau of Labor Statistics.

A further technical note: The basic concept behind the construction of a confidence range in this way requires that the sample size be reasonably large. A substantial number of the unemployment rates given in Tables 5 through 9 are based on very small samples and it is not valid to interpret a confidence range as more than a rough indication of reliability in these cases. For example, in several cases, the lower limit of a 95% confidence range would be less than 0% unemployment, obviously an impossibility. This problem also arises in cases of moderately large samples but with a very low estimated rate of unemployment. Even in such cases, however, the calculation of a confidence range can provide a still useful, though often very crude, indication of reliability. As noted in the tables, cases marked with an asterisk are based on samples so small that neither the percent unemployed nor a measure of its reliability would be accurate enough to be considered useful. Accordingly, all cases in Tables 5 - 9 with less than 10,000 persons estimated in the total labor force or with zero unemployment are marked by an asterisk in the percent unemployed column.

#### II. Employment and Unemployment Trends

Some of the data for individual occupations presented in Tables 4 - 9 indicate substantial changes in unemployment from year to year or overall 5 year trends. However, because of the data reliability problem arising from the very small samples in some cases, most such year to year changes and trends cannot be confidently attributed to other than variations that would be expected to occur due to chance errors in estimation. There are statistical testing procedures available to calculate the probability that a particular statistic varies from year to year because the true figure has varied rather than because of chance fluctuation. 1/ A number of the noticeable annual fluctuations in unemployment for the individual occupations do not pass these tests, and it is generally suggested that Tables 4 - 9 should not be used to plot trend lines. However, the total Writers, Artists, and Entertainers in Table 3 can be used to plot a trend line because of the improved reliability that results from the aggregation of data. This trend line is plotted in Figure 1.

1/ One convenient test uses the Standard Error of the two numbers to be compared (S. E.1 and S. E.2) to compute the Standard Error of the estimated difference between them (S. E.2 - 1). In an identical fashion to the process involving a single statistic, a confidence region can be constructed for the difference between the two estimates. The formula for the standard error of the difference between 2 estimates is:

$$S.E._2 - 1 = \sqrt{(S.E._1)^2 + (S.E._2)^2}$$

where S. E.<sub>1</sub> and S. E.<sub>2</sub> are the standard errors of the two estimates.

-22-

#### III. Need for Additional Research

A. Seasonality of Employment. Part of the lore of the artistic occupations is seasonality in employment. This is thought to be the greatest for Actors, Musicians, and Dancers. Similarly, Architects' employment lore suggests a broad peak starting at the beginning of the construction season and continuing at a fairly high level until late fall when construction activity tends to diminish. Other artistic occupations such as Painters and Sculptors, Photographers, and Designers are believed to have relatively lower degrees of seasonality in their employment. The data currently available for study is too limited to permit assessment of seasonality. The data obtained in the 1970 Census was based on employment in the week prior to the Census, namely, the last week of March, 1970. This might have been a period of relatively low employment in the year for artists in the performing arts occupations, but was probably a peak period of employment for architects. The available data does not permit the appropriate adjustments to be made. Therefore, the data shown in Table 4 for 1970 may be misleading with respect to percent unemployment of Architects, shown at a fairly low level of 1.4%, if compared with the annualized monthly coverages for 1971 - 1975; and similarly too high for Actors, Dancers, and Musicians and Composers. The data presented for years 1971 through 1975 is based on an annualized monthly average and is not revealing of seasonal variations of employment.

Virtually no research has been done on the subject of seasonality in unemployment in the artistic occupations. This topic should be part of a broad series of studies to acquire a far better understanding of the characteristics of employment in the artistic occupations.

B. <u>Shifts in Employment Status</u>. A general problem in the measurement of employment and unemployment is that the characteristics and conditions of the work force are not static but are constantly changing in many ways. Of particular importance in the artistic occupations are multiple employment, sometimes referred to an "moonlighting," and movements between classifications in which employment and

unemployment are measured. Unfortunately, however, very little information is available for analysis. Part of the lore of artistic occupations such as Musicians and Composers, Painters and Sculptors, and Writers, is that many individuals derive their principal income from nonartistic occupations. No measure of this condition is presently available. In addition, it is believed that many persons in artistic occupations frequently shift status or maintain a dual status between working for wages and self-employment. For example, a Musician working for wages may also be a self-employed music teacher and Painters and Sculptors, and Writers, may work at home or in studios as self-employed individuals without deriving income for their work for long intervals of time. The distinction between an unemployed artist and a self-employed artist without income is largely a personal self-view. Table 10 shows the numbers of persons in artistic occupations working for wages or self-employed in 1970, while Table 11 shows self-employment as a percent of the artistic occupation labor force. Figure 2 diagrams the relationships between the several possible categories of employed and unemployed individuals in the artist labor force. In addition, a very large group of individuals are to be found in a group not employed or currently seeking employment that are therefore excluded from the labor force total. This includes individuals who are keeping house, at school, ill, or retired. There are undoubtedly substantial shifts between such individuals and those who are working for wages, self-employed, and unemployed. Table 12 shows the numbers of persons who last worked in artistic occupations but were not counted in the labor force in 1970, while Table 13 shows the persons not counted in the labor force as a percent of the labor force. This group exceeded 100,000 individuals or about 1/8th as large as the artist labor force in 1970.

Full understanding of the importance of shifts of status to the measurement of employment and unemployment of artists is not possible with currently available information. Substantial additional research is required as part of a broad program to improve understanding of the artistic occupations.

# Class of Worker of Employed Persons by Detailed Occupation and Sex: 1970

United States         Fruge wage and sadary workers         Sett         Unpole           Male, 16 years old and over         47 720 641         25 975 960         970 970         6 711 397         2 190 545         1 417 442         2 903 345         4 918 213         124 846           Art arminers         35 4 194         30 720         3 402         6 717         3 477         1 760         1 400         16 716         211           Art arminers         35 4 194         30 720         3 402         6 717         3 477         1 760         1 400         16 716         211           Art arminers         531 785         396 423         13 776         6 717         3 477         1 600         6 712         1 400         16 716         211           Actors         531 785         396 423         13 776         6 70         1 317         150         671         1 400         16 716         211           Actors         31 785         396 423         13 776         6 77         1 303         601         100 77         7 55         5 64         100         671         100         533         6 671         100         533         6 672         1 308         671         100         1500         7 77		1			Minne and as				7	·
United States         Private workers         Covernment workers         Self.         Unjuit           Male, 16 years old and ever         47 730 661         25 975 960         970 970         6 711 597         2 190 565         1 617 662 1000         workers           Artinets: ond muserisity         53 196         30 730         5 401 67         6 711 597         2 190 565         1 617 662 1000         1 400         16 716         21           Arti arons, and muserisity         53 196         30 730         5 401 70         1 700         1 400         16 716         21           Arti arons, and muserisity         53 198         306 623         13 776         7 708 66         388         201 041         29 300         1 308         4 918 213         1 28 86         1 308         Autors, and anot arons, and muserisity         1 37 70         1 700         1 400         16 716         21           Autors, and anot kuidred workers, and suidred workers, and s			<b>├-</b> ────		woge pro sa	dry workers				ł
Initial         Employee of own         Employee of own         Employee of own         Store         Local         Federal         Store         Unput employed formity workers           Male, 16 years all and over         47 730 661         25 975 960         970 970         6 711 597         2 190 565         1 617 652         2 903 145         4 918 213         124 896           Arranects         55 197         6 70 970         6 711 597         2 190 565         1 617 652         2 903 145         4 918 213         124 896           Vinters artis, and entertoniers         53 178         30 720         5 402         6 717         3 477         1 760         1 480         16 716         21           Art promo, and musc.         19 859         7 051         12 808         3 861         201 641         29 556         607         1 308         607 20         1 308         607 20         1 308         607 20         1 308         607 100         1 308         607 100         201 727         2 607         7 79         5 641         100         201 727         6 647 1000         201 727         6 647 1000         201 727         6 545         105         647 100         1 524         266         533 772         1 71 75         2177         6 647 1000         1 524	United States		Privote wag	je ond solary Ikers	ĺ	Governme	nt workers		]	5
Male, 16 years old and over       47 730 461       35 975 960       970 970       6 711 592       2 190 565       1 417 462       2 903 345       4 918 213       128 864         Archnets       132 496       30 720       5 403       6 717       3 477       1 760       1 480       16 716       21         Art oramo ond mwsc       19 859       7 051       224 458       38 861       201 041       29 556       21       21       458       36 4057       2030       21       368 366       10 697       2030       21       368 366       10 697       2030       21       306 4057       1006       9 414       80 762       1 308       306 405       1000       21       21       21       21       21       21       21       21       21       21       21       21       21       21       306       306       307       1 23       307       1 23       307       1 23       497       1 303       607       1 303       607       1 303       607       1 303       607       1 308       1 461       33       607       1 308       1 461       33       607       1 308       1 461       33       607       1 307       1 20       1 306       607		foidi	Total	Employee of own corporation	Totol	Federal	State	Local	Self- employed workers	Unpaid family workers
Arr. Inters       134       194       30       700       5       17       347       17       1760       147       647       647       647       647       647       647       647       647       647       647       647       647       647       647       647       1760       1480       167       677       3       677       1760       1480       167       677       7000       128       888       2010       041       29       555       700       178       7000       178       7000       178       7000       178       7000       178       7000       179       178       7000       179       179       178       7000       179 <td>Male, 16 years old and over</td> <td>47 730 442</td> <td>15 975 940</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Male, 16 years old and over	47 730 442	15 975 940							
Teachers college and unversity       54 194       30 720       5 403       6 717       3 477       1 760       1 480       16 716       21         Writers and submet downers       19 859       7 051       21 458       3 864       201 041       27 556	Architects		4.5 775 760	970 970	6 /11 592	2 190 565	1 617 682	2 903 345	4 918 213	124 896
Arr group, and pruse       352 429       117 971       234 458       3 861       7 600       1 400       16 716       21         Writers artists, and entertainers       19 859       7 651       12 808       81       10 697       2 030       - <t< td=""><td>Jeochers college and unwersely</td><td>. 54 194</td><td>30 740</td><td>5 40 a</td><td>6 717</td><td>3 077</td><td>1 740</td><td>1</td><td></td><td>{</td></t<>	Jeochers college and unwersely	. 54 194	30 740	5 40 a	6 717	3 077	1 740	1		{
Writers antisis and entertainers       19 830       7 051       17 2606       3 061       201       27 2030         Actors       531 786       396 625       13 776       4 997       2030       661       131 150       601       67 7 2030         Athetes and kindred workers       13 376       396 625       13 775       80       399       10 897       1 775       2 779       6 947       1000         Dancers       17 322       9 739       247       1 835       150       207       784       4 951       397       1 775       2 779       6 947       1002         Dancers       10 05       9 31       3 775       3 777       1 581       1 681       533       667         Designers       83 227       72 491       3 775       3 777       1 581       1 681       533       673       1 633       7 613       4 289       2 676       648       4 695       1555         Putters and sculptors       55 145       1 326       1 602       1 524       268       533       723       17 775       2 779       6 947       1002       1692       166       164       4025       1555       1610       14 281       56       164       164	Art gramu and music	352 429	117 971		234 458	2 941	1 /00	1 480	16 716	21
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Writers petitike and annexe	19 859	/ 051		12 808	3 001	201 041	29 556		· _ ]
Autheres and kndred workers.       5 567       4 527       80       346       526       17 100       9 418       86 762       1 308         Authors       17 322       9 739       247       1 836       15 10       267       59       5 645       100         Descers       1005       943       21       1002       27       1 836       1002       21       21       21       21       33       69       41       20       69       41       20       69       41       20       69       41       21       21       21       21       53       66       41       66       75       56       545       1 836       7       613       4289       2 67       644       4695       155         Pontographers       58       58       58       58       72       1 969       4 020       2 68       533       723       17       75       5648       4931       4289       2 67       548       54       54       54       54       54       54       54       56       533       1017       65       68       668       14191       2 765       10101       14 281       56       54       54	Actors	531 785	396 625	13 776	47 090	20 568	17 109	2 030		]]
Authors       36 115       24 027       784       4 951       397       131       150       691       100         Dencers       1       732       9       739       247       1       1836       1510       267       59       5       6451       100         Dencers       1       005       943       21       21       21       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       -       41       -       697       153       163       4282       267       648       4695       153       155       153       153       153       1021       2105       7966       4191       2765       1016       14281       568       164       1648       1648       127       1081       121       2765       1016       12193       164       164	Athletes and surfred work or	5 567	4 527	60	349	20 000	17 100	9 414	86 762	1 308
Designers       17 32       9 739       247       1 836       1 500       267       59       5 445         Designers       83 227       72 491       3 775       3 797       1 583       1 681       533       6 873       66         Musicions and composers       89 008       76 545       1 836       7 613       4 289       2 676       6 448       4 695       155         Pointers and sculptors       58 578       39       612       1 107       1 524       268       533       733       17 17       175       217         Pointers and sculptors       55 147       32 844       2 005       7 966       4 191       2 765       1 010       1 4 281       56         Pubto relations mer and publicity writers       55 147       32 844       2 015       7 966       4 191       2 765       1 010       14 281       56         Rode and telewission mounderes       31 4373       127 197       1 32       440       1 871       2 523       84         Architects       149 31       2 707       861       4 522       3 115       2 331       866       8 705       227       21 447         Architects       129 074       10       2 9 074	Authors	36 115	24 027	784	4 951	397	1 775	201	691	-
Designers       1 (003)       0.93       21       27       57       5 845       102         Editors and reporters       89 008       76 535       1 836       7 613       4 289       2 676       533       6 873       66         Musicians and composers       58 528       39 612       1 107       1 574       268       533       723       17 175       217         Protographers       55 137       32 843       2 105       7 966       2 333       1 017       650       18 968       164         Public relations are and nublicity writers       55 137       32 844       2 015       7 966       2 199       2 781       2 470       3 471       1 871       2 523       84         Robe and releasion announcers       53 331       2 71       2 70       3 471       1 871       2 523       84         Water       relasion and enterclusters are ct       24 070       3 411       871       2 331       806       8 705       277         Acchitects       2 074       504       1 339       2 74       1 308       795       2 114       70       2 440       185       2 156 447       1 088       2 156       497         Acchitects       2 090	Doncers	17 322	9 739	247	1 836	1 510	267	4 4 4 4 4	0 Y4/	190
Editors and reparters.       B3 227       72 491       3 225       3 797       1 583       1 681       533       6 473       66         Musseans and composers.       89 006       76 545       1 836       7 613       4 289       2 676       648       4 695       155         Pointers and sculptors       963 934       32 782       1 969       4 020       2 886       533       723       1 7 175       217         Potographers       55 147       32 782       1 969       4 020       2 353       1 017       650       18 968       164         Pubbe relations are: and publicity writers       55 147       31 42 19       1 326       949       324       440       185       218       52         Teamle, 16 years aid and ever.       24 074       510       21 1 807       1 68 915       5 67 27       1 087 76       1 431 626       3 156 847       1 088 072       256       497         Teacher, 16 years aid and ever.       29 071       1 339       79       176       644       60       52       526       497         Teacher, 16 years aid and ever.       29 078       1 339       79       176       644       60       52       526       497 <t< td=""><td>Designers</td><td></td><td>613</td><td></td><td>21</td><td></td><td>21</td><td>57 }</td><td>2 645</td><td>102 [</td></t<>	Designers		613		21		21	57 }	2 645	102 [
Muscions and composers.       58       50       70       54       76       54       4       267       644       4       655       105         Pointers and sculptors       58       58       58       30       612       1       107       1       524       268       533       723       17       175       217         Protographers       55       147       32       844       2       015       7       966       1011       2       765       1011       14       844       2       015       7       966       1011       2       765       1011       14       844       2       969       322       333       1017       650       13       848       164         Robed relevision aniouncers       53       13       14       19       126       949       322       440       185       2523       316       87       253       34       34       29       74       75       101       12       253       34       34       34       29       327       400       183       253       36       37       313       365       365       3651       20052       314       761	Editors and reporters	80 000	72 491	3 275	3 797	1 583	1 681	511	A 972	-
Musicians and composers.       58       528       39       612       1       107       1       524       268       533       723       17       175       217         Ponters and scubtors       65       924       42       762       1       969       4       020       2       353       1       017       650       18       968       164         Public reformers and publicity writers       55       108       41       219       1       426       7       817       2       2523       84         Writer:       artists and evtertimers       52       0       70       861       270       817       2       2523       84         Virter:       artists and evtertimers       22       018       70       861       4272       31       806       8       705       817       2523       108       74       74       837       1       68       70       521       74       74       74       74       74       74       74       74       774       14       75       64       70       74       774       14       79       74       774       14       774       14       774		07 000	/0 343	836	7 613	4 289	2 676	648	4 495	00
Pointers and sculptors       20 200       1007       1 524       268       533       723       17 175       217         Photographers       55 147       32 844       2 015       7 966       4 191       2 765       1 010       14 281       56       164         Public relations mem and publicity writers       55 147       32 844       2 015       7 966       4 191       2 765       1 010       14 281       56         Rodic and television annonicers       70 551       1 9 194       126       949       324       440       185       218       -         Female, 16 years ald and ever       20 074 510       22 018 704       168 915       5 674 267       1 087 704       1 431 426       2 156 467       1 088 075       274         Architets       20 074 510       22 018 704       168 915       5 674 267       1 087 704       1 431 426       2 156 447       1 088 075       274         Acchitets       20 070       1 339       79       176       64       60       52       526       49         Actions, and succ       10 528       49 620       -       89 658       2 141       70 724       63 733       20       128       467       1082       223	Musicians and composers .	58 578	70 (1)	1 103				(	- 0.5	
Protographers       55       107       30       200       233       1017       650       18       968       164         Public relations mer and publicity writers       55       132       844       2015       7       766       4191       2765       1017       450       14       28       56         Public relations mer and publicity writers       54       618       4219       1426       7867       191       275       1017       1877       223       84         Writer: artists and effectingers merc       14       913       279       14       1426       949       324       440       185       218	Pointers and sculptors	1 1 1 1 1 1	12 793	107	1 524	268	533	723	17 175	217
Public relations new and publicity writers       51 678       41 219       1 476       7 966       4 191       2 765       1 010       14 281       56         Rode: and telewision bundon cers       70 341       19 19.1       126       949       324       440       187       2 523       84         Writer: actists and entertimiters       70 341       19 19.1       126       949       324       440       185       218       -         Female, 16 years ald and over       26 074 \$10       27 018 704       168 915       5 676 267       1 087 794       1 431 626       3 156 847       1 088 072       274         Architects       2090       1 339       79       176       64       60       52       526       49         Virters actists and entertainers       10 526       4 497       -       6029       74       4837       1 18       -       -       -         Actors       3 855       3 066       -       486       110       230       146       6179       337       90       1465       35.360       1 832       2602       21 075       7 367       7 54       61 185       35.60       1 17       7 54       6029       74       4837       1 18<	Photographers	55 347	12 84.	2 014	4 020	2 353	1 017	850	18 968	144
Writer:       ortal blevision announcers       0       301       19       19       19       126       949       324       440       185       218       218         Female, 16 years ald and ever       24       074       510       22       012       949       324       440       185       218       218       218       218       218       218       218       218       218       214       2012       214       2012       211       185       218       218       218       218       218       218       218       218       214       2012       214       2012       214       2012       211       103       201       210       2000       1339       79       176       64       60       52       526       49         Architets       20900       1339       79       176       64       600       52       526       49       10       56       64       497       6029       74       4837       118	Public relations men and publicity writers	54 638	JU 219	2 015	/ 900	4 191	2 765	1 010 [	14 281	
Writer:       ortists and criertunces me c       11 933       29 767       760       760       724       440       185       218         Female, 16 years aid and ever       29 074 \$10       22 018 704       168 915       5 674 267       1 087 794       1 431 626       2 156 847       1 088 972       274         Architets       2 090       1 339       278       49 620       -       860       5 674 267       1 087 794       1 431 626       2 156 847       1 088 972       271 65         Archards, ond muses       139 278       49 620       -       89 658       2 141       70 724       167 793       1 188       - </td <td>Redic and television announcers</td> <td>10.51</td> <td>19 194</td> <td>124</td> <td>812</td> <td>2 470</td> <td>3 471</td> <td>1 871</td> <td>2 523</td> <td>84</td>	Redic and television announcers	10.51	19 194	124	812	2 470	3 471	1 871	2 523	84
Famile, 16 years ald and over       22 074 510       22 018 704       168 915       5 676 267       1 087 794       1 431 626       2 156 847       1 088 972       291 467         Architects       2 090       1 339       79       176       64       60       52       526       49         Art dromo, ond music       10 526       4 9620       89 658       2 141       70 724       16 793       -       -         Actors       3 855       3 086       -       89 658       2 141       70 724       16 793       -       -         Actors       3 855       3 0866       -       486       110       230       146       262       21         Authors       14 051       9 717       56       2 273       99       274       185       35 360       1 873         Authors       14 051       9 747       244       10       230       146       262       21         Authors       16 051       9 717       59       2 273       99       274       183       35 360       1 873         Authors       12 0524       718       611       247       299       274       1900       1 832       231       161     <	Writeen actists and entertainters in eld	11 9121	29 892	861	¥4¥	324	440	185	218	-1
Architects       26 074 510       27 018 704       168 915       5 676 267       1 087 794       1 431 626       3 166 847       1 088 072       291 467         Tecchers college and university       139 278       49 620       -       89 658       2 141       70 724       16 793       - <th>famely. 16 years ald and any</th> <th></th> <th></th> <th></th> <th>1. 7.32</th> <th>3 113</th> <th>2 331</th> <th>306</th> <th>8 705</th> <th>274</th>	famely. 16 years ald and any				1. 7.32	3 113	2 331	306	8 705	274
Archinects       2 090       1 339       79       176       64       60       52       256       49         Art dromo, and music       139       278       49       620       -       89       658       2 141       70       724       16       793       -         Writers actists, and entertainers       229       309       171       000       2 928       21       075       74       4       837       118       -       -       -       6       029       74       4       837       118       -       -       -       6       029       74       4       837       118       -       -       -       6       029       74       4       837       118       -       -       -       6       029       74       4       837       118       -       -       -       6       029       74       4       837       118       -       -       -       6       029       74       4       837       118       -       -       2       73       97       536       35       360       1       873       4       101       135       2527       107       1 <t< th=""><th>Architecte</th><th>29 074 510</th><th>22 018 704</th><th>168 915</th><th>5 676 267</th><th>1 087 794</th><th>1 431 424</th><th>7 164 447</th><th>1</th><th></th></t<>	Architecte	29 074 510	22 018 704	168 915	5 676 267	1 087 794	1 431 424	7 164 447	1	
Proceeds college and university       139       278       49       620       100       602       600       52       526       49         Art dromo, and music       10       520       4       497       -       89       658       2       141       70       724       16       793       -       -       -       6029       74       4837       118       -       -       -       -       -       6029       74       4837       118       -       -       -       -       -       6029       74       4837       118       -       -       -       -       -       6029       74       4837       118       -       -       -       -       -       6029       74       4837       118       - <td< td=""><td>Arcasects</td><td>2 090</td><td>1 339</td><td>79</td><td>174</td><td></td><td></td><td>3 130 047</td><td>+ ONE 077</td><td>291 447</td></td<>	Arcasects	2 090	1 339	79	174			3 130 047	+ ONE 077	291 447
Art oromo, ono music       10 526       4 497       -       80 858       2 141       70 724       16 793         Writers ortists, ond entertainers.       229 300       171 000       2 928       21 076       7 367       7 524       6 1785       35 360       1 873         Actors.       3 855       3 086       -       486       110       230       146       262       21         Authors.       7 611       2 947       274       979       539       334       106       3524       161         Dancers.       7 611       2 947       274       979       539       334       106       3524       161         Designers.       25 603       20 524       718       60       24       36       289       -         Editors and regarters       59 104       50 437       409       6 039       3 329       2 267       443       2 445       183         Musicions and composers       31 496       25 372       107       1 768       226       538       1004       4 298       58         Pointers and sculptors       37 459       22 336       625       2 771       805       1 354       612       1 793       449 <td>recents college and university</td> <td>39 278</td> <td>49 620</td> <td></td> <td></td> <td>04</td> <td>60</td> <td>52 }</td> <td>526</td> <td>49 1</td>	recents college and university	39 278	49 620			04	60	52 }	526	49 1
Writers       orfsiss       orfsiss       offsiss       offsis       offsiss       offsiss	Art uromo, ono music	10 526	4 497	- i	87 658	2 141	70 724	16 793		_1
Actiors       3855       3086       746       7367       7524       6185       35360       1873         Athletes and kindred workers       14051       9715       96       2273       99       274       1200       146       202       21         Authors       7611       2947       274       979       539       334       106       3524       161         Designers       7611       2947       274       979       539       334       106       3524       161         Designers       25603       20524       718       611       147       298       166       4275       193         Kuscions and compasers       25603       20524       718       611       147       298       166       4275       193         Muscions and compasers       31.496       25.372       107       1.768       226       538       1.004       4.298       58         Photographers       8.603       5.681       186       777       367       327       83       2.083       262         Radio and television annoulicers       19.229       15.072       329       3.160       875       1.088       1.197       851	Writers orfists and entertainers	229 309 1	171.000	2 029	21 074	/4	4 837	1 118	- 1	-
Authors       14 051       9 715       96       2 273       99       274       1900       1 832       231         Dancers       7 611       2 947       274       979       539       334       106       3 524       161         Designers       4 901       4 552       60       24       36       289       -       -       289       -       -       289       -       -       161       147       298       166       4 275       193       193         Editors and reparters       59       104       50       437       409       6       039       3 29       2 267       443       2 445       183         Muscions and composers       59       104       50       437       409       6       039       3 29       2 267       443       2 445       183         Muscions and composers       31       496       25       372       107       1 768       226       538       1004       4 298       58         Pointers and sculptors       37       459       22 336       625       2 771       805       1 354       612       1 903       449         Poblic relations men and publicity writers	Actors	3 855	3 084	2 720	21 070	/ 36/	/ 524	6 T85 j	35 360	) 873 (
Autors       7 611       2 947       274       1 900       1 832       231         Dancers       4 901       4 552       60       24       36       289       7         Designers       25 603       20 524       718       611       147       298       166       4 275       193         Editors and reparters       59 104       50 437       409       6 039       3 329       2 267       443       2 445       183         Muscions and composers       31 496       25 372       107       1 768       226       538       1 004       4 298       58         Photographers       37 459       22 336       625       2 771       805       1 354       612       11 903       449         Public relations men and publicity writers       19 229       15 072       329       3 160       875       1 068       1 197       851       146         Writers ortists and entertainers, n e c       15 853       10 148       184       2 047       846       691       510       3 489       169	Anneres and kindred workers	14 051	9 715	96	2 271	110	230	46	262	21
Designers       4 901       4 552       60       24       36       289       161         Designers       25 603       20 524       718       611       147       298       166       4 275       193         Musicions and composers       59 104       50 437       409       6 039       3 329       2 267       443       2 445       183         Musicions and composers       31 496       25 372       107       1 768       226       538       1 004       4 298       58         Panters and sculptors       37 459       22 336       625       2 771       805       1 354       612       11 903       449         Public relations men and publicity writers       19 229       15 072       329       3 160       875       1 088       1 197       851       146         Writers ortisis and entertainers, n e.c.       15 853       10 148       184       2 047       846       691       510       3 489       169	Aumors	7 611	2 947	274	070	57	2/4	1 906	832	231
25 603       20 524       718       611       147       298       6       4275       193         Editors and reparters       59 104       50 437       409       6 039       3 329       2 267       443       2 445       183         Musicions and compasers       31 496       25 372       107       1 768       226       538       1 004       4 298       58         Painters and sculptors       37 459       22 336       625       2 771       805       1 354       612       11 903       449         Public relations men and publicity writers       19 229       15 072       329       3 160       875       1 068       1 197       851       146         Writers ortists and entertainers, n e c       15 853       10 148       184       2 047       846       691       510       3 489       169	Designer	4 901	J 552		60	234	334	1901	3 524	161
Muscions and composers       59       104       50       437       409       6       0.39       3       329       2       267       443       2       445       183         Muscions and composers       31       496       25       372       107       1       768       2267       443       2       445       183         Painters and sculptors       37       459       22       336       625       2       771       805       1       354       612       44       298       58         Photographers       8       803       5       661       186       777       367       327       83       2       068       262         Radio and television announcers       19       229       15       072       31       60       875       1       088       1197       851       146         Writers ortists and entertainers, n e c       15       853       10       148       184       2       047       846       691       510       3       489       169	Editors and recorders	25 603	20 524	718	611	147	202		289	
Musicions and composers       31 496       25 372       107       1 768       226       538       1 004       4 298       58         Pointers and sculptors       37 459       22 336       625       2 771       805       1 354       612       11 903       449         Public relations men and publicity writers       19 229       15 072       329       3 160       875       1 068       1 197       851       146         Radio and television announcers       1 344       1 30       105       87       18       109       -       -         Writers orbists and entertainers, n e c       15 853       10 148       184       2 047       846       691       510       3 489       169	tenors and reporters	59 104	50 437	409	6 039	3 329	2 267	100 1	4 2/5	193
Pointers and sculptors       31 446       25 372       107       1 768       226       538       1 004       4 298       58         Photographers       37 459       22 336       625       2 771       805       1 354       612       11 903       449         Public relations men and publicity writers       19 229       15 072       329       3 160       875       1 068       1 197       851       146         Radio and television annoulicers       1 344       1 30       105       87       168       109       -         Writers ortisis and entertainers, n.e.c.       15 853       10 148       184       2 047       846       691       510       3 489       169	Musicions and components			1				***3	2 445	183
Photographers       37 459       22 336       625       2 771       805       1 354       612       11 903       449         Public relations men and publicity writers       19 229       15 072       329       3 1 60       875       1 068       1 197       851       262         Radio and television annuucers       1 344       1 30       105       875       1 068       1 197       851       1 46         Writers ortisis and entertainers, n e c       15 853       10 148       184       2 047       846       691       510       3 489       169	Pointers and sculptors	31 496	25 372	107	1 768	226	538	1 004	1 200	
Public relations men and publicity writers         19 229         15 072         329         3 160         875         1 068         1 197         851         146           Radio and television analyticity         1344         1 30         105         87         18         109         -           Writers         15 853         10 148         184         2 047         846         691         510         3 489         169	Photographers	3/ 459	22 336	625	2 771	805	1 354	612	11 907	28 [
Radio and television announcers         1 <th1< th="">         1         <th1< th="">         1         <th1< th=""> <th1< th="">         1         <th1< <="" td=""><td>Public relations men and publicity writers</td><td>0 003</td><td>2 681</td><td>186</td><td>777</td><td>367</td><td>327</td><td>83</td><td>2 083</td><td>242</td></th1<></th1<></th1<></th1<></th1<>	Public relations men and publicity writers	0 003	2 681	186	777	367	327	83	2 083	242
Writers ortists and entertainers, n.e.c.         15.853         10.148         184         2.047         846         691         510         3.489         169	Radio and lelevision announcers	1 52	15 072	329	3 160	875	1 068	1 197	851	102
10 (40 184 2 047 846 691 510 3 489 169	Writers ortists and entertainers nec.	15 852	1 130	10.1	105		87	18	109	140
		1 444	10 140	104	2 047	846	691	510	3 489	169

Source: Table 51, Bureau of the Census, Census of Population: <u>1970 Subject</u> Reports, Final Report PC(2)-7A, Occupational Characteristics.

#### SELF-EMPLOYMENT AS A PERCENT OF SELECTED ARTISTIC OCCUPATIONS LABOR FORCE: 1970

۰.

**1** 

Architects	30.8%
Actors	12.4%
Authors	32.5%
Dancers	4.1%
Designers	8.3%
Musicians & Composers	29 <b>.3</b> %
Painters & Sculptors	28 <b>.7%</b>
Photographers	45.8%

Source: Table 10

## FIGURE 2

DIAGRAM OF POSSIBLE SHIFTS IN LABOR FORCE STATUS WITHIN THE ARTISTIC OCCUPATIONS



# Employed, Experienced Unemployed, Not in Labor Force, But Worked 1960 to 1970, by Detailed Occupation and Sex: 1970

	Male				Female			
United States	Experienced civilion labor force			Not in	Experienced civilian labor force			Not in
	Total	Employed	Experienced unemployed	labor torce, last worked 1960 to 1970	Total	Employed	Experienced unemployed	labor force, last worked 1960 to 1970
Tatel, 36 years old one over	49 536 472	47 730 661	1 805 81T	9 308 386	30 534 658	29 074 510	1 440 148	17 461 \$16
Architects	54 948	54 194	754	4 908	2 133	2 090	43	790
Teachers, college and university	354 671	352 429	2 242	29 845	14] 741	139 278	2 463	44 693
Writers, artists, and entertoiners	554 123	531 785	22 338	75 307	243 451	229 309	136	25 215
Actors Athletes and kindred workers	37 998	36 115	2 646	15 697	5 927 14 987	3 855 14 051	2 072 936	5 814 18 076
Dancers	1 271	17 322	266	2 181 403	7 935 5 653	7 611	-324 752	3 328 4 733
Designers Editors and reparters	85 243 91 501	83 227 89 008	2 016 2 493	6 049 8 828	27 082 61 483	25 603 59 104	1 479 2 379	12 466 25 255
Musicians and composers	63 677	58 528	5 149	12 508	32 860	31 496	1 364	14 999
Pointers and sculptors	67 917	65 934	1 983	6 310	39 559	37 459	2 100	17 587
Public relations men and publicity writers	55 698	54 638	1 040	5 536	20 154	10 220	0.33	4 /04 {
Rodio and television announcers	20 873	20 361	512	1 702	1 423	1 344	79	867
Writers, ortists, and entertainers, n.e.c	47 137	44 933	2 204	6 459	16 954	15 853	1 101	8 894

Source: Table 51, Bureau of the Census, Census of Population: <u>1970 Subject</u> <u>Reports</u>, Final Report PC(2)-7A, Occupational Characteristics.

¥

8 🔹 🐮 ÷ 1 ₹. Ŧ ŧ É Ţ 3 F ŧ 1 . . ŧ ş ۰. t 1 ŧ 1

-

PERSONS NOT IN LABOR FORCE BUT LAST WORKED IN ARTISTIC OCCUPATIONS 1960 TO 1970, AS A PERCENT OF SELECTED ARTISTIC OCCUPATION LABOR FORCE: 1970 Architects 10.0% Actors 63.3% Authors 21.2% Dancers 74.2% Designers 16.5% Musicians & Composers 28.5% Painters & Sculptors 22.2% Photographers 17.0%

Source: Table 51, U.S. Bureau of the Census, Census of Population: <u>1970 Sub-</u> <u>ject Reports</u>, Final Report PC(2)-7A, Occupational Characteristics.

.

C. Data Frequency. The best data available at the present time for the study of employment and unemployment of artists are from the decennial censuses conducted by the Bureau of the Census. This data is fairly detailed and makes possible the study of many aspects of the employment and unemployment of artists. However, the ten year interval is so great that comparisons from census to census are a coarse measure of change. Within the ten year interval, the annualized monthly averages data available from the Bureau of Labor Statistics provides some interesting information that is helpful in understanding gross trends in employment and unemployment for the aggregate group of Writers, Artists, and Entertainers and selected occupational classifications. This data, however, is less accurate because of the sample size and many of the detailed data elements of the decennial census are not included.

A change of the census period from the ten year interval to a five year interval beginning with 1985 is now proposed in the Authorization Bill for the 1980 Census. This change would provide a significant improvement in the data available for the study of the artistic occupations.