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ECONOMIC IMPACT OF THE ARTS IN IOWA

Published by the Iowa Arts Council, March, 1985.

ECONOMIC IMPACT OF THE
ARTS IN IOWA

John W. Fuller

February, 1985

Iowa Arts Council
Des Moines, IA 50319

The production of this report was funded by
the Iowa Arts Council

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FOREWARD

During 1983 and 1984, The University of Iowa was funded by the Iowa Arts Council to investigate the economic impact of arts activity in Iowa.* The study team reviewed past studies done in other states and in urban areas, searched for data on Iowa's arts activity, and looked at models of the Iowa economy to determine their applicability for measuring economic impact. Due to the lack of data, the team decided to survey arts organizations and individuals involved in arts activity to determine the direct effects of these activities. Moreover, audiences at a number of performances and arts events were surveyed as well. The team then applied an input-output model to estimate indirect impacts of these expenditures.

The study team also reviewed data on Iowa's state expenditures for the arts and compared those expenditures with ones made by other states. Data on social indicators were compiled for Iowa and other states, and various comparisons were made.

This report presents the study's activities and details its findings about direct expenditures and estimated indirect expenditures of the arts in Iowa.

* John W. Fuller was principal investigator for this study and wrote the final report. Several graduate students in the University's Urban and Regional Planning Program contributed greatly to the study, particularly Robert Miklo (who compiled Appendix D and managed much of the survey effort) and Michael Brienzo. Computer programming was done by Richard Kujawa of the Department of Geography. The study team was assisted and guided by Dr. Sam Grabarski, then-Executive Director of the Iowa Arts Council, aided by E. Anne Larson and other Council staff.

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CHAPTER I INTRODUCTION

The purpose of this study was to measure the economic impact of the arts in the state of Iowa. Economic impact of the arts was defined as the total effect of arts expenditures on the state's economy. The effect of arts expenditures includes the initial impact of dollars spent for wages and salaries, purchases of goods and services, and other purposes of both arts organizations and individual artists. These initial expenditures then give rise to secondary rounds of spending in many sectors of a state's economy. The government sector may gain from these expenditures in terms of increased tax receipts, while firms and individuals are likely to benefit from added economic activity and increased employment opportunities. Expenditures on the arts can have further economic impacts, through adding to the quality of life in a state or urban area and thereby attracting (or retaining) businesses or tourism. Such developmental impacts have been cited by arts supports as an important reason for public attention to the arts.

While economic impacts such as those described can be attributed to the arts, these impacts are by no means easily measured nor is the simple existence of such economic effects a suitable rationale for subsidizing the arts. Indeed, all economic activity produces initial and secondary effects; every employer makes payments to employees, suppliers and government treasuries--which lead in turn to further capital and operating expenditures.

That is to say, one should not center on economic impact as a reason for public or private support of arts activity. Artists and cultural institutions add many other values to our lives. Even in times of recession, the economic value of the arts is overshadowed by social and cultural values the arts bring to a state or a locality.

Yet the arts do receive public support and compete with other worthwhile activities for assistance from various levels of government. This support is tremendously important to the extent and quality of arts activity established in the United States. If good choices and decisions are to be made in allocating public funds, it is surely important to know about the economic effects of arts activity. Then comparisons can be made in economic as well as aesthetic terms when spending decisions are necessary. Moreover, knowledge of economic impacts should be of use to arts entities, for comparison purposes and in order to better understand their operations and markets. For these reasons it is worthwhile to study the economic impact of the arts in Iowa.

Background to the Iowa Study

The first study of the economic impact of Iowa's arts activity was done in 1982, leading to a series of reports published by the University of Iowa.* Quite a few such studies have been performed elsewhere in the past several years. Most of these studies were investigated by study staff before they proceeded with Iowa's initial and second studies.

Some of the other studies have encompassed metropolitan areas, rather than entire states. The earliest was sponsored by the National Endowment for the Arts (NEA) in Baltimore, Maryland, and the results of that study were published in November, 1977. The National Endowment for the Arts later funded and published a collection of six reports of case studies in Columbus, Ohio, Minneapolis/St. Paul; St. Louis; Salt Lake City; San Antonio; and Springfield, Illinois. In 1980 the Midwest Research Institute published a study of the

* John W. Fuller, Economic Impact of the Arts in Iowa, Final Report 29; John W. Fuller, James L. Harris and N. Katherine Brown, Comparisons of Arts Activities in Iowa, Technical Report 146; and, John Fuller, et al. Economic Impact of the Arts: Methods of Analysis, Technical Report 145, Iowa City, Iowa, Institute of Urban and Regional Research, 1982.

economic impact of the arts in Kansas City. Dr. Fuller assisted with city studies in Cedar Rapids/Marion in 1983 and Spokane in 1984. State studies have been done for California, Colorado, Connecticut, Florida, Louisiana, Oregon, Oklahoma and Texas. Moreover, a regional study of New England's arts activity was published in 1981 by the New England Foundation for the Arts, and a regional study for the New York-New Jersey metropolitan area was completed in 1983.

One common denominator of most of these studies was the independence on an economic tool called an input-output model to help determine the "ripple effect" of a dollar spent on the arts. These models were utilized to establish multipliers for application to arts activity, to estimate the extent to which money spent on various commodities or services recirculates in the local or regional economy. The specific multiplier applied depended on the nature of the economic activity involved.

The New England study, with its combination of analysis of the overall region and of the individual states comprised by the region, illustrates the use of a multiplier for arts expenditures. The study determined that most of the arts organizations within New England would fall in two industry classifications, and developed a composite multiplier that reflected the percentages of total arts spending in the state or region for arts organizations in the two categories.

The range of multipliers resulting from this process reflects, first, the mix of arts activities to be found in New England, because the two separate multipliers varied slightly. Second, the range of multipliers reflected the ability of the state or regional economy to retain the money spent as it recirculated. This, in turn, depended on both the size of the state economy, and its diversity and industrial composition. Thus, the range of composite

multipliers varied from a low of 2.344 in Maine to a high of 3.166 for Massachusetts. The New England regional multiplier, as to be expected, was higher still at 3.380. Other state studies appear to fall within this range; the multiplier used in Colorado, for example, was 2.55.

In the Baltimore study, an exception to the general case, an econometric model was employed that measured the effects of the arts on the local economy using 30 equations to estimate business sector impacts, government sector impacts and impacts on individuals of arts expenditures. The study also examined the hypothesis that the arts are an important factor in industrial location. The authors found that while the arts are almost never a determining factor in location decisions, they can serve as an important indicator of the quality of life in a community.

The range of institutions and artists surveyed, and the resulting breadth of economic impact projected, varied widely between the various studies that have been performed. Nearly all of these studies concentrated on arts institutions, to the exclusion of individual artists, but the range was wide even within these limits.

The Kansas City study was the most narrowly defined. It examined only "nonprofit performing arts groups in Kansas City that operate on a professional basis with annual operating budgets." All the other studies analyzed a wider universe of activity that included various other art forms, such as museums, galleries, libraries and historical societies.

Even within the wider definitions, survey methods varied according to the number of institutions included. The study by NEA of six cities was restricted to examining several major cultural institutions in each city, while the New England study mailed questionnaires to a broad range of smaller institutions as well. At the other extreme from the studies in Kansas City,

or even the NEA's six-city effort, the Louisiana study did exhaustive research to identify in advance as many arts organizations as possible. Interviewers then personally visited each organization with a survey questionnaire. One shortcoming of the Louisiana study, however, lay in the survey instrument, which yielded less detailed data than in the case of other survey forms.

The information obtained from arts organizations varied in another way too. The Florida study, without explanation, excluded expenditures by arts groups for capital acquisitions. No other study mentioned such a deliberate exclusion. On the other hand, the Colorado study included an estimate for the value of in-kind contributions to arts organizations.

Findings of Other Studies

It is worth noting some of the results of the various studies in cities and states, and seeing the categories of effects that have been determined.

The estimates in Table I, for four Standard Metropolitan Statistical Areas, show direct expenditures of anywhere from \$3 million for the medium-sized city of Springfield, to over \$28 million a year for the Twin Cities. Secondary expenditures are estimated at double or triple the direct expenditures. Total expenditures per capita range from about \$12 in the case of San Antonio to \$52 for the Twin Cities. Annual funding of the selected arts institutions by state, local and federal government varies from 28 cents per capita in Columbus to \$4.12 per capita in Springfield.

The city studies involved estimates of audience spending and of expenditures made by guest artists. Although the expenditures by guest artists were small (2 percent or less of all direct expenditures), audience spending ranged from a third to over half of all direct expenditures.

Now note the results of several state studies done in New England (as summarized in Table II). These state studies show a variance in total

TABLE I
EFFECTS OF ARTS EXPENDITURES IN FOUR U.S. SMSAs^a

City	Columbus	Minneapolis St. Paul	San Antonio	Springfield
SMSA Population	1,068,514	2,063,770	996,800	374,100
Local expenditures for goods and services	\$1,525,012 (24%)	\$7,335,778 (26%)	\$940,226 (25%)	\$396,654 (13%)
Employee salaries and wages	\$2,045,981 (32%)	\$10,852,362 (38%)	\$1,489,402 (40%)	\$981,461 (33%)
Audience spending	\$2,633,438 (41%)	\$8,307,528 (36%)	\$1,278,391 (35%)	\$1,565,253 (52%)
Guest artist spending	\$132,390 (2%)	\$104,223 (<1%)	\$32,224 (<1%)	\$54,451 (2%)
Total direct expen- diture	\$6,336,821	\$28,599,891	\$3,736,043	\$2,997,819
Secondary expenditures	\$14,584,269	\$78,932,141	\$8,530,587	\$4,539,957
Total expenditures	\$20,921,080	\$107,532,032	\$12,266,630	\$7,537,776
Total local expen- ditures per capita	\$19.58	\$52.10	\$12.31	\$20.15
Government funding of arts institutions	\$304,280	\$1,548,296	\$1,075,760	\$1,542,235
Government funds per capita	\$0.28	\$0.75	\$1.08	\$4.12

^aStandard Metropolitan Statistical Areas.

Source: Adapted from The Arts Talk Economics (National Assembly of Community Arts Agencies: Washington, D.C., 1980), pp. 8, 9.

TABLE II
PREVIOUS ESTIMATES OF ARTS EXPENDITURES IN FOUR
NEW ENGLAND STATES^a AND IOWA^b

State	Connecticut	Maine	Rhode Island	Vermont	Iowa
Population (1977 for New England, 1980 for Iowa)	3,108,000	1,085,000	935,000	485,000	2,914,000
Direct spending in state	\$33,315,578	\$11,804,191	\$17,378,876	\$6,914,198	\$38,052,000
Indirect spending in state	\$63,232,777	\$15,864,833	\$26,212,055	\$8,428,407	\$44,199,000
Total spending in state	\$96,548,255	\$27,669,024	\$43,490,931	\$15,342,605	\$82,251,000
Total expenditures per capita	\$31.06	\$25.50	\$46.51	\$31.63	\$28.23
Government grants	\$11,027,546	\$5,537,616	\$6,496,932	\$3,023,558	n.a.
Government grants per capita	\$3.55	\$5.10	\$6.95	\$6.23	n.a.

^aSource: The Arts and The New England Economy (New England Foundation for the Arts: Cambridge, Mass., 1980), 46, 61, 72, 108 and 120.

^bSource: John W. Fuller, Economic Impact of the Arts in Iowa (Institute of Urban and Regional Research: Iowa City, Iowa, 1982), 19, 20.

expenditure on the arts per capita from \$25.50 in Maine to \$46.51 in Rhode Island. Annual government funding for the arts ranged from \$3.55 per capita in Connecticut to \$6.95 in Rhode Island.

The figures in Tables I and II cannot be compared directly, and should be viewed as giving only a partial picture of arts activity in those areas. The results do suggest that for both cities and states the indirect effects of arts expenditures are greater than the direct effects. The range of total effects per capita extends from about \$12 to a bit over \$50. For Connecticut, a state slightly larger in population than Iowa, total direct and indirect expenditure equalled about \$100 million a year.

Iowa's Study Approach

A review of other studies performed was essential in order to determine the approach to be taken in a study for Iowa. That review suggested some desirable attributes of other studies that could be adapted by Iowa; it also suggested some problems with earlier studies that ought to be avoided.

First, the various city studies, and many of the state studies, relied on survey information for a small set of major arts organizations in order to estimate economic impact of the arts. While such a small sample could be expected to cover the great majority of expenditures, the approach of surveying only key, major institutions was rejected for the Iowa study. Iowa's arts sector appeared to the study team to be composed of a greater proportion of small or medium-sized institutions, and it seemed necessary for reasonable coverage of the arts to sample those institutions as well as the very large organizations. Moreover, we saw reason to believe that expenditure patterns of small and medium-sized organizations might differ from those of large arts institutions. The approach taken in the Iowa study, then, was to obtain data from all arts organizations, of whatever size. Unfortunately this

presented two problems: (1) greater survey costs and data management expense; (2) a reduced response rate from the organizations sample.

A second decision taken was to include individual artists and performers in the Iowa study. No other study we investigated made this decision, but we had no prima facie way of determining the economic role played by individual artists in Iowa's arts sector without gathering data on those artists. As a result, we sampled from a universe of over 2,000 Iowa artists to develop information about their activities. In this case, too, we found the response rate to be lower than we had expected.

A third decision was to include the impacts of audience expenditures in the study. Audience expenditure impacts have been found to be of major import--accounting for over half of all economic effects of the arts in Springfield, for example (see Table II). Yet it could be argued that audience expenditures should not be estimated, in part due to the difficulty of gathering reliable data from a variety of institutions, and in part because audience expenditure impacts have been questioned by some as being transfers rather than clearly generated impacts. It is likely that many arts-related audience expenditures would be directed instead toward other purchases if the arts were not available. Eliminating the audience expenditures would make estimates of economic impact far more conservative, and indeed this was the approach taken in the 1981-82 Iowa study. However, it was decided to attempt to measure audience expenditures state-wide as part of this study.

Fourth, the use of an input-output model appeared desirable to estimate how arts expenditures impacted other sectors of the state's economy and to derive income and employment multipliers for arts expenditures. While the use of such a model is most helpful, we had problems in obtaining an up-to-date Iowa model suitable for our application. Moreover, even a quite disaggregate

input-output model does not contain an "arts sector," and we were forced to try and find an appropriate sector to fit our needs. In the end, a number of adjustments and modifications were required.

Nevertheless, the Iowa study approach proved broader than those of other investigations. Information was obtained about a variety of organizations, not just major ones, and we sampled individual artists as well. Audience impact figures were derived. The data gathered to enable us to estimate direct economic impacts of the arts and the methods applied do provide us with estimates of secondary impacts of expenditures by the Iowa Arts sector.

CHAPTER II
DATA ON IOWA ARTS ACTIVITY

The Iowa study gathered previously unavailable data on arts activity by means of three comprehensive surveys: (1) of arts institutions; (2) of individual artists; and (3) of audiences for arts events. Information on expenditures and income was not otherwise available so it was necessary to identify the arts sector of the state's economy, determine who to survey and how, devise an appropriate survey format and be certain that the results were representative of actual arts activity.

The universe of participants for the mail surveys of organizations and individuals came from a master list compiled by the Iowa Arts Council for 1983. The Council mailed a survey form to all its members (both organizations and individuals) asking them to place themselves in one of 15 different disciplines and then further to classify themselves into one of 47 different "institutions." For example, the discipline music could be subdivided into band or chamber and further classified according to institution, such as performing group--college/university or individual artist. Additional divisions were requested for "function" (9 categories) and status (9 categories).

The use of the Council's list served to define "arts," because organizations or individuals not on that list had no opportunity to be surveyed. Moreover, organizations for which "arts" activity is a small part of total activity were not surveyed (such as bookstores, sellers of phonograph records or audio tapes, photography outlets or camera stores, lumberyards selling framing materials, and the like). The result was to narrow the measure of arts activity. On the other hand, the list was found to contain others besides primary arts "producers," or "purchasers," such as the

broadcast media, governments, schools, or individuals who were simply interested in news about arts activity. For this reason it later became necessary to narrow the universe of arts council affiliates considerably to a list that was more representative of organizations and individuals with a primary focus on the arts.

The questionnaire prepared for the Iowa study was mailed to some 389 organizations and 722 individuals selected from the Arts Council list. Two versions of the survey were utilized, one for individuals and a second for organizations. The 389 organizations to be contacted were selected from a group of 419 that were believed suitable for survey; the group was reduced to 389 by observation to move duplicate listings and defunct organizations. The organizations were surveyed by mail twice, and some organizational representatives were contacted by telephone or in person in order to stimulate responses. The result was 134 completed surveys for a response rate of 34.4 percent. The 722 individuals to be surveyed were randomly selected from a list of 2,171 individuals on the council's list. We received responses from 155 of the individuals surveyed, for a response rate of 21.5 percent. (Of those 155 respondents, 111 considered themselves to be artists and provided data about their income, their expenses, or both income and expenses from arts-related activity.)

In contrast to the results of these mail surveys, an earlier Iowa survey performed in 1981-82 surveyed a universe of 811 individuals, obtaining responses from 83 persons, for a return of 10.2 percent. Some 633 organizations were mailed questionnaires in the earlier study and 105 responded, for a return rate of 16.6 percent. The improved response rates for this 1984 study suggest that greater confidence can be placed in the more recent results. However, it should be noted that the universe of

organizations in 1984 was reduced in comparison to 1981-82 (389 organization rather than 633) through an explicit decision not to survey some categories of arts organizations (such as secondary schools, public radio and government organizations) whose members experience has shown not to be responsive to mail surveys, and where arts activity is but a small part of total organizational output. Table III contrasts the survey universe from the earlier study with the universe used in 1984.

The response rates shown in Table III for the organizational and individual surveys appear quite satisfactory, particularly when it is recognized that the survey instrument takes a good deal of effort to compile. (The form is reproduced as Appendix A to this report.) The fact that many multiple-purpose organizations were not surveyed indicates the results of the survey are an understatement of the economic impact of arts activity in Iowa.

Estimated Direct Expenditure on the Arts in 1983

The organizations and individuals surveyed were asked a variety of questions about numbers of employees, amount and sources of income received, amount and type of expenditures made, and number of patrons served. It should be noted that the data included only actual dollar transactions, and did not count donated or exchanged goods and services.

The expenditures reported by survey respondents were categorized according to the economic sector in which they occurred and then summed within those categories. The appropriate multiplication factors were then applied (as derived from the far-right-hand column in Table III) to calculate the estimated arts expenditures in Iowa during 1983. The direct expenditures data are displayed by expenditure function in Table IV. This table presents information for expenditures made in Iowa, only.

TABLE III

IOWA ARTS SURVEY COMPOSITION, 1982 COMPARED WITH 1984

1982 Categories of Iowa Arts Organizations	Uni- verse	Survey Res- ponses	%	1984 Categories of Iowa Arts Organizations	Uni- verse	Sam- pled	Survey Res- ponses	%
Symphony/Opera/ Theatre	53	7	13.2	Major Performing Groups: Symphony/Opera/Ballet and Dance	18	18	11	61.1
Other Performing Arts	94	11	11.7	Performing Groups: Theatre	65	65	21	32.3
Galleries	56	19	33.9	Music and Dance Associations	18	18	10	55.6
Festivals/Events	3	3	100.0	Other Musical Performing Groups	40	40	11	27.5
Arts Councils/Area Organizations	130	13	10.0	Major Art Museums	9	9	5	55.6
Foundations/Civil Service Organ.	113	12	10.6	Other Art Museums and Exhibit Spaces	57	57	10	17.5
Societies	31	3	9.7	Fairs and Festivals	16	16	5	31.3
Literature	18	6	33.3	Major Performing Facilities	8	8	3	37.5
Secondary Schools	72	20	27.8	Art Centers and Councils	113	113	44	38.9
College/Universities	57	10	17.5	Small Press and Literary Magazines	27	27	7	25.9
Public Radio	<u>6</u>	<u>1</u>	<u>16.7</u>	Professional Arts Organizations	16	16	5	31.3
				Other Arts Organizations	<u>2</u>	<u>2</u>	<u>2</u>	<u>100.0</u>
Total Organizations	633	105	16.6	Total Organizations	389	389	134	34.4
Individuals	811	83	10.2	Individuals	2,171	722	155	21.5

From Table IV it can be noted that the largest expenditure function, both overall and for organizations, was wages and salaries. Second largest was construction, followed by services, facilities and materials. For individuals, the largest functional category was materials, followed by facilities and taxes. Of the nearly \$43 million in direct expenditures, almost \$6 million was made by individuals (13.7 percent of the total).

Table IV also exhibits total direct impact less tax payments. (Those net figures are used for the calculation of indirect effects.) Taxes prove to be a negligible item for arts organizations, but for individual artists their state, federal and local taxes equal 13.8 percent of all expenditures.

Additional information on direct expenditures is provided in Table V, for individuals and for organizations categorized in 11 groupings.* Out-of-state expenditures are shown as well as in-state. For organizations, the out-of-state expenditures are 5.5 percent of all expenditures, while for individuals the equivalent figure is 7.7 percent. The category of major art museums (containing 9 institutions) had the largest total expenditures in Iowa in 1983, over \$11 million (24.8 percent of all direct expenditures). Second high were other art museums and exhibit spaces (57 institutions), with almost \$9 million. The largest out-of-state expenditures were made by the 18 major performing groups (symphony/opera/ballet and dance), with \$654 thousand (some 30.2 percent of all institutional expenditures made out-of-state, but only 13.5 percent of these performing groups' total estimated expenditures).

*These are the 13 categories for the 1984 survey shown in Table III, with the 16 entities grouped in Professional Arts Organizations and the 2 entities in the category Other Arts Organizations combined.

TABLE IV

ESTIMATED DIRECT EXPENDITURES IN IOWA BY IOWA ARTS
ORGANIZATIONS AND INDIVIDUALS, BY FUNCTION, 1983

<u>EXPENDITURE FUNCTION</u>	DIRECT EXPENDITURES*		
	Organizations	Individuals	Total
	(Thousands of \$)		
Wages and Salaries	\$12,064	\$233	\$12,297
Taxes	191	714	905
Services	5,530	631	6,161
Facilities	3,569	1,359	4,928
Materials	2,479	2,063	4,542
Equipment	1,520	624	2,144
Construction	10,449	153	10,602
Other	1,130	96	1,226
Total	36,932	5,873	42,805
Total less Taxes	36,741	5,159	41,900

*Numbers rounded. Totals will differ slightly from numbers in Table V.

The surveys also disclosed that the arts organizations that replied to the questionnaire employed 204 persons full-time in 1983 and 905 persons part-time. The individual artists who responded employed 19 persons part-time in Iowa.

To summarize the findings about direct expenditures shown in these tables, it can be estimated that Iowa's organizations and artists spent over \$45 million in 1983, almost \$43 million of that total in-state. Net of taxes, direct expenditures on goods and services in Iowa were about \$42 million. In comparison, the study performed in 1981-82 estimated direct expenditures in Iowa of \$38 million (\$37 million net of taxes), plus out-of-state expenditures of \$4.5 million. Total direct expenditures two years ago were about \$42.5 million. Taxes in 1983 were about \$300 thousand higher than in 1981, out-of-state expenditures were some \$1.8 million lower, and in-state expenditures were \$4.8 million higher. These comparisons between the findings in the two studies can be calculated by reference to Table VI.

It is worth emphasizing, however, that the differences shown may reflect sampling error, changes in the universe of Iowa organizations and individuals, and changes in sampling percentage, rather than being solely attributable to changes in the actual behavior of organizations and individuals.

Audience Surveys

A major effort of the study was a series of audience surveys. These surveys were conducted at arts events throughout Iowa that were held from early April, 1984 through October, 1984. The 64 events surveyed for which data were usable included concerts, plays, ballet performances, and museum events; the most important events in terms of number of attendees and economic input proved to be art fairs and festivals.

Table V

<u>Organization Category</u>	<u>Estimated Expenditures^a</u>		<u>Total</u>
	<u>In-state</u>	<u>Out-of-State</u>	
	(Thousands of \$)		
Major Performing Groups, Symphony/Opera/Ballet and Dance	\$4,192	\$654	\$4,846
Performing Groups, Theatre	4,704	305	5,009
Music and Dance Associations	1,236	102	1,338
Other Musical Performing Groups	255	2	257
Major Art Museums	11,194	99	11,294
Other Art Museums and Exhibit Spaces	8,487	497	8,984
Fairs and Festivals	326	b	327
Major Performing Facilities	3,522	176	3,699
Art Centers and Councils	1,699	240	1,939
Small Presses and Literary Magazines	478	81	560
Professional Arts Organizations and Other	<u>848</u>	<u>12</u>	<u>860</u>
Subtotal, Organizations	36,941	2,168	39,113
Individual Artists	<u>5,873</u>	<u>490</u>	<u>6,363</u>
TOTAL	\$42,814	\$2,659	\$45,476

^aRounded to the nearest thousand. Totals will not add due to rounding.

^b Less than \$500.

TABLE VI

DIRECT EXPENDITURES BY IOWA ARTS ORGANIZATIONS
AND INDIVIDUALS IN 1983, COMPARED WITH 1981

(Thousands of Dollars)

Year	Direct Expenditures in Iowa	In-Iowa Expenditure Net of Taxes	Out-of-State Expenditure	Total Direct Expenditures
1981	\$38,052	\$37,446	\$4,454	\$42,506
1983	\$42,814	\$41,909	\$2,659	\$45,476

Many of the surveys, particularly those administered at art fairs, were conducted directly by means of personal interview. Others, especially those involving concerts and plays, were administered through insertion of a questionnaire in the program for the performance. Overall there were 23,106 complete, usable surveys obtained and tabulated. They involved events attended by audiences estimated at 222,717 people, so a response rate of just about 10 percent was obtained (see Table VII, below).

Table VII shows that the response rates varied from about 8 percent in the case of fairs and festivals to 48 percent for attendance at museum shows and lectures. Likewise, the average attendance at events surveyed varied from about 300 for the art museums to some 6,600 for fairs. Because it proved possible to survey a large proportion of those in attendance at events with relatively low attendance, one can be quite confident of the results obtained, even though the method of administration is subject to self-selection bias. We can be reasonably confident, too, of results generalized from an 8 percent sample in the case of fairs and festivals attended by many persons, particularly because care was taken to insure random sampling and because the interviewers had few if any refusals from those interviewed.

The questionnaire that was used requested data about expenditures made, asked the respondent to indicate state of residence (about 14 percent proved to be out-of-state residents) and sought information on mode of transportation plus distance traveled to attend the event. (A questionnaire is reproduced as Appendix B, and instructions for its administration are found as Appendix C.) Depending on the expenditure details to be provided, answering the questionnaire could take from about twenty seconds to several minutes, if administered by an interviewer, or up to four or five minutes if self-administered.

TABLE VII
AUDIENCE SURVEY RESULTS

Type of Event	No. of Performances, Activities or Oc- asions Surveyed	Audience Size	Average Audience Size	Number of Persons Surveyed	Response Rate (%)
Musical Performance	20	26,378	1,319	4,209	16.0
Ballet Performances	3	9,235	3,078	1,175	12.7
Art Museum Attendance	8	2,377	297	1,143	48.1
Theatre Performances	6	6,046	1,008	2,245	37.1
Fairs and Festivals	<u>27</u>	<u>178,681</u>	<u>6,618</u>	<u>13,641</u>	<u>7.6</u>
Total	64	222,717		23,413	10.1

The audience surveys were conducted state-wide, in an attempt to obtain a representative view of the economic behavior of those who attend art events throughout the state of Iowa. So far as the author has been able to ascertain, the Iowa effort has been the first state-wide survey of audience behavior to be performed in the United States.

What were the expenditures results, and what patterns can be discerned? Table VIII contains summary data from the surveys and has expenditure estimates expanded to cover the universe of audiences surveyed.

The table shows total expenditures made by those persons surveyed exceeded \$200,000. When the total audiences for each event type are taken into account, it is possible to impute expenditures for the entire group of 64 surveyed events of slightly in excess of \$2 1/4 million. The imputation was made, for example with respect to musical performances, by multiplying the actual expenditures reported by those surveyed (\$28,706.62, in the case of musical performances) by the ratio of total audience to those surveyed (for the 20 musical events this ratio was 26,378 divided by 4,209). The calculated result was an estimate of total expenditures for surveyed events of the particular type (for music, \$179,906).

Some of the differences between events of various types appear worth noting. For most event categories, except art fairs and festivals and museums, the major expenditure item proved to be meals. For theatre-goers, for example, meal expenditures proved to equal 69 percent of all expenditures. (Net, that is, of tickets and admission fees. Data about those expenditures were not obtained by the audience survey; such information on an aggregate basis was obtained through a survey of arts institutions, and to add it to arts sector totals based on both expenditure and income reports would be doublecounting.) The figure was 46 percent for those persons attending

TABLE VIII

Audience Expenditures in Iowa, 1984*

Categories	Actual Expenditures by Persons Surveyed (22,413 persons)	Estimated Expenditure for Audiences Surveyed (222,717 persons (Dollars))					Imputed Expenditures For Iowa Audiences	
		Musical	Ballet	Museums	Theatre	Fairs	Total 64 Events	
Lodging	13,746	14,823	18,193	782	3,151	98,503	135,452	
Meals	59,771	81,884	54,967	2,343	22,283	397,032	558,509	
Gasoline	15,795	15,710	10,819	917	1,829	141,804	171,079	
Gifts	80,824	10,923	11,585	783	1,020	1,006,665	1,030,976	
Other	<u>16,102</u>	<u>28,023</u>	<u>20,480</u>	<u>909</u>	<u>703</u>	<u>109,065</u>	<u>159,180</u>	
Subtotal	186,237	151,363	116,044	5,734	38,986	1,753,069	2,055,196	
Imputed Transportation Expenditures	35,824	44,253	21,284	3,463	5,138	294,472	368,610	
Total expenditure (excluding gas, in- cluding transport)	206,266	179,906	126,509	8,280	32,295	1,905,737	2,252,727	
Average per capita expenditure	9.20	6.82	13.70	3.48	5.34	10.67	10.11	

*Not including expenditures for tickets or admission fees.

musical performances. In the case of museum attendees, the major category of expense was transportation, 42 percent of the total. Fairs and festivals had as their highest expenditure category gifts, at 53 percent of the total. Clearly, the expenditure patterns differ greatly between the types of events. Moreover, the amounts of expenditure per person also proved rather different, with the greatest average expenditure of \$13.70 occurring by those who attended ballet performances. Persons attending musical and theatrical performances spent roughly equal amounts, about half the expenditure made by those attending the ballet.

One item of expenditure, for gasoline, was not included in the expenditure totals. Rather, an imputed item for transportation cost was used. Transportation cost included public transportation cost (if reported by attendees) and a calculated out-of-pocket cost figure for private vehicles based on the reported distance traveled and type of vehicle used.* This imputation gave a more accurate figure for costs actually incurred to attend an event than would have been the case if a gasoline expenditure figure was used. However, gasoline expenditure information may be of interest to sponsors of an event or to persons wishing to investigate in local impacts in conjunction with an arts event.

Although the expenditure figure of \$2 1/4 million for the 64 events surveyed is a reasonable representation of economic impact in conjunction with those events, those 64 performances or activities constitute only a minor part of all arts events in Iowa. Table IX shows conservative estimates of the

*Out-of-pocket costs were calculated using data adapted from U.S. Department of Transportation, Federal Highway Administration, Cost of Owning and Operating Automobiles and Vans, 1982, (Washington, D.C.: Federal Highway Administration, 1983).

TABLE IX

Imputed Expenditures by Iowa Audiences, 1984

	Musical	Ballet & Dance	Art Museums	Theatre	Fairs & Festivals	Total
Estimated Audience	450,000	30,000	400,000	350,000	400,000	1,630,000
Per Capita Expenditure	\$6.82	\$13.70	\$3.48	\$5.34	\$10.67	\$6.75
Estimated Audience Expenditures	\$3,069,000	\$411,000	\$1,392,000	\$1,869,000	\$4,268,000	\$11,009,000

audiences in Iowa for several types of events.* The conclusion is that over 1.6 million attendees at events in Iowa during 1984 spent in excess of \$11 million in conjunction with their attendance at those events.

In my opinion, the audience figures shown in Table IX are very conservative, but it should be stressed that we have no official data on attendance at arts events in Iowa. The surveys done of individuals suggested that for the 111 respondents, attendance at performances, exhibitions and events produced by the artists as individuals added up to some 330,000 in 1983. A 1984 Calendar of Art Fairs** lists activities with attendance of around 700,000. The following Table X shows 1983 attendance estimates for the organizations surveyed in Iowa that fit the categories of Table IX.

This figure of about 2 million in Table X compares with a figure for 1981 of 1,728,000 reported by the organizations that responded to the Iowa study in 1982.

Multipliers and Economic Impact

There are several ways in which arts activities contribute to the Iowa economy.

1. Salaries and wages are paid by arts organizations to administrative and staff personnel, and also to performers and other artists.
2. Organizations and individual artists make direct expenditures on goods and services provided by in-state retailers, wholesalers, professionals and contractors. Examples of goods and services that are purchased (as

*In comparison to my estimate of 1,630,000, the arts audience in Oregon is estimated to equal 5,200,000 and in Colorado the figure is 3,687,000. See Peggy Cuciti, *Economic Impact of the Arts in the State of Colorado* (Denver: University of Colorado, 1983), pp. 1-9 and 2-6.

**An annual calendar of approximately 100 summer arts fairs and festivals published by the Iowa Arts Council.

TABLE X

ESTIMATED ATTENDANCE IN 1983 AT PERFORMANCES, EXHIBITIONS
AND EVENTS AS REPORTED BY 63 ARTS ORGANIZATIONS IN IOWA

<u>Organizations</u>	<u>Reported Attendance</u>
Performing Groups, Symphony/Opera/ Ballet and Dance	516,000
Performing Groups, Theatre	362,000
Music and Dance Associations	42,000
Other Musical Performing Groups	14,000
Major Art Museums	337,000
Other Art Museums and Exhibit Spaces	108,000
Major Performing Facilities	350,000
Art Centers and Councils	<u>227,000</u>
TOTAL	1,956,000

summarized in Table IV) include: professional supplies, utilities, legal services, advertising, office supplies and building construction.

3. Auxiliary expenditures made by arts patrons and directly attributable to arts activities can also be considered "arts" expenditures. The amount of money spent on meals, lodging, transportation and novelty items can be significant; however, it is difficult to determine with certainty whether expenditures of this type would have been made even in the absence of arts activities, in which case they would not qualify as "arts" expenditures.

The total of these initial expenditures constitutes the direct economic impact of arts activity on the state economy. For example, if \$15, \$10, and \$25 million were spent on salaries and wages, goods and services, and auxiliary goods respectively, the total direct impact on the Iowa economy, in terms of income, would be \$50 million. It should be emphasized that dollars paid to out-of-state purveyors of goods and services are considered "leakages" and do not contribute directly to the Iowa economy. Consequently, these expenditures would not be included in the direct impact figure.

Direct expenditures do not reflect the total economic impact of the arts on the state economy. Suppose that, over a short period of time, \$50 million is spent in Iowa by the arts. This represents \$50 million of income received by businesses and individuals located in the state. A proportion of this income, let us say 0.5, will be respent in Iowa for goods and services. In this way 25 million of additional or "indirect" income will be generated in the state economy. The remaining \$25 million will leak out of the Iowa economy by way of out-of-state purchases, or in the form of savings or retained earnings distributed to out-of-state investors.

Half of the \$25 million generated in the second round of spending will be respent in-state, which in turn will generate successive rounds of decreasing in-state expenditures. In this example, a direct expenditure of \$50 million initiates a "ripple effect" which eventually leads to a total increase of \$100 million in state income. Put another way, one dollar spent in Iowa on the

arts ultimately brings about a total expenditure of two dollars in the state; thus, the income multiplier, the number by which direct expenditures is multiplied to derive total impact on income, is 2.0.

In order to determine the total (direct plus indirect) dollar increase in income attributable to arts expenditures, it is necessary to estimate an income multiplier. It is also possible to measure the impact of economic activity in terms of the change in total employment by calculating, in a similar fashion, an employment multiplier.

Several methods in regional science and economics are commonly used to estimate multipliers. The Keynesian method uses an estimate of the marginal propensity to consume to derive economic multipliers.

Another method, the economic base model, assumes that the economic activity of a region is determined solely by the level of export activity in that region. According to this model, an increase in income or employment can be brought about only through an increase in export activity. Thus the ratio of export to non-export or "local" activity is used to determine the multiplier effect that an increase in export activity will have on the total economy.

These two methods of estimating multipliers were rejected for use in this study. The Keynesian multiplier is too highly aggregated for our purposes. The economic base model does not lend itself well to a study of the impact of the arts in Iowa because the export activity (defined as activity which brings revenues in from outside the region) generated by the arts in Iowa is negligible, and the model's important assumption does not hold.

A third method, the input-output model, was chosen instead as the analytical tool to be used in this study. There were several reasons for this decision. First, an input-output model is attractive because in the operation

of this model the total economy is disaggregated into n multiple sectors. An n by n matrix is formed, with the various sectors disaggregated across the columns and, likewise, down the rows of the matrix. Technical coefficients are determined and put into the n by n , interindustry matrix. As one looks down column y_i , (where $i = 1, 2, 3 \dots n$), the technical coefficient shows the proportion of inputs from each sector X_j (where $j = 1, 2, 3 \dots n$) necessary to produce one unit of output in sector y . The disaggregated structure of the model makes it possible to trace the impact of changes in economic activity through specific sectors of the economy. Also, a change in economic activity can be used as input to the specific sector in which it occurs. This is important because there is great variation in the degree to which an economy is dependent on particular industries for economic well being.

A million dollar increase in demand for farm machinery would have a much greater impact on the Iowa economy than a million dollar increase in the demand for crude oil. The Keynesian multiplier cannot discriminate between changes in demand that take place in different sectors of the economy.

A second advantage of the input-output model is the degree to which it can be made to reflect the specific structural characteristics of a particular region. The fact that Iowa is heavily dependent on agriculture and related agricultural industries would be reflected in the technical coefficients of an input-output model specifically developed for Iowa.

A third advantage of input-output models is their ability to include the "induced effect" of an increase in demand in the multipliers. Induced expenditures, additional expenditures made by households, come about as a result of increased wages paid by particular sectors to households, because of increased demand for those sectors' output. Of course, households spend a

Neighboring States

As depicted in Appendix Figure C1, Iowa has the lowest art appropriations ranking when compared with its neighboring states. Only Kansas and Wisconsin's rankings approach Iowa's near the bottom of the scale. The remaining graphs in Appendix Figure C show that in terms of most of the other social indicators, Iowa ranks well in comparison to its neighboring states. It is only in terms of physicians per 100,000 population (Appendix Figure C6) and arts appropriations (Appendix Figure C1) that Iowa lags behind other midwestern states.

States With Similar Population

Appendix Figure D1 shows that of the states with population similar to Iowa, only Arizona ranks behind Iowa in terms of arts appropriations. Oregon, Kansas and Mississippi (all scoring below 40) approach Iowa near the bottom of the scale. With the exception of percent of population completing 16 years of education (Appendix Figure D5) and physicians per 100,000 population (Appendix Figure D6), the graphs of Appendix Figure D show that Iowa scores very well when compared to states having similar population.

States With Similar Per Capita Income

Appendix Figure E1 shows that of the states with per capita income similar to Iowa's, only New Hampshire ranks lower than Iowa in terms of art appropriations. Wisconsin approaches Iowa and New Hampshire near the bottom of the scale while the other five states in this comparison score far above Iowa. Again, with the exception of physicians per 100,000 population (Appendix Figure E6) and percent of population completing 16 years of

education (Appendix Figure E5), the remaining graphs of Appendix Figure E show that Iowa scores very well in comparison to other states in this group.

States With High Per Capita Arts Appropriations

In comparing Iowa with the seven states having the highest arts appropriation, Appendix Figure F illustrates that Iowa ranks fairly well in terms of most of the other social indicators. It is only in terms of physicians per 100,000 population (Appendix Figure F6), percent of population completing 16 years of education (Appendix Figure F5) and arts appropriation that Iowa ranks below most of the states in this group.

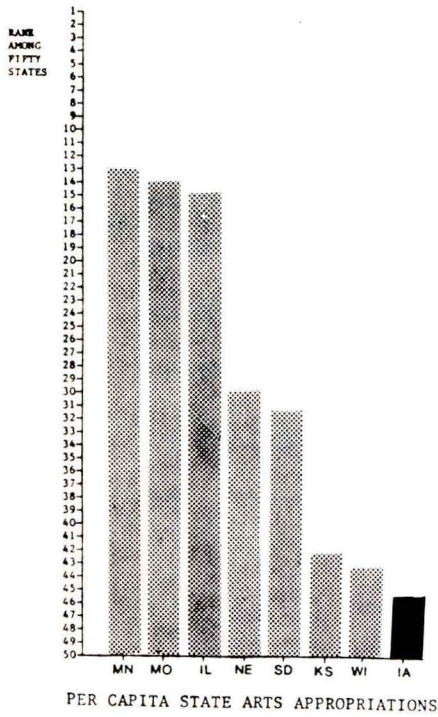
States With Low Per Capita Appropriations for the Arts

Comparing Iowa to the seven states with the lowest arts appropriations (Appendix Figure G) illustrates that Iowa ranks fairly well in terms of most of the social indicators. Once more, it is only in terms of physicians per 100,000 population and percent of population completing 16 years of education that Iowa fails to rank well.

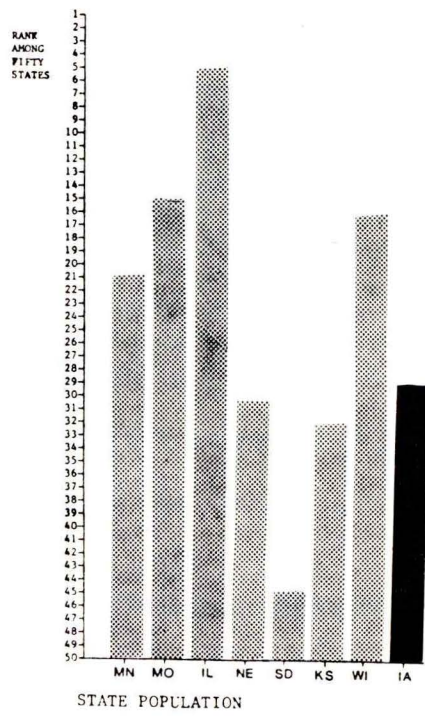
Conclusion

The above data leads one to conclude that Iowa, although comparing well in terms of most social indicators, lags behind other states in terms of its support of the arts. This is true when comparing Iowa to states with a similar population, similar per capita income, and surrounding midwestern states.

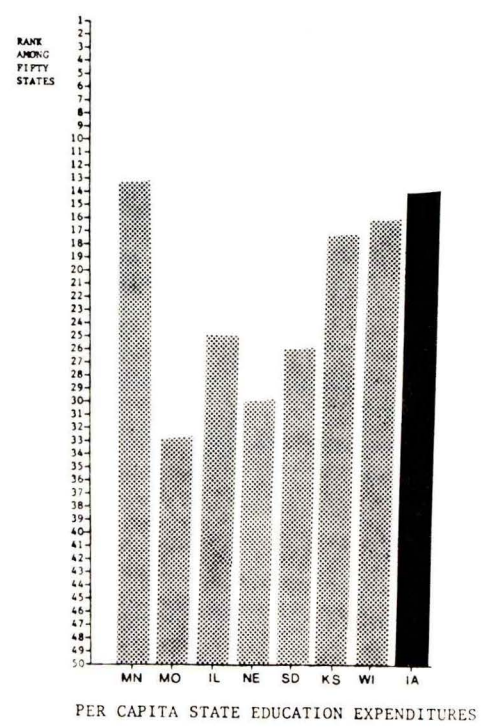
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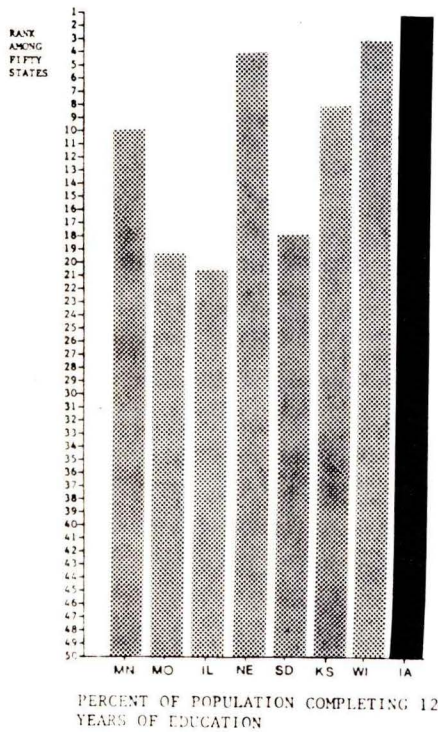
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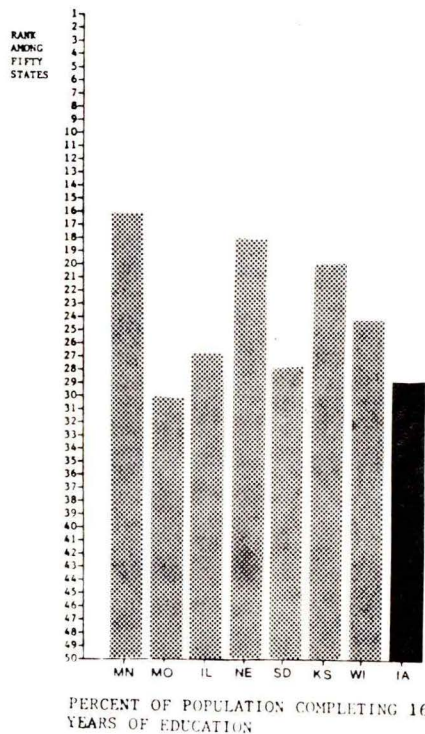
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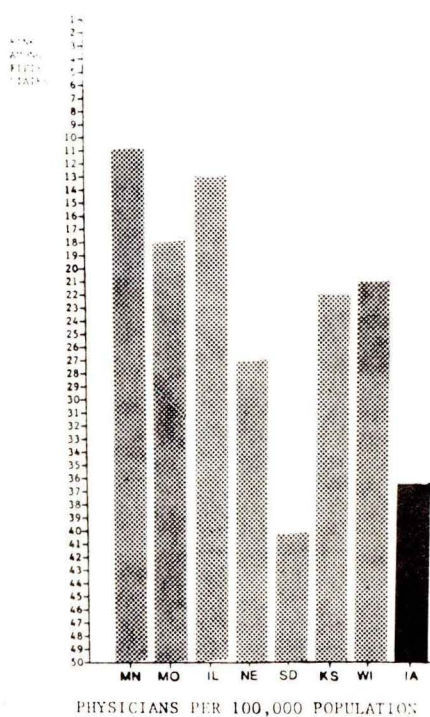
C-4



C-5



C-6

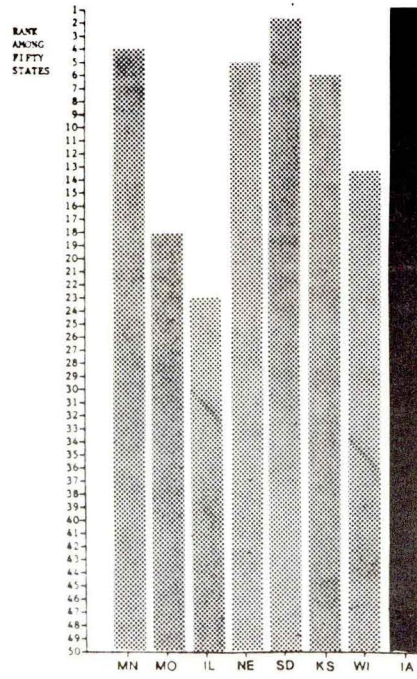


C-7



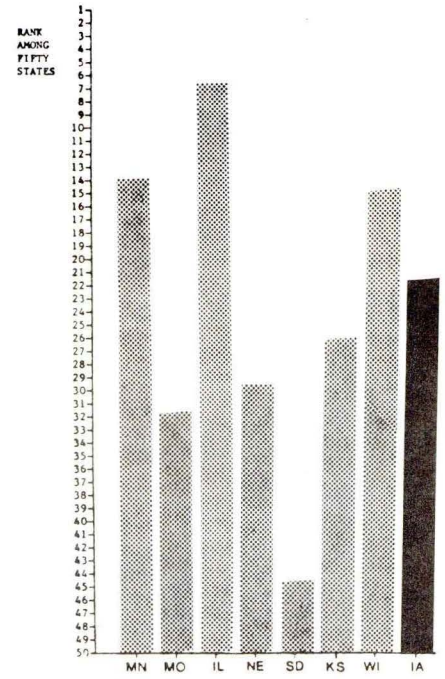
INFANT SURVIVAL RATE

C-8



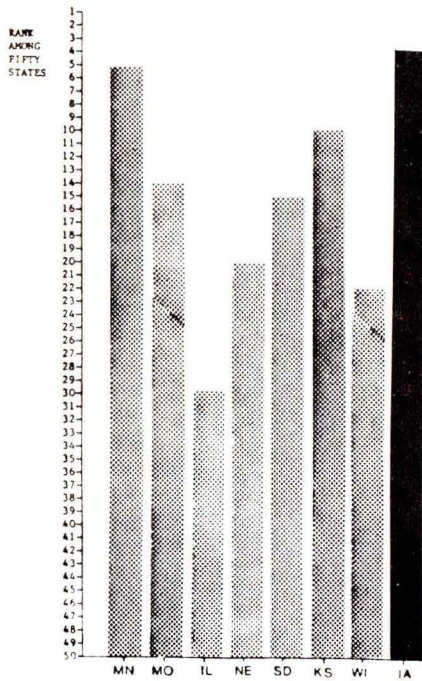
LITERACY RATE

C-9



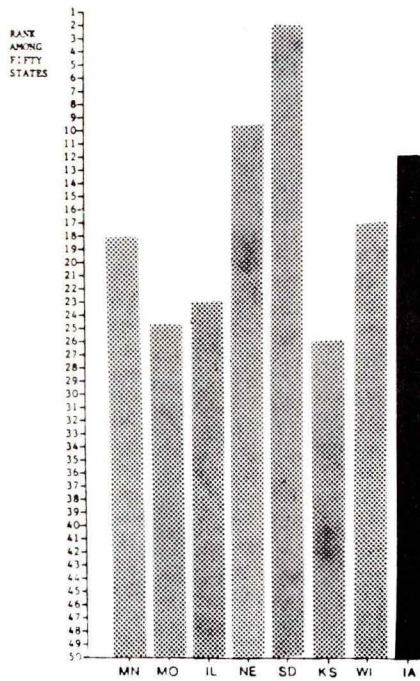
MEDIAN FAMILY INCOME

C-10



OWNER-OCCUPIED HOUSING UNITS (%)

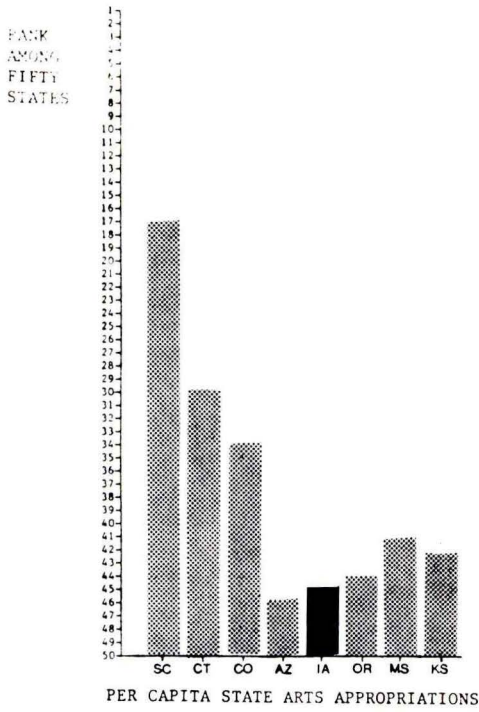
C-11



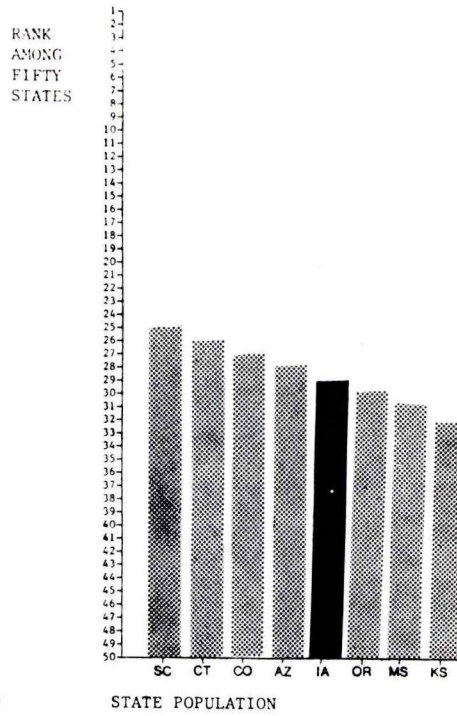
LOW CRIME RATE

APPENDIX
 FIGURE D
 SOCIAL INDICATOR COMPARISONS:
 IOWA WITH STATES HAVING SIMILAR POPULATION

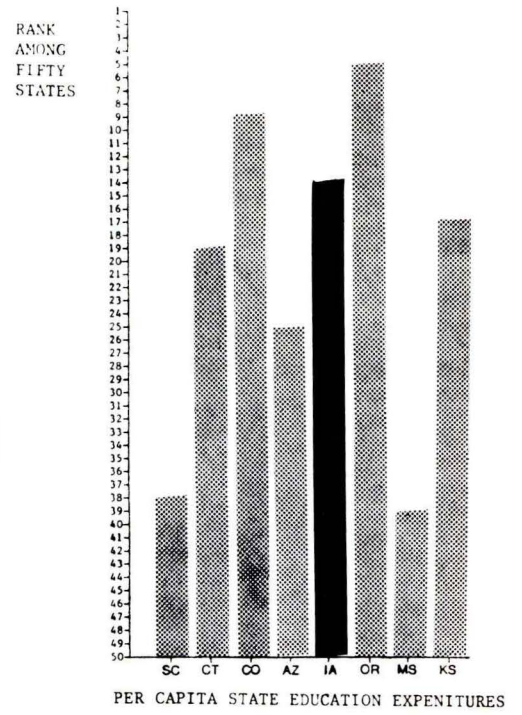
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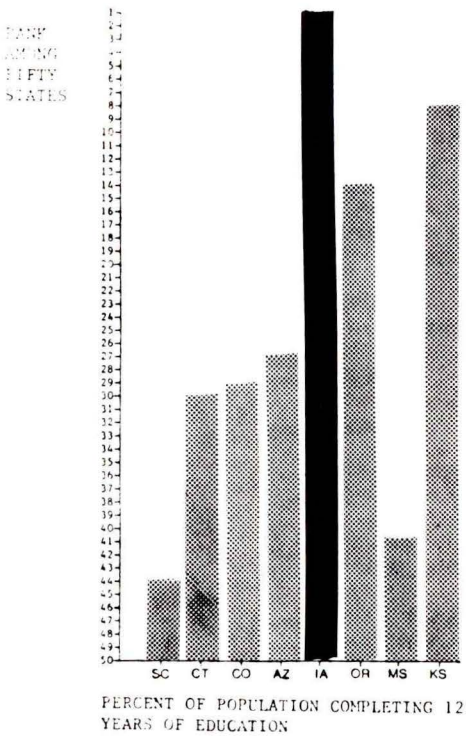
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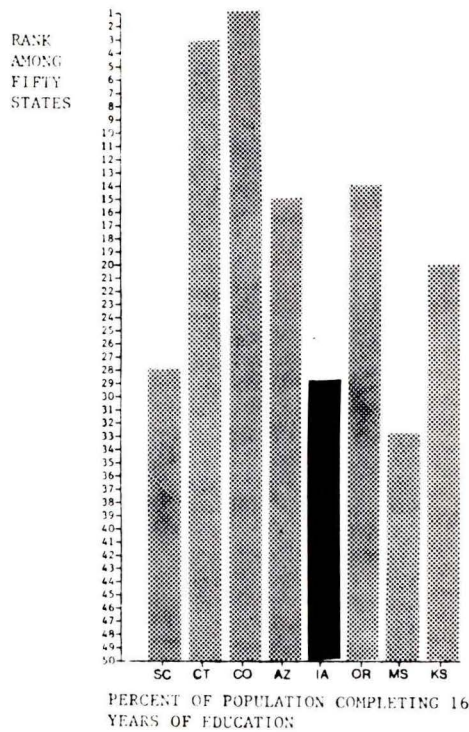
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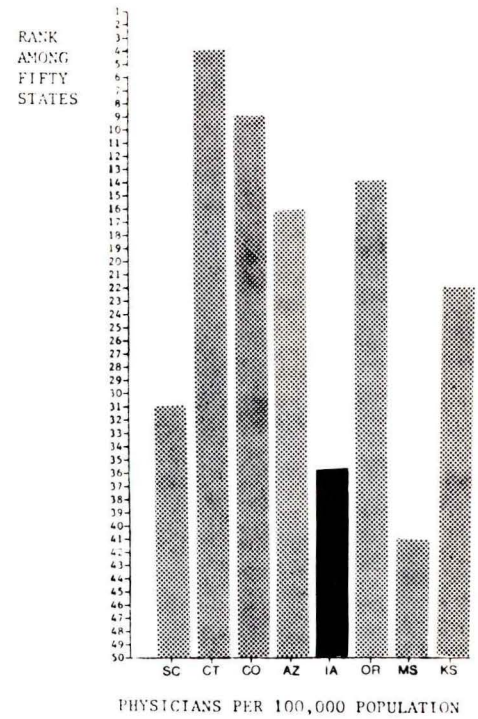
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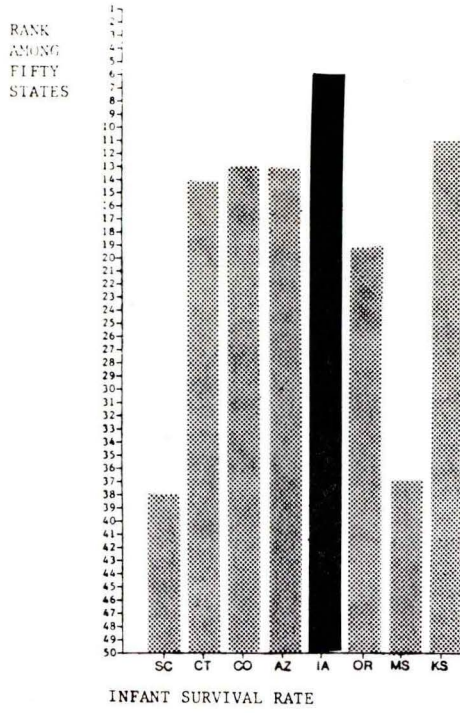
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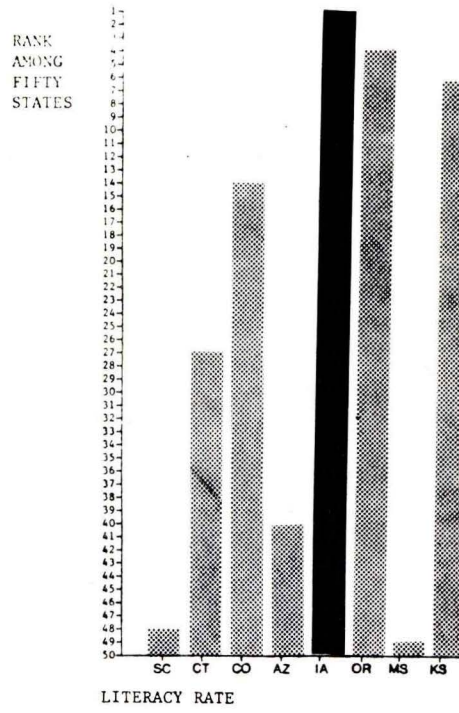
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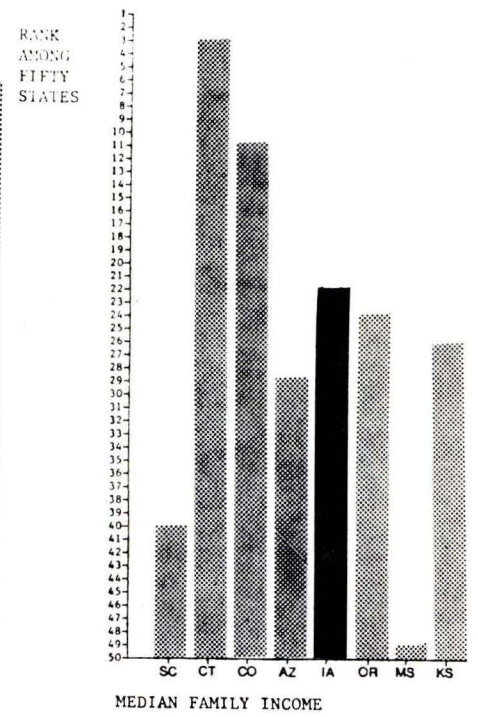
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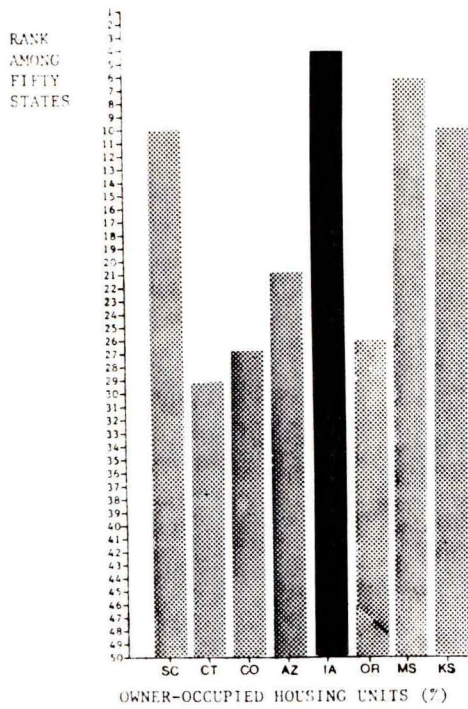
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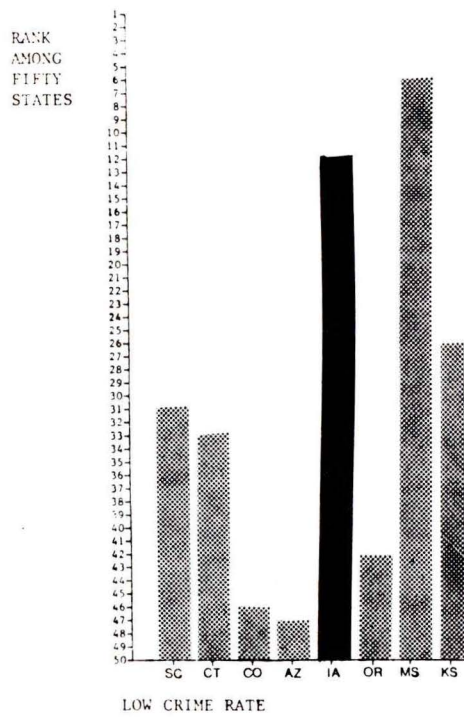
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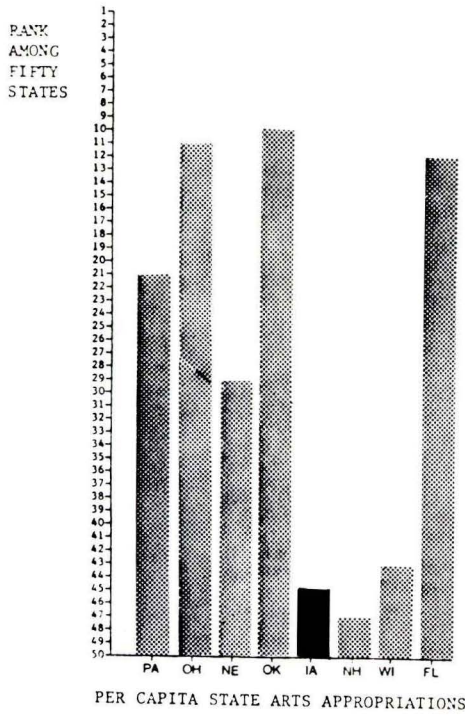
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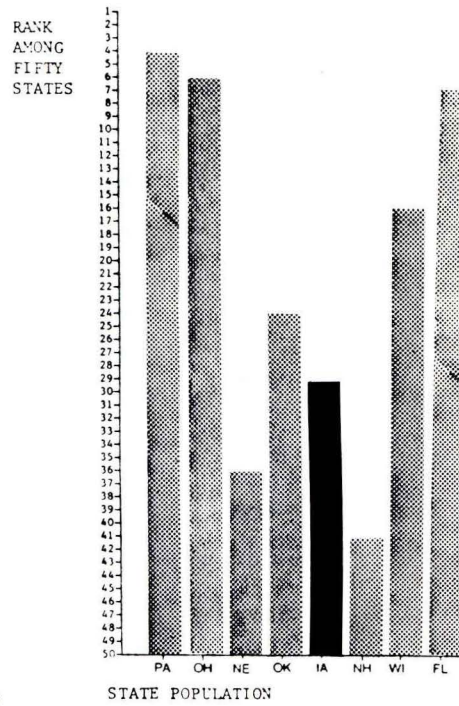
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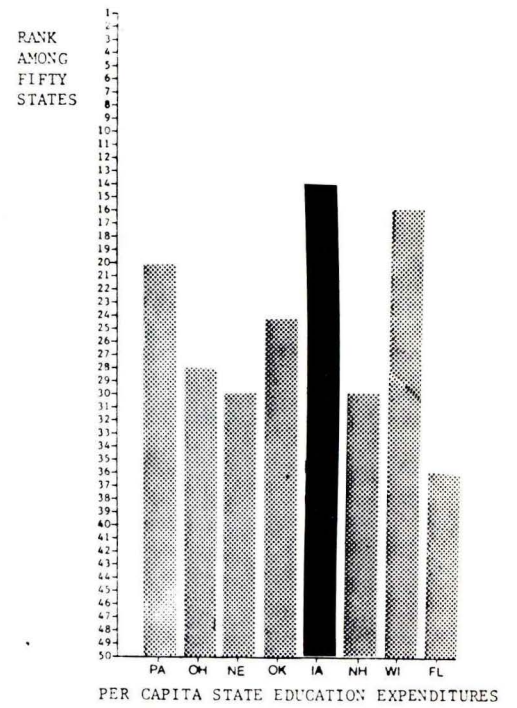
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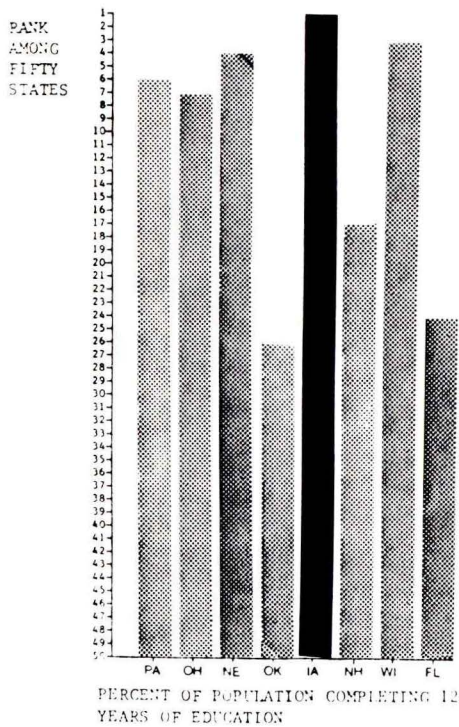
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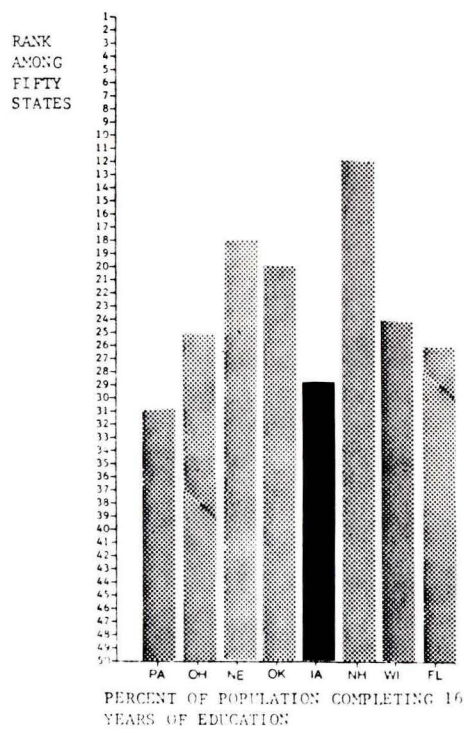
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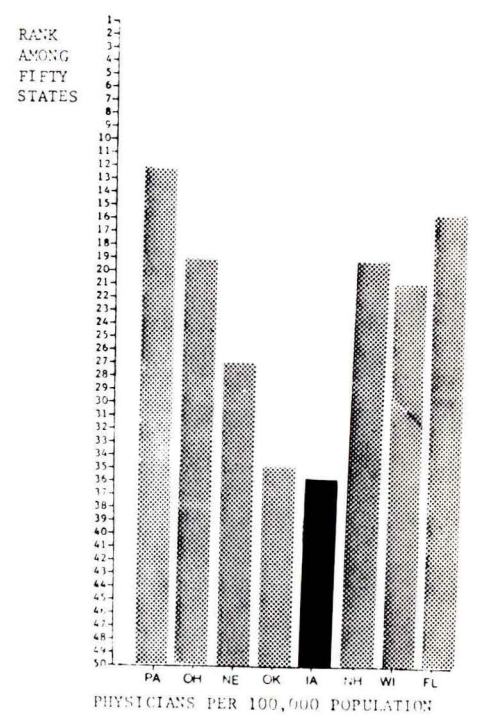
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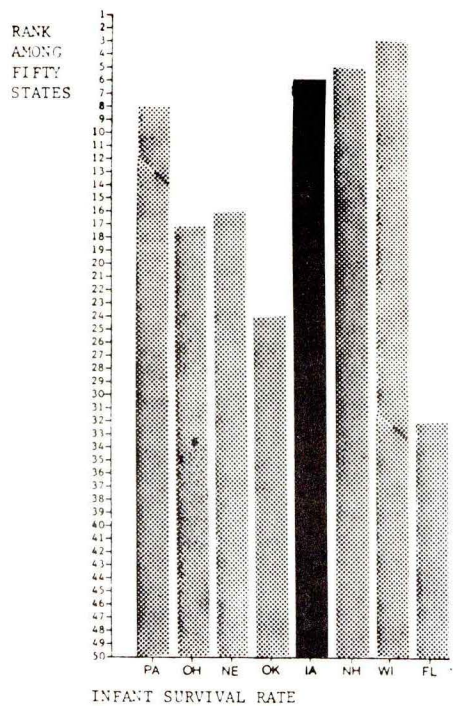
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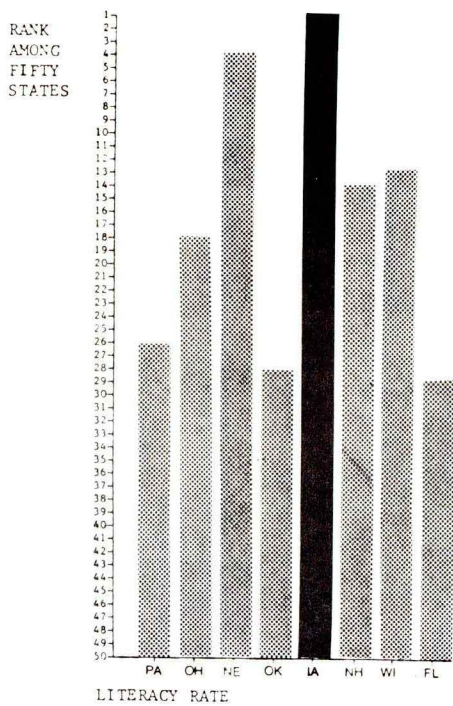
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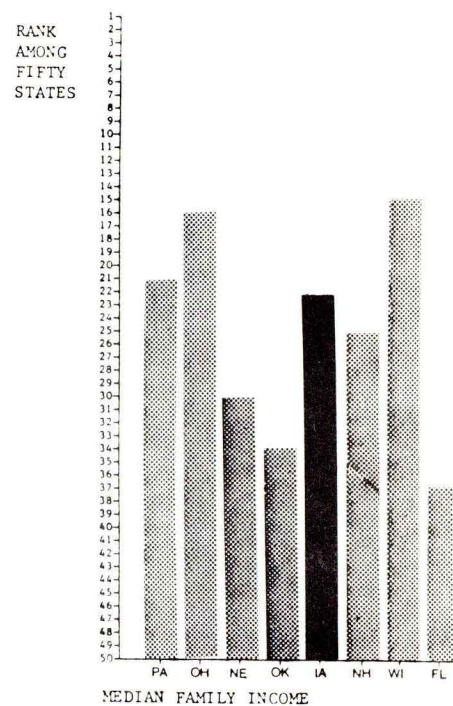
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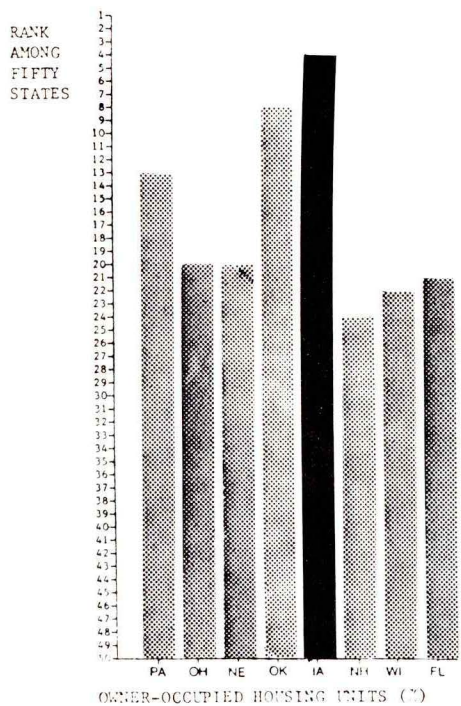
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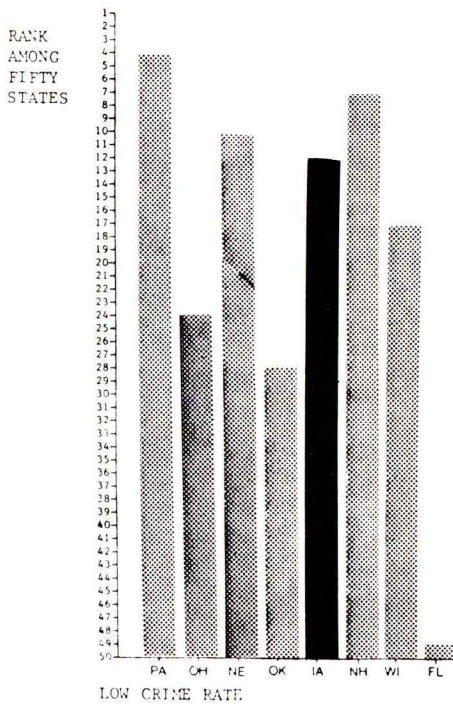
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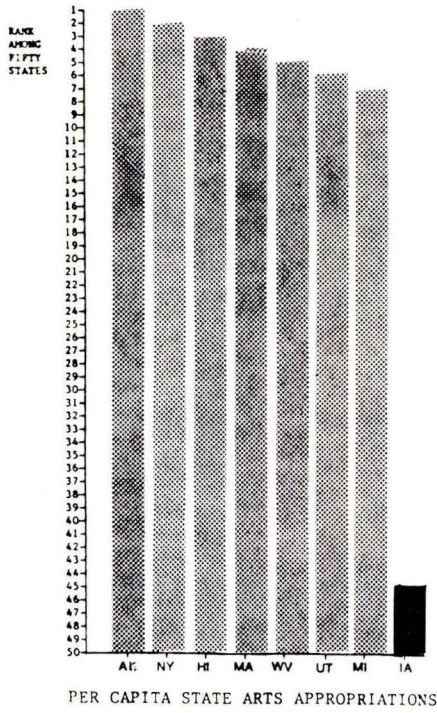


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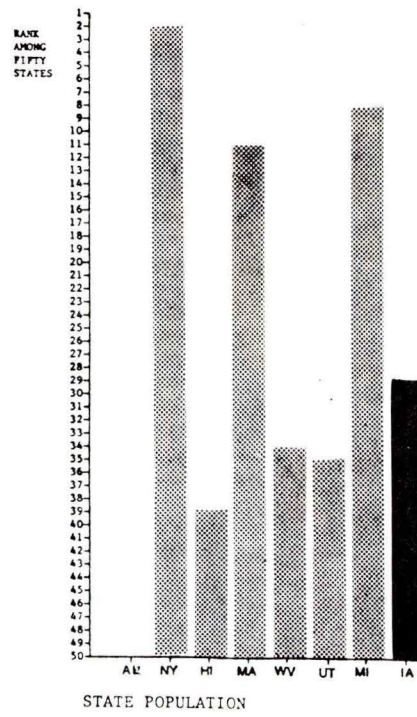


APPENDIX
 FIGURE F
 SOCIAL INDICATOR COMPARISONS:
 IOWA WITH STATES HAVING THE HIGHEST ARTS APPROPRIATIONS PER CAPITA

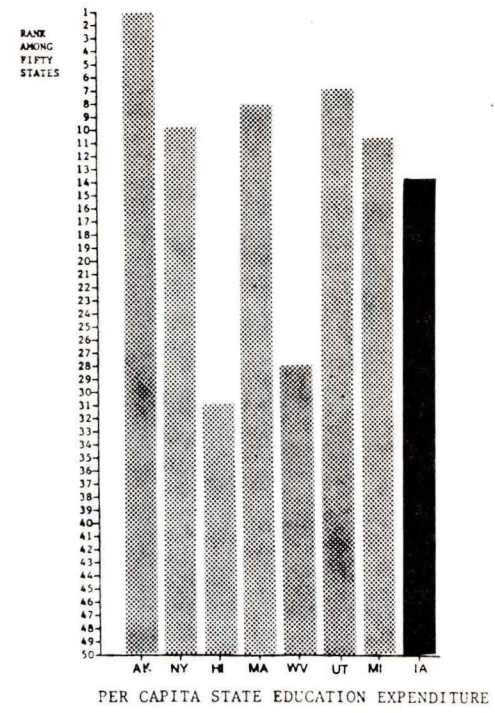
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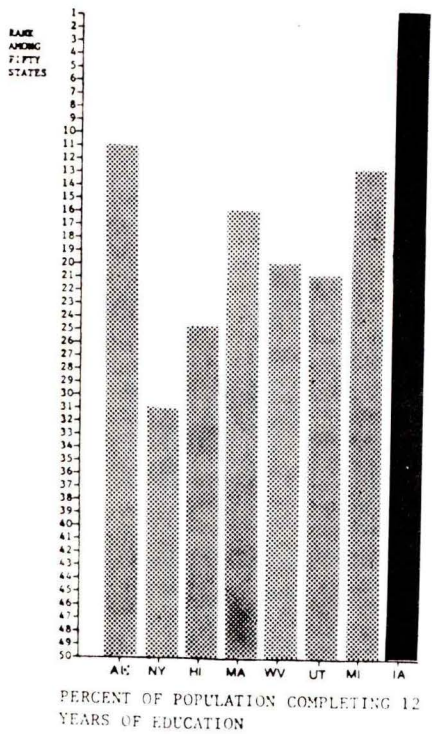
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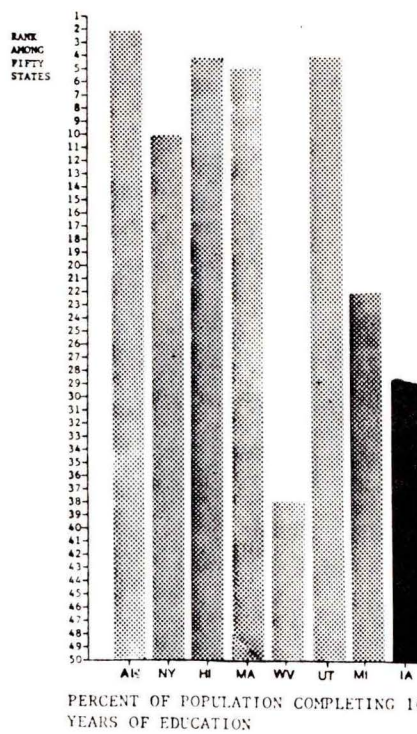
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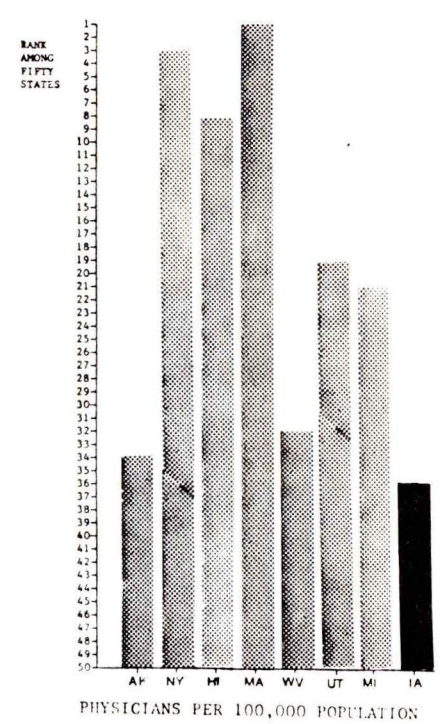
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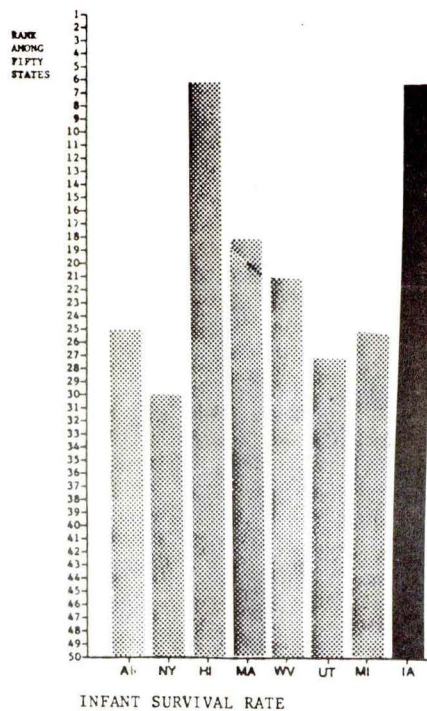
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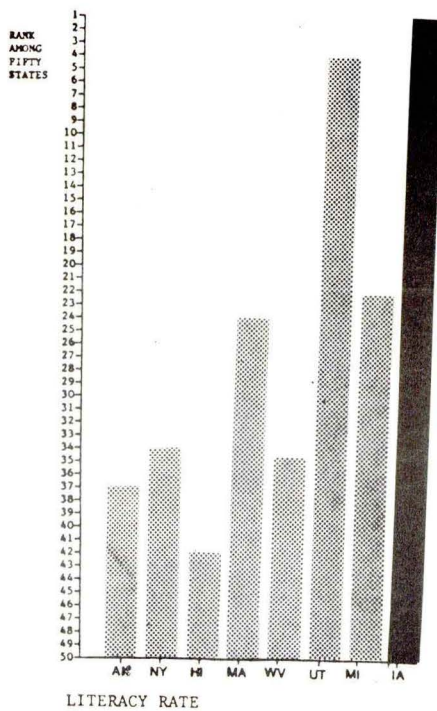
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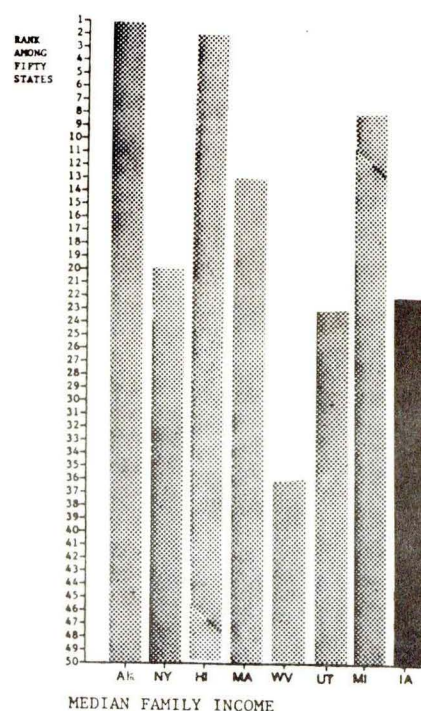
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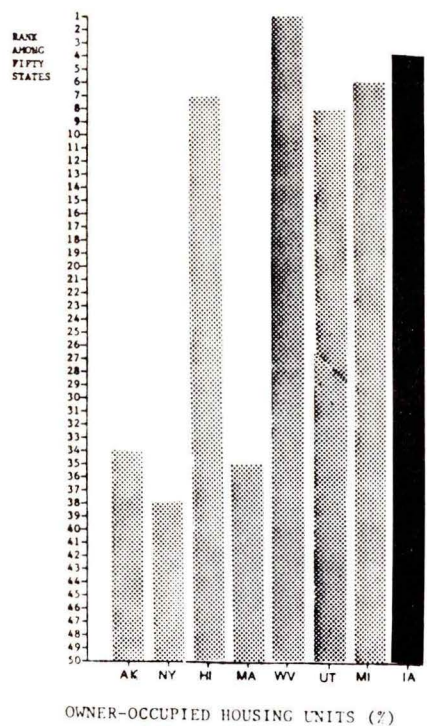
F-8



F-9



F-10



F-11

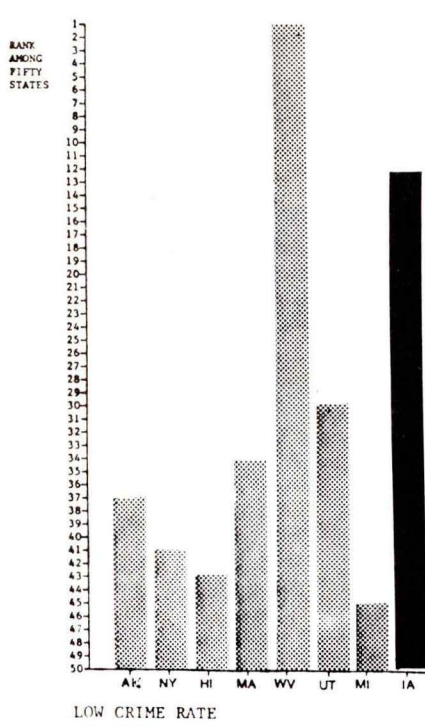
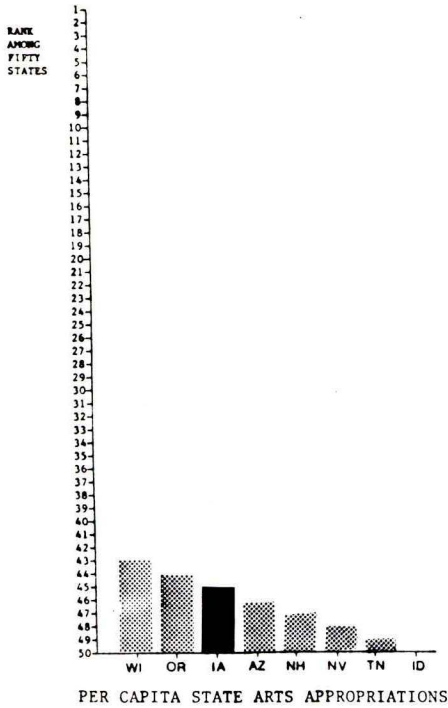


FIGURE G

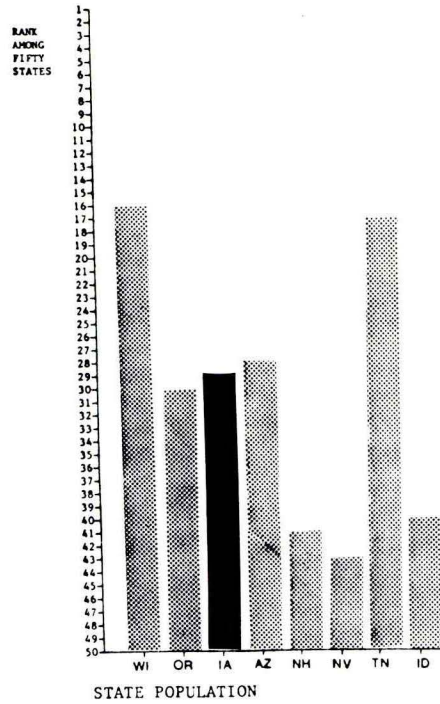
SOCIAL INDICATOR COMPARISONS:

IOWA WITH STATES HAVING THE LOWEST ARTS APPROPRIATIONS PER CAPITA

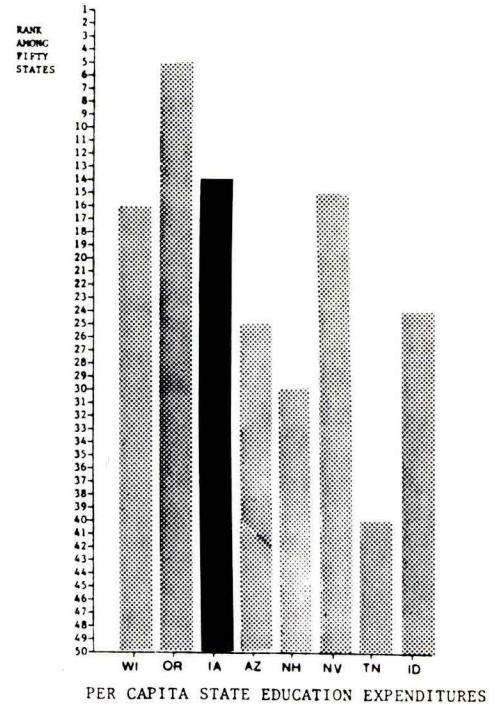
G-1



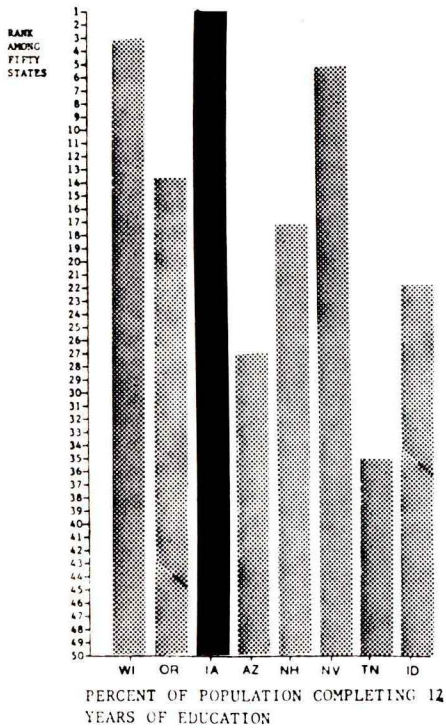
G-2



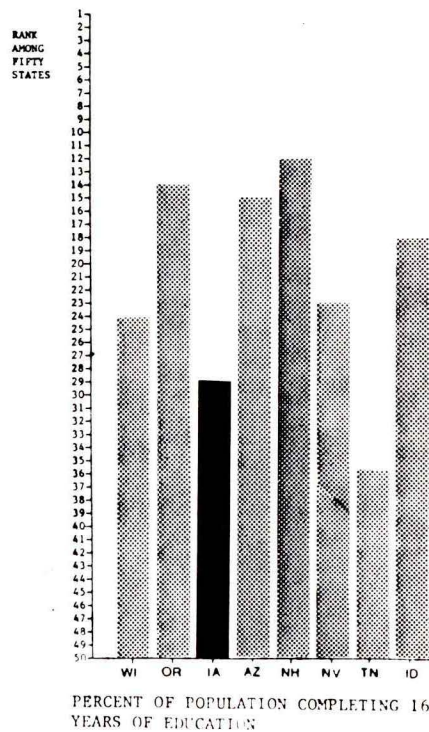
G-3



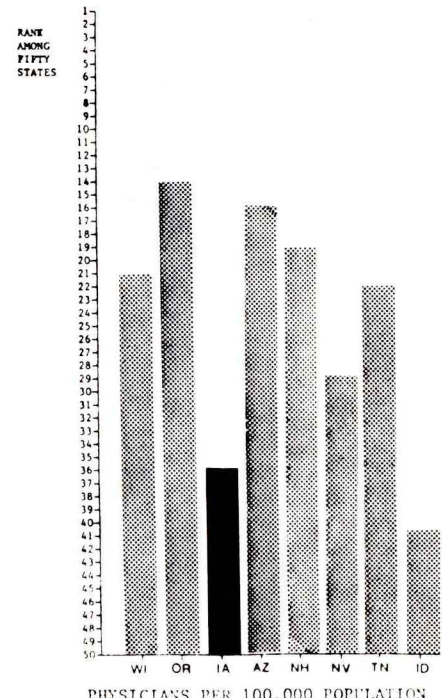
G-4



G-5

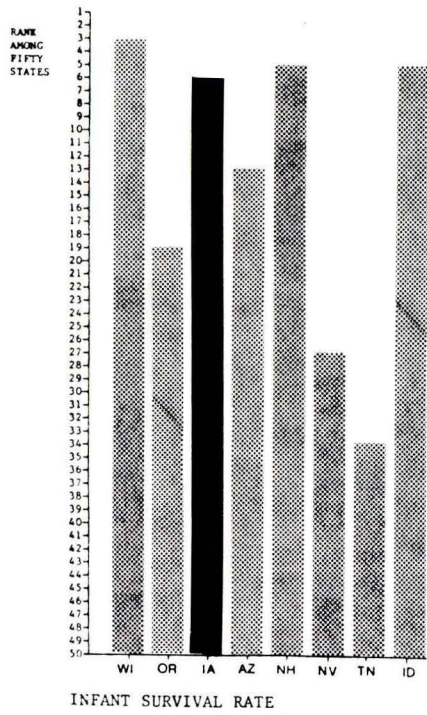


G-6

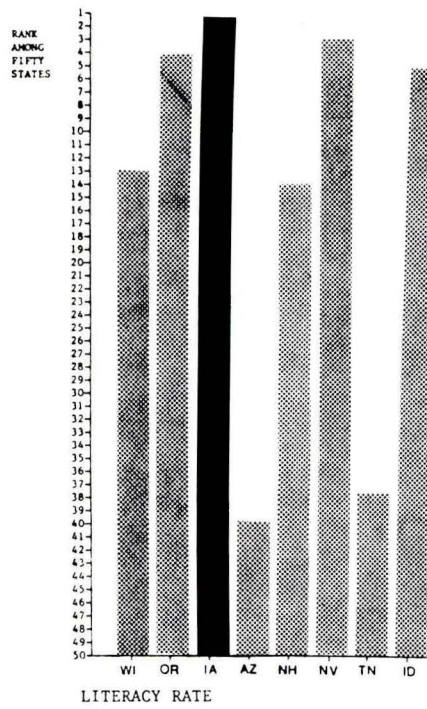


APPENDIX
 FIGURE G
 SOCIAL INDICATOR COMPARISONS:
 IOWA WITH STATES HAVING THE LOWEST ARTS APPROPRIATIONS PER CAPITA

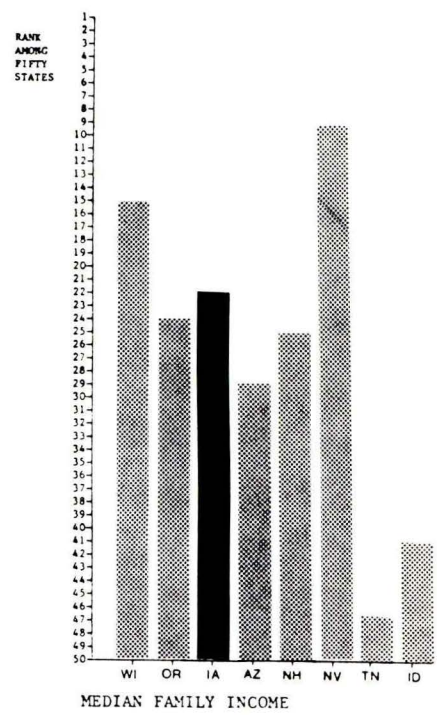
G-1



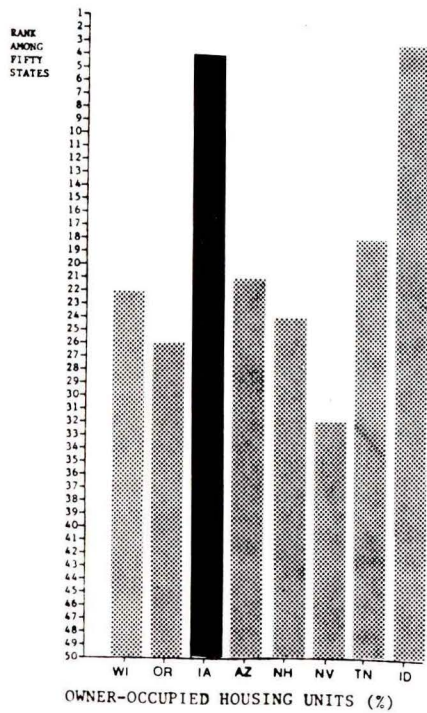
G-2



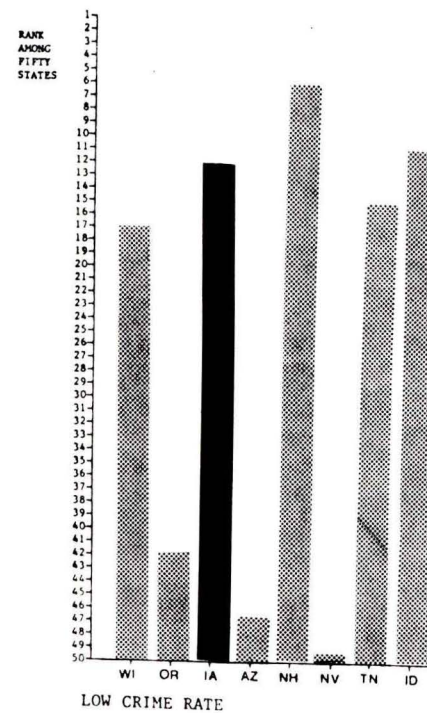
G-3



G-4



G-5



APPENDIX TABLE I

ELEMENTS OF ECONOMIC IMPACT OMITTED FROM THE IOWA STUDIES, 1982 AND 1984

Item Omitted (Year Applicable)	Description
State and local taxes generated (1982 and 1984).	Indirect impact of \$600,000 and \$900,000 in taxes.
Audience expenditures (1982 only).	Direct and indirect impact of expenditures in Iowa of over 1,782,000 patrons in 1981.
Guest artists' expenditures (1982 and 1984).	Direct and indirect impacts of expenditures by guest artists brought to Iowa.
Under-represented organizations and individual artists categories on the Arts Council list (1982 and 1984).	The direct and indirect impacts of 6,401 organizations and individuals on the Arts Council master mailing lists: survey results provided representative data for only 633 organizations and 811 individuals in 1982 and 389 organizations and 2,171 individuals in 1984.
Organizations and individuals not on the Arts Council master list (1982 and 1984).	The direct and indirect impacts of all arts-related individuals and organizations not encompassed by the Arts Council list.
Organizations with a portion of their activity arts-related (1982 and 1984).	The direct and indirect impacts of organizations that are only partly involved with the arts, such as bookstores, art supply outlets, and the public schools.

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