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Industrial Arts Facilities in Twenty State Colleges or Universities

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DEPARTMENT OF INDUSTRIAL TECHNOLOGY University of Northern Iowa Cedar Falls, Iowa 50614-0178

INDUSTRIAL ARTS FACILITIES IN TWENTY

STATE COLLEGES OR UNIVERSITIES

(Former Teachers Colleges)

Under the Direction of

Dr. Howard O. Reed

by

Harold L. Street Research 33:299

January 20, 1971

The writer is grateful to the following persons for their help in this research:

Dr. Howard O. Reed, Head, Department of Industrial Arts and Technology University of Northern Iowa Cedar Falls, Iowa 50613

Dr. Gordon Rhum, Dean of the Graduate College University of Northern Iowa Cedar Falls, Iowa 50613

The Heads or Chairmen of Industrial Arts departments at the schools included in this research who have made this study possible.

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This research is a study of industrial arts facilities at several state colleges and universities in states adjacent to Iowa. The study is a comparison of facilities from a monetary standpoint. A questionnaire was prepared concerning when the facilities were constructed, the cost, money spent for new equipment, size of facilities in square feet, along with several other questions.

There has been growing concern by some members of the Department of Industrial Arts and Technology, University of Northern Iowa, that the facilities are lacking. If a quality educational program is to continue, something should be done to improve the facilities. Several former teacher colleges in neighboring states have built new industrial arts facilities over the past few years, indicating other schools have been expanding and improving their layouts. This study was designed to gather some basic information so a comparison could be made to see how well the industrial arts department at the University of Northern Iowa compared with other schools.

Questionnaires were sent to colleges or universities chosen on the basis of their being former State Teacher Colleges. To keep the comparison valid, a common geographic location was used which included the states of Minnesota, Wisconsin, Illinois, Missouri, Nebraska, and South Dakota. The schools which are comparable in location and states do vary in size with some being larger, some smaller, and others equal to UNI.

The survey covered such questions as cost of equipment and buildings, when the buildings were constructed, year of construction and occupancy, whether or not the building was shared with other departments, total square footage, and square footage utilized by industrial arts. Also included, were questions as to the number of graduate students and number of fulltime faculty. A copy of the questionnaire and the cover letter is included in Appendix A.

Of the thirty questionnaires mailed, twenty-three were completed and returned. Two of the twenty-three completed questionnaires, were from schools which did not compare with the University of Northern Iowa, and one could not be identified. This left twenty schools represented in the survey.

State-by-state analysis of the data obtained may be made with an adequate amount of accuracy for some, and others may give the wrong impression because of incomplete data for all the schools in the state. In a few cases, the department did not have the information available to answer all questions.

ILLINOIS:

Six questionnaires were sent out, five were returned. One of the returned questionnaires was incomplete. Four of the departments have had new buildings during the '60s (Carbondale, 1963; Normal, 1964; Macomb, 1965; and Charleston, 1969. DeKalb, using the oldest building, has made a \$70,000 addition, but year of construction was not available.) Three

of the departments have partial air conditioning, and one has full air conditioning.

Of the twenty institutions involved in the study, Illinois ranked lst, 6th, 8th, and 12th as to area in square feet used for industrial arts Sizable amounts of money were spent for new equipment when the buildings were occupied, which should indicate that they have some very good facilities. A large number of graduate students also, should be an indication of above-average facilities.

MINNESOTA:

Minnesota had 100% return of the questionnaires. These departments have fairly new buildings, all having been built during the first half of the 1960's. Moorhead was most outstanding of the four Minnesota departments, with a \$2,000,000 building in 1965, and a \$500,000 addition in 1970. The area for their industrial arts was not available, but the building is shared with chemistry and physics.

From the information received, Mankato would seem to have the most problems. Not so much from the fact that they have the oldest buildings, but because they have eight shoplabs and a lecture room, and only 5,250 square feet of space. This would indicate the shop-labs may be over-crowded. The square footage for industrial arts at the other Minnesota schools seems to be adequate with the information from Moorhead not available.

The survey indicates that Minnesota schools, with the exception of Mankato, have adequate facilities to offer an

effective industrial arts program.

MISSOURI:

Missouri had an 80% return with four of the five departments returning the questionnaire. Cape Gerardeau has the oldest building of the twenty institutions contacted, having been build in 1904 and used for manual training. A \$90,000 addition in 1963 should have helped the situation there very much.

Kirksville and Maryville both have new facilities, with occupancy in 1970 and 1969 respectively. Maryville is constructing a \$100,000 addition (1971). The four reporting departments ranked 3rd, 7th, 9th and 13th in square footage for industrial arts. The number of shop-labs and lecture rooms would seem to be very adequate except for Cape Gerardeau,' which has seven shop-labs, but no lecture rooms. As a state, their industrial arts facilities would appear to be very adequate for a quality education in industrial arts.

SOUTH DAKOTA:

From South Dakota, only two of the five departments returned the questionnaire, so it is difficult to report on the state as a whole. The two reporting, Spearfish amd Madison, did not look too impressive. They ranked 18th and 19th for year of occupancy of present buildings, and 18th and 19th in square footage for industrial arts. They very likely would have ranked 19th and 20th in square footage if figures had been available from other departments.

It seems the facilities of these two departments leave much to be desired.

NEBRASKA:

Nebraska is much like South Dakota in that only half of the departments returned the questionnaires. Chadron has the most recent facility of the twenty, with construction of a \$1,400,000 building to be completed in 1971. With 45,000 square feet, they should have adequate space for their needs.

Kearney has one of the older buildings, but they do have nine shop-labs and three lecture rooms in their 25,676 square feet. From the information received, these two schools would appear to have adequate facilities if they have the equipment.

WISCONSIN:

Platteville is the only school in Wisconsin to be included, and from the information obtained, they have very good facilities. In 1969, they constructed a \$4,300,000 building with 117,000 square feet for industrial arts. New equipment purchases totaled \$1,019,000, putting the department in excellent shape. They have eighteen shop-labs and six lecture rooms, with 50% air conditioning. From the information obtained, Platteville would seem to have the best facilities of the twenty colleges or universities in the study.

IOWA:

Cedar Falls does not show up in the study as having

very adequate facilities. Ranked 15th as to occupancy of its present building, to which an addition of \$44,400 was made in 1961, bringing the total square footage for industrial arts to 12,488, which is 15th in rank. This rank probably would have been lowered by two if all departments had reported area figures.

Cost of new equipment at the time the building was occupied, was about \$30,000 which is very low compared with other schools, and the value of old equipment transferred was not high -- about \$54,500.

Cedar Falls is similar to Platteville in that it is the only school in the state in this category. Here the similarity ends, since Platteville has far superior facilities. Cedar Falls will have an addition of about 5,500 square feet when automotives moves to the Erickson Garage. This was not included in the survey because of the indefinite date for transfer.

An overall analysis indicates Platteville has the best facilities, however. This department seems to be at the top of the list in about every area indicated. The next three or four departments would be difficult to list in any order, but would include Macomb, DeKalb, Normal, Moorhead, Maryville, and Kirksville.

At the other end of the list would be Madison and Spearfish. The next three, in no particular order, would be Cedar Falls, Mankato, and Cape Gerardeau. All of these seem to be lacking in several areas, but especially so in the area of space. This could also indicate that more equipment would be needed.

A summary of all data collected can be found in Appendix B. A map with the approximate locations and important information appears in Appendix C.

APPENDIX A

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UNIVERSITY OF NORTHERN IOWA · Cedar Falls, Iowa 50613

Department of Industrial Arts and Technology

October 29, 1970

Dr. Marlowe E. Wegner, Chairman Industrial Arts Department Moorhead State College Moorhead, MN 56560

Dear Dr. Wegner:

I am a graduate student in Industrial Arts and Technology here, and am doing a research project under the guidance of Dr. Howard O. Reed, Head of the department. I would appreciate your completing the enclosed questionnaire and returning it in the envelope provided.

Your cooperation on this project will be appreciated.

Sincerely,

Harold L. Street

Enclosure

QUE	STIONNAIRE to obtain information about college Arts facilities. Prepared by Harold L. Street student and temporary instructor at University Iowa, Codar Falls.	. Graduate
1.	In what year was your building constructed?	
2.	Cost of the building	\$
3.	In what year did industrial arts occupy this building?	
4.	Has there been a substantial addition to or remodeling of your building for industrial arts? If so, what year?	
	At a cost of:	\$
5.	Cost of equipping your building:	
	A. New equipment	\$
	B. Old equipment transferred to new building:	\$
б.	Is your building shared with other departments	? YesNo
	A. If so, which ones?	
7.	Size of building in square feet:	
	A. If building is shared with another department, how many square feet for industrial arts:	
8.	How many graduate students are enrolled at pre	sent:
	Full time Part ti (10 hours or more)	100
9.	What special study space is provided for gradu	ate students:
	A. Private office C. Study	area for
	B. Office for 2 or 3 4 or 1 L. No sp	acial area
10.	Number of full time faculty or equivalent, in industrial arts:	
11.	Number of classrooms available: A. Shop-laboratories	9
12.	Is your industrial arts building air condition Yes No Partially	ned?
13.	If you have a brochure, dedication program, or duplicated material available about your build you please enclose a copy? Thank you.	r otner ding, will

APPENDIX B

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· INDUSTRIAL ARTS FACILITIES

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In Twenty State Colleges or Universities (formerly State Teachers Colleges)

				BUILDINGS			
	<u>Built</u>	Occu- pied	Rank	Cost	Rank		jor <u>tions</u> <u>Cost</u>
BEMIDJI							
State College CAPE GERARDEAU	1965	1965	7.5	\$ 630,000	13		
N. E. Missouri State College	1904	1904	20	30,000	16	1002 6	00 000
CARBONDALE	1904	1904	20	20,000	15	1963 ş	90,000
Southern Ill. Univ.	1963	1963	11.5	n.a.			50,000
CEDAR FALLS		2000					50,000
Univ. Northern Iowa	1948	1949	16	416,000	14	1961	44,400
CHARDON							
Chadron St. College	1970	1971	1	1,400,000	6		,
CHARLESTON	1000	1000	-				
East Ill. Univ.	1967	1968	5	n. a.			
DeKALB	1928	1928	17	<u> </u>			70 000
North. Ill. Univ. KEARNEY	1920	1920	1/	n. a.		yes	70,000
Kearney St. College	1954	1955	15	750,000	11		
KIRKSVILLE	1954	1755	15	,50,000			
N. E. Missouri							
State College	1969	1970	2	1,250,000	7		
MACOMB							
Western Ill. Univ.	1965	1965	7.5	3,500,000	2		
MADISON							
Dakota State Coll.	1917	1924	19	n. a.			
MANKATO	1000	1000		000 000	~		
Mankato State Coll.	1960	1960	13	800,000	9		
MARYVILLE N. W. Missouri							
State College	1969	1969	3.5	750,000	11	1971	100,000
MOORHEAD	1,000	1909		,50,000		1971	100,000
Moorhead St. College	1965	1965	7.5	2,000,000	3	1970	500,000
NORMAL							·
Ill. State Univ.	1964	1964	10	1,750,000	4		
PLATTEVILLE .							
Wisc. State Univ.	1969	1969	3.5	4,300,000	1		
SAINT CLOUD					_		
St. Cloud St. College	1963	1963	11.5	1,000,000	8		
SPEARFISH	1005	1025	10			1000	10.000
Black Hills St. Coll.	1925	1925	18	n. a.		1969	10,000
WARRENSBURG Central Mo. St. Coll.	1958	1958	14	1,500,000*	5	1966	Incl.*
WINONA	1920	T 200	Τ4	1,500,000*	5	1 900	Incr. *
Winona St. College	1964	1965	7.5	750,000	11		
amona ber correge	104	1,000		1001000			

Continued

	<u>SQUARE</u> Build-	FOOTAGE Indus.	Rank		Shop-	Lect.	Dir-
	ing	<u>Arts</u>	<u> </u>	Shared with	Labs	Rms.	cond.
BEMIDJI State College CAPE GERARDEAU	31,680	28,000	10	Art	9	2	No
N. E. Missouri State College CARBONDALE	13,759	13,759	14		7	0	Part.
Southern Ill. Univ. CEDAR FALLS	n. a.	n. a.		Eng. & Tech.	n.a.	n.a.	n.a.
Univ. North. Iowa	30,646	12,488	15	Art and Safety Ed.	7	1	No
CHADRON Chadron St. College CHARLESTON	62,000	45,000	4.5	Home Econ.	9	2	Yes
East Ill. Univ.	82,548	39,500	8	Prof. Educ. Home Econ.	7	3	Part.
	900,000	900,000	1		14	4	Part.
KEARNEY Kearney St. Coll. KIRKSVILLE	62,875	25,676	11	Bus. & Home E	c. 9	3	Part.
N. E. Missouri State College	34,000	32,000	9	Agr. Safety E	d.11	6	Yes
MACOMB Western Ill. Univ. MADISON	36,200	21,418	12	Agr. Home Ec.	16	5	Part.
Dakota State Coll. MANKATO	8,000	4,000	17	Girls P. E.	4	1	NO
Mankato State Coll. MARYVILLE	10,500	5,250	16	Math.	8	1	Part.
N. W. Missouri State College MOORHEAD	50,000	50,000	3		16	9	Yes
Moorhead St. Coll. NORMAL	n.a.	n. a.		Chem. Physics	10	3	Yes
Ill. State Univ.	83,000	43,000	6	Home Ec., Agr Business	., 14	4	Yes
PLATTEVILLE Wisc. State Univ.	127,000	117,000	2	Agr. Eng.	18	6	50%
SAINT CLOUD St. Cloud St. Coll.	55,000	45,000	4.5	Art, Tech.	11	4	NO
SPEARFISH Black Hills St. Coli	l. n. a.	2,000	18	Educ. & Bus.	4	1	No
WARRENSBURG Central Mo. St. Col:	1.60,000	40,000	7	Art & Home Ec	. 18	16	Part.
WINONA Winona St. Coll.	31,000	20,000	13	Art	6	2	No

Continued

	Full Part Office		-		<u>IPMENT</u> <u>Transferred</u>	
BEMIDJI State College	5	15	в	12	\$ 42,000	n.a.
Cape Gerardeau	5	15	В	12	φ 1 2,000	n. u.
N. E. Missouri						
State College	0	12	А	7	100,000	\$ 5,000
CARBONDALE						
Southern Ill. Univ.					200,000	50,000
CEDAR FALLS						
Univ. North. Iowa	4	7	B-GA	10.5	30,000	54,500
CHADRON				4	150 000	<u> </u>
Chadron St. College				4	150,000	n.a.
CHARLESTON Eastern Ill. Univ.	10	5	B,C	9	125,000	75,000
DeKALB	10	5	D,C	5	125,000	75,000
North. Ill. Univ.	10	280	В	25	700,000	n.a.
KEARNEY			2			
Kearney St. Coll.	2	14	NA	9	50,000	10,000
KIRKSVILLE						
N. E. Missouri						
State College	8	12	A,C	10	200,000	75,000
MACOMB						
Western Ill. Univ.	7	56	В	16	125,000	250,000
MADISON				-	~ ~ ~ ~ ~	
Dakota State Coll.				2	80,000	n. a.
MANKATO	2	2.0		0 F	10 000	20.000
Mankato State Coll.	3	30	NA	8.5	10,000	20,000
MARYVILLE N. W. Missouri						
State College	4	15	в	10	40,000	n.a.
MOORHEAD	7	15	В	T O	40,000	11. a.
Moorhead St. Coll.	4	35	А	8	100,000	200,000
NORMAL	-	•••		U	,	,
Ill. State Univ.	23	60	NA	27	80,000	20,000
PLATTEVILLE				-	· •	
Wisc. State Univ.	15	25	B-GA	23	1,019,000	50,000
SAINT CLOUD						
St. Cloud St. Coll.	2	55	В	13	100,000	150,000
SPEARFISH						
Black Hills St. Coll	•		ΝA	4	7,000	n.a.
WARRENSBURG	-		_	2.0	• • • • • • •	
Central Mo. St. Coll	. 9	50	С	30	200,000	500,000
WINONA	A	15	173	7	40,000	n -
Winona St. Coll.	4	15	NA	7	40,000	n.a.

* 10 hours or more	C - Study area for 4 or more
A - Private office	NA - No special area
B - Office for 2 or 3	GA - Graduate Ass't only

APPENDIX C

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STATE COLLEGES OR UNIVERSITIES

(FORMER TEACHERS COLLEGES)

