

HD
5715.4
.D8
A44
1957



LIBRARY

Iowa Employment Security Commission
1000 East Grand Avenue
Des Moines, Iowa 50319

A Look at **DUBUQUE**
MANPOWER RESOURCES

331.7
low

SKILLS OF THE WORK FORCE

SURVEY

Conducted By
IOWA EMPLOYMENT SECURITY
COMMISSION

Highlights

of the survey...

POPULATION GROWTH OF DUBUQUE

Estimated to be 61,500 by 1960. This represents a 23.7 percent increase for the 1950 to 1960 decade. Since 1940 the population growth of Dubuque has far exceeded that of the State.

EMPLOYMENT EXPANSION IN DUBUQUE

Total non-agricultural wage and salaried employment for July, 1957 was 25,103. Manufacturing accounted for 43 percent of the total work force. It is estimated that more than 2000 workers have been added to manufacturing industries since 1950.

FEMALE WORKERS IN THE DUBUQUE LABOR FORCE

Female workers represent approximately 30 percent of the total work force. Clerical occupations account for nearly 28 percent of the female jobs.

SKILLED OCCUPATIONS IN THE DUBUQUE WORK FORCE

Skilled occupations were found primarily in the manufacturing and construction industries which account for more than 60 percent of the total skilled work force.

AGE OF WORKERS IN THE DUBUQUE LABOR FORCE

The greatest concentration of workers was found in the 26 to 45 age group. The 61 and over age group has a large percent in the skilled trades.

DIVERSIFICATION OF SKILLS AND INDUSTRIES

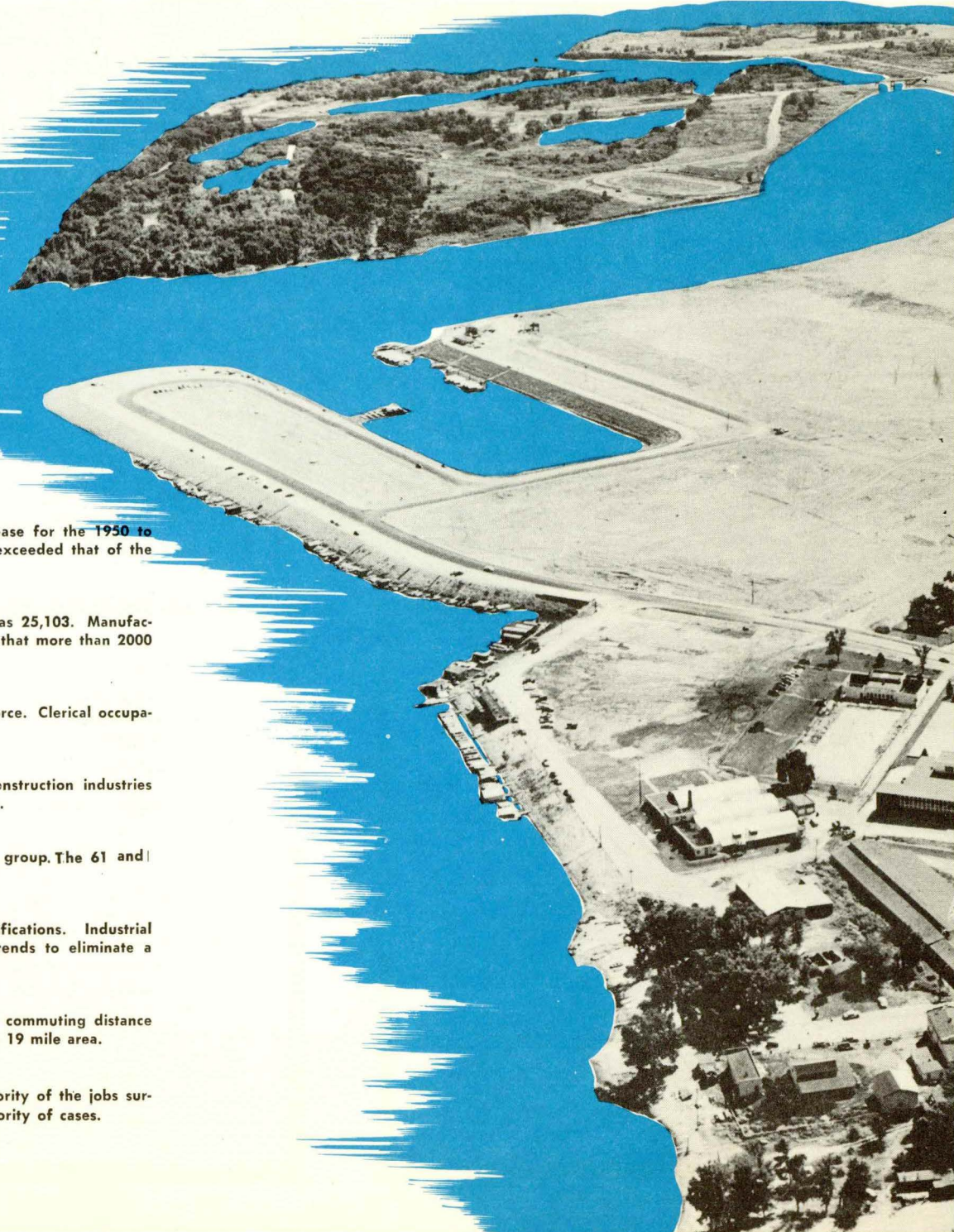
Skills of the work force are well distributed in all occupational classifications. Industrial diversification pattern in Dubuque acts as a stabilizing factor which tends to eliminate a "boom" or "bust" economy.

DUBUQUE LOCAL LABOR MARKET AREA

There are 2,363 workers commuting to Dubuque industrial plants. The commuting distance ranges up to 49 miles with the greatest number concentrated in the 10 to 19 mile area.

ENTRY JOB REQUIREMENTS

Educational qualifications were considered an important factor in a majority of the jobs surveyed. Age and training were not found to be limiting factors in a majority of cases.



Introduction...

LIBRARY

Iowa Employment Security Commission
1000 East Grand Avenue
Des Moines, Iowa 50319

The Dubuque Chamber of Commerce and the Industrial Development Committee with the cooperation of professional clubs, organizations and local employers have concentrated their efforts on improving their city. The Chamber of Commerce realized that the expansion of present industry and the development of new industry would necessitate considerable planning. For industrial expansion, the Mississippi River project was undertaken with overwhelming support from the Dubuque taxpayers. The project consisted of developing swamp land along the Mississippi River into a 217 acre industrial and recreational area at a cost of two million dollars.

The Dubuque Industrial Development Committee has taken a realistic view of the factors that an industry would need to consider for a profitable operation. Dubuque has a comparative advantage over many areas in at least three major respects. These advantages are (1) adequate water supply available for industrial activities that require great amounts of process water; (2) inexpensive water transportation on the Mississippi River; (3) specially developed industrial site of 217 acres with river frontage and all utilities.

The Dubuque Chamber of Commerce realized it could offer certain physical comparative advantages, but that the most important economic characteristic of a region or local area is the nature of its working population. The number of workers by occupation,

age, sex, levels of education attainment, occupational skills and industrial experience is essential labor market information. It was for this phase of the project that the services of the Iowa Employment Security Commission was obtained. The Dubuque Chamber of Commerce requested the Technical Services' Division of the Iowa Employment Security Commission to conduct a survey indicating the skills of the work force. The funds for such a project were made available by the Bureau of Employment Security of the United States Department of Labor. Mr. George W. Moore, Chief of the Employment Service Division, and members of his technical staff met with the Dubuque Chamber of Commerce, industrial and professional men, educational leaders, city officials, Civic Club leaders and Labor and Trade Union officials, to discuss the survey. It was apparent that the group was interested in the available skills in the area, the age of the present work force, and the training facilities as well as information on the potential labor supply in the area surrounding Dubuque.

The survey was conducted with the cooperation of Mr. M. S. Englebrecht, Executive Secretary of the Dubuque Chamber of Commerce. The occupational data in this report is compiled to assist community leaders in their planning to provide industry with an adequate supply of high-quality trained manpower and to provide the youth of Dubuque with occupational information to assist them in choosing a vocation.

TABLE OF CONTENTS

Section	Page
Highlights of the Survey	i
Introduction	ii
History and Background	1
Commuting Pattern	2
Study of Population Trends	3-4
Current Employment Patterns	5-8
Study of Occupational Distribution..	9-12
Total Employment by age, sex, occupation and industry	13
Entry Job Requirements	14
Training Facilities	15
Methodology	16
Suggested Action for Improvement of Work Force Skills	16

TABLE OF TABLES

Table	Title	Page
1	Postal address and Number of Workers for each Area	2
2	Definitions of Industry Groups..	5
3	Nonagricultural Wage and Salaried Employment by Industry, Sex and Major Occupational Groups	8
4	Definitions of Occupational Groups	10
5	Occupational Groups by Age and Sex	13
6	Industry Groups by Age and Sex	13
7	Entry Job Requirements for Selected Occupations Reported by Dubuque Employers	14
8	Plant Training Facilities by Type of Training and Major Occupational Category	15
9	Plant Training Facilities by Type of Training and Major Industrial Category	15

TABLE OF CHARTS

Chart	List of Charts and Title	Page
1	Commuting Pattern of Dubuque Employees	2
2	Population Trends for Dubuque, Iowa: Population by Decade..	4
3	Population Trends for Dubuque, Iowa: Percent of Increase by Decade	4
4	Comparison of Percentage Growth in Population for Iowa and Dubuque since 1910.....	4
5	Percentage Distribution of Non- agricultural Wage and Salaried employment by Industry	5
6	Percentage Distribution of Occupational Groups by Major Industry Category	6
7	Percentage Distribution of Wage and Salaried Employment by Occupation	9
8	Percentage of Women by Occupational Groups	9
9	Percentage Distribution of Industries by Major Occupational Groups	12
10	Total Employment by Age and Sex	13

History and Background of the Survey Area



The City of Dubuque, first settlement and oldest city in Iowa, is in Dubuque County, in the northeast section of Iowa, strategically located near the population center of the United States and in the center of the farm-rich Middle West. Specifically, Dubuque is located at the junction of the States of Iowa, Wisconsin and Illinois, on the Mississippi River. One bridge links Dubuque with Wisconsin and the other, toll-free, with Illinois. The city area is 14 square miles with an estimated population of 57,910 in 1957. Its government is Manager-Council form. Climatic characteristics are: a wide range of temperature with fluctuating humidity and no prevailing wind direction, mean temperature of 48.4 degrees, precipitation 45.01 inches, and an average snowfall of 35.2 inches over a 71-year period.

In 1785, Julien Dubuque, a French-Canadian, became the first permanent white settler of this area, as well as of the entire State of Iowa. Previously its inhabitants were Sac and Fox Indians. The Indians gave Julien Dubuque possession of lead mines in eastern Dubuque County, and he and those who worked with him prospered. After Julien Dubuque's death in 1810, the Fox Indians took over the mines, and except for Dubuque's followers, all other white men were excluded from the area. Indian control of the mines continued until 1833, when white settlers were allowed to move in, and during this year the modern City of Dubuque was founded.

People of various nations immigrating to the United States and to Iowa settled in Dubuque, principally persons from Germany, Ireland, England and Luxembourg. Between 1838 and 1846 lead mining faded as the principal industry, and agriculture began to boom. Flour mills prospered and the lumber industry expanded rapidly. Today, Dubuque has two of the largest sash and door factories in the world. Present-day Dubuque industries employing the greatest number of persons, however, are those engaged in the manufacture of farm machinery and in meat slaughtering and packing. The Dubuque manufacturing establishments produce over 600 different articles including plumbing supplies, furniture, dry batteries, insulating board, foundry items, toys, chemical products, fertilizer, paper containers and oil equipment.

On April 6, 1955, the people of Dubuque proved their interest in the further industrial development of Dubuque by voting to invest \$2,000,000 in the development of an Industrial Park. Today this park is a reality. It contains 217 acres of level land, 163 acres of which are available for plant sites. There are 5,360 feet of Mississippi River front wharfage, parking space for thousands of cars and a beautiful recreation area including pleasure craft harbor. Dubuque has the enthusiastic backing of its citizens, its civic and labor organizations, and its Chamber of Commerce, and has many tangible advantages to offer industries seeking a plant locale.

Dubuque has a natural gas supply and a distribution system that is capable of handling any industrial load. This natural gas is available to industrial users at up to ten pounds delivered pressure at almost any point in the industrial area. Electric power is furnished by an investor-owned company, and an abundant supply of electric power is available at reasonable rates. Power is supplied from seven major steam-electric generating plants interconnected with a 161,000 volt high-voltage transmission system. The largest generating station of 60,000 kw is located in Dubuque, and to further augment generating capacity, there are other interconnections with neighboring utilities. There is an unlimited water supply—clean, cool, natural well water, a supply in excess of 250 000,000 gallons a day.

Four railroads connect Dubuque to all centers of the United States. Eighteen motor freight companies and six bus lines operate out of Dubuque over five Federal and one State highway. Lake Peosta Channel, a man-made waterway 800 feet wide and 35 feet deep, connects Dubuque Industrial Park to the Mississippi River where a nine foot channel is maintained. Dubuque's water-rail terminal is recognized as being one of the finest on the River, having modern equipment for the handling of all types of shipments. The Federal Barge Line uses this terminal to handle a large volume of freight. Established airlines schedule daily flights from Dubuque's multi-million dollar airport. Charter flight service is also available.

Dubuque has adequate school facilities with twelve public, and seventeen parochial schools (elementary, junior high and high school), with a new central Catholic High School now under construction and scheduled to be ready for operation in September, 1958. Dubuque has three colleges with a total enrollment of 2,315 students, four seminaries and four motherhouses of teaching nuns.

Other things noteworthy of Dubuque are: many quality retail establishments serving the needs of shoppers in the tri-state area; 37 churches, all denominations; four hotels with approximately 365 rooms; numerous motels inside and outside city limits; three large hospitals and a sanitarium; adequate number of physicians and nurses; three banks; two radio stations; three newspapers (one, a daily and two, weekly issues); adequate fire and police protection; fine park and recreational facilities.

Dubuque

commuting pattern

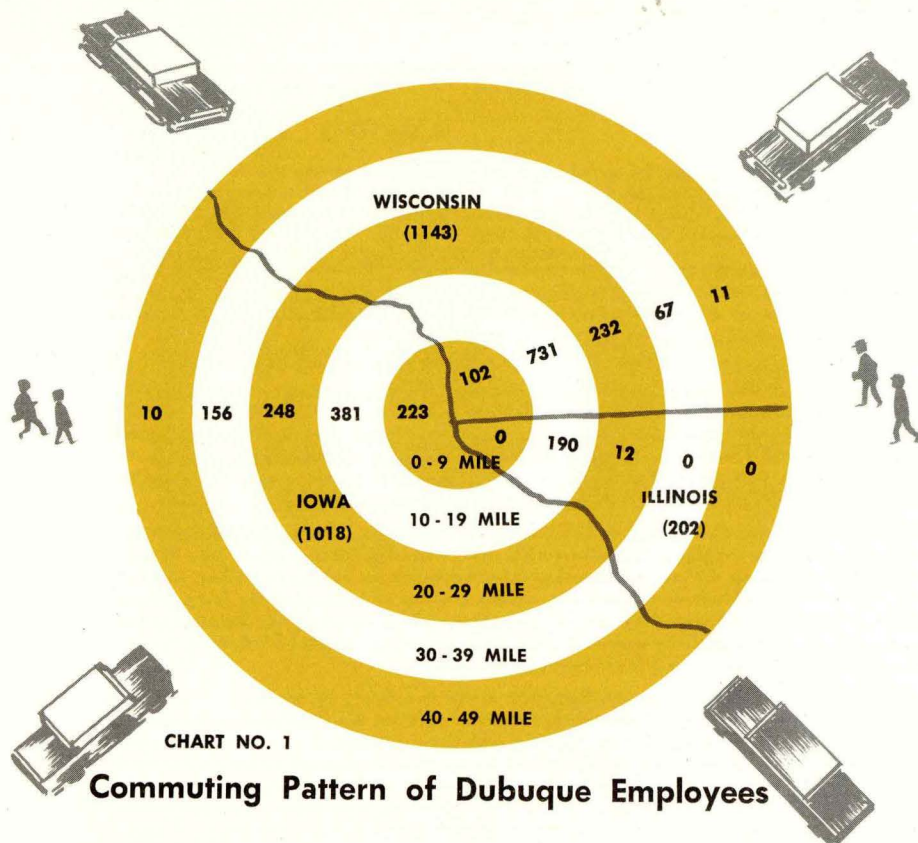


TABLE NO. 1 POSTAL ADDRESS AND NUMBER OF WORKERS FOR EACH AREA

WISCONSIN		IOWA		ILLINOIS	
TOWN	NO.	TOWN	NO.	TOWN	NO.
0 - 9 MILE AREA (Total - 325)					
Dickeyville	63	Durango	106		
Kieler	37	Sherrill	77		
Others	2	Keywest	21		
		Others	19		
10 - 19 MILE AREA (Total - 1,302)					
Cuba City	200	Epworth	93		
Platteville	197	Farley	86		
Potosi	124	Lamotte	51		
Hazel Green	122	Bernard	33		
Benton	80	Zwingle	33		
Others	8	N. Buena Vista	40		
		Others	45	Galena	190
20 - 29 MILE AREA (Total - 492)					
Lancaster	129	Bellevue	105	Scales Mound	6
Cassville	45	Dyersville	88	Others	6
Shullsburg	29	Cascade	42		
Others	29	Others	13		
30 - 39 MILE AREA (Total - 223)					
Fennimore	14	Guttenberg	87		
Livingston	14	Colesburg	17		
Darlington	10	Elkport	14		
Others	29	Earlville	13		
		Others	25		
40 - 49 MILE AREA (Total - 21)					
Boscobel	6	Manchester	4		
Others	5	Edgewood	4		
		Others	2		

A local labor market area is the relationship between place of residence and place of work of the labor force. The boundaries of a labor market area are determined largely by the geographic mobility of labor. The factors which affect the bringing and keeping of workers involves an analysis of the characteristics of the labor force, employment, and unemployment; labor turnover; hours of work, earnings, and employer hiring practices. Housing, transportation, and other community facilities also influence workers in their choice of location of employment.

For purposes of this survey it was necessary to limit the study of the commuting pattern to the data collected on post office addresses of the employees on Dubuque industrial payrolls. In others words, this is simply a cross section of the commuting pattern as it currently exists rather than the analysis of the factors relating to its pattern.

It can be observed in Chart No. 1 and Table No. 1 that the labor market area for Dubuque includes parts of Iowa, Wisconsin and Illinois. Because of the industrial pattern in the surrounding area and the geographical location of Dubuque, Wisconsin contributes 1,143 out of a total of 2,363 job commuters found in this area.

With the present job opportunities in Dubuque it appears that workers may be anticipated to travel a distance of up to 40 miles. It should be pointed out that there is a total population of approximately 104,000 persons in the several small urban communities and the rural area outside the City of Dubuque, but within commuting distance of Dubuque. It is logical to assume that with additional job opportunities available in Dubuque many additional workers could be added to the labor force from this source.

Dubuque

study of population



The first portion of the population study indicates the actual population growth and percentage change by decade. It is also important to compare the population growth of the city with the state in which it is located. In order to better compare these two statistics, Chart No. 4, "Comparison of Percentage Growth in Population" uses 1910 as a base and makes a percentage growth comparison for the decades 1910-1960.

From 1910 through 1940 the rate of growth for the state exceeded that recorded for Dubuque. However, by 1950 the rate of growth for Dubuque far outstripped the comparative figures for the state with a 29 percent increase compared to 17 percent for the state. The current decade is anticipated to show an even greater rate of increase with approximately 60 percent for Dubuque and 25 percent for the state as a whole.

The total population of Dubuque from 1910 to 1960 is expected to show an increase of approximately 23,000 persons. This is depicted in Chart No. 2 entitled "Total Population by Decade." For the first three decades (1910-1940) the average yearly growth was less than 200 while the 1940 to 1950 increase (5,786) exceeded the total growth for the previous thirty years. Spectacular as this may seem, the estimated increase from 1950 to 1960 will probably approach 12,000, which represents a much greater rate of increase. The rate of increase by decade is shown in Chart No. 3, entitled "Percent Increase by Decade," and this points up the rapid growth of Dubuque during the last thirty years.

Various factors have influenced the growth of Dubuque. The Mississippi River, in connection with the railroad terminal, provides economical transportation for shipping raw materials and finished products to and from this industrial center. The rich farming area surrounding the city has developed Dubuque into an important trading center. The labor market area for recruitment of workers for trade and industry covers a radius of approximately forty miles. The stable economy of the city has been greatly influenced by the diversification of its industry. While Dubuque's largest industries comprise the manufacture of farm machinery and meat packing, it also has a variety of industrial plants and business organizations that are stabilizing influences on the long range economy.

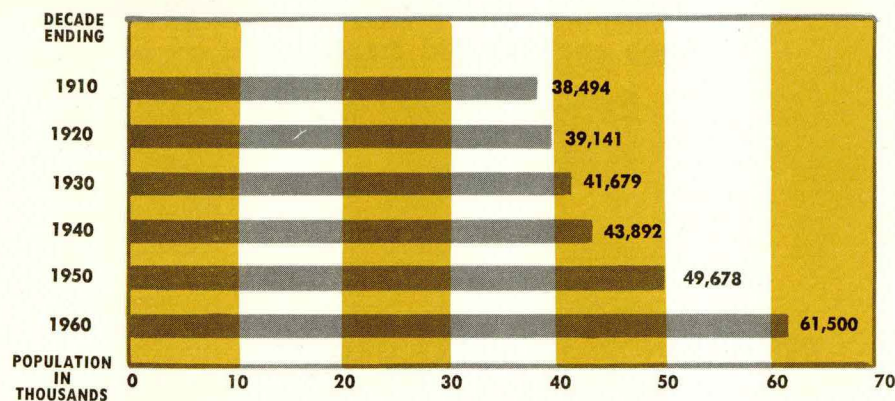
The caliber of the people found in a community is an important factor to industry in selecting a site. The five institutions of higher learning, and the excellent public and parochial school systems, are indicative of the intellectual and aggressive type of people found in Dubuque. These factors along with the concentrated efforts of the citizens of the community are responsible for the rapid growth. It is reasonable to assume that with added emphasis on industrial expansion and development, the population will continue to grow at an increasing rate. The expanding rate of population growth indicates that a potentially increasing labor supply may be anticipated in this area. These trends indicate that, in general, industry may expect to find an adequate labor supply of various skills for further expansion.

Another indication of the expansion of Dubuque is found when an analysis is made of the vital statistics relative to the population change between 1940 and 1950. For instance, in 1940 the population of Dubuque County was 63,768. Between 1940 and 1950 the number of births in this county was 14,768, and the number of deaths during this same period totaled 7,699. In other words, there was an excess of births over deaths during the last decade of 7,069. If the population were entirely stabilized and with no migration involved, the population count as of 1950 would have been 70,837. Actually, however, it was 71,337 thus indicating that there was a net in-migration into the county of 500 persons. This is a rather significant finding inasmuch as the majority of the counties in the state recorded net migration losses. In fact, between 1940 and 1950 the State of Iowa as a whole recorded a net migration loss in excess of 178,000 persons.

trend...

**TOTAL POPULATION
BY DECADE
1910 - 1960**

CHART NO. 2



**PERCENT OF INCREASE
BY DECADE
FROM PREVIOUS DECADE**

CHART NO. 3

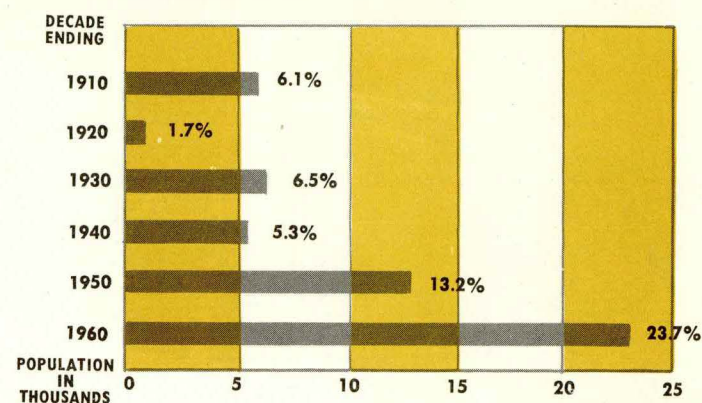
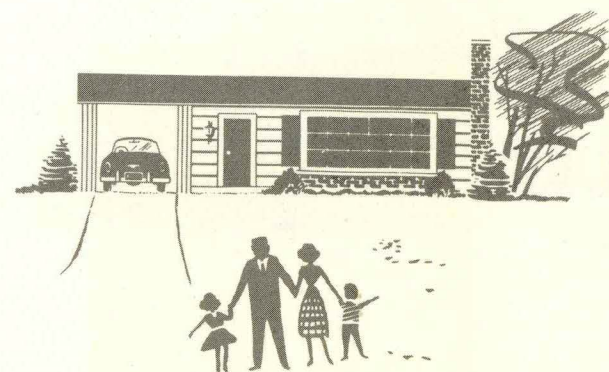
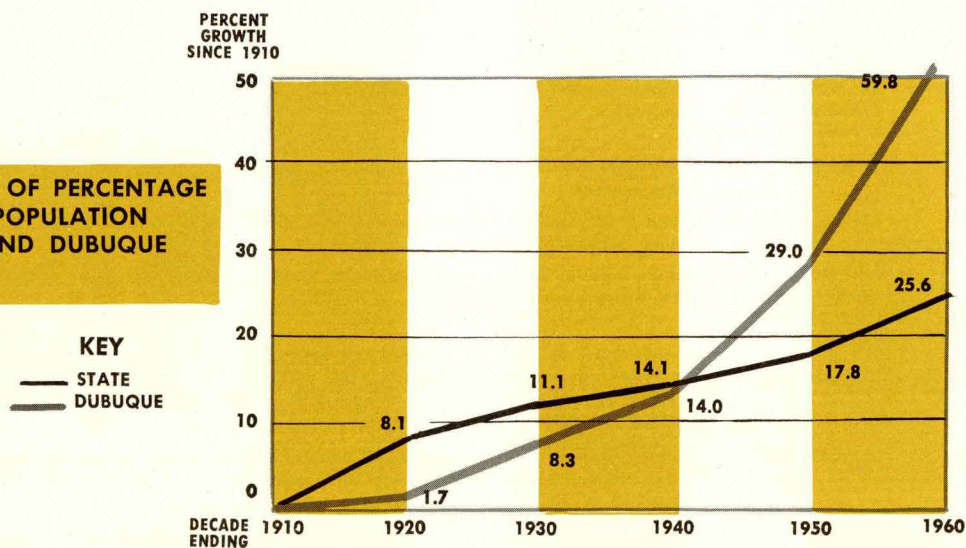


CHART NO. 4

**COMPARISON OF PERCENTAGE
GROWTH IN POPULATION
FOR IOWA AND DUBUQUE
SINCE 1910**



Dubuque

current employment

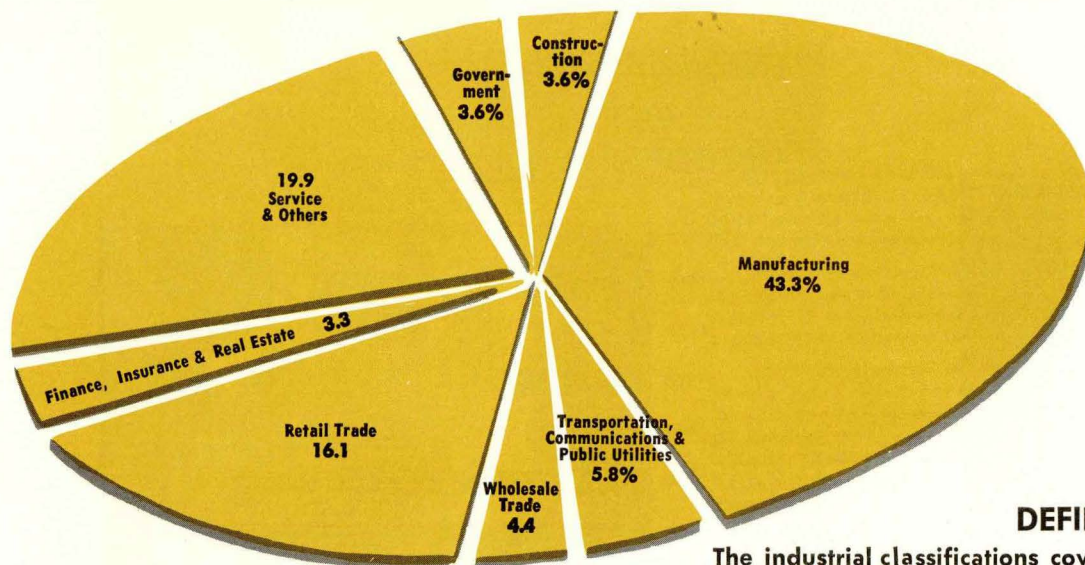


CHART NO. 5

Percentage Distribution of Nonagricultural Wage and Salaried Employment by Industry
Dubuque, Iowa, July, 1957

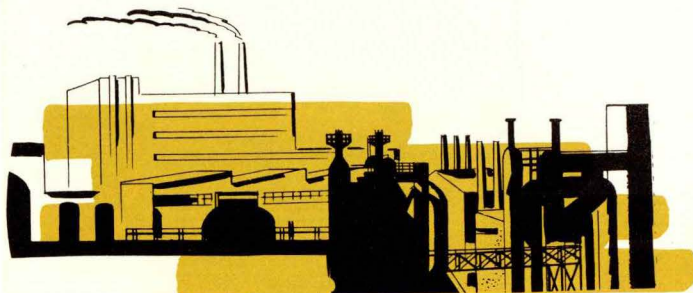
TABLE NO. 2

DEFINITION OF INDUSTRY GROUPS

The industrial classifications covered by the survey are divided into eight industry groups.

CONSTRUCTION	General contractors in the construction of buildings; construction of highways, streets and bridges; and special trades, such as plumbing, painting and carpentering.
MANUFACTURING	Production of foods, beverages, lumber, furniture, machinery, chemical products, fabricated metal products, toys and printed materials.
TRANSPORTATION, COMMUNICATION & PUBLIC UTILITIES	Railroads, truck lines, warehouses, airlines, telephone and telegraph companies, water, gas and electric companies.
WHOLESALE TRADE	Wholesale merchants, distributors, jobbers, exporters and importers engaged in buying and selling on their own account.
RETAIL TRADE	Stores which sell general merchandise which includes department stores, grocery stores, restaurants, hardware, apparel and automotive supplies.
FINANCE, INSURANCE & REAL ESTATE	Banks, security dealers, loan agencies, holding companies, insurance carriers and brokers, subdividers, and real estate agents and brokers.
SERVICE & OTHERS	Hotels and lodging places, private and government schools and hospitals, barber and beauty shops, radio and television stations, automobile repair shops, dental offices and legal offices. "Others" include a small number of industries pertaining to agriculture, forestry, fishing and mining (total employment in this group is less than 100).
GOVERNMENT	Federal, State and local governmental establishments performing legislative, administrative and judicial functions. Governmental establishments with activities identical with those performed in private industry are classified in the appropriate industrial group.

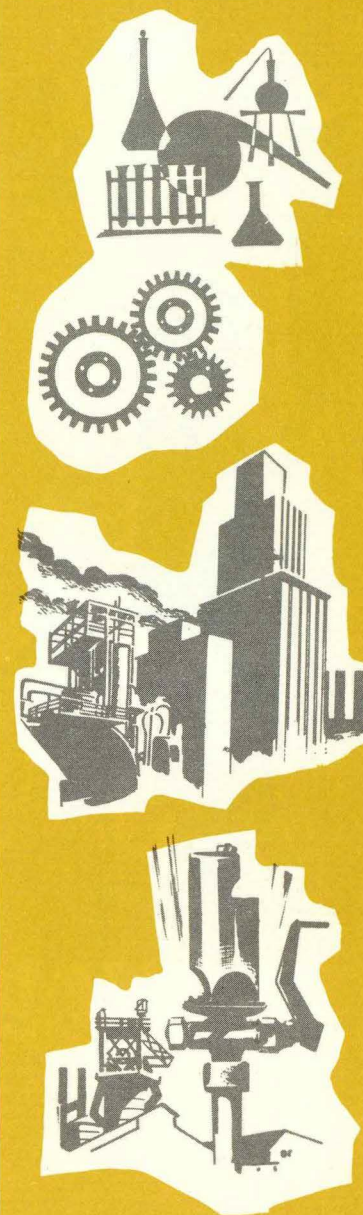
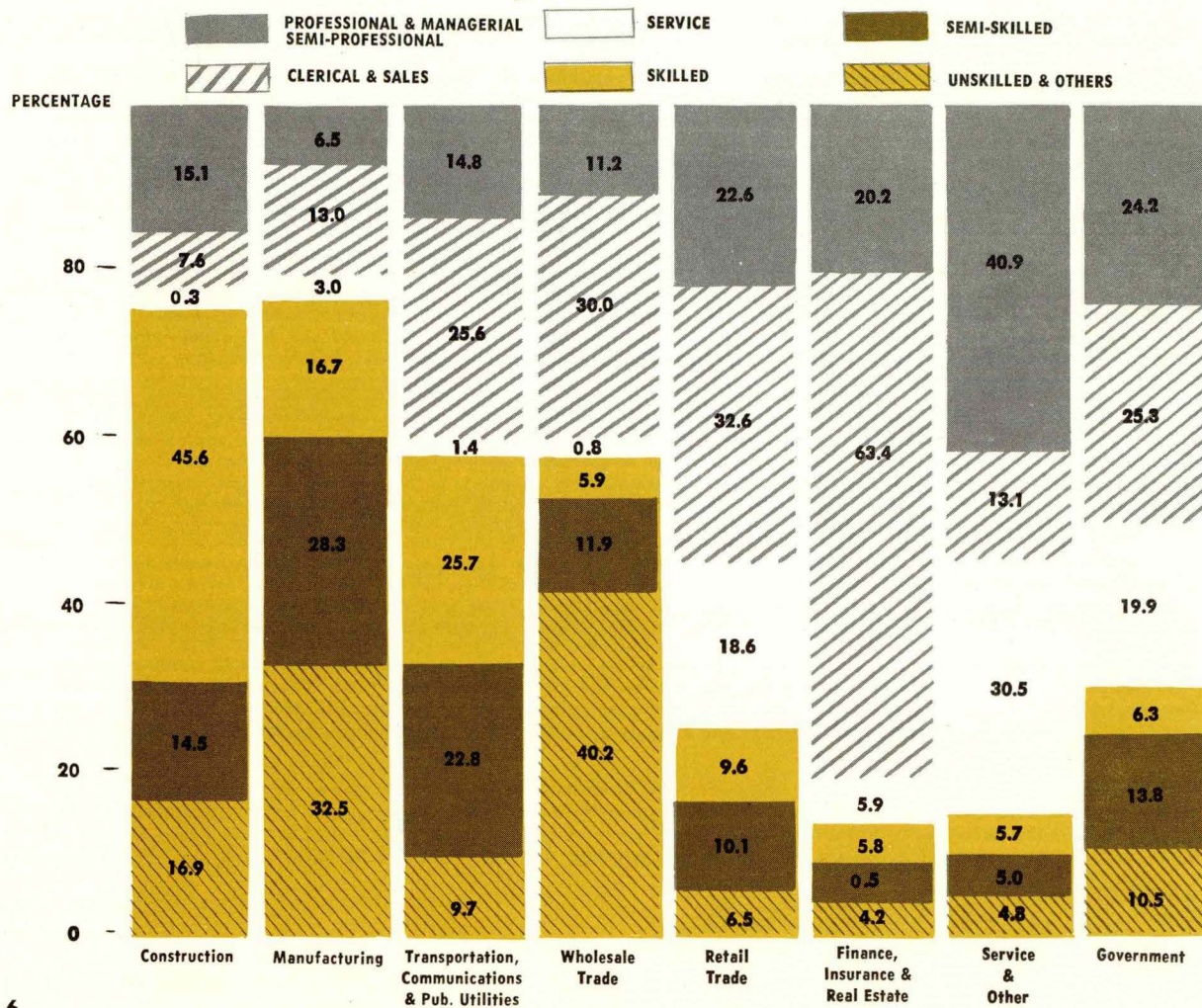
**Industry Groups are based on the Standard Industrial Classification Manual for manufacturing and on the Social Security Board Manual for nonmanufacturing industries.*

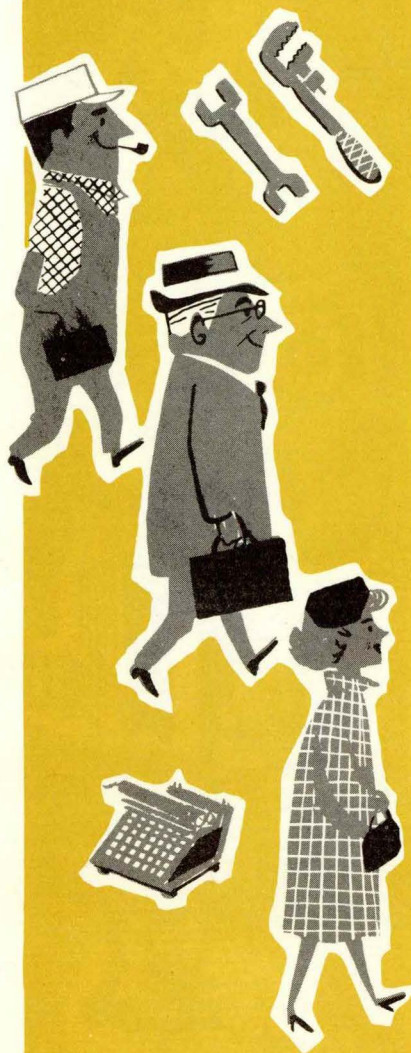


pattern...

CHART NO. 6

Percentage Distribution of Occupational Groups by Major Industry Category Dubuque, Iowa, July, 1957





The accompanying table and charts on pages five through eight, present a cross section of the industrial profile of Dubuque, Iowa, showing occupational and industrial employment by industry and sex for July, 1957.

It can be observed from Table No. 3 that 25,103 workers constitute the industrial work force surveyed by this study. Of the major occupational groups, manufacturing employment (10,866) account for most of the total workers on the Dubuque payrolls. Although it is not possible to make a direct comparison with the census data of 1950 since those figures cover all of Dubuque County rather than the more limited area studied in this survey, the 1950 census count for manufacturing in Dubuque County indicates a total of 8,623 persons employed in this industry compared to a total of 10,866 found in the survey area as of July, 1957. On this basis we can assume that manufacturing employment has expanded by more than 2,000 employees since 1950, which indicates the rapid industrial expansion in Dubuque since the census count was made. When a comparison of manufacturing employment, nationally, (July 1957) is made with the total number of employees in nonagricultural establishments, it is found that approximately 32 percent of the total employed group is found in factory jobs. A comparison of similar data for Iowa during the survey period reveals that approximately 25 percent of Iowa nonagricultural workers are found on factory payrolls. This further points up the greater industrial occupational distribution of the surveyed Dubuque, Iowa work force which totals 43 percent in factory occupations. Within the manufacturing industry some of the more significant categories from an employment standpoint are: food processing, furniture and wood products and machinery. It should also be pointed out that the balance of the factory employment is well diversified among the several major industrial classifications, including one unusual industry for an inland area, that of boat building.

Table No. 3 showing the breakout of nonagricultural wage and salary workers by occupation emphasizes the distribution of the labor force by sex, industry, and occupation. For instance, in the clerical occupation group, 2,145 or approximately two-thirds of the clerical jobs are filled by women, while in the skilled group women accounted for only 3 percent of the skilled occupations listed. This table also indicates that approximately 7,900 or 31 percent of the total workers in all occupations are in the skilled or semiskilled occupations. This tabular presentation points up the industrialization of the area as well as the diversification of the labor force.

Included on the previous page in this series of charts is a percentage distribution bar chart of the occupational groups found in each major industrial group (Chart No. 6.) A review of this chart indicates, for instance, that the "Service Industry" of all major industry groups studied has the greatest percentage of employees in the professional, semiprofessional and managerial occupational categories. This is explained, in part, by the fact that the teaching profession falls in this industrial group.

However, in using the percentage distribution profile for the several major occupations, caution should be observed not to misinterpret the data. That is, if the turnover rate and total number of workers were the same in each industry classification, then the job opportunities for a given occupation should be more favorable in the industry with the greatest percentage of payroll titles in that occupation. While this consideration may seem to be self-evident, this possible fallacy is pointed out to prevent an incorrect analysis of the data.

It should also be pointed out that at midyear 1957, during the survey period, many measures of the economy on a national level indicated that business activities were holding steady on a high plateau. However, one factor in an analysis of this data, particularly the factory employment level and its significance in the total industrial pattern of Dubuque during the survey period, is that some workers on temporary lay-off in several industries were not included in the survey.

pattern . . .

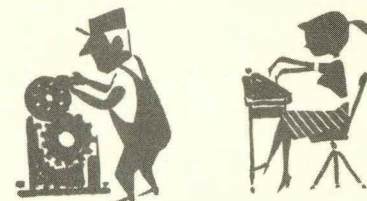
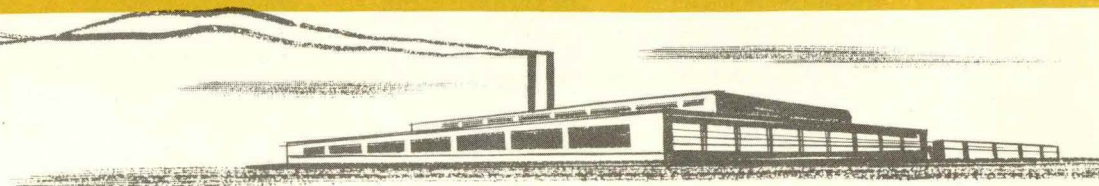


TABLE NO. 3

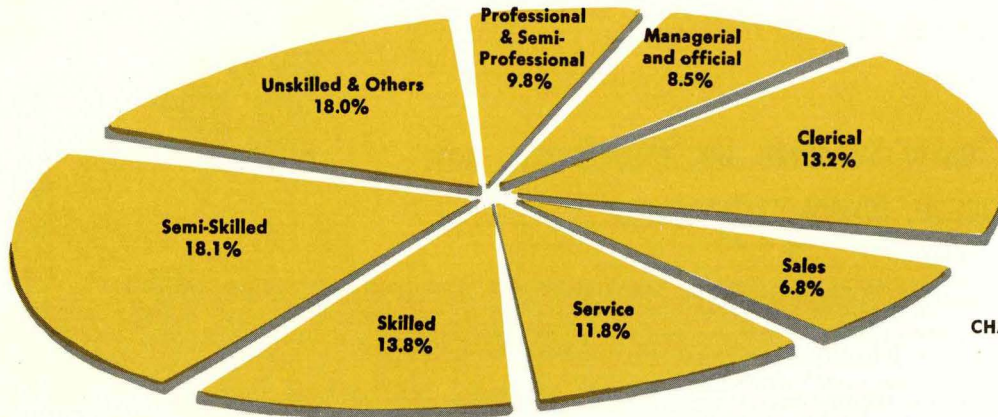
NONAGRICULTURAL WAGE AND SALARIED EMPLOYMENT BY INDUSTRY, SEX AND MAJOR OCCUPATIONAL GROUPS, DUBUQUE, IOWA, JULY 1957

OCCUPATIONAL GROUP	CONSTRUCTION			MANUFACTURING			Transportation, Communications & Pub. Utilities			WHOLESALE TRADE			RETAIL TRADE			FINANCE INS. and REAL ESTATE			SERVICE & OTHERS			GOVERNMENT			TOTAL		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
PROFESSIONAL and SEMI PROFESSIONAL	7	7	0	355	333	22	78	73	5	7	5	2	59	48	11	14	11	3	1794	724	1070	135	111	24	2449	1312	1137
MANAGERIAL and OFFICIAL	131	128	3	346	330	16	137	127	10	115	108	7	853	697	156	155	143	12	255	177	78	84	81	3	2076	1791	285
CLERICAL	54	9	45	1107	518	589	364	135	229	182	55	127	396	54	342	352	73	279	555	79	476	228	170	58	3238	1093	2145
SALES	15	14	1	306	282	24	6	5	1	146	131	15	919	366	553	179	168	11	102	89	13	0	0	0	1673	1055	618
SERVICE	3	1	2	327	285	42	21	13	8	9	6	3	749	222	527	50	21	29	1525	438	1087	180	163	17	2864	1149	1715
SKILLED	415	415	0	1814	1789	25	372	371	1	64	64	0	388	345	43	49	49	0	285	246	39	57	55	2	3444	3334	110
SEMI-SKILLED	132	132	0	3075	2707	368	331	329	2	130	123	7	409	381	28	4	4	0	248	156	92	125	125	0	4454	3957	497
UNSKILLED and OTHERS	154	154	0	3536	2535	1001	141	141	0	440	387	53	264	216	48	35	35	0	240	125	115	95	95	0	4905	3688	1217
TOTAL	911	860	51	10866	8779	2087	1450	1194	256	1093	879	214	4037	2329	1708	838	504	334	5004	2034	2970	904	800	104	25103	17379	7724



Dubuque

Study of Occupational

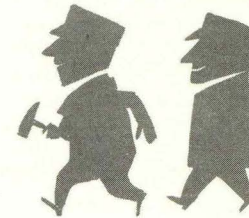


Percentage Distribution of Wage and Salaried Employment by Occupation

Dubuque, Iowa July, 1957*

*Excludes farm hands, domestic and unpaid family workers.

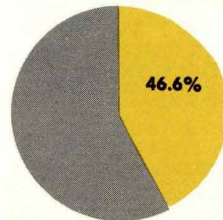
CHART NO. 7



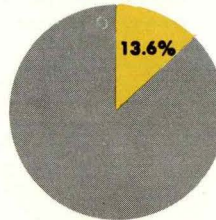
Percentage of Women By Occupational Groups
City of Dubuque, Iowa
July, 1957



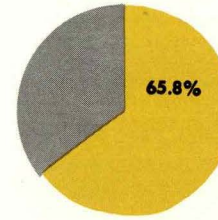
Professional & Semi-Professional



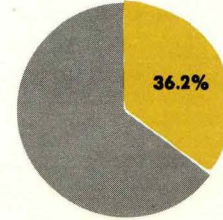
Managerial



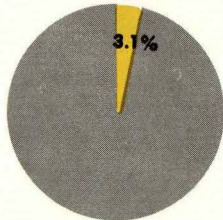
Clerical



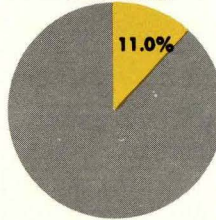
Sales



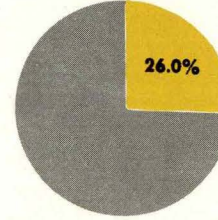
Skilled



Semi-Skilled



Unskilled



Service & Others

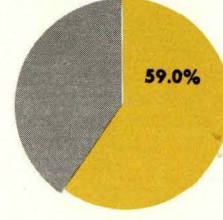


CHART NO. 8

Distribution . . .

TABLE NO. 4

DEFINITIONS OF OCCUPATIONAL GROUPS

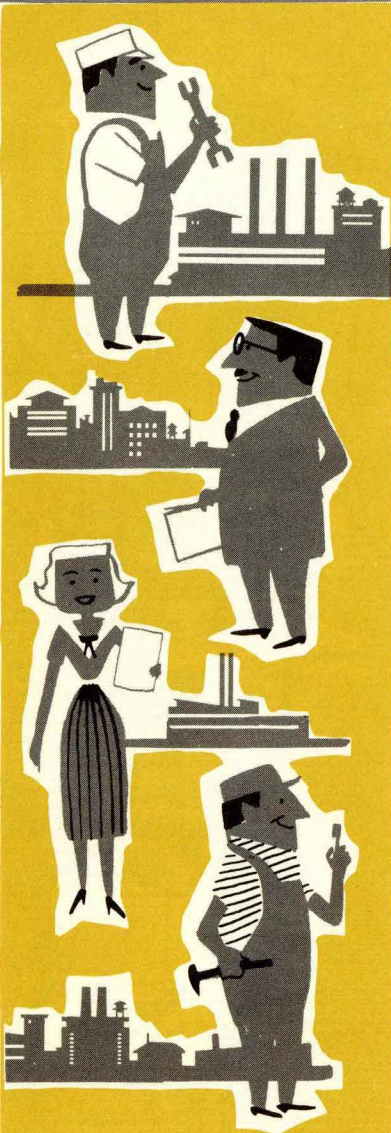
To assist in interpreting the occupational chart, a brief description of each occupational group along with examples of jobs in that group are listed below.

PROFESSIONAL	This group includes occupations that predominantly require a high degree of mental activity by the worker and are concerned with theoretical or practical aspects of complex fields of human endeavor. Typical professional occupations are those of doctor, lawyer, architect, mechanical engineer, chemist, physicist, editor, actor, and musician.
SEMI-PROFESSIONAL	Occupations concerned with the theoretical or practical aspects of fields of endeavor that require rather extensive education or practical experience. Chiropodists, production planners, draftsmen, aviators, laboratory technicians, and commercial artists are typical semiprofessional occupations.
MANAGERIAL AND OFFICIAL	Occupations that are involved primarily with responsible policy-making, planning, supervising, coordinating, or guiding the work-activity of others, usually through intermediate supervisors. Typical of these occupations are managers or presidents of business enterprises, superintendents of construction projects, and purchasing and advertising agents.
CLERICAL	Occupations concerned with the preparation, transcribing, transferring, systematizing, or preserving of written communications and records in offices, shops, and other places of work where such functions are performed.
SALES	Included in this group are occupations concerned with the sale of commodities, investments, real estate, and services, and occupations that are very closely identified with sales transactions even though they do not involve actual participation in such transactions. Typical sales occupations included are salesmen and hucksters.
SERVICE	Personal Service Occupations are those occupations concerned with performing services for persons that require predominantly either direct contact or close association with the individual. Typical examples are barbers, waiters, and practical nurses. Protective and Building Service Occupations in this group are those specifically concerned with the protection or guarding of the city or its political units, of buildings and other property, and of individuals.
SKILLED	This group includes craft and manual occupations that require predominantly a thorough and comprehensive knowledge of processes involved in the work, the exercise of considerable independent judgment, usually a high degree of manual dexterity, and, in some instances, extensive responsibility for valuable product or equipment. Workers in these occupations usually become qualified by serving apprenticeships or completing extensive training periods.
SEMI-SKILLED	Occupations that are characterized by the exercise of manipulative ability of a high order, but limited to a fairly well-defined work routine with major reliance, not so much upon the worker's judgment or dexterity, but upon vigilance and alertness.
UNSKILLED	Manual occupations that involve the performance of simple duties that may be learned within a short period of time and that require the exercise of little or no independent judgment.

**Occupational Groups are based on the Dictionary of Occupational Titles of the Bureau of Employment Security, United States Department of Labor.*



study of occupational



More than 25,000 wage and salaried workers were recorded on the payrolls of Dubuque, Iowa employers during the survey period. An analysis of the occupational pattern based on the cooperative reports of the Dubuque establishments reveals that the employment distribution is well diversified among the several skills. This occupational distribution is shown in Charts No. 7, 8 and 9 on pages 9 and 12.

The total of all occupational groups revealed that approximately 70 percent of the wage and salary workers in the distribution were men. Numerically, the greatest number was found in the semiskilled occupations where approximately 4,000 men were listed on the payroll. On the other hand, the largest number of female workers was found in clerical and kindred occupations where approximately 2,200 women were listed on the employer payrolls.

The range of jobs held by women workers today is wider than in any earlier period. While it is not possible in a limited space to make a complete analysis of the occupational distribution of the total labor force by sex, we have made a short study of the number of women workers by industry and occupational group since the distribution of women workers follows a more limited pattern. For instance, in the mining industry three women workers were found in clerical occupations. In construction 51 out of the 911 total workers were women; of this group 45 were in clerical and the balance in other office, sales, or service occupations. In manufacturing 2,087 women workers were found distributed among practically all occupations. The three largest occupations respectively were unskilled, 1,001, clerical, 589, and semi-skilled, 368. In transportation, communication and public utilities 229 out of a total of 256 were in the clerical occupations. In wholesale trade, of the 214 women listed 127 were clerical and 53 were in unskilled occupations. In retail trade the three most prominent occupations respectively were sales, 553, personal service, 495, and clerical, 342. In finance, insurance and real estate, the bulk of the employment of women workers, 279 out of a total of 334 were in clerical positions. In the Service industry the three most prevalent occupations were professional, 1002, (mainly teachers), personal service, 910 and clerical, 476. In Government the major distribution by occupation occurs in the clerical positions where 58 out of 104 women listed in the survey were found.

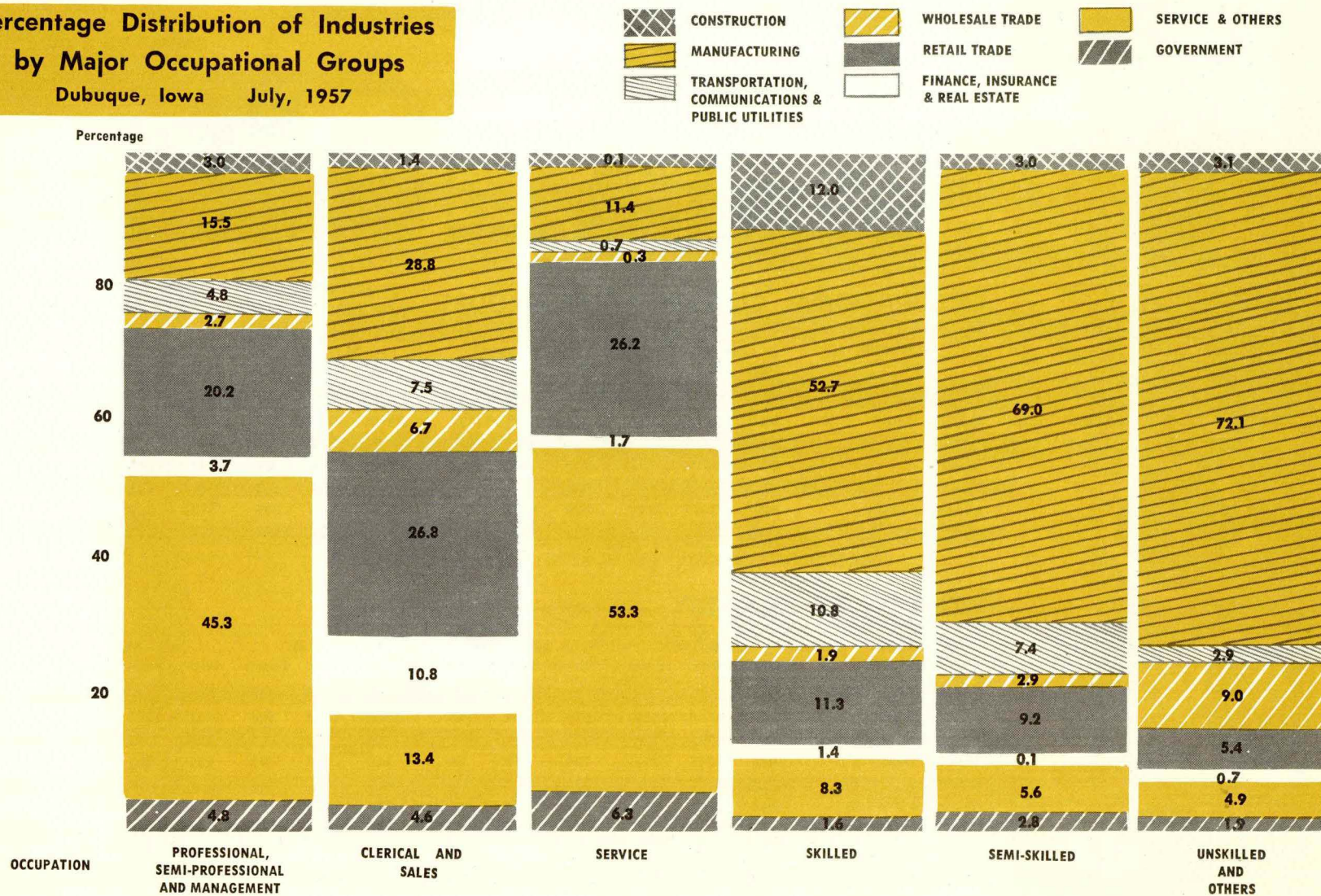
While it appears that women fill nearly half of the professional and semiprofessional jobs it should be pointed out that women teachers in private and public institutions constitute the bulk of the professional occupational category listed.

distribution...

CHART NO. 9

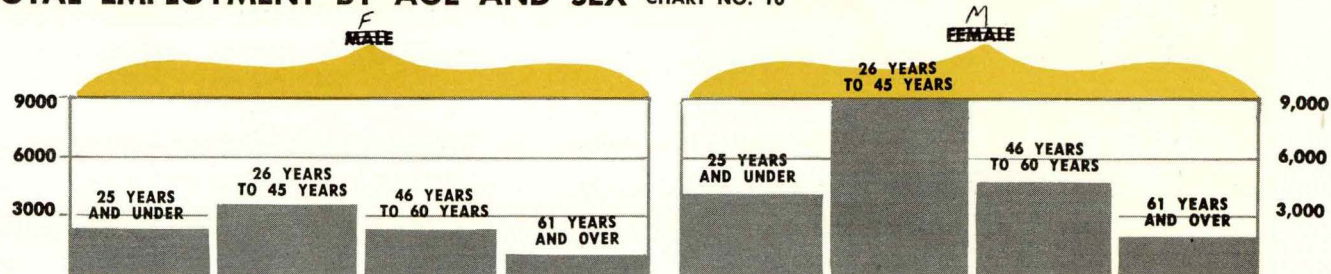
Percentage Distribution of Industries by Major Occupational Groups

Dubuque, Iowa July, 1957



total employment by age and sex

TOTAL EMPLOYMENT BY AGE AND SEX CHART NO. 10



OCCUPATIONAL CLASSIFICATION GROUPS TABLE NO. 5

OCCUPATION	TOTAL OF ALL AGE GROUPS			25 AND UNDER			26 — 45			46 — 60			61 AND OVER		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Professional, Semiprofessional & Managerial	4570	3155	1415	528	187	341	2258	1680	578	1373	993	380	411	295	116
Clerical & Sales	5023	2212	2811	1681	557	1124	2016	1057	959	1040	459	581	286	139	147
Service	2867	1164	1703	809	307	502	930	368	562	765	290	475	363	199	164
Skilled	3471	3359	112	212	208	4	1816	1783	33	1117	1074	43	326	294	32
Semi-Skilled	4544	4047	497	658	581	77	2205	1963	242	1389	1232	157	292	271	21
Unskilled & Others	4627	3445	1182	1378	1112	266	2206	1607	599	819	565	254	224	161	63
TOTAL	25102	17382	7720	5266	2952	2314	11431	8458	2973	6503	4613	1890	1902	1359	543

WORKERS BY INDUSTRY TABLE NO. 6

INDUSTRY	TOTAL OF ALL AGE GROUPS			25 AND UNDER			26 — 45			46 — 60			61 AND OVER		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Construction	911	860	51	164	151	13	548	530	18	164	152	12	35	27	8
Manufacturing	10863	8774	2089	2158	1566	592	5071	4082	989	2927	2498	429	707	628	79
Trans., Comm. & Pub. Util.	1450	1194	256	212	101	111	753	664	89	350	302	48	135	127	8
Wholesale Trade	1093	867	226	126	70	56	660	547	113	252	201	51	55	49	6
Retail Trade	4039	2341	1698	1029	506	523	1660	1065	595	1002	556	446	348	214	134
Fin., Ins., & Real Estate	844	510	334	208	52	156	344	250	94	222	156	66	70	52	18
Service & Others	4998	2038	2960	1272	439	833	1964	915	1039	1296	488	808	476	196	280
Government	904	798	106	97	67	30	441	405	36	290	260	30	76	66	10
TOTAL	25102	17382	7720	5266	2952	2314	11431	8458	2973	6503	4613	1890	1902	1359	543

entry job requirements

TABLE NO. 7

Entry Job Requirements for Selected Occupations . . . Reported by Dubuque, Iowa Employers

Job Title	Age Range					Training Requirements						Educational Requirements					
	Age Open	Under 21	22 to 30	31 to 45	46 & Over	Apprentice-ship	Coop. Training	Trade School	Business College	Job Experience	None	None	8th Grade	High School	2 Yr. College	College Degree	Grad. Work
Professional	10	3	17	1	1	0	1	0	4	5	20	0	1	8	3	19	0
Semi-professional	10	5	6	3	0	0	0	2	1	2	18	1	1	15	5	1	1
Managerial & Official	5	1	12	3	0	0	0	0	4	7	10	0	3	11	0	6	1
Clerical	276	81	160	27	6	4	3	2	23	54	442	27	24	490	7	1	1
Sales	105	12	50	10	2	0	2	0	1	11	161	31	29	118	2	0	0
Personal Service	107	25	14	17	2	0	0	2	0	12	148	95	44	23	0	0	0
Building & Protective Service	123	8	6	20	12	0	0	0	1	12	149	121	28	18	0	0	1
Skilled	43	10	20	12	20	5	0	2	0	32	65	30	19	55	0	1	0
Semiskilled	193	26	70	36	58	6	0	2	0	87	284	126	114	141	0	0	1
Unskilled & Others	165	26	30	38	21	0	0	0	0	41	237	142	78	55	2	1	0
Totals	1,037	197	385	167	122	15	6	10	34	263	1,534	573	341	934	19	29	5

Age Distribution and Entry Job Requirements

A significant part of the survey is related to the age of the work force now employed by sex, industry and occupation as well as the entry job requirements by occupation. The distribution of the employed work force by age and sex are shown on Chart No. 10 while Tables No. 5 and No. 6 show similar data with a breakout by occupation and industry. Entry jobs are presented in Table No. 7 and this data is by occupation with a cross tabulations showing age range, training, and educational requirements.

It is of interest to note that of the four age ranges studied, most employees were found in the 26 to 45 years of age category. The next most frequent age range was from 46 to 60 years of age. In these two age groups (age 26 - 60) the job count for men was the greatest in the manufacturing industry while women workers were found in greater numbers on the pay-rolls of Service establishments.

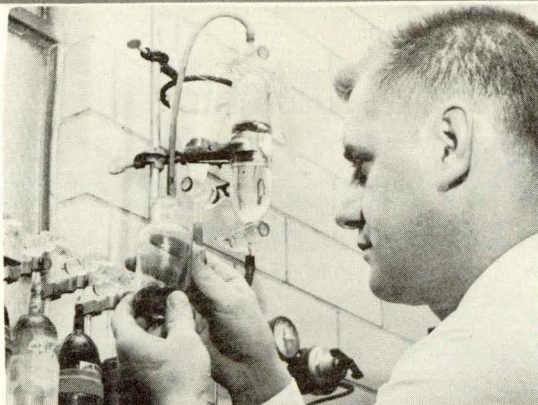
In the older age group, 61 years and over, men are found most frequently in the skilled occupations. This indicates, to some extent, the ability of men workers to retain their jobs in this field, in spite of an age handicap. This fact is further emphasized by the fact that a comparison of the number of men workers in the several lower age groups reveals that the skilled occupations are not the major men's category in these age groups.

A comparison of the age of worker that would be accepted according to the entry job requirements is revealing. Actually a majority of the data reported indicates that an age range is not specified. Likewise in most instances reported specific training is not an entry job consideration. On the other hand it is very significant to note the importance that is attached to an educational background in practically all occupational categories.

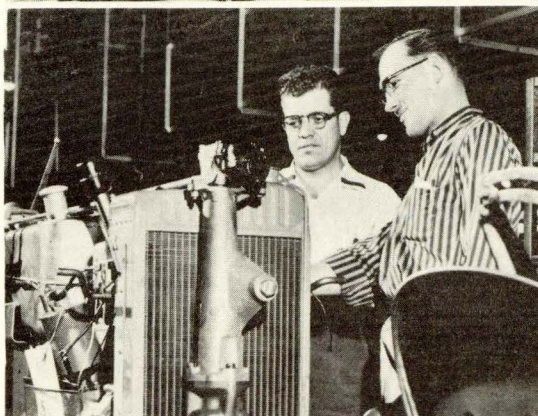
Dubuque

training facilities

Keith Roth is an example of how a technical job may be learned by on-the-job training. Keith is a high school graduate, studied general science, mathematics, physics and chemistry in preparation for his work in the chemical laboratory of the John Deere Dubuque Tractor works. His training is under the direct supervision of graduate chemists and engineers.



Jack Devitt is a graduate engineer from John Deere's five year cooperative training program with Iowa State College. Jack attended Iowa State College at alternate three month periods while employed by John Deere. Delmar Gavin shown at left in photo is an assembly foreman working with Jack in eliminating assembly line problems. Mr. Devitt is receiving additional training in preparation for supervisory work.



The classroom method for additional training is a familiar sight in many plants. This type of training lends itself to lecture and study in teaching company techniques and procedures and training in the technical phases of the work. The group in the photo is taking aptitude tests under the direction of Hildegard Stoltchen to qualify for one of John Deere's apprenticeship programs.

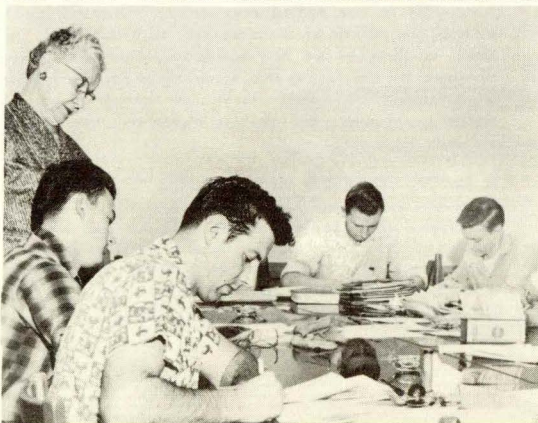


TABLE NO. 8 PLANT TRAINING FACILITIES BY TYPE OF TRAINING AND MAJOR OCCUPATIONAL CATEGORY

TYPE OF TRAINING	Professional Semi-Professional & Managerial	Clerical	Sales	Personal Service	Building & Protective Service	Skilled	Semi- Skilled	Unskilled & Others	TOTAL
On-the-Job	48	221	77	28	29	78	133	97	711
Apprenticeship	3	0	0	2	0	15	29	0	49
Supplemental	8	8	9	1	0	8	3	0	37

TABLE NO. 9 PLANT TRAINING FACILITIES BY TYPE OF TRAINING AND MAJOR INDUSTRIAL CATEGORY

TYPE OF TRAINING	Construction	Manufac- turing	Transport- ation, Com- munication & Public Utilities	Wholesale Trade	Retail Trade	Insurance, Finance & Real Estate	Service & Others	Government	TOTALS
On-the-Job	15	167	82	92	190	42	121	2	711
Apprenticeship	21	20	0	2	2	0	4	0	49
Supplemental	1	0	6	7	7	8	8	0	37

TRAINING PROGRAMS FOR DUBUQUE INDUSTRY

Dubuque employers, in looking to the future, are playing an important role in supplying technical and skilled personnel for their plants. With high school or college background, the technical and skilled phases of the work for a specific job are obtained by on-the-job training, apprenticeship programs or supplemental classroom-study type of training. Applicants for training are selected from the employers' working personnel or from new hires. Various aptitude tests are used to assist in selecting persons possessing the aptitudes essential to successful performance of these jobs.

The importance of the several types of industrial plant training is pointed out in Tables No. 8 and No. 9 compiled from data obtained during the survey showing the type of plant training offered by Dubuque employers. Table No. 8 indicates the type of training by occupational category; Table No. 9, the type of training offered by the industry in which the job is found. For instance, a review of the on-the-job training category in the tables reveals: (1) these training programs are used most commonly for clerical vocations, and (2) the retail trade industry makes a greater numerical use of on-the-job training than any other major industry classification. This preponderance of "on-the-job training" in the clerical occupation is explained, in part, by a widespread use of this method for indoctrination and orientation of clerical workers in relationship to company policies and procedures. Training for these jobs is usually informal and of short duration. Similar conditions exist in the retail trade industry where a short training period, "because of the nature of the jobs," is sufficient.

The next most frequent major occupation with related "on-the-job training" is the semi-skilled group. These workers are found mostly in the manufacturing field where a more intensive training may be needed. The apprenticeship program, as would be anticipated, is found mainly in the skilled and semi-skilled categories (machinists, bricklayers, lathe operators, drill press operators, etc.) and these appear most often in the manufacturing and construction industries. Supplemental training, on the other hand, is generally distributed over most industrial and occupational classifications.

METHODOLOGY

LIBRARY

Iowa Employment Security Commission

1000 East Grand Avenue
Des Moines, Iowa 50319

Suggested Action for Improvement of the Work Force Skills

This study was made by use of a specially designed job analysis questionnaire. The survey included the entire universe of employees found in the Dubuque, Iowa, area. Data from employers with less than four employees were secured by mail and telephone contacts. Larger employers were contacted by specially trained interviewers. These interviewers were Dubuque teachers and college students on summer vacations. Before the interviewers contacted the employers they were given intensive training on the objectives of the survey as well as how to interpret the occupational data based on definitions in the Dictionary of Occupational Titles. The collection of data covered the period from July 15, 1957 through August 16, 1957. The interviews were spread over this entire period and the occupational data used were those found as of the date of the interview. The questionnaire asked for data on individual jobs by payroll title broken down by four age groups, entry requirements, plant training and if the position was an entry job. For the same job, hiring specifications were also requested indicating the acceptable age range, special training required and educational background needed. All data thus collected were edited, coded occupationally and then processed by IBM equipment. Tabulated data were sorted by various items and summaries and analyses were compiled to obtain the pertinent facts.

The data obtained in the survey provides information that will:

1. Assist the Dubuque Industrial Development Corporation in attracting new industries to the newly developed industrial area and for expansion of present industry.
2. Serve as a guide to school administrators in planning core curriculum.
3. Assist the school systems in establishing vocational guidance programs designed to develop the skills most needed in the area.
4. Provide employers with local occupational information such as:
(a) age of workers by occupation and industry (this is particularly significant in the shortage skill occupations); (b) facilities for pre-employment training skill development as found in local industry; (c) the commuting area of the Dubuque labor force.
5. Assist the local State Employment Service office to better serve the community by providing employment counselors with more adequate labor market information.

Organize a community Manpower Resources Committee. This committee to hold regularly scheduled conferences to discuss and plan the necessary action dealing with manpower problems. Some objectives that should be considered at these conferences are as follows:

I. To help forestall occupational shortages

- a. Utilize the present labor supply at its highest skill level.
- b. Study the personnel records of employees to locate workers with experience or potential ability for higher skilled jobs.
- c. Retrain the present labor supply whose jobs have been eliminated due to technological changes.
- d. Be more realistic in physical ability demands in hiring requirement; consider the individual job in place of the entire plant.
- e. Reduce non-performance occupational hiring requirements as to age, sex and race.

II. To encourage students to prepare for jobs in shortage occupations

- a. Develop local occupational guides for use by school and other vocational counselors.
- b. Emphasize vocational guidance in schools and public employment offices.
- c. Conduct plant visits and career days to assist students in making an occupational choice.
- d. Provide financial assistance to qualified student in the form of scholarships or loans.

III. To improve and expand community training facilities

- a. Develop a better understanding and greater use of the apprenticeship program.
- b. Promote cooperative training programs with the schools.
- c. Provide extension courses for employees which can be taken through State and private institutions of higher learning.
- d. Expand your school facilities by adding office, machine shop, woodshop and electronic equipment.

IV. To improve educational training programs

- a. Set up advisory groups of educational leaders with representatives of industry and labor.
- b. Assist in developing a well-balanced curriculum.
- c. Keep the schools informed of technical needs and techniques.

DUBUQUE SPONSORING ORGANIZATIONS

David Hartig, Pres., M. S. Engelbrecht, Exec. Sec., Chamber of Commerce.
Thomas Schmid, Chairman, Industrial Expansion Committee
Jack Garrett, Chairman, Retail Merchants Bureau
Thomas Stampfer, Pres., Dubuque Industrial Development Corporation
Thomas Luksetich, Pres., Junior Chamber of Commerce
Max Clark, Superintendent, Dubuque Public Schools
Msgr. Justin V. Driscoll, Chancery Office Director, Archdiocesan Bureau of Education
George B. Schumacher, Chairman, Industrial Relations Committee
H. J. Gill, Jr., Chairman, Manufacturers and Wholesalers Bureau
John G. Schneider, President, Management Club
John Sherman, President, Trades & Labor Council
Ken Rose, President, Rotary Club
Arthur Esslinger, President, Kiwanis Club
George Theis, President, Optimists Club
Charles E. Dove, Mayor of Dubuque
Gerry V. Grew, President, United Automobile Workers, CIO

PUBLICITY MEDIA

**Dubuque Telegraph Herald
Dubuque Leader
Radio Stations KPTH and WBDQ**

IOWA EMPLOYMENT SECURITY PERSONNEL

Claude Butler, Manager, Iowa State Employment Service
David H. Johnston, Chief, Research and Analysis Division
Henry L. Klinker, Supervisor, I.B.M.

DATE DUE

GAYLORD

PRINTED IN U.S.A.

**IOWA EMPLOYMENT SECURITY
COMMISSION**

K. A. Madigan, Chairman
Henry E. Carter, Vice-Chairman
Claude Stanley, Commissioner

Prepared by the Technical Services Division of the Iowa Employment Security Commission,
under the direction of George W. Moore, Chief, Employment Service Division

331.7

420

Iow

Iowa Employment Security Commission

AUTHOR

A Look at Dubuque Manpower

TITLE

Resources

DATE DUE

BORROWER'S NAME

STATE LIBRARY OF IOWA



3 1723 02109 5708