

THE EXTENT AND CHARACTER  
OF NEW KANSAS MANUFACTURING INDUSTRIES

by

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## INTRODUCTION

The economy of the State of Kansas just prior to 1939 was based primarily upon agriculture. The outbreak of World War II created a greater need for additional industries throughout the nation. Also there existed a need for the decentralization of the industries that had been developed in the East. This led to some movement to the South, Middlewest, and the West.

Previous to 1939, Kansas maintained many small industries such as hatcheries, bakeries, ice plants, and others. The United States Census of Manufacturers for 1931 reported 1,916 manufacturing establishments employing 47,373 workers in 1929.<sup>1</sup> In the 10 years following, there was a net decrease in manufacturing establishments so that in 1939 there existed 1,418 firms employing 30,935 workers.<sup>2</sup>

Since 1939, largely because of the state's interior location and the intense need for war material, a large number of firms began operations in Kansas. Many of these have ceased to exist; others have started; and several have moved into the state so that in 1947 the state had 1,946 establishments employing 74,624 workers, an increase of 528 establishments and 43,689 workers over that of 1939.<sup>3</sup>

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<sup>1</sup> Biennial Census of Manufacturers 1931, United States Department of Commerce, Bureau of the Census, Table on p. 1214.

<sup>2</sup> United States Census of Manufacturers 1947; Kansas. United States Department of Commerce, Bureau of the Census, p. 3, Table 3.

<sup>3</sup> Loc. cit.

The creation of new job opportunities will certainly have some effect on the state's predominate agricultural economy that has existed in the past. It is still too early to decide to what extent the new industries will provide Kansas with a balanced industrial and agricultural economy. Further time must pass and further readjustments must occur before any definite conclusions can be made. In the meantime, these new industries should be investigated to determine their extent within the state and to discover their characteristics. The data presented here are an attempt to describe these new manufacturing industries in Kansas.

#### OBJECTIVES

It is the purpose of this paper to present data which relate to the extent and character of new industries which began operations in Kansas from 1940 to 1949. The secondary objectives to be developed are:

1. To determine the rate of increase of new firms entering the field.
2. To determine the ownership and the source of funds.
3. To determine the amount of employment relative to organization, types, and to the total amount for the industry.
4. To determine some of the major reasons for plant location.
5. To determine the percent of sales made within the state, outside of the state, and in foreign countries.



## METHODS AND PROCEDURE

A survey was made of all manufacturing firms known to have begun operations between January 1, 1940 and July 1, 1949. A postcard questionnaire (Appendix) was used to obtain the desired information. The questions asked were worded so as to make answering easy and without reference to files.

Questionnaires were sent to all new manufacturing firms located by the Kansas Industrial Development Commission. In cases where firms did not reply, a second, and if necessary, a third questionnaire was sent. The first mailing of 503 questionnaires resulted in a return of 160. On the second mailing, 87 replied and on the third, 44 replied. Using 1949 employment as an indication of firm size, the average employment in each of the three returns was 41, 19, and 50, respectively. For the entire survey, a return of 57.8 percent was obtained.

The data presented here are divided according to industrial groups such as Food and Kindred Products; Lumber and Wood Products; Furniture and Fixtures; Printing, Publishing, and Allied Products; Petroleum and Coal Products; and others. Then for each industry group, the following characteristics are presented: Rate of increase in number of firms, forms of organization, ownership and source of funds, employment, plant locations, and sales.

## SCOPE AND LIMITATIONS

The survey of new firms covered the State of Kansas and included only those firms that began operation between January 1, 1940 and July 1, 1949.

In order to secure the cooperation of a large number of firms, the questionnaire was made as brief as possible, yet detailed enough to obtain the desired information. Many points could have been investigated more thoroughly but it wasn't practical because it would have decreased the number of replies.

The data presented here are based on the reports of 291 firms.

## REVIEW OF LITERATURE

In the past, little has been written on the specific topic of this paper; however, closely related writings have been published by the Bureau of Business Research at the University of Kansas.

The Bureau has published a series of bulletins, parts of which touch upon the points covered in this paper. The information set forth in the bulletins was based, in many cases, on surveys which were taken over different periods of time and included a different coverage than what is presented here.

Waters, in a bulletin concerned with Kansas manufacturing during the war, presented the results made of a survey of all

manufacturing firms in existence prior to 1945.<sup>4</sup> The bulletin contained, by industry groups, the number of firms in 1940 and 1944, the failures during the same period, the closures and causes of closures along with the status of closures. Charts showing employment and wages were presented also.

Another of these bulletins was based on a survey of the state's resources in relation to opportunities for manufacturing.<sup>5</sup> The information in the bulletin was based upon 1940 statistics showing the relative position of Kansas as compared with other states. Possible future industries in the state were discussed along with their use of raw material and labor.

Other bulletins were written on the feasibility of clothing manufacture<sup>6</sup> and leather tanning industries.<sup>7</sup> One was devoted to the possibilities of the clay products industry.<sup>8</sup> Others included

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<sup>4</sup> L. L. Waters, "Kansas Manufacturing in the War Economy", Industrial Research Series Number 4, Lawrence: University of Kansas Publications 1945.

<sup>5</sup> Walter A. Bowers, "Industrial Development in Kansas", Industrial Research Series Number 13, Lawrence: University of Kansas Publications 1948.

<sup>6</sup> Clarence M. Mollett, "The Feasibility of Expansion of Clothing Manufacturing in Kansas", Industrial Research Series Number 12, Lawrence: University of Kansas Publications 1948.

<sup>7</sup> R. W. Pfouts, "The Feasibility of the Leather Tanning and Shoe Industries in Kansas", Industrial Research Series Number 8, Lawrence: University of Kansas Publications 1947.

<sup>8</sup> Edward V. Kruger, "The Outlook for Kansas Clay Products Industries", Industrial Research Series Number 1, Lawrence: University of Kansas Publications 1940.

one on postwar employment<sup>9</sup> and another on the future of industry in the Midwest.<sup>10</sup>

#### FOOD AND KINDRED PRODUCTS

##### Rate of Increase in Number of Firms

At least 116 establishments began operations in this industry group during the period from January 1, 1940 to July 1, 1949. The net change in number of firms was a decrease of 11 during the period from 1939 to 1947, according to the 1947 Census of Manufacturers.<sup>11</sup>

Of the 116 firms surveyed in this group, 60 reported, which is the largest number reported in any of the industry groups. As indicated in Table 1, firms beginning operations decreased in 1942, probably because of unavailable raw materials and war-time conditions. An increase was evident thereafter and reached a peak in 1946 due to the intensified war effort and to a return to supplying consumer needs. Thereafter the number of starting firms dropped, possibly because of overcrowding in the industry. The increase in the first half of 1949 was likely due to optimistic

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<sup>9</sup> L. L. Waters, "Postwar employment in Kansas", Industrial Research Series Number 5, Lawrence: University of Kansas Publications 1945.

<sup>10</sup> Arthur E. Inman, "The Future of Industrialization and Research in Kansas and the Midcontinent Area", Industrial Research Series Number 14, Lawrence: University of Kansas Publications.

<sup>11</sup> United States Census of Manufacturers 1947: Kansas, United States Department of Commerce, Bureau of the Census, p. 3, Table 3.

forecasts of economic conditions, large profit margins in processing industries, continued government support of many agricultural products, and the increased demands of the consuming public in maintaining a higher standard of living.

#### Forms of Organization

Single proprietorships were in the minority, there being nearly twice as many partnerships and over three times as many corporations. The majority of the proprietorships began operations in 1945 and 1946 as indicated in Table 1. These proprietorships had an average of four employees each in 1947 and 1949, indicating that all were of relatively small size.

Partnerships also were started largely in the years 1945 and 1946. Their average employment for the year 1947 was 12 for each firm, indicating firms of a larger size than for proprietorships. The largest number of these firms were producing dehydrated alfalfa meal, a relatively new product.

Corporations formed the largest group in this industry with the largest number starting in 1946. They employed an average of 40 workers in 1947 and 17 in 1949. Of this number of corporations, only four were branch plants and four others were subsidiaries.

Table 1. Form of organization relative to the year started for firms in food and kindred products industry.

Year	Proprietor- ships	Partner- ships	Corpora- tions	Totals
1940	0	0	6	6
1941	0	1	5	6
1942	0	0	1	1
1943	1	1	0	2
1944	0	1	3	4
1945	3	5	3	11
1946	3	5	8	16
1947	2	2	3	7
1948	1	1	1	3
1949 (6 mos.)	0	1	4	5
Total	10	17	34	60

#### Ownership and Starting Funds

Of the 60 firms reporting, 75 percent were owned by Kansans when they began operations (Table 2). Correspondingly, 73 percent of these firms were started with Kansas funds. Only one firm stated that 50 percent of its capital came from outside the state. This may indicate that a substantial portion of the earnings in this industry remain or are spent within the state.

Table 2. Ownership and source of starting funds for firms in food and kindred products industry.

	: Kansas owners	: Non- Kansans owners	: Both	: Kansas funds	: Non- Kansans funds	: Both
Proprietorships	8	2	0	8	2	0
Partnerships	14	2	0	14	2	0
Corporations	22	12	0	22	11	1
Total	44	16	0	44	15	1



## Employment

The Census of Manufacturers for 1947 reports an increase of 12,639 employees since 1939 in this industry group.<sup>12</sup> The 53 reporting firms in the survey reported 1,620 employees in 1947. Of the total 719 firms reported for the industry group by the Census of Manufacturers, the firms cooperating in the survey represent approximately 7 percent and employ about 6 percent of the total employment in the industry. As of July 1, 1949, the 60 reporting firms indicated an employment of 1,527, which is slightly less than that for 1947 even though there was an increase in the number of firms. For 1947 the reporting firms had an average employment of 30. The reporting firms of 1949 had an average employment of 25. This decrease, though small, is explained by the probable postwar readjustments within the industry group. For 1949 the majority of firms had less than 15 employees each. Only two firms reported an employment of over 100 (Table 3).

The 34 corporations employed 1,286 employees as of July 1, 1949; whereas the 16 partnerships employed 196 and the 10 proprietorships employed only 45.

Only 17 new firms in this industry group employed a total of 42 college graduates in 1949; 36 in corporations, 5 in partnerships, and 1 in a proprietorship. The remaining 43 firms either had none or were unaware of it.

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<sup>12</sup>

Loc. cit.

Table 3. Size of employment in 1949 by groups for firms in food and kindred products industry.

Employees	:	Number of firms
0 to 4		12
5 to 9		14
10 to 14		8
15 to 19		4
20 to 24		5
25 to 29		5
30 to 34		1
35 to 39		1
40 to 44		1
45 to 49		1
50 to 54		1
55 to 59		0
60 to 64		3
65 to 69		2
170 to 174		1
325 to 329		1

#### Plant Location

Available raw materials and available labor supply were the two factors indicated most often as having influenced the location of plants in this industry group (Table 4).

Over 63 percent of the firms indicated that availability of raw materials was a factor in plant location. The very nature of the industry would indicate that available raw materials should be a major factor but only 35 firms or 58 percent of the total reporting firms indicated that available raw material was a major factor. The raw materials used by these firms included alfalfa, milk, grains, sugar, fresh vegetables, and eggs; most of these are raw materials peculiar to the state. A large number (12) re-

ported the use of alfalfa, which indicates an increase in dehydrating plants throughout the state.

Table 4. Factors affecting plant location for firms in food and kindred products industry.

Factors	: Number of firms
Available raw materials	38
Available labor supply	16
Low cost labor	3
Low cost taxes	4
Low cost rent	3
Low cost power	7
Other	19
No indication	6

The 16 firms indicating available labor supply as a factor in plant location employed 837 workers in 1947 or 51.6 percent of the total reported employment. In 1949, 16 reporting firms employed 758 workers or 49.6 percent of the total reported employment. This may well indicate that these 16 firms started operation in their respective localities because of the abundant supply of labor in each.

The other reasons given for plant location were varied. The availability of the physical plant was an important factor in many cases as indicated by eight reporting firms. Four firms indicated available markets as a factor and two firms stated that the residence of the owners was important. Residence was seemingly of less importance in this industry group than it was in others.

Labor cost, rent, and taxes were of minor importance in de-

riding location. Power cost was slightly more important but was not a major item due to the general availability of relative low cost power throughout the state.

### Sales

Of total proprietorship sales made in this industry group, 99 percent were made within the state and 1 percent was made outside the state. The small amount of sales made outside of the state may be attributed to the small size of proprietorship firms. Their lack of capital makes it impossible for them as a group to hold extensive markets.

Of total partnership sales, 59.9 percent were made intrastate and 40.1 percent were made interstate; whereas corporate sales were 58.8 percent within the state and 41.2 percent outside of the state.

For the entire industry group on the basis of 55 reporting firms, 65.8 percent of total sales were made within the state and 34.2 percent were made out-of-state.

### APPAREL AND RELATED PRODUCTS

#### Rate of Increase in Number of Firms

The 1947 Census of Manufacturers indicated a net increase of 35 firms over what existed in 1939 for this industry group.<sup>13</sup> Of the 24 firms surveyed in this group, only 11 reported.

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<sup>13</sup> Loc. cit.

There was little variation in the rate of increase, the largest number began operations in early 1949 (Table 5). Otherwise the reporting firms increased at a rate of about one each year. Two branch plants were reported.

#### Forms of Organization

Corporations accounted for 64 percent of all reporting firms. Proprietorships and partnerships were the same in number and make up the remaining 26 percent. The two proprietorships began operations in 1941 and 1942. The two partnerships began in 1945 and 1946 whereas the corporations were more consistent in their rate of increase throughout the period (Table 5).

Table 5. Form of organization relative to the year started for firms in apparel and related products industry.

Year	: Proprietor- : ships	: Partner- : ships	: Corpora- : tions	: Total
1940	1	0	1	2
1941	1	0	0	1
1942	0	0	0	0
1943	0	1	1	1
1944	0	1	0	1
1945	0	0	0	1
1946	0	0	1	1
1947	0	0	1	0
1948	0	0	0	3
1949 (6 mos.)	0	0	3	1
Total	2	2	7	11

#### Ownership and Starting Funds

Of the 11 reporting firms, 7 or 63.6 percent were owned by Kansans when they started, and all of their capital came from

Kansas funds (Table 6).

Table 6. Ownership and source of starting funds for firms in apparel and related products industry.

	: : Kansas : owners	:Non- :Kansas :owners	: : Both	: : Kansas : funds	:Non- :Kansas : funds	: : Both
Proprietorships	1	1	0	1	1	0
Partnerships	2	0	0	2	0	0
Corporations	4	3	0	4	3	0
Total	7	4	0	7	4	0

#### Employment

Of the 11 firms cooperating in this survey, 7 reported an employment of 512 in 1947. These firms represent 20 percent of the net increase in establishments in the industry between 1939 and 1947 as reported by the 1947 Census of Manufacturers.<sup>14</sup> These firms had about 2 percent of the net increase in employment during the same period. The increase in employment during the 1939-1947 period was considerable so that employment in 1947 was over 5 times as great as it was in 1939. In the first half of 1949, the employment in the 10 reporting firms rose to 834 or an increase of 61 over the 1947 level.

In 1947 the reporting proprietorships and partnerships had 9 and 3 employees respectively while corporations employed 500. Employment in partnerships and proprietorships remained the same

<sup>14</sup> Loc. cit.



in 1949 while corporate employment increased to 823, an increase of 64 percent of the 1947 level. Reporting firms employed an average of 83 in 1949 but grouping was varied (Table 7).

Only corporations employed college graduates and the 10 graduates reported were employed by two firms.

Table 7. Size of employment in 1949 by groups for firms in apparel and related products industry.

Employees	Number of firms
0 to 4	2
5 to 9	1
25 to 29	1
65 to 69	2
80 to 84	1
175 to 179	1
200 to 204	1
210 to 214	1

#### Plant Location

None of the reporting firms indicated available raw materials as a factor in deciding plant location. The industry nearly tripled in size between 1939 to 1947<sup>15</sup> despite the fact that the sources of raw material lie outside of the state. This phenomenal increase suggests that Kansas might possibly support many more such industries.

Available labor supply was indicated most often as the reason for plant location (Table 8). Low cost labor was the second reason most frequently indicated. In 1947 the 4 reporting firms

<sup>15</sup> Loc. cit.

indicating available labor supply employed 435 workers or 85 percent of the total employed by the reporting firms. In 1949, 6 firms indicating available labor supply employed 732 or 87 percent of the total employed by reporting firms.

Table 8. Factors affecting plant location for firms in apparel and related products industry.

Factors	: Number of firms
Available raw materials	0
Available labor supply	6
Low cost labor	4
Low cost taxes	1
Low cost rent	4
Low cost power	0
Other	5
No indication	1

In 1949 the 4 firms indicating low cost labor as a factor in plant location employed 46 percent of the total reported employment. It is evident that available labor supply and low cost labor were major factors in locating these firms within the state.

The other reasons given for plant location included available markets, available transportation, residence of owners, and available plants. Also there was some indication that low taxes may have been of some importance to a few firms.

#### Sales

On the basis of 8 reporting firms, intrastate sales accounted for 21.8 percent of total sales while sales made outside of the state accounted for 77.6 percent and foreign sales 0.6 percent.

The 2 proprietorships divided their sales almost evenly between intrastate and interstate. The 5 corporations made practically all of their sales out-of-state.

#### LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE

##### Rate of Increase in Number of Firms

Of the 31 firms surveyed in this group, 18 cooperated. A net increase of 8 firms in this group during the 1939-1947 period was indicated by the 1947 Census of Manufacturers.<sup>16</sup> Sixteen of the cooperating firms were in existence in 1947. This number represents 35 percent of all firms in existence at that time.

Table 9. Forms of organization relative to the year started for firms in lumber and wood products industry.

Year	:Proprietor- :ships	: Partner- : ships	: Corpora- : tions	: Total
1940	0	0	0	0
1941	1	0	0	1
1942	0	0	0	0
1943	1	0	0	1
1944	2	1	0	3
1945	3	0	2	5
1946	0	0	3	3
1947	0	3	0	3
1948	1	0	0	1
1949 (6 mos.)	1	0	0	1
Total	9	4	5	18

Few firms started operations until the war effort was at a peak in 1944 and 1945 as indicated in Table 8. Since then fewer

<sup>16</sup> Loc. cit.

firms have started, which suggests that the war was primarily responsible for the entry of these firms. Due to the large number of single proprietorships, it is evident that large amounts of beginning capital were not essential. Two branch plants were reported.

#### Forms of Organization

This is one industry group where it seems profitable for proprietorships since they number as many as the other two forms of organization combined (Table 8). Also proprietorships were rather consistent in their rate of increase during the 1939-1949 period whereas the other two forms of organization did not appear until late in the period.

#### Ownership and Starting Funds

Eighty-three percent of the reporting firms were started with Kansas funds whereas 78 percent were owned by Kansans. All of the proprietorships were owned by Kansans and were started with Kansas funds. Corporations were divided about evenly on both points as indicated in Table 10.

Table 10. Ownership and source of starting funds for firms in lumber and wood products industry.

	: : Kansas : owners	:Non- : Kansas : owners	: : Both	: : funds	:Non- : Kansas : funds	: : Both
Proprietorships	8	1	0	9	0	0
Partnerships	3	1	0	3	1	0
Corporations	3	2	0	3	2	0
Total	14	4	0	15	3	0

#### Employment

The 13 firms reporting in 1947 employed 286 workers or about 31 percent of the number employed in the entire industry group.<sup>17</sup> The 17 reporting firms in 1949 reported an employment of 112 or an average of 6 each. This was a considerable drop from the 1947 level, probably due to readjustments resulting from the war.

Table 11. Size of employment in 1949 by groups for firms in lumber and wood products industry.

Employees	: Number of firms
0 to 4	8
5 to 9	4
10 to 14	3
15 to 19	1
20 to 24	1

The majority of firms employed less than 10 workers each, the largest firm employed 20 as indicated in Table 11. Despite

<sup>17</sup> Loc. cit.

the relatively large number of proprietorships, the corporations employed the majority of workers - 222 in 1947 and 62 in 1949. At the same time, proprietorships and partnerships managed to retain the majority of their workers since 1947, the major cut being in corporate employment.

Only five firms in this group reported the employment of college graduates in 1949. These five firms employed a total of eight graduates; one in a proprietorship, four in partnerships, and three in corporations.

#### Plant Location

Available raw materials and available labor supply were the two factors indicated most often as factors affecting plant location (Table 12).

Table 12. Factors affecting plant location for firms in lumber and wood products industry.

Factors	: Number of firms
Available raw material	4
Available labor supply	5
Low cost labor	1
Low cost taxes	1
Low cost rent	2
Low cost power	1
Other	5
No indication	5

The 5 firms indicating available labor supply as a factor in determining plant location employed 190 workers or 66 percent of the total employment for the reporting firms in 1947. In 1949



these 5 firms had 61 percent of the total employment in the reporting firms.

The other factors indicated were of minor importance. Residence of owners and distribution centers were given as the other factors affecting location.

#### Sales

The 15 reporting firms indicated that 69.8 percent of their sales were made within the state and 30.2 percent were made out-of-state. Corporations made the major portion of their sales (82 percent) outside of the state. The other firms sold largely within the state.

#### FURNITURE AND FIXTURES

##### Rate of Increase in Number of Firms

Of the 23 firms surveyed in this industry group, 16 cooperated. The 1947 Census of Manufacturers reported a total of 45 firms in the industry in 1947.<sup>18</sup> Fifteen of the firms surveyed were operating in 1947, which means that one-third of the total firms in the entire industry began operations during the period from 1939 to 1947. New firms did not enter the industry until 1945 as stated in Table 11. Then the increase was constant through 1947, tapering off thereafter. The obvious conclusion is that these firms started producing war material and were success-

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<sup>18</sup> Loc. cit.

ful in their reconversion. No branch plants were reported.

#### Forms of Organization

Table 13. Forms of organization relative to the year started for firms in furniture and fixtures industry.

Year	:Proprietor- :ships	: Partner- : ships	: Corpora- : tions	: Total
1940	0	0	0	0
1941	0	0	0	0
1942	1	0	0	1
1943	0	0	0	0
1944	0	0	0	0
1945	4	1	0	5
1946	0	2	2	4
1947	0	2	3	5
1948	0	0	0	0
1949 (6 mos.)	0	1	0	1
Total	5	6	5	12

This is one industry where the number of firms were split almost evenly among the three types of organization. Firms in all three organizational types started almost entirely during the three-year-period from 1945 to 1947 (Table 13). The four proprietorships which started during 1945 were likely the result of war contracts. This suggests that in the following two-year-period, small profits were not attractive to new firms or sufficient capital wasn't available.

#### Ownership and Starting Funds

Of the 16 reporting firms, 81 percent were owned by Kansans when they began operation and 70 percent were begun with Kansas funds (Table 14).

Table 14. Ownership and source of starting funds for firms in furniture and fixtures industry.

	: : Kansas : owners	:Non- :Kansas :owners	: : Both	: : :	: : Kansas :funds	:Non- :Kansas :funds	: : Both
Proprietorships	5	0	0	:	4	1	0
Partnerships	3	3	0	:	2	4	0
Corporations	5	0	0	:	5	0	0
Total	13	3	0	:	11	5	0

#### Employment

The 15 firms reporting in 1947 employed 102 workers or only about 10 percent of the total employment for the industry as reported by the 1947 Census of Manufacturers.<sup>19</sup> This small number is the result of the failure of foreign corporations to cooperate in the survey. The 16 firms reporting in 1949 employed 206 workers or an approximate average of 13 each. One-half of the firms employed less than 10 workers each as indicated in Table 15.

Table 15. Size of employment in 1949 by groups for firms in furniture and fixtures industry.

Employees	: :	Number of firms
0 to 4	:	4
5 to 9	:	5
10 to 14	:	4
15 to 19	:	2
20 to 24	:	1

<sup>19</sup> Loc. cit.

Corporations had approximately one-half of the total employment reported in 1947. In 1949 corporate employment was only 23 percent of the total while partnerships led with 60 percent.

Seven firms reported a total of 15 college graduates in 1949. Approximately half of the reporting firms employed these graduates.

#### Plant Location

Table 16. Factors affecting plant location for firms in furniture and fixtures industry.

Factors	: Number of firms
Available raw materials	1
Available labor supply	2
Low cost labor	0
Low cost taxes	1
Low cost rent	1
Low cost power	1
Other	10
No indication	2

Neither raw material source nor available labor supply contributed to the decisions to locate plants in this industry. Again residence of owners played a leading role. Other reasons included residential location, market center, lack of competition, rail transportation, and demand for products.

#### Sales

Seventy-five percent of the sales in this group were made within the state, the remaining 25 percent were made out-of-state.

Out-of-state sales accounted for 12 percent of proprietorship sales, 86 percent of partnership sales, and 35 percent of corporate sales.

#### PAPER AND ALLIED PRODUCTS

There was only one firm surveyed in this group and this one cooperated. Information is withheld to avoid disclosing characteristics of this firm.

#### PRINTING, PUBLISHING, AND ALLIED INDUSTRIES

##### Rate of Increase in Number of Firms

Of the 12 firms surveyed in this group, 10 cooperated. This represents but a small portion of the net increase of 232 firms indicated by the 1947 Census of Manufacturers.<sup>20</sup> One-half of the reporting firms began operation during 1946 and 1947. The average rate of increase was about one each year. Two branch plants were reported.

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<sup>20</sup> Loc. cit.

## Forms of Organization

Table 17. Form of organization relative to year started for firms in printing and publishing industry.

Year	:Proprietor- :ships	: Partner- : ships	: Corpora- : tions	: Total
1940	0	0	0	0
1941	0	0	0	0
1942	1	0	0	1
1943	0	0	2	2
1944	0	1	0	1
1945	0	0	0	0
1946	2	0	0	2
1947	0	1	2	3
1948	0	0	0	0
1949 (6 mos.)	1	0	0	1
Total	4	2	4	10

## Ownership and Starting Funds

Eight of the 10 reporting firms were owned by Kansans when they began operations and were started with Kansas funds. Only two firms were begun with out-of-state capital (Table 18).

Table 18. Ownership and source of starting funds for firms in printing, publishing, and allied industries.

	: Kansas : owners	: Non- : Kansas : owners	: Both	: Kansas : funds	: Non- : Kansas : funds	: Both
Proprietorships	4	0	0	2	0	0
Partnerships	2	0	0	2	0	0
Corporations	2	2	0	2	2	0
Total	8	2	0	6	2	0



## Employment

The 9 reporting firms in 1947 employed 231 workers. These firms represented but 2 percent of all firms in the group, and employed but 4 percent of the total group employment in 1947.<sup>21</sup>

In 1947, the reporting firms had an average employment of 25 as compared with an average of 13 for the entire group. The 10 reporting firms in 1949 had an average of 30 employees each. This indicates that the industry may well be expanding even beyond that reported in 1947.

Table 19. Size of employment in 1949 by groups for firms in printing, publishing, and allied industries.

Employees	:	Number of firms
0 to 4		5
5 to 9		1
25 to 29		1
40 to 44		1
50 to 54		1
160 to 164		1

Of the reporting firms, one-half had less than five employees each in 1949; however, there was progressively higher employment in the remaining half of the reporting firms (Table 19). Reporting corporations employed practically all of the workers in this group - 93 percent in 1947 and 92 percent in 1949.

Five firms in this group reported the employment of five college graduates.

<sup>21</sup> Loc. cit.

## Plant Location

Table 20. Factors affecting plant location for firms in printing, publishing, and allied industries.

Factors	: Number of firms
Available raw material	1
Available labor supply	4
Low cost labor	2
Low cost taxes	0
Low cost rent	2
Low cost power	2
Other	5
No indication	0

Only one firm reported that available raw material was a major factor in plant location. Available labor supply was the factor most often indicated (Table 20), and the firms indicating this factor employed 70 percent of the reported employment in 1949.

Other factors of equal importance that influenced plant location included good market locations, residence, and central locations.

## Sales

The eight firms reporting sales sold 74.15 percent within the state, 25.5 percent out-of-state and nonforeign. Proprietorships made 98 percent of their sales within the state while partnerships made 25 percent, and corporations 60 percent.

## CHEMICALS AND ALLIED PRODUCTS

## Rate of Increase in Number of Firms

Of the 21 firms surveyed in this group, 15 replied. For the whole industry group, the 1947 Census of Manufacturers reports a net increase of 40 establishments over the 1939 level.<sup>22</sup> The 15 reporting firms represent about 20 percent of the total 73 establishments in the group in 1947.<sup>23</sup> Firms in this group started at a fairly constant rate each year from 1940 through 1947, after which no firms reported (Table 21). Three branch plants were reported.

## Forms of Organization

Table 21. Forms of organization relative to year started for firms in chemicals and allied products industry.

Year	Proprietor- :ships	Partner- : ships	Corpora- : tions	Total
1940	0	1	0	1
1941	0	0	3	3
1942	0	0	1	1
1943	0	0	2	2
1944	0	1	1	2
1945	0	2	0	2
1946	0	0	1	1
1947	0	1	2	3
1948	0	0	0	0
1949 (6 mos.)	0	0	0	0
Total	0	5	10	15

<sup>22</sup> Loc. cit.

<sup>23</sup> Loc. cit.

In this reporting group, not one proprietorship began operations during the period covered. Corporations outnumbered partnerships two to one and were many times larger than proprietorships (Table 21).

#### Ownership and Starting Funds

Nine firms reported Kansas owners when started and nine firms reported the use of Kansas funds in capitalization (Table 22).

Table 22. Ownership and source of starting funds for firms in chemicals and allied products industry.

	: : Kansas : owners	:Non- :owners	: : Both	: : Kansas : funds	:Non- :funds	: : Both
Proprietorships	0	0	0	0	0	0
Partnerships	2	2	0	2	2	1
Corporations	7	3	1	7	2	1
Total	9	5	1	9	4	2

#### Employment

The employment in 15 reporting firms in 1947 for this group was 1,910 and in 1949 it was 1,512, an approximate 20 percent decrease since 1947. The 15 firms in 1947, representing about 20 percent of the total establishments in the industry, employed about 37 percent of the 5,134 employed in the entire group at that time.<sup>24</sup> The average employment in the reporting firms in 1947 was 127 as compared with an average of 69 for the entire group. The

<sup>24</sup> Loc. cit.

majority of firms has had less than 30 employees each in 1939. Only 1 had over 1000 as indicated in Table 23.

Table 23. Size of employment in 1949 by groups for firms in chemical and allied products industry.

Employees	:	Number of firms
0 to 4		5
10 to 14		1
15 to 20		1
25 to 29		3
30 to 34		2
100 to 104		1
150 to 154		1
1,100 to 1,104		1

Corporations employed 1,474 workers in 1949. Five partnerships employed the remaining 38, indicating that firms of large size were of the corporate form organization.

Ten firms reported a total of 37 graduates, which is a relatively large number compared with other industry groups.

#### Plant Location

Available raw material was a relatively important factor in plant location for the reporting firms. Of the seven firms indicating this factor, three stated it to be a major factor (Table 24). The three indicating this to be a major factor used soybeans and grains; others used air and carbide, oil, Pyrethum, Freon, natural gas, coal, and phosphate.

Table 24. Factors affecting plant location for firms in chemical and allied products industry.

Factors	: Number of firms
Available raw material	7
Available labor supply	5
Low cost labor	3
Low cost taxes	1
Low cost rent	1
Low cost power	1
Other	7
No indication	0

Available labor supply was the second most often indicated factor. Of the 5 firms indicating this factor (Table 24), the low cost of labor was important to only 2. Employment in these 5 firms was only 12.6 percent of the total employment reported. If the 1 firm reporting employment of over 1,000 be omitted, then the percentage rises to 46.1 percent.

Other reasons indicated included available plant, residence, ownership of building site, transportation facilities, and need for product.

#### Sales

On the basis of 15 firms reporting sales, 39 percent were made within the state, 60.4 percent were made outside of the state, and 0.6 percent were foreign.

No proprietorships reported sales in this group. Thirty-eight percent of partnership sales were made within this state as compared with 39 percent of corporate sales made within the state.



## PETROLEUM AND COAL PRODUCTS

## Rate of Increase in Number of Firms

The 1947 Census of Manufacturers reports 34 firms in this group but no net change during the 1939-1947 period.<sup>25</sup> Of the 7 firms surveyed in this group, 5 cooperated. Of these 5, 1 began operations each year from 1943 through 1945 and 4 began in 1946. One branch plant and 1 subsidiary were reported.

## Form of Organization

Corporate form of organization was present in all firms cooperating in the survey.

## Ownership and Starting Funds

Two of the 5 firms reported Kansas owners when they started operation. Only 1 firm reported half of its owners were Kansas residents while the other 2 firms indicated all of their owners were from out-of-state (Table 25). The same distribution applies to the source of starting funds.

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<sup>25</sup> Loc. cit.

Table 25. Ownership and source of starting funds for firms in petroleum and coal products industry.

	: : Kansas : owners	:Non- :Kansas :owners	: : Both	: : Kansas : funds	:Non- :Kansas :funds	: : Both
Proprietorships	0	0	0	0	0	0
Partnerships	0	0	0	0	0	0
Corporations	2	2	1	2	2	1
Total	2	2	1	2	2	1

#### Employment

The five reporting firms had an employment of 1,041 in 1947 and again in 1949. This figure represents 23 percent of the total group employment in 1947. The reporting firms represent 15 percent total establishments in the group in 1947 as reported by the 1947 Census of Manufacturers.<sup>26</sup>

Three of the reporting firms had less than 20 employees each while the remaining two had nearly 500 each.

Ten firms reported a total of 37 college graduates.

#### Plant Location

Again available raw material was the most often indicated reason for plant location (Table 26). All of these firms indicating it to be a major factor made use of natural gas, crude oil, and coal.

<sup>26</sup> Loc. cit.

Table 26. Factors affecting plant location for firms in petroleum and coal products industry.

Factors	: Number of firms
Available raw materials	3
Available labor supply	1
Low cost labor	0
Low cost taxes	0
Low cost rent	0
Low cost power	1
Other	3
No indication	0

Only one firm indicated available labor supply as a factor. This firm employed about 49 percent of the total reported employment.

Other reasons for plant location included available site and transportation facilities.

#### Sales

The five reporting firms in this group, all being corporations, made 45 percent of their sales within the state as compared with 53.8 percent outside of the state and 1.2 percent foreign.

#### RUBBER PRODUCTS

Only one firm in this group was surveyed and this one co-operated, but information is withheld to avoid disclosing the characteristics of this firm.

## LEATHER AND LEATHER PRODUCTS

## Rate of Increase in Number of Firms

Of the 5 firms surveyed in this group, 4 cooperated. One began operation in 1941 and the other 3 in 1947. The 1947 Census of Manufacturers reported a total of 10 firms in the group, a decrease of 8 over 1939.<sup>27</sup> The reporting firms represent 40 percent of the total establishments in this group in 1947. No branch plants were reported.

## Forms of Organization

Three of the reporting firms were single proprietorships which began operations in 1947. One was a corporation which began operations in 1949.

## Ownership and Starting Funds

Table 27. Ownership and source of starting funds for firms in leather and leather products industry.

	: : Kansas : owners	:Non- :Kansas :owners	: : Both	: : Kansas : funds	:Non- :Kansas : funds	: : Both
Proprietorships	1	-	-	1	-	-
Partnerships	-	-	-	-	-	-
Corporations	3	-	-	3	-	-
Total	4	-	-	4	-	-

<sup>27</sup> Loc. cit.

All firms in this industry group, regardless of form of organization, attribute their source of starting funds to Kansans as well as their ownership (Table 27).

#### Employment

The reporting firms employed 16 workers in 1947 and 20 in 1949. The employment of reporting firms in 1947 was but only 11.6 percent of the total group employment as reported by the Census of Manufacturers.<sup>28</sup> Three of these firms had less than 5 employees each. One had less than 15 employees.

Of the two college graduates reported, both were employed in the one proprietorship, none being employed by corporations.

#### Plant Location

Table 28. Factors affecting plant location for firms in leather and leather products industry.

Factors	Number of firms
Available raw material	1
Available labor supply	1
Low cost labor	1
Low cost taxes	0
Low cost rent	1
Low cost power	0
Other	2
No indication	0

No particular factor was indicated as being the most important in deciding plant location in this group; however, available

<sup>28</sup> Loc. cit.

raw material and labor were influential factors in at least two firms (Table 28). The other factors included Kansas invention and the attractive living offered by the area near the plant site.

#### Sales

Fifty-five percent of total sales for reporting firms were made within the state as compared with 45 percent out-of-state. Proprietorships made 26.6 percent of their sales outside of the state as compared with 99 percent for the one corporation.

#### STONE, CLAY, AND GLASS PRODUCTS

##### Rate of Increase in Number of Firms

Of the 48 firms surveyed in this group, 31 cooperated. These firms represent 24.2 percent of the total establishments in the groups in 1947 as reported by the Census of Manufacturers.<sup>29</sup> Also these reporting firms comprise 43.1 percent of the net increase reported for the period between 1939 and 1947.

The greatest number of firms began operations in 1946 and slightly fewer in 1947, still fewer in 1948 and 1949 (Table 29). This large increase in 1946 was undoubtedly due to the intense demand for building construction immediately following the end of hostilities. Of this number of reporting firms, one was a branch plant and one a subsidiary.

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<sup>29</sup> Loc. cit.



## Forms of Organization

Table 29. Form of organization relative to year started for firms in stone, clay, and glass products industry.

Year	:Proprietor- :ships	: Partner- : ships	: Corpora- : tions	: Total
1940	1	0	2	3
1941	0	0	0	0
1942	0	0	1	1
1943	1	0	0	1
1944	0	1	0	1
1945	2	0	1	3
1946	3	5	2	10
1947	3	1	3	7
1948	0	1	1	2
1949 (6 mos.)	1	2	0	3
Total	11	10	10	31

The three forms of organization were nearly equal in number. Each form had the largest number beginning operations in 1946 and 1947 (Table 29).

## Ownership and Starting Funds

Of the 31 reporting firms, 81 percent were owned by Kansans and attributed their source of starting funds to Kansas (Table 30).

Table 30. Ownership and source of starting funds for firms in stone, clay, and glass products industry.

	: Kansas : owners	: Non- : Kansas : owners	: Both	: Kansas : funds	: Non- : Kansas : funds	: Both
Proprietorships	10	1	0	10	1	0
Partnerships	9	1	0	9	1	0
Corporations	6	4	0	6	4	0
Total	25	6	0	25	6	0

## Employment

The 27 firms reporting employment in 1947 had a total of 498 workers which represented 26.4 percent of the net increase in employment during the 1939 to 1947 period, and 15.1 percent of total employment reported in 1947.<sup>30</sup> In 1949, 30 firms reported an employment of 650, or an average of 22 for each firm.

Table 31. Size of employment in 1949 by groups for firms in stone, clay, and glass products industry.

Employees	:	Number of firms
0 to 4		8
5 to 9		8
10 to 14		3
15 to 19		1
20 to 24		1
25 to 29		0
30 to 34		4
45 to 49		1
55 to 59		1
60 to 64		1
65 to 69		1
100 to 105		1

The majority of firms in this group had less than 10 employees. Only one had over 100 (Table 31).

Proprietorships employed 28.8 percent of the reported employment in 1947 as compared with 15.4 percent for partnerships and 57.8 percents for corporations. In 1949 the percentages were 34.2 for proprietorships, 11.8 percent for partnerships, and 54 percent for corporations.

<sup>30</sup> Loc. cit.

Ten firms reported the employment of 19 college graduates.

#### Plant Location

Table 32. Factors affecting plant location for firms in stone, clay, and glass products industry.

Factors	: Number of firms
Available raw material	16
Available labor supply	4
Low cost labor	3
Low cost taxes	0
Low cost rent	1
Low cost power	2
Other	12
No indication	0

Available raw material was again the most often indicated factor in plant location (Table 32). Available raw material was a major factor in deciding the location of 12 plants representing 39.3 percent of the reporting firms. The raw materials used included sand, gravel, cement; marble, clay, limestone, pumice, shale, and granite.

The four firms indicating available labor supply as a factor employed 63 percent of the total employment reported in 1949.

Other reasons for plant location included demand for product (seven firms), available plant, residence, available transportation, and central location in the United States.

#### Sales

Of total sales reported by 30 firms, 83 percent were made within the state as compared with 17 percent made out-of-state.

Eighty-six and eight-tenths percent of proprietorship sales were made within the state as compared with 96.6 percent for partnerships and 66.9 percent for corporations.

#### PRIMARY METAL INDUSTRIES

##### Rate of Increase in Number of Firms

Of the 15 firms surveyed in this group, 10 cooperated. The majority of these firms began operation in the period from 1945 through 1947 (Table 23), an average of about one each year. No branch plants were reported in this group.

##### Forms of Organization

Table 33. Form of organization relative to year started for primary metals industry.

Year	Proprietor- :ships	Partner- :ships	Corpora- :tions	Total
1940	1	1	0	2
1941	0	0	0	0
1942	1	0	0	1
1943	0	0	0	0
1944	0	0	0	0
1945	0	0	2	2
1946	0	0	3	3
1947	0	1	1	2
1948	0	0	0	0
1949 (6 mos.)	0	0	0	0
Total	2	2	6	10

Corporations were the most numerous of those forms reported. During the war and following, only one proprietorship and only one partnership began operations (Table 33).

### Ownership and Starting Funds

Of the 10 firms reporting in this group, 8 were owned by Kansans, 1 by non-Kansans, and 1 by both Kansans and non-Kansans. Source of starting funds follows the same distribution (Table 34).

Table 34. Ownership and source of starting funds for firms in primary metals industry.

	: : Kansas : owners	:Non- :Kansans :owners	: : : Both	: : : funds	:Non- :Kansans :funds	: : : Both
Proprietorships	2	-	-	2	-	-
Partnerships	2	-	-	2	-	-
Corporations	4	1	1	4	1	1
Total	8	1	1	8	1	1

### Employment

The 10 firms reporting in 1947 had an employment of 427 in 1949. The same firms had 380 employees.

Table 35. Size of employment in 1949 by groups for firms in primary metal industry.

Employees	: Number of firms
0 to 4	0
5 to 9	3
10 to 14	2
15 to 19	1
40 to 45	1
70 to 74	1
75 to 79	1
135 to 139	1

The largest number of firms had between 5 and 9 employees. The majority had less than 15 (Table 35). Five firms reported the employment of 16 college graduates.

#### Plant Location

Table 36. Factors affecting plant location for firms in primary metals industry.

Factors	Number of firms
Available raw materials	5
Available labor supply	7
Low cost labor	3
Low cost taxes	3
Low cost rent	3
Low cost power	4
Other	2
No indication	1

Available raw materials was an often indicated factor in plant location (Table 36) but not a single firm stated that it was a major factor. The raw materials used included non-ferrous metals, aluminum, gray iron, vermicillite ore, scrap iron, and pig iron.

The seven firms indicating the available labor supply factor employed 73 percent of total reported employment in 1947 and 75 percent of total employment reported in 1949.

Other reasons indicated in the survey were low cost sites and civic cooperation.



## Sales

The eight reporting firms made 67 percent of their sales within the state and 33 percent out-of-state.

The one proprietorship made all of its sales within the state. Eighty-four percent of partnership sales were made within the state and 53 percent of corporate sales were made within the state.

## FABRICATED METAL PRODUCTS

### Rate of Increase in Number of Firms

Forty-seven firms in this group were surveyed and 27 co-operated. The Census of Manufacturers reported a net increase of 47 firms in the period from 1939 to 1947.<sup>31</sup> The cooperating firms in this period represent 57.4 percent of this increase and 31.4 percent of the total firms in the industry in 1947.

The largest number of firms began operations in 1947. During the three-year-period from 1945 through 1947, 74 percent of the reporting firms began operations (Table 37). This may be attributed to an intensified war effort and to a return to consumer production. Two of the reporting firms were branch establishments. No subsidiary establishments were reported.

### Forms of Organization

Corporations outnumbered both of the other forms. Proprietor-

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<sup>31</sup> Loc. cit.

ships and corporations both had their greatest increase in the three-year-period from 1945 through 1947 (Table 37).

Table 37. Form of organization relative to the year started for firms in fabricated metal products industry.

Year	:Proprietor- :ships	: Partner- : ships	: Corpora- : tions	: Total
1940	1	0	0	1
1941	0	1	0	1
1942	0	0	0	0
1943	0	1	1	2
1944	0	0	1	1
1945	2	0	3	5
1946	1	0	4	5
1947	2	2	6	10
1948	0	1	1	2
1949 (6 mos.)	0	0	0	0
Total	6	5	16	27

#### Ownership and Starting Funds

Of the 27 reporting firms, 93 percent were owned by Kansans and 85 percent were started with Kansas funds. Only 2 firms were owned by non-Kansans whereas 4 were begun with non-Kansas funds (Table 38).

Table 38. Ownership and source of starting funds for firms in fabricated metal products industry.

	: Kansas : owners	:Non- :Kansans : owners	: Both	: Kansas : funds	:Non- :Kansans : funds	: Both
Proprietorships	6	0	0	5	1	0
Partnerships	5	0	0	5	0	0
Corporations	14	2	0	13	3	0
Total	25	2	0	23	4	0

## Employment

Twenty-four firms reported an employment of 469 in 1947 representing 17.3 percent of the net increase in employment between 1939 and 1947. In 1949, 25 firms reported an employment of 578, an increase of 23.3 percent over the reported level in 1947.

Table 39. Size of employment in 1949 by groups for firms in fabricated metal products industry.

Employees	:	Number of firms
0 to 4		4
5 to 9		6
10 to 14		2
15 to 19		4
20 to 24		3
25 to 29		1
40 to 45		1
55 to 60		1
60 to 64		2
130 to 134		1

The majority of the firms in this reporting group had an employment of less than 20 each. Only one firm had over 100 workers (Table 40). Corporate employment in 1947 was 76.3 percent of the total reported, and in 1949 it was 85.3 percent.

Thirteen firms reported a total of 35 college graduates, 8 in proprietorships, 3 in partnerships, and 24 in corporations.

### Plant Location

Available raw materials was an important factor in plant location in only four firms (Table 40), which indicated that aluminum and steel were their principal raw materials used. Only

three firms indicated this to be a major factor.

Table 40. Factors affecting plant location for firms in fabricated metal products industry.

Factors	: Number of firms
Available raw materials	4
Available labor supply	13
Low cost labor	4
Low cost taxes	2
Low cost rent	4
Low cost power	3
Other	11
No indication	1

The factor most often indicated was available labor supply (Table 40). The 13 firms indicating this factor employed 48.3 percent of the total employment reported in 1949.

Low cost rent, taxes, and power were indicated more often in this group than in others. No specific reason may be given for this except that power needs of this group are substantially greater than in most groups.

The other reasons indicated included residence (eight firms), available markets, and available transportation facilities.

#### Sales

This industry group is one of the few that sells mostly within the state. Of the total sales, 52.5 percent were made within the state, 47 percent outside of the state, and 0.5 percent foreign. Thirty-eight percent of proprietorship sales were made

outside of the state as compared with 24 percent for partnerships and 57 percent for corporations. All of the foreign sales were made by corporations.

#### NONELECTRICAL MACHINERY

##### Rate of Increase in Number of Firms

Eighty-five firms were surveyed in this group and 46 cooperated. The 1947 Census of Manufacturers reported a net increase of 91 firms since 1939.<sup>32</sup> The 39 cooperating firms in 1947 represented 42.8 percent of this net increase and 28.9 percent of the total firms in the industry group.

The reports of 46 firms in 1949 indicated a 17.9 percent increase in establishments since 1947. For the group, the average rate of increase for reporting firms during the 1939 to 1949 period was approximately five each year. The greatest number of firms beginning operation in any one year was in 1946 when 28.3 percent of all reporting firms began operations (Table 41). Only one branch plant was reported.

##### Forms of Organization

Again, corporations were the most numerous, with proprietorships next. The majority of all three types of organization began operations in the three-year-period from 1945 to 1947 (Table 41). This was likely the result of war production and the immediate return to civilian production.

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<sup>32</sup> Loc. cit.

Table 41. Forms of organization relative to year started for firms in nonelectrical machinery industry.

Year	Proprietor- ships	Partner- ships	Corpora- tions	Total
1940	1	0	0	1
1941	0	0	1	1
1942	3	0	1	4
1943	0	1	2	3
1944	0	1	1	2
1945	2	0	7	9
1946	5	2	5	12
1947	2	3	2	7
1948	1	1	4	6
1949 (6 mos.)	1	0	0	1
Total	15	8	23	46

## Ownership and Starting Funds

Of the 46 firms reporting, 42 were owned by Kansans. Forty-three firms were started with Kansas funds. Only four firms were owned by non-Kansans and only three of these attribute their starting funds to out-of-state sources (Table 42).

Table 42. Ownership and source of starting funds for firms in nonelectrical machinery industry.

	: : Kansas : owners	:Non- :Kansans : owners	: : Both	: :	: : Kansas : funds	:Non- :Kansans : funds	: : Both
Proprietorships	15	0	0	:	15	0	0
Partnerships	7	1	0	:	8	0	0
Corporations	20	3	0	:	20	3	0
Total	42	4	0	:	43	3	0



## Employment

The 44 firms reporting in 1947 had 961 employees. This represented 25 percent of the net increase in employment from 1939 to 1947. The 45 reporting firms in 1949 had an employment of 1,097 so that total employment had increased in the already existing firms since 1947.

Table 43. Size of employment by groups for firms in nonelectrical machinery industry.

Employees	: Number of firms
0 to 4	14
5 to 9	9
10 to 14	4
15 to 19	0
20 to 24	1
25 to 29	2
30 to 34	6
35 to 39	1
40 to 45	1
50 to 54	1
65 to 69	2
80 to 84	1
100 to 104	1
250 to 255	1

The majority of firms in this group had less than 15 employees each in 1949. Only two firms had over 100 employees (Table 43).

Corporate employment was larger than that for any other group. In 1947 it was 88 percent of the total employment reported and 88.4 percent in 1949.

Twenty-two firms reported a total of 56 college graduates, five in proprietorships, four in partnerships, and 47 in corpora-

tions.

### Plant Location

Table 44. Factors affecting plant for firms in nonelectrical machinery industry.

Factors	: Number of firms
Available raw materials	5
Available labor supply	22
Low cost labor	5
Low cost taxes	6
Low cost rent	7
Low cost power	1
Other	23
No indication	0

Available raw materials was a relatively unimportant factor in plant location. Only two firms indicated it to be a major factor. The principal raw material used was steel as indicated by 35 firms. The principal products were agricultural type machinery.

Again, available labor supply was the factor most often indicated as affecting plant location (Table 44). The 22 firms indicating available labor supply employed 44.7 percent of the total employment reported in 1949.

Other factors included residence (10 firms), plant availability, market center, need for product, local market, and less competition.

### Sales

Of the 45 firms reporting sales, 48.3 percent were made

within the state. Forty-eight and three-tenths were made out-of-state, and 3.1 percent foreign. Partnerships sold 52.5 percent out-of-state and 1 percent foreign. Corporate sales were 59.8 percent out-of-state and 4.2 percent foreign.

#### ELECTRICAL MACHINERY, EQUIPMENT, AND SUPPLIES

##### Rate of Increase in Number of Firms

Ten firms were surveyed in this group; seven cooperated. The majority of these seven began operations in 1946 and 1947. The average was not quite one firm each year during the 1939 to 1949 period.

One branch plant was reported but no subsidiary establishments.

##### Forms of Organization

Of the seven firms reporting, five were corporations, one a proprietorship, and one a partnership. Three of the corporations began operations during 1945 and 1946. The one partnership began in the same period and the one proprietorship started in 1947.

##### Ownership and Starting Funds

Of the seven reporting firms, four were Kansas owned. Three of these firms attributed their starting funds to Kansas sources (Table 45).

Table 45. Ownership and source of starting funds for electrical machinery, equipment, and supplies industry.

	: : Kansas : owners	:Non- :Kansas : owners	: : Both	: : : funds	:Non- :Kansas : funds	: : Both
Proprietorships	1	0	0	: 1	0	0
Partnerships	0	1	0	: 0	1	0
Corporations	3	2	0	: 2	3	0
Total	4	3	0	: 3	4	0

#### Employment

The six firms that began operations in 1947 or earlier reported an employment of 940 for that year. The seven existing firms in 1949 reported an employment of 718. These employment figures are high because of the large number employed (over 600 in 1949) in one firm. The majority of these firms had less than 15 workers each in 1949.

Over 94 percent of the reported employment in 1947 was in corporations. This amount fell slightly in 1949 to about 92 percent of the total reported employment.

Three firms reported eight college graduates in 1949. This is an approximate average of one each for the reporting firms.

#### Plant Location

Available raw materials were indicated to be a factor in plant location by only one firm and it was not a major factor (Table 46).

Table 46. Factors affecting plant location for firms in electrical machinery, equipment, and supplies industry.

Factors	Number of firms
Available raw material	1
Available labor supply	3
Low cost labor	2
Low cost taxes	2
Low cost rent	0
Low cost power	0
Other	1
No indication	2

Available labor supply was the factor indicated most often (Table 46). Those firms indicating this factor employed 93.3 percent of total reported employment in 1947 and 92.9 percent in 1949.

The raw material used included copper, cast iron, lead, and steel.

The other factor indicated was local demand.

#### Sales

Of total reported sales, 67 percent were made within the state, 33 percent outside of the state, and none foreign. The one proprietorship sold 20 percent out-of-state and the one partnership sold 80 percent out-of-state. The corporations made 24 percent of their sales out-of-state.

## TRANSPORTATION EQUIPMENT

## Rate of Increase in Number of Firms

Of the 28 firms surveyed in this group, 16 cooperated. The 1947 Census of Manufacturers reported a net increase of 29 establishments between 1939 and 1947.<sup>33</sup> The 14 firms reporting in the same period represent about one-half of the net increase and 37.9 percent of the total firms in the group.

The reporting firms in this group began operations at the rate of about two each year, the majority beginning during the period from 1946 through 1948 (Table 47). One branch plant was reported.

## Forms of Organization

Corporations outnumbered all other forms in this group. No more than one firm began operation in any one year in the proprietorship and partnership firms and no more than two in the corporate form (Table 47).

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<sup>33</sup> Loc. cit.



Table 47. Forms of organization relative to year started for firms in transportation equipment industry.

Year	:Proprietor- :ships	: Partner- : ships	: Corpora- : ations	: Total
1940	0	0	1	1
1941	0	0	1	1
1942	1	1	2	4
1943	0	0	0	0
1944	0	0	0	0
1945	0	0	1	1
1946	0	1	2	3
1947	1	1	2	4
1948	0	1	1	2
1949 (6 mos.)	0	0	0	0
Total	2	4	10	16

#### Ownership and Starting Funds

Of the 15 reporting firms, 14 attributed their ownership to Kansas as well as their source of starting funds (Table 48).

Table 48. Ownership and source of starting funds for firms in transportation equipment industry.

	: Kansas : owners	:Non- :Kansas :owners	: Both	: Kansas : funds	:Non- :Kansas : funds	: Both
Proprietorships	2	0	0	2	0	0
Partnerships	4	0	0	4	0	0
Corporations	8	1	1	8	1	1
Total	14	1	1	14	1	1

## Employment

Fourteen firms in 1947 reported an employment of 290. Sixteen firms in 1949 reported an employment of 514. This represents a substantial increase in employment over 1947 even though two firms were added.

Table 49. Size of employment in 1949 by groups for firms in transportation equipment industry group.

Employees	:	Number of firms
0 to 4		1
5 to 9		5
10 to 14		2
15 to 19		1
20 to 24		1
25 to 29		1
30 to 34		1
35 to 39		1
40 to 44		1
75 to 79		1
210 to 214		1

The majority of firms had less than 20 employees each in 1949. Only one reporting firm had an employment of over 100 (Table 49).

Again corporate employment was greater than any other. It was 72.9 percent of total reported employment in 1947 and 86.7 percent in 1949.

Eight firms reported the employment of 40 college graduates in 1949. This comparatively large number is probably due to the technical nature of the industry.

## Plant Location

Table 50. Factors affecting plant location for firms in transportation equipment industry.

Factors	: Number of firms
Available raw material	2
Available labor supply	7
Low cost labor	2
Low cost taxes	3
Low cost rent	2
Low cost power	1
Other	4
No indication	3

Available labor supply was the factor most often indicated (Table 50). Firms indicating this factor employed 45.4 percent of total reported employment in 1947 and 18.1 percent in 1949.

Other factors influencing plant location included residence of owners and central location.

## Sales

Of total reported sales in this group, 57.3 percent were made within the state, 42.6 percent outside of the state, and 0.1 percent were foreign. Forty-five percent of proprietorship sales were made out-of-state whereas partnerships made 33 percent and corporations made 46 percent out-of-state. The foreign sales were made by one corporation.

## PROFESSIONAL AND OTHER INSTRUMENTS

Only one firm reported, so information is withheld to avoid divulging characteristics of this firm.

## MISCELLANEOUS MANUFACTURING INDUSTRIES

## Rate of Increase in Number of Firms

Of the 27 firms surveyed in this group, 12 cooperated. The 1947 Census of Manufacturers reported a net increase of 33 establishments since 1939.<sup>34</sup> The reporting firms in the same period represent 27.3 percent of this net increase and 14.3 percent of the total firms in the group.

The reporting firms started at the rate of about one each year. The majority began in the period between 1946 and 1948 (Table 51). No branch plants were reported.

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<sup>34</sup> Loc. cit.

## Forms of Organization

Table 51. Forms of organization relative to the year started for firms in miscellaneous industries.

Year	:Proprietor- :ships	: Partner- : ships	: Corpora- : tions	: Total
1940	0	0	0	0
1941	0	0	0	0
1942	0	0	0	0
1943	0	0	0	0
1944	0	1	0	1
1945	1	1	1	3
1946	1	2	1	4
1947	1	0	0	1
1948	2	1	0	3
1949 (6 mos.)	0	0	0	0
Total	5	5	2	12

Only two corporations reported in this group. Proprietorships and partnerships were equal in number. No firm in any of the forms began operations before 1944 (Table 51).

## Ownership and Starting Funds

All of the firms reporting in this group were Kansas owned and were started with Kansas funds (Table 52).

Table 52. Ownership and source of starting funds for firms in miscellaneous industries.

	: : Kansas : owners	: Non- : Kansas : owners	: : Both	: : Kansas : funds	: Non- : Kansas : funds	: : Both
Proprietorships	6	0	0	0	0	0
Partnerships	5	0	0	5	0	0
Corporations	1	0	0	1	0	0
Total	12	0	0	12	0	0

### Employment

Nine firms in 1947 reported an employment of 133 and 11 firms reported 77 in 1949. The 1947 Census of Manufacturers reported a net increase of 337 employees in this group over 1939.<sup>35</sup> The reporting firms in 1947 had about 40 percent of this increase in employment.

The majority of reporting firms had less than 10 employees each in 1949. Only one firm had over 30 employees.

Even though corporations were outnumbered, they employed 69 percent of total employment in 1947 and 61 percent in 1949. Three firms reported a total of three college graduates.

### Plant Location

Table 53. Factors affecting plant location for firms in miscellaneous industries.

Factors	: Number of firms
Available raw material	2
Available labor supply	4
Low cost labor	2
Low cost taxes	1
Low cost rent	2
Low cost power	1
Other	6
No indication	1

Available labor supply was the factor most often indicated (Table 53). The firms indicating this factor employed 32.3 per-

<sup>35</sup> Loc. cit.



cent of the total employment reported in 1947 and 36.3 percent in 1949.

The raw materials used included broom corn, resins, steel, shells, and wood. Only one firm indicated available raw material to be a major factor.

Other reasons indicated included residence, available market, and central location.

### Sales

Of total sales reported, 52 percent were made within the state, 46 percent out-of-state, and 2 percent foreign. Proprietorship sales were 17 percent out-of-state while partnership sales were 53 percent out-of-state. Eighty-five percent of corporate sales were made out-of-state. Foreign sales were shared by partnerships and corporations.

### THE NEW INDUSTRY AS A WHOLE

#### Rate of Increase in Number of Firms

Of the 503 new manufacturing establishments known to have begun operations in the period from January 1, 1940 to July 1, 1949, 291 or 57.8 percent cooperated in the survey.

The data indicate that on the average, 31 new firms began operations each year. As shown in Fig. 1, this rate of increase was not constant. From 1940 to 1944 the rate was about 16 firms each year. In 1945 the number of firms increased to 50 and a

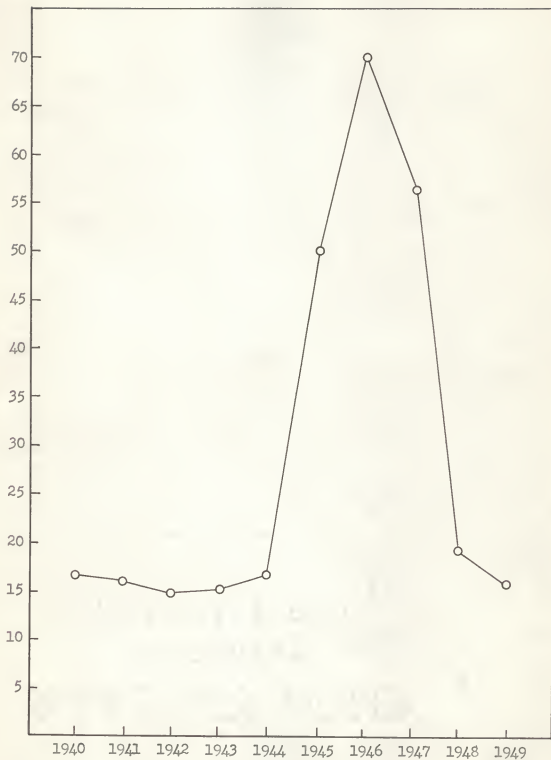


Fig. 1. Number of cooperating firms starting operations by years from 1940 to 1949. (Based on 291 firms.)

peak was reached in 1946 when 70 firms began operations. After that year the rate declined rapidly so that in the first half of 1949 it again approximated that of the period between 1940 and 1944 (Fig. 1).

A belief may exist that war production accounted for the major portion of the new firms, but the results of this survey show that following the end of the war and during the period of reconversion, the largest number of new manufacturing firms started operations.

During the period from 1945 to mid-1949, a total of 162 new manufacturing firms began operations within the state as compared with 129 during the six-year-period from 1940 to 1945. Again, it must be concluded that the postwar period has held its own in the number of starting firms and has even exceeded that of the war years.

#### Firms of Organization

Of the firms surveyed, 74, or 26 percent, were proprietorships; 68, or 23 percent, were partnerships; and 149, or 51 percent, were corporations. The largest number of firms in each of the three forms of organization began operations in the three-year-period from 1945 to 1947, indicating again the postwar development. Corporations led in number of starting firms in each of the three years during the period (Fig. 2). The number of corporations included 20 branch plants and 7 subsidiaries.

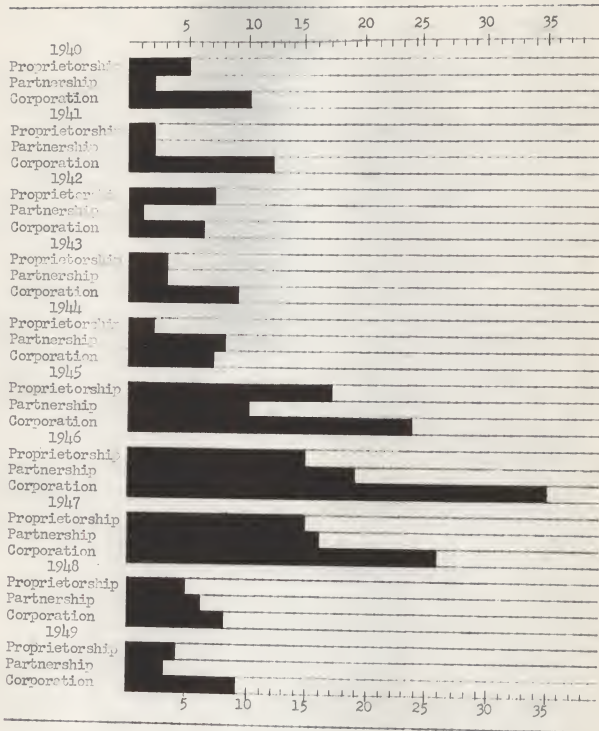


Fig. 2 Number of firms starting by years for three forms of organization in the period from 1940 to 1949. (Based on 291 reporting firms.)

### Ownership and Starting Funds

Two hundred thirty-five firms or approximately 81 percent were owned by Kansans when they began operations. Only 53 or 18 percent of the firms were owned by persons outside of the state. Three firms, or the remaining 1 percent, were owned by Kansans and residents of other states (Fig. 3).

As shown in Fig. 3, Kansas ownership was predominate throughout the period covered by the survey. Investigation from other sources revealed that only 28 foreign corporations filing in the state established physical plants during the period covered. This may indicate that the percentage owned by Kansans is probably higher than what was revealed in the survey.

Of the firms surveyed, approximately 58 percent of the reported 1949 employment was centered in firms owned by Kansas residents (Fig. 4). In the past, many have attributed the largest employment to be in those firms owned by out-of-state residents. The survey indicated that this may not be true for the majority of new firms beginning operations in the state.

The funds for the new manufacturing firms were provided largely by Kansas residents (Fig. 5). At least 230 or approximately 79 percent of the reporting firms were started entirely with Kansas funds. Only 55 firms or 18 percent of the reporting firms were started entirely with out-of-state funds. The six remaining firms were started with both Kansas and non-Kansas funds. As shown in Fig. 5, the majority of the firms depended upon Kansas funds regardless of the year in which they began operations.

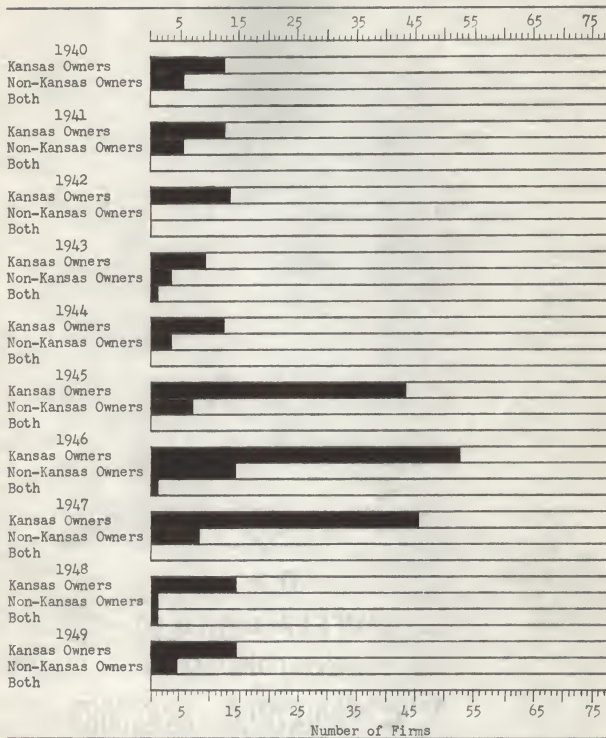


Fig. 3. Ownership of reporting manufacturing firms that began operations in Kansas from January 1, 1940 to July 1, 1949.



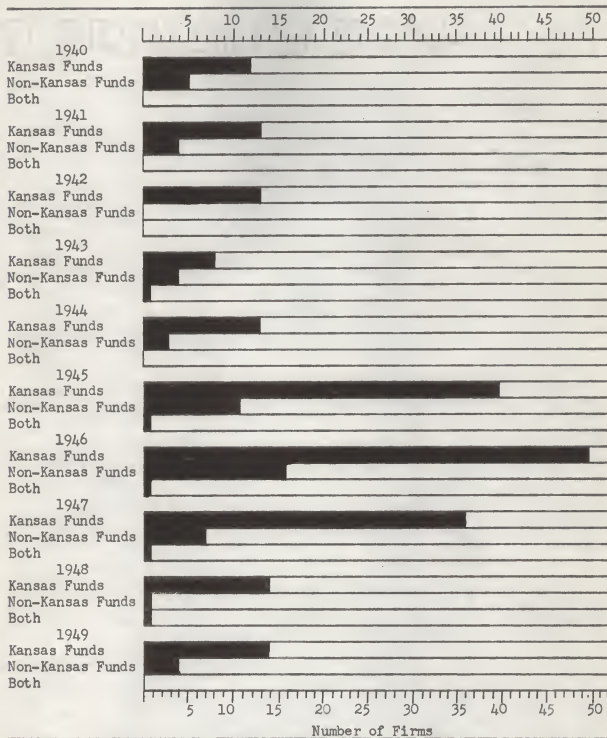


Fig. 4. Source of funds for 291 reporting firms that began operations in Kansas from 1940 to 1949.

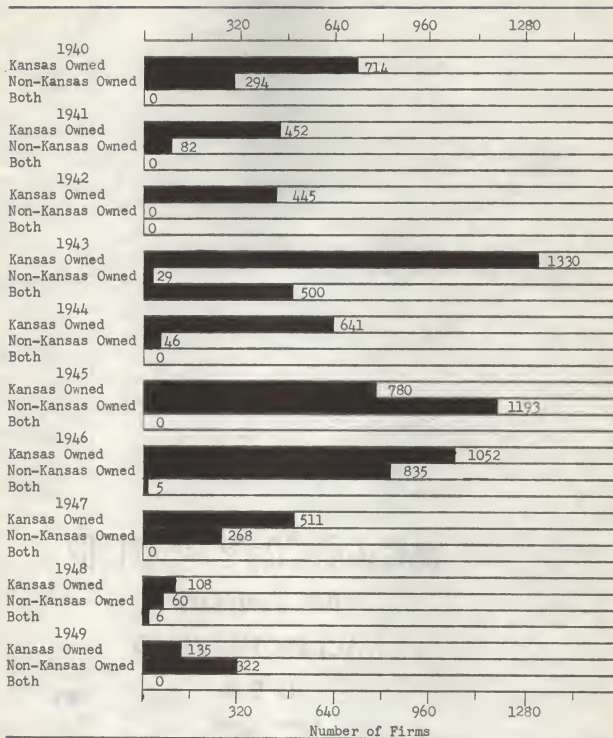


Fig. 5. Size of 1949 employment relative to ownership. (Based on 291 reporting firms.)

### Employment

The cooperating firms reported a total employment of 10,488 in 1947 and 10,502 in 1949. The reported employment in 1947 was about 25 percent of the total increase since 1939 as reported by the 1947 Census of Manufacturers.<sup>36</sup>

The majority of firms had less than 15 employees each in 1949 (Table 54). Of the groupings shown in Table 54, the group from 0 to 5 employees contained the largest number of firms. The larger groups contained progressively fewer firms.

Of the 291 reporting firms, 118 reported a total of 420 college graduates. The remaining firms indicated that they either had no college graduates or were unaware of it.

The employment of the reporting firms in 1949 was largely centered in Sedgwick and Wyandotte Counties (Fig. 6); however, the counties in the southeast corner of the state possessed a large amount of employment along with a fairly large number of new establishments (Fig. 7).

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<sup>36</sup> Loc. cit.

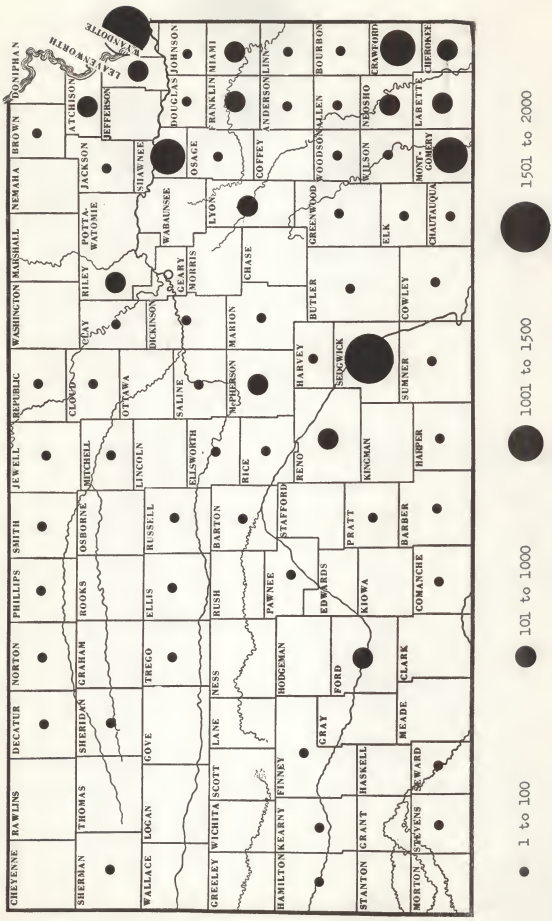




Table 54. Size of employment in 1949 by groups for 291 new manufacturing firms that began operations between 1940 and 1949.

Employees	:	Number of firms
0 to 4		73
5 to 9		59
10 to 14		35
15 to 29		40
30 to 84		47
100 to 479		15
500 to 1,100		4

#### Plant Location

The factors affecting plant location vary with the individual establishment, but each has had to give consideration to available raw materials, labor, power, and other items. The data presented here represent what the reporting firms in the survey indicate as important when they located their plants.

Table 55. Factors affecting plant location of new manufacturing firms.

Factors	:	Number of firms
Available raw material		90
Available labor supply		101
Low cost labor		35
Low cost taxes		25
Low cost rent		33
Low cost power		25
Other		118
No indication		22

Available labor supply and available raw materials were the two factors indicated most often (Table 55). Of these two fac-



tors, available labor supply was the most important, being indicated by 101 firms. These firms employed 51.4 percent of the total employment in 1949.

The available raw material factor was indicated by 90 firms but only 60 of these stated it to be a major factor. These 60 were using Kansas raw materials for the most part. The remaining 30 firms were using raw materials that came from areas close to the state or areas close because of excellent shipping facilities.

It may be concluded that the primary factor in locating new firms was the labor supply while the source of raw materials was of secondary importance.

Low cost rent and low cost labor were of about equal importance, the latter being indicated most often of the two. Power cost and taxes were of the same importance but were indicated only to be so by 9 percent of the firms (Table 55).

Other factors included residence of owners (42 firms), central location, local demand, available plant, available utilities, and available transportation facilities.

#### Location within the State

In the past, manufacturing industry in the state has been confined largely to a few areas. This study revealed that the new industry is following the same pattern. Sedgwick and Wyandotte Counties contain the largest number of the new firms. These two counties have the cities of Wichita and Kansas City, both offering abundant labor and the many facilities needed for a manufacturing establishment. The increase in new firms has been

slight in the western counties of the state whereas the increase in eastern counties has been large (Fig. 7).

For the entire state, 57 or slightly over one-half of the counties contained 5 or fewer new firms. Only 11 counties contained from 6 to 10 new firms while 6 counties contained from 11 to 50 firms. Only 1 county, Sedgwick, contained over 50 new firms (Fig. 7).

### Sales

The state has a need for manufacturing firms to produce material other than what is necessary to satisfy local demand. One criterion on which to judge to what extent the firm's product for other than local consumption is the percentage of their sales made outside of the state.

Of the total sales reported, an average of 60.5 percent were made within the state, 38.8 percent were made outside of the state, and 0.7 percent were made in foreign countries.

Proprietorships made 81.2 percent of their sales within the state, 18.1 percent outside of the state, and 0.7 percent foreign. Partnership sales were 63.1 percent within the state, 36.6 percent outside of the state, and 0.3 percent foreign. Corporate sales differed in that only 47.8 percent of the sales were within the state while 51.2 percent were outside of the state, and 1 percent were foreign.

On the basis of these average percentages, it may be concluded that the new firms are producing more than what is necessary to satisfy local demand.

## SUMMARY AND CONCLUSIONS

An analysis was made of the data pertaining to the new manufacturing firms in Kansas. The findings of this study and the conclusions follow.

The reporting firms began operations at the rate of about 31 each year. The largest increase was in late 1945 and 1946. The data indicated that the greatest increase in establishments occurred immediately following the war rather than during the war itself. The largest increase was centered in the Food and Kindred Products; the Stone, Clay, and Glass Products; and the Nonelectrical Machinery industries.

The corporate form of organization was the most prevalent form in use. Proprietorships were next and partnerships last. Employment was largely centered in corporations.

Of the reporting firms, 81 percent were owned by Kansans, 18 percent by non-Kansans, and the remaining 1 percent by both Kansans and non-Kansans. The major portion of the new employment in 1949 was in Kansas owned firms. This may indicate a new trend in ownership and employment from that which has existed in the past.

The reporting firms indicated a total employment of 10,488 in 1947 and 10,502 in 1949. The majority of these firms had less than 15 employees each in 1949. Employment was largely centered in Food and Kindred Products, Chemical and Allied Products, Petroleum and Coal Products, and Nonelectrical Machinery industries.

Available raw materials were of importance to 90 firms in locating their plants, but only 60 of these indicated it to be a major factor. On the basis of the reporting firms, the available labor supply was the factor indicated most often (101 firms). Firms indicating this factor employed 51.4 percent of the total employment in 1949. It may be concluded that the available labor supply was the primary factor in deciding plant location while available raw material was of secondary importance.

The majority of the firms surveyed was located in the eastern half of the state with Sedgwick and Wyandotte Counties having the largest number. The reported 1949 employment followed closely the distribution of firms.

The largest portion of reported sales was made within the state with but a very small portion made in foreign countries. The majority of corporate sales was made outside of the state whereas proprietorship and partnership sales were made largely within the state. This may indicate that new firms are producing beyond that which is necessary to satisfy local demand.

## ACKNOWLEDGMENTS

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## BIBLIOGRAPHY

- Biennial Census of Manufacturers 1931. United States Department of Commerce. Bureau of the Census. Washington: United States Government Printing Office, 1935.
- Bowers, Walter A. "Industrial Development in Kansas." Industrial Research Series Number 13. Lawrence: University of Kansas Publications, 1948.
- Inman, Arthur E. "The Future of Industrialization and Research in Kansas and the Midcontinent Area." Industrial Research Series Number 14. Lawrence: University of Kansas Publications, 1948.
- Kruger, Edward V. "The Outlook for Kansas Clay Products Industries." Industrial Research Series Number 1. Lawrence: University of Kansas Publications, 1940.
- Mollett, Clarence M. "The Feasibility of Expansion of Clothing Manufacturing in Kansas." Industrial Research Series Number 12. Lawrence: University of Kansas Publications, 1948.
- Pfouts, R. W. "The Feasibility of the Leather Tanning and Shoe Industries in Kansas." Industrial Research Series Number 8. Lawrence: University of Kansas Publications, 1947.
- United States Census of Manufacturers 1947: Kansas. United States Department of Commerce. Bureau of the Census. Washington: United States Government Printing Office, 1949.
- Waters, L. L. "Kansas Manufacturing in the War Economy." Industrial Research Series Number 4. Lawrence: University of Kansas Publications, 1945.
- Waters, L. L. "Postwar Employment in Kansas." Industrial Research Series Number 5. Lawrence: University of Kansas Publications, 1945.



## APPENDIX

## QUESTIONNAIRE

Type of Organization: Proprietorship ( ) Partnership ( )  
Corporation ( ).

If a corporation, is it a subsidiary? Yes ( ) No ( ),  
A Branch ( ).

Date of beginning operations: \_\_\_\_\_ 19\_\_.

Were owners residents of Kansas when company formed? Yes ( )  
No ( ).

Was company started with Kansas funds? Yes ( ) No ( ). Indi-  
cate percent.

Percent of sales made within the state ( ) out-of-state ( )  
foreign ( ).

Principal products: \_\_\_\_\_

What following factors aided in determining plant location?

Available raw materials ( ) available labor supply ( )

low cost labor ( ) low taxes ( ) low rent ( ) low power

cost ( ) other (specify) \_\_\_\_\_

What is the principal raw material used? \_\_\_\_\_

Number of employees in 1947 \_\_\_\_\_ At present \_\_\_\_\_

Number of college graduates employed \_\_\_\_\_