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An Outline Of Nebraska's Industries

George E. Condra

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AN OUTLINE OF NEBRASKA'S INDUSTRIES

By G. E. CONDRA

BULLETIN 19
CONSERVATION DEPARTMENT
OF THE
CONSERVATION AND SURVEY DIVISION
UNIVERSITY OF NEBRASKA

Reprint from the 1938 Nebraska Blue Book, with some modifications.

Printed by Authority of the State of Nebraska
Lincoln, Nebraska
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As defined by law, the Conservation and Survey Division of the University includes the following state departments and surveys: Soil, Geological, Water, Biological, Industrial, Conservation, and Information Service. Its major purpose is to study and describe the state’s resources and industries for use in development. Reports are published in three series, i.e., Nebraska Soil Survey, Nebraska Geological Survey, and the Conservation Department.
An Outline of Nebraska's Industries

By G. E. CONdra

Definition. The term "industry" has a very flexible meaning. Its usage is general when reference is made to the industry of a country or of a state and more restricted when employed to designate an occupational group, as agricultural industry or manufacturing industry. But the development of new methods and the direction of activity along special restricted lines has given rise to specific industries. So the term industry is now applied to activity in general, to the work of industrial groups, and to the industries proper.

Sometimes the name of an industry is used rather loosely. For example, the wheat industry includes only the agricultural and marketing processes involved in wheat production and does not include the whole story of what is done with wheat after it is marketed. In other words, what may be loosely called the wheat industry usually is three or more industries represented in the sequence: (1) wheat production, (2) wheat milling, and (3) the processing of the products of the flouring mills. So the wheat industry proper leaves off where the wheat milling industry begins and the latter leaves off in turn where the products of the flouring mills are manufactured into special cereal products, as Shredded Wheat and Crème de Wheat.

Occupational Groups. The United States Census classes the occupational groups and the gainful workers of Nebraska for 1929 as follows:

1. Forestry and fishing ........................................ 158 persons
2. Extraction of minerals ...................................... 570 persons
3. Agriculture .................................................. 197,199 persons
4. Manufacturing and mechanical industry ................. 80,986 persons
5. Transportation and communication ....................... 41,780 persons
6. Trade .......................................................... 67,305 persons
7. Public service ............................................... 6,291 persons
8. Professional service ........................................ 39,664 persons
9. Clerical service ............................................ 30,320 persons
10. Domestic service ........................................... 42,735 persons

507,008 persons

Groups 1 to 5 inclusive of the preceding list are engaged primarily in the production of materials and things and the conversion of the materials into useful products. This places them under industry proper. Groups 5 and 6 are on the borderline between industry and business and their enterprises are classed as industry, business, or merchandizing activities. Although divisions 7, 8, 9, and 10 are related to both industry and business they stand alone as designated.

Group Relations. The relations between the occupational groups are very close. What affects one group is soon experienced favorably or unfavorably by the others.
The great source of wealth in Nebraska is the soil, and when crops are good and the farm income is high, all go forward; with drought and low gross agricultural income, recession is quite sure to follow and it is likewise certain that lowering price levels for factory products react through all the groups. Consequently, it is certain that a close relationship obtains throughout the industrial development of Nebraska.

**Factors in Industry.** Some of the industrial enterprises of the state were short lived; others have been successful, which raises the question: Why failure and why success? The answer to this seems to lie in the fact that the enterprises that were installed without reason were doomed from the start, whereas those that fit naturally into the picture have survived. For example, meat packing, grain milling, butter making, beet sugar manufacture, and many other industries have succeeded in Nebraska because they were needed and conditions are right for their development here.

Among the dominant factors involved in the industrialization of the state are the available raw materials, available skilled labor, favorable transportation facilities, healthful climate, relatively cheap power, and the dependable markets for the production. All told, most of our industries are now well anchored enterprises, but they have experienced very trying circumstances the past seven or eight years.

**List of Industries.** The principal industries of Nebraska are summarized as follows:

I. Mineral group:
   1. Stone industry
   2. Clay industry
   3. Sand and gravel industry
   4. Potash industry (now out)
   5. Volcanic ash industry (now nearly out)

   This is the mineral production group.

II. Agricultural group:
   1. Grain farming industry
   2. Wheat
   3. Corn
   4. Alfalfa hay
   5. Wild hay
   6. Truck gardening
   7. Bean
   8. Small fruit
   9. Apple
   10. Melon
   11. Potato
   12. Sugar beet
   13. Florist
   14. Nursery
   15. Seed
   16. Forest
   17. Irrigation

   This agricultural production subgroup is known in a general way as plant industry.
I. Stock raising
18. Cattle
19. Dairy
20. Poultry
21. Chick
22. Honey production
23. Swine or hog
24. Horse
25. Sheep
26. Stock feeding
27. Fish
28. Fur
29. Fur farming

This agricultural production subgroup is known generally as animal industry.

III. Manufacturing group:
1. Cement
2. Brick and tile
3. Stone working
4. Pottery
5. Glass-working
6. Petroleum refining
7. Lead refining
8. Chemical
9. Artificial gas
10. Hydro-power
11. Light and power

This subgroup uses mineral material products in manufacture.

12. Farm machinery
13. Iron and steel goods
14. Planing mill
15. Furniture
16. Broom and brush
17. Paper-working
18. Tent and awning
19. Leather goods
20. Saddlery and harness
21. Cigars and cigarettes
22. Clothing
23. Shoe
24. Meat packing
25. Poultry dressing
26. Canning
27. Grain milling
28. Cereal products
29. Macaroni
30. Beet sugar
31. Confectionery or candy
32. Bakery
33. Commercial milk
34. Butter
35. Cheese
36. Ice cream
37. Beverage
38. Brewery
39. Stock feed

This subgroup converts various kinds of material into useful products.

40. Confectionery

This subgroup manufactures foods and drinks.

41. Commercial

This subgroup manufactures commercial products.
40. Laundry, cleaning.—pressing industry
or business
41. Building ___________________________
42. Repair shop ________________________
43. Plumbing ___________________________
44. Printing and publishing industries
This subgroup builds structures or
reconditions products and structures.
This is a very distinctive group.

IV. Transportation and communication group:
1. Railway business or industry
2. Airway _____________________________
3. Waterway ___________________________
4. Gas pipeline _________________________
5. Telephone and diagram __________________
6. Radio _______________________________
7. Postal service _________________________
These groups usually are classed as businesses
rather than industries.

V. Trade or merchandizing group:
1. Retail business or industry
2. Wholesale business or industry
3. Banking and brokerage business or industry
4. Insurance business
5. Real estate business

Nebraska has more than 75 quite well-defined industries and several
business enterprises that are often classified as industries. During normal
years our industries employ about 387,970 persons, produce $500,000,000 or
more in value of agricultural and mineral products and through manufac-
ture, repair and reconditioning develop added values of more than
$100,000,000.

Stone, sand, and clay production have considerable importance in the
state, but the potash industry which operated during the World War is
abandoned and the volcanic ash industry shows little activity. Very little
coal and no petroleum or natural gas are produced in Nebraska at this time.

Agricultural Industries. These have been described by state and fed-
eral departments, hence they are not reviewed here. However, some may
not realize that the florist, nursery, seed, and melon industries are gaining
in importance, and that there is considerable income from the fish, fur,
fur-farming, and forest industries, which represent phases of agriculture.

Persons wishing information on any particular agricultural industry of
the state should write to the College of Agriculture of the University,
Lincoln; or the United States Department of Agriculture, Washington, D.
C. Those wanting statistical information on agricultural production should
write the Division of Agricultural Statistics of the Nebraska Department
of Agriculture, Lincoln.

Tables 1, 2, and 3 following show how agricultural production and
prices declined from 1932 to 1937 and how this and the lowering price level
affected the farm income. The production of corn, wheat, barley, oats,
rye, and the sorghums increased in 1938 over 1936 and 1937. The state
now has an abundance of feeds, but has relatively few hogs and cattle,
and the price for nearly all agricultural products is unusually low.
TABLE 1.—PRODUCTION AND FARM PRICE OF SELECTED NEBRASKA CROPS
(Compiled from the U. S. Dept. of Agriculture Agricultural Statistics and A. E. Anderson Statistician)

<table>
<thead>
<tr>
<th>Nebraska</th>
<th>Production (Bushels, bags, or tons)</th>
<th>Farm Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn (bushels)</td>
<td>223,843,000</td>
<td>26,859,000</td>
</tr>
<tr>
<td>Wheat (bushels)</td>
<td>56,520,000</td>
<td>47,339,000</td>
</tr>
<tr>
<td>Oats (bushels)</td>
<td>68,421,000</td>
<td>19,067,000</td>
</tr>
<tr>
<td>Barley (bushels)</td>
<td>15,386,000</td>
<td>5,869,000</td>
</tr>
<tr>
<td>Rye (bushels)</td>
<td>2,667,000</td>
<td>3,442,000</td>
</tr>
<tr>
<td>Sorghums (bushels)</td>
<td>268,000</td>
<td>832,000</td>
</tr>
<tr>
<td>Potatoes (bushels)</td>
<td>9,526,000</td>
<td>4,730,000</td>
</tr>
<tr>
<td>Beans (dry, edible) (bushels)</td>
<td>60,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Tame Hay (tons)</td>
<td>2,491,000</td>
<td>1,617,000</td>
</tr>
<tr>
<td>Wild Hay (tons)</td>
<td>2,005,000</td>
<td>1,055,000</td>
</tr>
</tbody>
</table>

TABLE 2.—NUMBER AND VALUE OF CATTLE, INCLUDING COWS, HEIFERS, AND CALVES
(Compiled from the U. S. Dept. of Agriculture Agricultural Statistics)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Value</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1934</td>
<td>3,980,000</td>
<td>$17.50 per head</td>
<td>$69,650,000</td>
</tr>
<tr>
<td>1935</td>
<td>3,722,000</td>
<td>18.00 per head</td>
<td>58,176,000</td>
</tr>
<tr>
<td>1936</td>
<td>3,491,000</td>
<td>34.30 per head</td>
<td>119,741,300</td>
</tr>
<tr>
<td>1937</td>
<td>3,037,000</td>
<td>30.20 per head</td>
<td>96,879,600</td>
</tr>
<tr>
<td>1938</td>
<td>2,824,000</td>
<td>32.10 per head</td>
<td>93,192,000</td>
</tr>
</tbody>
</table>

TABLE 3.—NEBRASKA’S GROSS FARM INCOME FROM FARM CROPS, LIVESTOCK, AND BENEFIT PAYMENTS
(Compiled from the U. S. Dept. of Agriculture Agricultural Statistics)

<table>
<thead>
<tr>
<th>Year</th>
<th>1934</th>
<th>1935</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm crops</td>
<td>$21,693,000</td>
<td>$54,540,000</td>
</tr>
<tr>
<td>Livestock</td>
<td>182,454,000</td>
<td>169,360,000</td>
</tr>
<tr>
<td>Crop benefit payments</td>
<td>47,407,000</td>
<td>22,617,000</td>
</tr>
<tr>
<td>Hog benefit payments</td>
<td>16,798,000</td>
<td>9,932,000</td>
</tr>
<tr>
<td>Total</td>
<td>$242,352,000</td>
<td>$252,449,000</td>
</tr>
</tbody>
</table>

NEBRASKA’S MANUFACTURES

Nebraska industries turn out many kinds of well-known agricultural products, and a long list of manufactured products, as plows, engines, windmills, tools, furniture, caskets, mattresses, saddles, suit cases, tents, awnings, brooms, brushes, suits, shirts, hats, corsets, collars, shoes, wooden shoes, flour, bread, macaroni, cereal products, sugar, meats, butter, cheese, candy, feeds, pop, coca cola, beer, cigars, chemical products, cement, brick, tile, and electric energy, and are engaged in building and repair work.

Table 4 following is a compilation of data relating to some of the leading products manufactured in Nebraska. It is followed by Table 5, which shows valuable data relating to the manufacturing enterprises for the years 1909, 1919, 1929, and 1935. Of these years, 1919 was in boom days, 1929 represents the normal, and 1935 a year of drought and depression.
TABLE 4.—REPRESENTATIVE PRODUCTS OF NEBRASKA FOR THE YEAR 1929

(Compiled from the U. S. Census)

<table>
<thead>
<tr>
<th></th>
<th>Number of Establishments</th>
<th>Number of Officers and Wage Earners</th>
<th>Wages and Salaries</th>
<th>Cost of Materials and Containers</th>
<th>Value of Production</th>
<th>Added Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural implements</td>
<td>4</td>
<td>115</td>
<td>$166,122</td>
<td>$261,281</td>
<td>$662,255</td>
<td>$386,507</td>
</tr>
<tr>
<td>Animal feeds</td>
<td>13</td>
<td>129</td>
<td>174,632</td>
<td>2,213,303</td>
<td>2,723,407</td>
<td>484,476</td>
</tr>
<tr>
<td>Awnings, tents, canvas covers</td>
<td>8</td>
<td>144</td>
<td>185,452</td>
<td>309,557</td>
<td>634,432</td>
<td>322,393</td>
</tr>
<tr>
<td>Bakery products</td>
<td>217</td>
<td>2,379</td>
<td>2,895,312</td>
<td>6,914,057</td>
<td>16,382,507</td>
<td>9,145,138</td>
</tr>
<tr>
<td>Beverages</td>
<td>50</td>
<td>193</td>
<td>249,145</td>
<td>300,797</td>
<td>987,723</td>
<td>588,844</td>
</tr>
<tr>
<td>Books and job printing</td>
<td>111</td>
<td>1,140</td>
<td>2,122,304</td>
<td>1,722,231</td>
<td>5,481,445</td>
<td>3,695,230</td>
</tr>
<tr>
<td>Butter</td>
<td>88</td>
<td>1,318</td>
<td>2,253,362</td>
<td>39,206,298</td>
<td>47,873,628</td>
<td>8,251,460</td>
</tr>
<tr>
<td>Cigars and cigarettes</td>
<td>11</td>
<td>122</td>
<td>85,824</td>
<td>115,723</td>
<td>297,348</td>
<td>179,808</td>
</tr>
<tr>
<td>Confectionery</td>
<td>11</td>
<td>301</td>
<td>261,036</td>
<td>476,533</td>
<td>1,071,186</td>
<td>580,732</td>
</tr>
<tr>
<td>Flour and grain mill products</td>
<td>96</td>
<td>974</td>
<td>1,467,870</td>
<td>23,628,435</td>
<td>29,579,918</td>
<td>5,567,093</td>
</tr>
<tr>
<td>Foundry and machine shop products</td>
<td>39</td>
<td>697</td>
<td>1,194,459</td>
<td>1,701,214</td>
<td>4,743,579</td>
<td>2,722,827</td>
</tr>
<tr>
<td>Furniture, including store and other furniture</td>
<td>19</td>
<td>481</td>
<td>659,635</td>
<td>1,215,058</td>
<td>2,416,724</td>
<td>1,185,609</td>
</tr>
<tr>
<td>Ice cream</td>
<td>41</td>
<td>329</td>
<td>492,673</td>
<td>1,584,014</td>
<td>3,516,149</td>
<td>1,837,305</td>
</tr>
<tr>
<td>Iron and steel works (structural)</td>
<td>7</td>
<td>516</td>
<td>854,814</td>
<td>1,292,632</td>
<td>2,866,673</td>
<td>1,472,532</td>
</tr>
<tr>
<td>Meat packing (wholesale)</td>
<td>15</td>
<td>7,175</td>
<td>10,088,381</td>
<td>185,790,683</td>
<td>208,994,805</td>
<td>22,032,533</td>
</tr>
<tr>
<td>Medicine compounds</td>
<td>19</td>
<td>287</td>
<td>494,525</td>
<td>477,554</td>
<td>1,729,543</td>
<td>1,245,736</td>
</tr>
<tr>
<td>Newspapers and periodicals</td>
<td>256</td>
<td>2,711</td>
<td>4,835,177</td>
<td>2,618,881</td>
<td>12,995,056</td>
<td>10,240,896</td>
</tr>
<tr>
<td>Poultry dressing and packing</td>
<td>20</td>
<td>408</td>
<td>357,844</td>
<td>4,197,793</td>
<td>5,261,436</td>
<td>1,638,356</td>
</tr>
<tr>
<td>Planing mill products</td>
<td>25</td>
<td>435</td>
<td>700,813</td>
<td>967,584</td>
<td>2,070,804</td>
<td>1,072,667</td>
</tr>
<tr>
<td>Railway repair shops</td>
<td>25</td>
<td>4,856</td>
<td>7,628,245</td>
<td>5,753,281</td>
<td>13,887,644</td>
<td>7,628,245</td>
</tr>
<tr>
<td>Saddlery and harness</td>
<td>6</td>
<td>120</td>
<td>213,334</td>
<td>303,846</td>
<td>1,715,839</td>
<td>605,241</td>
</tr>
</tbody>
</table>
TABLE 5.—STATISTICAL SUMMARY OF ALL MANUFACTURES OF NEBRASKA BY SELECTED YEARS
(Compiled from the U. S. Census)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Establishments</th>
<th>Number of Wage Earners and Salaried Officials</th>
<th>Wages and Salaries</th>
<th>Cost of Materials and Containers</th>
<th>Value of Products</th>
<th>Added Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1909</td>
<td>2,500</td>
<td>29,444</td>
<td>$19,430,690</td>
<td>$148,788,301</td>
<td>$199,018,579</td>
<td>$ 47,937,698</td>
</tr>
<tr>
<td>1919</td>
<td>2,884</td>
<td>46,160</td>
<td>61,536,692</td>
<td>473,636,425</td>
<td>596,042,498</td>
<td>138,258,376</td>
</tr>
<tr>
<td>1929</td>
<td>1,491</td>
<td>23,752</td>
<td>51,347,419</td>
<td>357,009,656</td>
<td>484,166,469</td>
<td>119,593,699</td>
</tr>
<tr>
<td>1935</td>
<td>1,154</td>
<td>25,042</td>
<td>30,324,000</td>
<td>192,127,000</td>
<td>255,445,000</td>
<td>63,319,000</td>
</tr>
</tbody>
</table>

Distribution of Manufactures. Tables 6 and 7 following show the distribution of manufacturing by leading counties and cities, except that, Scotts Bluff County and the city of Scottsbluff are not included in the lists, due to lack of census data. However, this county and city rank very high, probably next to Lancaster County and Lincoln in industrial production.

Tables 6 and 7 show the relation that the placement of industries holds to the rank of counties and cities in wages, value of products, etc. For example, the Dempster Mill Manufacturing Company is a factor at Beatrice; the creamery and other industries boost Fremont; various industries raise the rank of Hastings and Grand Island; and above all, the sugar factories, feed mills, meat packing house, etc., if they were listed, would show why Scotts Bluff County and Scottsbluff have high rank.

TABLE 6.—THE LEADING MANUFACTURING COUNTIES OF NEBRASKA, 1929
(Compiled from the U. S. Census)

<table>
<thead>
<tr>
<th>County</th>
<th>Number of Establishments</th>
<th>Number of Wage Earners</th>
<th>Wages</th>
<th>Cost of Materials and Containers</th>
<th>Value of Products</th>
<th>Added Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>45</td>
<td>618</td>
<td>$725,481</td>
<td>$2,794,602</td>
<td>$6,350,692</td>
<td>$ 2,459,878</td>
</tr>
<tr>
<td>Box Butte</td>
<td>9</td>
<td>211</td>
<td>$394,626</td>
<td>$1,329,129</td>
<td>$2,205,335</td>
<td>809,128</td>
</tr>
<tr>
<td>Buffalo</td>
<td>23</td>
<td>121</td>
<td>$161,167</td>
<td>$1,165,231</td>
<td>$1,725,735</td>
<td>571,359</td>
</tr>
<tr>
<td>Cass</td>
<td>13</td>
<td>107</td>
<td>$99,287</td>
<td>$622,737 (Continued)</td>
<td>$1,401,852</td>
<td>435,325</td>
</tr>
<tr>
<td>Dawes</td>
<td>13</td>
<td>108</td>
<td>$299,390</td>
<td>$333,499 (Continued)</td>
<td>$809,390 (Continued)</td>
<td>435,325</td>
</tr>
<tr>
<td>Dawson</td>
<td>19</td>
<td>66</td>
<td>$78,555</td>
<td>$736,528 (Continued)</td>
<td>$1,036,840</td>
<td>291,450</td>
</tr>
<tr>
<td>Dodge</td>
<td>49</td>
<td>447</td>
<td>$486,058</td>
<td>$799,160 (Continued)</td>
<td>$5,357,140</td>
<td>1,077,761</td>
</tr>
<tr>
<td>Douglas</td>
<td>415</td>
<td>16,339</td>
<td>$21,636,998</td>
<td>$276,882,987</td>
<td>$355,629,684</td>
<td>75,593,419</td>
</tr>
<tr>
<td>Gage</td>
<td>33</td>
<td>738</td>
<td>$906,342</td>
<td>$4,706,796 (Continued)</td>
<td>$7,399,890 (Continued)</td>
<td>2,574,269</td>
</tr>
<tr>
<td>Hall</td>
<td>43</td>
<td>598</td>
<td>$720,112</td>
<td>$4,016,528 (Continued)</td>
<td>$6,257,900 (Continued)</td>
<td>2,302,766</td>
</tr>
<tr>
<td>Jefferson</td>
<td>17</td>
<td>256</td>
<td>$303,499</td>
<td>$1,455,702 (Continued)</td>
<td>$2,230,823 (Continued)</td>
<td>702,467</td>
</tr>
<tr>
<td>Lancaster</td>
<td>164</td>
<td>3,093</td>
<td>$4,185,225</td>
<td>$16,427,161 (Continued)</td>
<td>$28,029,736 (Continued)</td>
<td>11,839,959</td>
</tr>
<tr>
<td>Lincoln</td>
<td>18</td>
<td>469</td>
<td>$713,090</td>
<td>$842,666 (Continued)</td>
<td>$2,023,029 (Continued)</td>
<td>1,158,017</td>
</tr>
<tr>
<td>Madison</td>
<td>34</td>
<td>901</td>
<td>$488,533</td>
<td>$2,304,990 (Continued)</td>
<td>$3,848,336 (Continued)</td>
<td>1,454,335</td>
</tr>
<tr>
<td>Nuckolls</td>
<td>15</td>
<td>169</td>
<td>$260,483</td>
<td>$1,156,620 (Continued)</td>
<td>$3,428,512 (Continued)</td>
<td>958,692</td>
</tr>
<tr>
<td>Platte</td>
<td>24</td>
<td>165</td>
<td>$194,108</td>
<td>$1,242,688 (Continued)</td>
<td>$1,836,250 (Continued)</td>
<td>554,519</td>
</tr>
<tr>
<td>Red Willow</td>
<td>17</td>
<td>265</td>
<td>$414,074</td>
<td>$395,941 (Continued)</td>
<td>$1,074,914 (Continued)</td>
<td>642,187</td>
</tr>
<tr>
<td>Richardson</td>
<td>19</td>
<td>179</td>
<td>$281,797</td>
<td>$1,327,877 (Continued)</td>
<td>$2,043,594 (Continued)</td>
<td>674,419</td>
</tr>
<tr>
<td>Thayer</td>
<td>13</td>
<td>234</td>
<td>$134,381</td>
<td>$570,250 (Continued)</td>
<td>$944,215 (Continued)</td>
<td>361,560</td>
</tr>
<tr>
<td>York</td>
<td>15</td>
<td>86</td>
<td>$98,090</td>
<td>$199,529 (Continued)</td>
<td>$480,748 (Continued)</td>
<td>251,533</td>
</tr>
</tbody>
</table>
TABLE 7.—THE LEADING MANUFACTURING CITIES OF NEBRASKA, 1929

<table>
<thead>
<tr>
<th>City</th>
<th>Number of Establishments</th>
<th>Number of Wage Earners</th>
<th>Wages</th>
<th>Cost of Materials and Containers</th>
<th>Value of Products</th>
<th>Added Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beatrice</td>
<td>24</td>
<td>498</td>
<td>$577,986</td>
<td>$3,058,521</td>
<td>$5,976,092</td>
<td>$1,933,515</td>
</tr>
<tr>
<td>Fremont</td>
<td>33</td>
<td>385</td>
<td>438,266</td>
<td>3,106,290</td>
<td>3,013,022</td>
<td>1,488,216</td>
</tr>
<tr>
<td>Grand Island</td>
<td>37</td>
<td>522</td>
<td>637,684</td>
<td>3,485,224</td>
<td>5,645,029</td>
<td>1,999,066</td>
</tr>
<tr>
<td>Hastings</td>
<td>38</td>
<td>554</td>
<td>656,380</td>
<td>3,005,515</td>
<td>6,846,244</td>
<td>2,338,694</td>
</tr>
<tr>
<td>Lincoln</td>
<td>150</td>
<td>1,889</td>
<td>2,301,105</td>
<td>12,778,043</td>
<td>22,912,816</td>
<td>9,639,010</td>
</tr>
<tr>
<td>Norfolk</td>
<td>20</td>
<td>170</td>
<td>216,359</td>
<td>1,616,783</td>
<td>2,665,491</td>
<td>1,001,567</td>
</tr>
<tr>
<td>North Platte</td>
<td>15</td>
<td>379</td>
<td>576,551</td>
<td>807,096</td>
<td>1,759,914</td>
<td>878,380</td>
</tr>
<tr>
<td>Omaha</td>
<td>431</td>
<td>16,108</td>
<td>21,350,639</td>
<td>275,792,637</td>
<td>352,835,338</td>
<td>73,915,103</td>
</tr>
<tr>
<td>Scottsbluff</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Not covered in the 1930 U. S. Census.

REPRESENTATIVE MANUFACTURING INDUSTRIES

Meat Packing. This, Nebraska's most important manufacturing industry, depends upon the production and supply of cattle, hogs, and sheep. Omaha is a leading stock market and meat packing center. It is supplied by animals brought from Nebraska and other states. Some hogs, cattle, and sheep are slaughtered in Lincoln, Hastings, Grand Island, Gering, and other cities of the state, and some Nebraska-grown animals are slaughtered in Denver, Sioux City, Kansas City, and Chicago.

The Nebraska meat packing houses distribute their products widely in the United States and to some foreign countries. Tables 8 and 9 show the number and kinds of animals slaughtered in Nebraska, and the principal packing house products and their value. These figures do not include the animals slaughtered on farms for local use.

TABLE 8.—NUMBER OF ANIMALS SLAUGHTERED IN NEBRASKA MEAT PACKING ESTABLISHMENTS, 1929

<table>
<thead>
<tr>
<th></th>
<th>Total number of animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>843,102</td>
</tr>
<tr>
<td>Calves</td>
<td>82,800</td>
</tr>
<tr>
<td>Sheep and lambs</td>
<td>1,692,045</td>
</tr>
<tr>
<td>Hogs</td>
<td>2,594,890</td>
</tr>
<tr>
<td>Total</td>
<td>5,222,053</td>
</tr>
</tbody>
</table>

TABLE 9.—AMOUNT AND VALUE OF THE PRINCIPAL PRODUCTS OF NEBRASKA'S MEAT PACKING ESTABLISHMENTS, 1929

<table>
<thead>
<tr>
<th>Product</th>
<th>Value of Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh beef</td>
<td>$84,822,019</td>
</tr>
<tr>
<td>Fresh veal</td>
<td>2,145,026</td>
</tr>
<tr>
<td>Fresh mutton and lamb</td>
<td>16,305,683</td>
</tr>
<tr>
<td>Fresh pork</td>
<td>25,406,652</td>
</tr>
<tr>
<td>Cured pork</td>
<td>31,759,634</td>
</tr>
<tr>
<td>Cooked ham</td>
<td>1,075,702</td>
</tr>
<tr>
<td>Sausage, etc.</td>
<td>7,798,708</td>
</tr>
<tr>
<td>Lard</td>
<td>11,912,284</td>
</tr>
<tr>
<td>Cattle hide and calf skins</td>
<td>8,542,396</td>
</tr>
<tr>
<td>Sheep and lamb pelts</td>
<td>2,338,694</td>
</tr>
</tbody>
</table>

Besides the above, values are obtained from the hair of hogs and from hearts, livers, hoofs, horns, bones, blood, casings, and tankage materials, etc. of all animals. These so-called by-products are used as edible foods or in several mechanical and chemical industries located in other states.
Poultry Dressing Industry. This industry is largely based on chickens of which 20,000,000 or more are produced per year of which there are 12,000,000 or more birds in the state at a given time. The turn-over is quite high. The poultry industry also has an average production of more than one million dozen eggs per year.

Most of the larger cities of the state have poultry feeding and dressing plants, which seem to operate quite successfully most years. The largest of these establishments are located at Omaha, Falls City, Norfolk, Crete, and Fremont. They handle principally chickens and some ducks, geese, and turkeys.

Dairy Industry. The conditions in Nebraska are favorable for dairying and this industry ranks high in the production of milk, cream, and farm-made butter. According to the United States Census the farm income from the sale of dairy products for 1936 was as follows:

1. Milk retailed by farmers ........................................... $5,258,000
2. Wholesale milk .................................................. 4,554,000
3. Butterfats ......................................................... 16,408,000
4. Farm-made butter ................................................. 326,000

$26,546,000

5. Estimated value of milk, cream and butter used on the farm 7,730,000
6. Value of milk used for stock feed ............................... 1,350,000

Total farm value ..................................................... $35,626,000

Butter Industry. Though centralized in Omaha, butter making is a feature of several cities of the state, as at Lincoln, Fremont, Norfolk, Falls City, Crete, Hastings, McCook, Orleans, North Platte, and Alliance. The main by-products of these factories are buttermilk, cottage cheese, and skimmed milk. The butter industry held up quite well during the drouth period. The production of butter averaged 88,422,000 pounds in 1930-34, about 76,400,000 pounds in 1935 and 72,842,000 pounds in 1936.

Persons wishing information on the dairy product industries should write the Conservation and Survey Division of the University for the recently published bulletins: The Milk Industry of Nebraska (Bulletin 15), The Butter Industry of Nebraska (Bulletin 16), Cheese Production in Nebraska (Bulletin 17) and Ice Cream Production in Nebraska (Bulletin 18).

Grain Milling. Wheat is the main grain milled in Nebraska and corn is second. Milling is done in many widely distributed plants. Table 10 shows the amount (bushels) of grains milled in 1927 and 1929.

<table>
<thead>
<tr>
<th>Kind of grain</th>
<th>Year 1927</th>
<th>Year 1929</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>15,368,697</td>
<td>15,564,585</td>
</tr>
<tr>
<td>Corn</td>
<td>1,960,681</td>
<td>2,843,549</td>
</tr>
<tr>
<td>Oats</td>
<td>199,078</td>
<td>172,663</td>
</tr>
<tr>
<td>Rye</td>
<td>35,133</td>
<td>61,905</td>
</tr>
<tr>
<td>Barley</td>
<td>7,816</td>
<td>35,383</td>
</tr>
<tr>
<td>Total number of bushels</td>
<td>17,481,405</td>
<td>18,679,985</td>
</tr>
</tbody>
</table>
Cereal Products Industry. Several kinds of cereal products are made in Omaha and Lincoln. They are Corn Flakes, Uncle Sam's breakfast food, and other similar products. The manufacture of macaroni at Omaha has become a specialized industry.

Bakery Industry. This industry produces bread, rolls, cakes, crackers, doughnuts, pies, etc. It makes extensive use of Nebraska-made flour and meal, employs 2,300 or more wage earners, and adds more than $9,000,000 of creative value to the state per year.

Beet Sugar Industry. There are seven large sugar factories in Nebraska located at Grand Island, Minatare, Bayard, Scottsbluff, Gering, Mitchell, and Lyman. They mill more than 1,000,000 tons of beets per year and produce therefrom about 280,000,000 pounds of sugar and the by-products known as molasses and pulp which supply important stock feeds, as do also the beet tops.

The beet sugar industry of Nebraska is described in Dr. Anderson's Bulletin 9 of the Conservation and Survey Division. This report is free upon request.

Stock Feed Industry. Grains, alfalfa, sugar beet molasses, beet pulp, cotton cake, and other materials are being milled into stock feeds at a number of widely distributed towns and cities of the state. The products of these mills are well suited to stock feeding and bridge the gap between stock raising and meat packing.

Brewery Industry. The manufacture of beer has become a Nebraska industry the past few years. The breweries are located at Omaha (3) Columbus (1) and Crete (1).

Canning Industry. Canning factories are located at Nebraska City, Plattsmouth, Fremont, Norfolk, and Scottsbluff. Drought has affected the canning industry quite unfavorably by cutting off the supply of materials, but the stronger enterprises have survived. The principal materials canned in Nebraska factories are corn, hominy, tomatoes, green beans, pumpkin and squash, spinach, kraut, beets, tomato pulp, succotash, lima beans, pork and beans, apples, and cherries. Considerable canning is done in the homes of the state and in connection with the meat packing and other industries.

Lead Refining Industry. The American Smelting Company has a large successful plant at Omaha for the refining of lead brought from the Rocky Mountain states and from as far as Mexico. This lead from the smelters of other states is refined in the Omaha plants, shipped to ammunition companies east, and certain chemical by-products are formed in connection with the refining processes and are used in Nebraska and elsewhere. The Omaha smelter, so-called, is a chemical refining plant not a smelter as the name would cause one to suppose.

Petroleum Refining Industry. Although no crude oil in commercial quantities is produced in Nebraska, petroleum refineries are located at Scottsbluff and Chadron. These refineries truck their crude oil in from Wyoming.
Cement Industry. There are two large cement plants in the state, located at Superior and Louisville. They quarry limestone, shale, and chalk rock and grind, mix, and burn them to clinkers which are ground as cement. The production of these plants is used in highway construction and the building industries, principally in Nebraska.

Building Industry. Among the activities here are the building or construction of highways, bridges, irrigation and water power projects, river control work, houses, public buildings, and industrial plants. According to the United States Census, 19,753 persons were engaged in the building industry in 1930. Much relief labor is now used in the building industry. Except the projects which are subsidized by the federal government, there is comparatively little building in Nebraska at this time.

Repair Shop Industry. This relates to the maintenance and reconditioning of machinery, autos, motors, and to other products of manufacture and building. It includes the activity of railroad car shops, general repair shops, garages, and other establishments doing this line of work.

Farm Machinery Industry. Many plows, listers, pumps, windmills, and other kinds of farm machinery are made in Omaha, Beatrice, Lincoln, Fremont, Grand Island, Fairbury, Kearney, and other cities of the state.

Iron, steel, and other metal-working industries had 7,552 employees in 1930. Planing mills, other wood-working and furniture manufacture had 1,459 employees in 1930 and the independent hand trades employed 3,920 persons during the same year.

Printing and Publishing Industry. According to the United States Census about 267 establishments and 4,176 persons were engaged in the reportorial, editorial, clerical, administrative, and other kinds of work relating to the printing of newspapers, magazines, and books, and job work in Nebraska in 1930. In 1929, the materials used in these industries cost $4,341,112; the production had a total value of $18,477,401; and the added value was $13,936,126. The printing and publishing industries had no marked recession during the depression and drouth.

INVESTIGATION, PUBLICATION, AND PROMOTION

Some of the investigational activities of the University are closely related to the industrial progress of the state. They have published a number of bulletins on industries. Also, most of the occupational and industrial groups of the state are organized to further their interests, and several of them publish annual reports which contain valuable information. Among these reports are those of the State Manufacturers' Association, State Irrigation Association, State Horticultural Society, State Department of Agriculture, and others. All told, about all that might be expected is being done by the state, University departments, and by organized effort to further the industrial activity within the state.

It should be noted in closing that much progress is being made at this time in chemical research to determine what new products can be made from corn, potatoes, weeds, straw, and other agricultural materials. This should mean the establishment of new manufactures, the creation of new markets for agricultural products and the employment of more labor.