

THE FUTURE OF MANUFACTURING IN STOCKTON, CALIFORNIA

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Only a gifted oracle could accurately predict the structure of manufacturing in Stockton for the year 1980. The continuously evolving nature of our society, the normal evolution of manufacturing practices, and the vagaries of the men who manage the development and operation of manufacturing concerns preclude all but the most tentative predictions based on analysis of the best available information. The structure of manufacturing in the past has experienced innumerable unpredictable changes which have led to the industry of the present (Table 1).

EMPLOYMENT IN MANUFACTURING IN STOCKTON
1856 to 1962

Industry	1856	1878	1949	1962
Food and kindred products	48	91	6,560	6,200
Paper and paper products	18	28	1,300	1,500
Lumber and wood products	5	7	1,130	1,500
Stone, clay, and glass products	10	10	585	(1)
Apparel	18	44	(1)	(1)
Leather and leather products	18	85	(1)	(1)
Transportation equipment	30	35	155	(1)
Machinery, except electrical	20	84	655	1,300
Metal work	45	27	655	680
Miscellaneous manufactured products	8	16	425	1,900
Total	220	427	11,465	13,000

(1) No data available; included in figure for miscellaneous manufactured products.

Table 1

There is no reason to assume that similar unpredictable events will not occur in the next 20 years. Furthermore, the changes which may occur do not necessarily have to originate in Stockton to affect Stockton. Stockton was located far from the battlefields of World War I, but the war's effect on the Holt Manufacturing Company was dramatic. Similarly, the distant fighting of World War II had effects on the city's shipbuilding industry. But lest the reader assume that the effects on manufacturing of the caprices of mankind and the changes brought by evolution of raw materials and markets are limited to the catastrophic changes wrought by world wars, let us consider the impact of the shift of wheat raising in the California Central Valley to the Northwestern States. The effect of this change was dramatic, because after the shift in the location of wheat raising, flour milling in Stockton declined to virtually nothing.

A number of courses of development might be postulated for the next two decades. A study of manufacturing in Stockton, completed in 1962, indicates that not a *single* diagnostic parameter but rather three trends provide bases for predicting the status of manufacturing in the city in 1980. These trends are:

1. The continued growth of manufacturing at the rate experienced during the 1950 to 1960 decade,
2. The pre-eminence of the disadvantages of industrial location, and
3. The maximum utilization of the natural and cultural locational advantages of the Stockton area.

Out of these diverse trends will emerge a single pattern of manufacturing in 1980.

PRESENT RATE OF GROWTH

Present progress of manufacturing is one basis for an analysis of future manufacturing. One measure of this progress is the rate of growth during a specified period of time. Therefore, the first trend that can be logically assumed as a basis for predicting the status of manufacturing in Stockton in 1980 is a continuation of the rate of expansion of the manufacturing industry of Stockton during the last decade (Figure 1).

In the period 1950 to 1960, agriculture was the dominant aspect of the economy of the Stockton metropolitan area. Although some industrial diversification occurred, development in the major portion of manufacturing and most other industries paralleled the increase in agricultural employment. Agricultural employment increased approximately 21 per cent from an annual average of 20,783 to an average of 25,383. Employment in all industries reached a total of 101,319, a growth of about 19 per cent for the decade. Manufacturing employment reached a high of 12,800, which also constituted an increase of 19 per cent.

Population, which reached 249,938 in April, 1960, a growth of 25 per cent over the 1950 figure, and employment in the Stockton area are likely to follow the trend established in the 1950-1960 decade. Furthermore, the manufacturing industries are likely to continue to reflect the importance of agriculture. Hence, as at the present time, in 1980 nearly one-half of the annual average number of wage and salary workers in manufacturing will be employed in the food and kindred products industries. Canning and preserving of fruits and vegetables will account for one-quarter of the average annual employment and for over half of the total number of employees during the period of peak employment.

PRE-EMINENCE OF LOCATIONAL DISADVANTAGES

The possibility exists that the disadvantages of location in Stockton could become so great that a number of manufacturers may find it both advantageous and necessary to leave the city. Although this occurrence is not probable, should the companies elect to move, the effects on the over-all structure of manufacturing would be significant. Postulating that Stockton does not experience a major increase in the number of man-

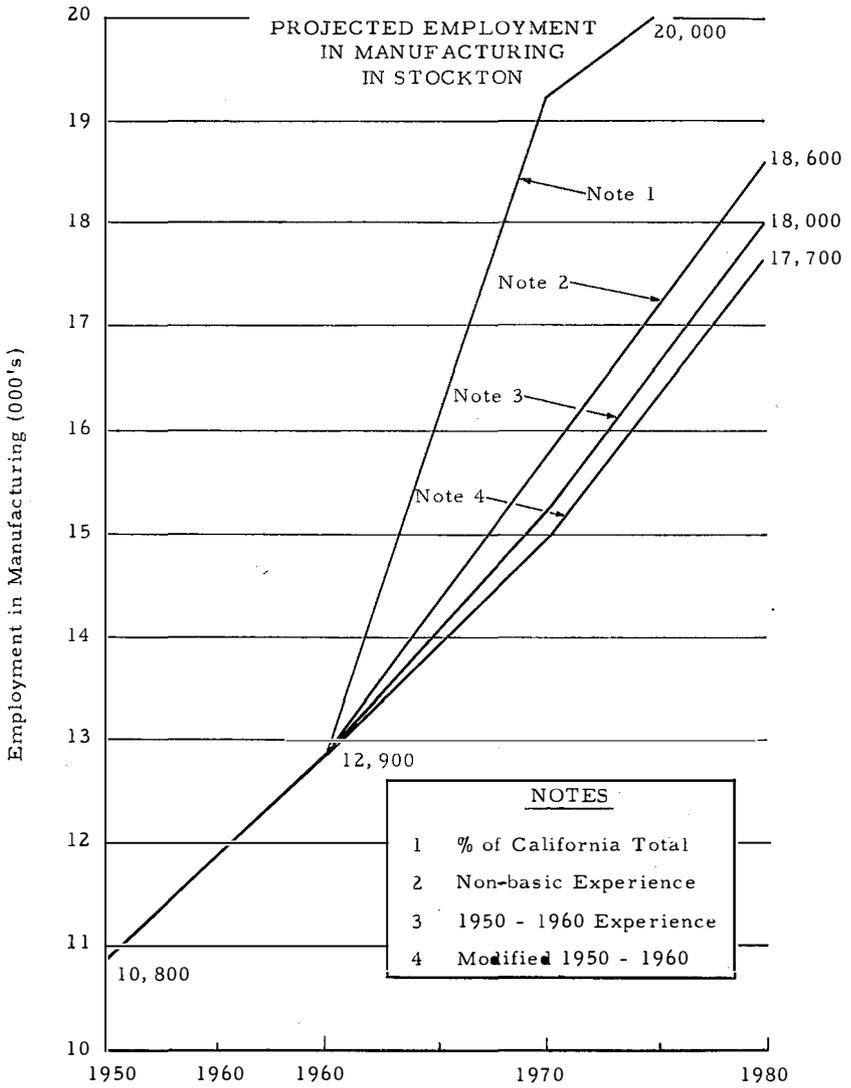


Figure 1

ufacturing concerns nor in manufacturing employment, the decrease caused by the departure of as few as seven companies could cause a direct decrease in manufacturing employment of over 1,500.

Several reasons may lead manufacturing concerns to leave both their present sites and the Stockton area; these same reasons may keep other companies out. Lack of adequate space for expansion, comparatively high tax rates (Table 2), waste disposal problems, untrained labor, and a possible lack of general community interest in manufacturing may act singly or in concert to influence the future of manufacturing in Stockton.

**PROPERTY TAXES, ASSESSED VALUATION RATIOS,
AND EFFECTIVE TAXES IN SELECTED CALIFORNIA CITIES, 1961-1962 (1)**

City (County)	Tax Rate on \$1,000 Assessed Valuation	Assessment Ratio (2)	Effective Tax on \$20,000 Real Value (3)
<i>Statewide Comparison</i>			
Walnut Creek (Contra Costa)	\$105.90	27 %	\$571.86
Concord (Contra Costa)	104.32	27	563.33
STOCKTON (San Joaquin)	102.48	28	573.89
Hayward (Alameda)	100.00	24.1	482.00
Alameda (Alameda)	96.60	(4)	508.33
<i>Central Valley Comparison</i>			
STOCKTON (San Joaquin)	\$102.48	28	\$573.89
Fresno (Fresno)	92.76	24 (5)	464.45
Tracy (San Joaquin)	92.28	28	516.77
Modesto (Modesto)	91.60	20	366.40
Merced (Merced)	86.20	(4)	479.00
Sacramento (Sacramento)	81.95 (6)	(4)	485.75

(1) From *California Tax Reporter*, Volume 3, "City Taxes; The Law; New Matters and Case Tables," Commerce Clearing House, Inc., 1961.

(2) Per cent of real value used for assessment purposes.

(3) Calculated by the author from Tax Rate and Assessment Ratio assuming \$20,000 total real value of which \$10,000 is land only.

(4) Different city and county ratios; both used for effective tax calculations.

(5) Average of ratios shown in *California Tax Reporter*.

(6) Average city tax rate of rates shown in *California Tax Reporter*.

Table 2

Each of these factors is important to manufacturing. However, because the significance of community interest, or disinterest, is often neglected and because of the importance of this factor to Stockton's past and future development, the discussion of the location disadvantages is focused on this one factor.

Farming is big business in the Stockton area. Without the abundant supply of agricultural products and the demand for farm implements, few, if any, manufacturing concerns presently located in Stockton would prosper. For more than a century agriculture has been the backbone of

Stockton's economy. People in the area were raised as farmers, they banked as farmers, and those who have left the farms for the city maintain their contacts with the farming community. Indeed, agriculture is the foundation on which Stockton's manufacturing industry has been built and on which it stands at the present time.

Part of the cement that holds this foundation together is based on personal desires to perpetuate the importance of agriculture. This desire may serve to retard the expansion of existing manufacturing facilities or to prevent the development of diversified manufacturing activities in Stockton.

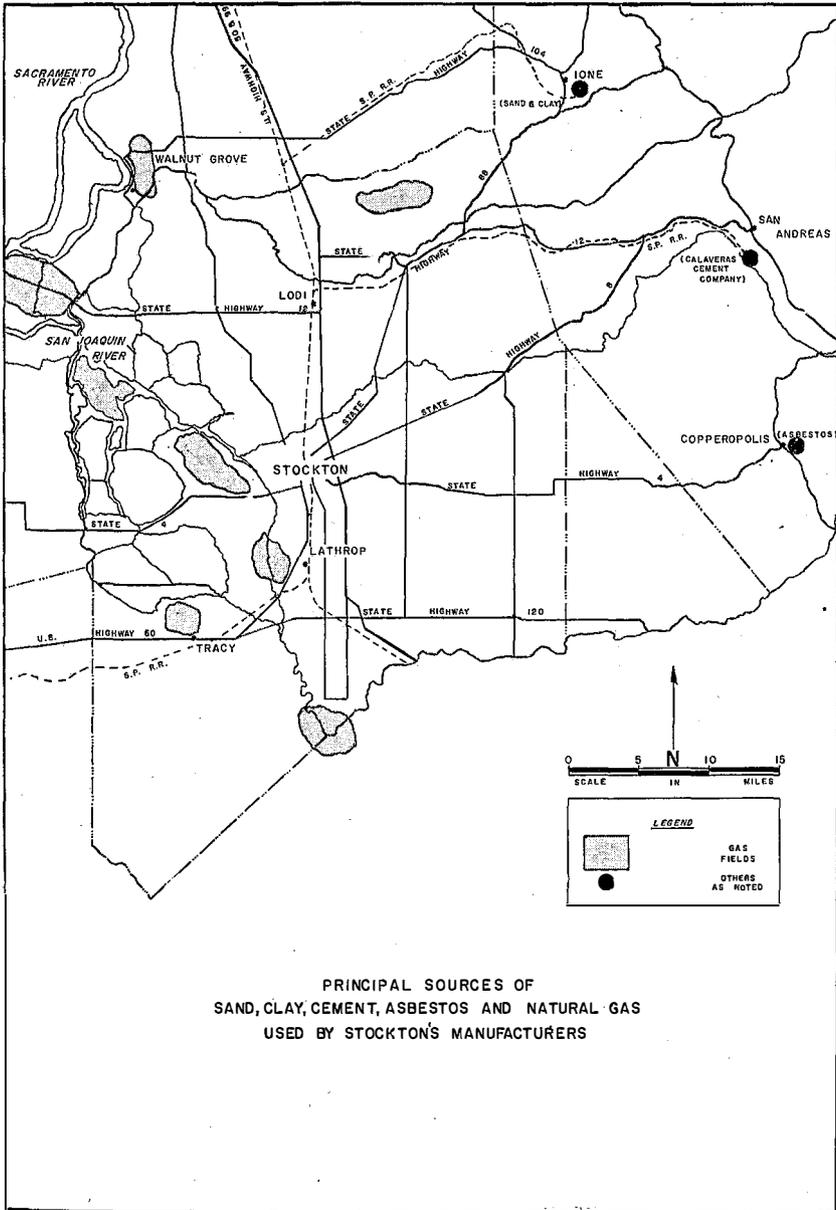
To what extent the diversification of the manufacturing industry of Stockton has been controlled by the influences of agriculture cannot be documented without a thorough and personal understanding of the community and its leadership. Suffice it to say, either by choice or through lack of understanding, the city's financial and political leaders may have retarded the diversification of Stockton's manufacturing industry. The role that the "human factor" may play in the development of manufacturing in a city is one of the more interesting questions for future study in Stockton, other cities in California's inland empire, and other agricultural centers throughout the United States.

No one can predict with absolute certainty that the firms which might leave their present locations would not find adequate sites in Stockton, but several basic arguments for their leaving the area altogether cannot be overlooked. The canneries may find it advantageous to select locations centrally located to fruit and vegetable crop production. The lumber products company may find a desirable location near the source of wood. Companies located along the Stockton Channel which may lose their sites to other land uses, may find that the virtually unlimited number of sites on San Francisco Bay or the new facilities along the Sacramento River, together with the large number of suppliers and ancillary manufacturers that are in these locations, may be advantageous locations for their operation.

MAXIMUM UTILIZATION OF LOCATIONAL ADVANTAGES

Another possible trend which the development of Stockton's manufacturing may take during the next twenty years is toward maximum utilization of the area's locational advantages. Stockton has a major inland port and is the focal point of an extensive road and railroad network. The city is well located with respect to agricultural and other raw materials (Figure 2) and has a large and expanding market for consumer products. Of these factors, market is possibly of greatest significance.

Stockton is in an excellent market location. The city serves a population of nearly 300,000 in San Joaquin County and is located at the approximate center of California's agricultural production. Stockton is located about sixty miles from the San Francisco Bay area and fifty miles from Sacramento with its burgeoning population, with access to these markets over rail, highway and water routes. Three intercontinental railroads and a complex of state and national highways connect Stockton with markets in the East. Furthermore, the deep water Port of Stockton provides a suitable avenue for direct international marketing.



PRINCIPAL SOURCES OF
SAND, CLAY, CEMENT, ASBESTOS AND NATURAL GAS
USED BY STOCKTON'S MANUFACTURERS

Figure 2

At the present time, the local market is not as important for Stockton's manufacturing industries as it may be in the future. As is summarized in Table 3, over 70 per cent of the products of all but one category of manufacturing, for which data are available, is marketed outside of the Stockton Metropolitan Statistical Area. Based on retail sales estimates, it would seem that the local population would support the expansion of manufacturing of consumer goods, particularly home furnishings and appliances, apparel, and wood products, and a wider variety of electrical and non-electrical machinery than are now manufactured in the city.

**MARKETS FOR PRODUCTS MANUFACTURED
IN STOCKTON, 1962 (1)**

Industry	Non-Local Markets	Local Market (3)
Food and kindred products	85 %	15 %
Paper and paper products	4	96
Lumber and wood products	90	10
Stone, clay, and glass products	89	11
Apparel	(2)	(2)
Leather and leather products	(2)	(2)
Transportation equipment	81	19
Machinery, except electrical	78	22
Metal work	78	22
Miscellaneous manufactured products	71	29

(1) Based on information received in response to questionnaire, September 1962.

(2) No data returned in response to questionnaire.

(3) San Joaquin County.

Table 3

From an analysis of the present manufacturing in Stockton, in which few household appliances, furniture, and clothes are produced, it appears that the largest expansion of manufacturing may be in the production of consumer goods for the local market. As stated previously, during the last decade the population of the Stockton Metropolitan Area has grown by about 25 per cent. Based on this growth rate the projected population in 1980 will be 390,607. Assuming (1) that the expansion of employment in the manufacturing of consumer goods for the local market will be approximately proportionate to the population increase, (2) that the non-basic manufacturing is that which meets the demands of the local market, and (3) that the relative importance of each of the non-basic manufacturing industries will continue at about the same level as at present, employment in manufacturing would increase by 1,960 in 1980. This increase would occur in all segments of manufacturing. However, the present structure of manufacturing indicates that an even greater increase in the production of consumer goods than that derived from the above assumptions may be possible.

DISTRIBUTION OF MANUFACTURING
IN STOCKTON, 1962

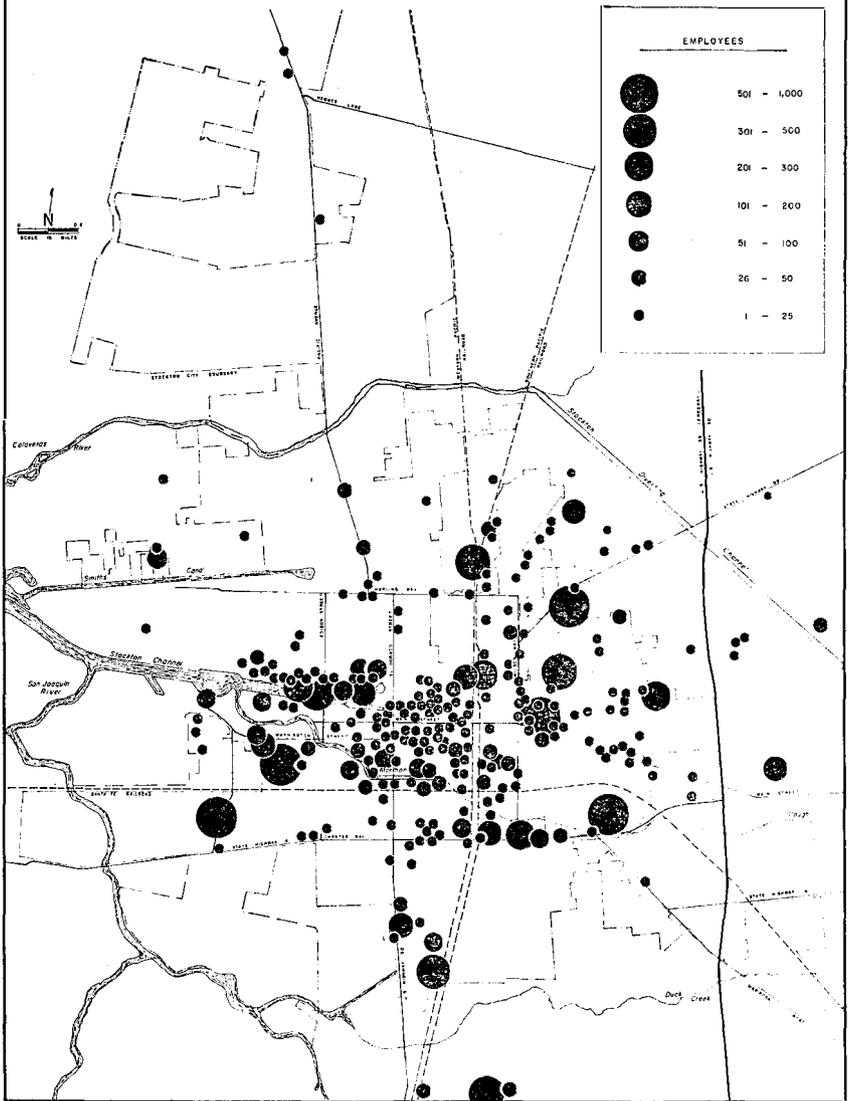


Figure 3