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<p>UNITED STATES DEPARTMENT OF LABOR          WOMEN'S BUREAU          Bulletin No. 187</p>
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LABOR STANDARDS AND  
 COMPETITIVE MARKET CONDITIONS  
 IN THE CANNED GOODS  
 INDUSTRY

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UNITED STATES DEPARTMENT OF LABOR

FRANCES PERKINS, Secretary

WOMEN'S BUREAU  
MARY ANDERSON, Director



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INDUSTRY



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UNITED STATES DEPARTMENT OF LABOR

WOLFE CURRIE & PENNELL

LABOR STANDARDS AND  
COMPETITIVE MARKET CONDITIONS  
IN THE CANNED GOODS  
INDUSTRY



REPORT OF THE BOARD OF INVESTIGATION  
ON THE LABOR MARKET IN THE CANNED GOODS INDUSTRY

UNITED STATES  
DEPARTMENT OF LABOR  
WASHINGTON, D. C.

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## LETTER OF TRANSMITTAL

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UNITED STATES DEPARTMENT OF LABOR,  
WOMEN'S BUREAU,  
*Washington, June 14, 1941.*

MADAM: I have the honor to transmit herewith a study of Labor Standards and Competitive Market Conditions in the Canned Goods Industry. The study was made in order to determine the degree of interstate competition prevailing in an industry with widely varying base rates of pay in 1939.

Women's Bureau funds were supplemented by funds from the Wage and Hour Division for this survey. It was directed by Bertha M. Nienburg, Chief Economist of the Bureau. The field work and statistical compilation was done by Johannes Stuart assisted by Bernard Cahill.

Respectfully submitted.

MARY ANDERSON, *Director.*

HON. FRANCES PERKINS,  
*Secretary of Labor.*

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# Labor Standards and Competitive Market Conditions in the Canned Goods Industry

## INTRODUCTORY

The survey of wages and hours in canneries made by the Women's Bureau in 1938 and again in 1939<sup>1</sup> showed wide variations in amounts paid to cannery labor preparing the same products. At the hearings held by the Wage and Hour Division of the Department of Labor during 1940 questions were asked repeatedly concerning competition between regions having different wage scales. As opinion differed, a brief survey of competitive marketing conditions was believed necessary. The survey was confined to two of the most widely grown and used vegetables, tomatoes and snap beans, and to two other vegetables grown under special conditions and canned in a few areas, spinach and pimientos.

The general movement of these four products from their principal points of canning was determined, and their entrance into the wholesale markets of New York and Chicago, markets supplying a retail trade in surrounding States, was traced. The survey shows the extent to which the products were sold within the State in which they are canned and the extent to which they enter interstate competition. It also shows the effect of the expansion of the industry in regions with low wages upon existing industry in regions with high wages.

Since this study was made, the Administrator of the Fair Labor Standards Act has redefined "area of production" for fresh fruit and vegetable handling and first processing. Under the new definition a single basic wage rate is set up for all establishments having more than 10 employees. While this definition will narrow materially the differences in rates paid to cannery labor in 1941, differentials will remain in State minimum-wage and hour regulations and in trade-union agreements.

## CHARACTER AND SOURCE OF DATA

The main sources consulted concerning marketing methods and grades of canned foods were the canners' associations in the various States, as well as the National Canners Association in Washington. When necessary, individual canners were visited in order to round out the picture of the situation of an individual canning State. Data on marketing methods were obtained from canners in Texas, Indiana, Maryland, and California.

<sup>1</sup> Women's Bureau Bull. No. 176, Application of Labor Legislation to the Fruit and Vegetable Canning and Preserving Industries.

Information was gathered also in Chicago and New York from a representative group of brokers and of wholesale buyers. The wholesale buying group includes regular wholesale houses, chain-store organizations, and representatives of the voluntary chains.

It was found that for certain regions and for certain products the process of transfer from manufacturer to wholesale purchaser was effected through field brokers, and a group of firms acting as field brokers also were visited. In addition to these, a number of importers who act as wholesalers of certain products were consulted in New York City.

Data on wholesale prices for the year 1939 were collected from both published and unpublished sources. The publications from which wholesale prices were obtained are *The California Fruit News*, *The Canning Trade*, and *The New York Journal of Commerce*. To these quotations were added, for regions for which published prices were not available, the quotations obtained from individual brokers, wholesale buyers, canners, and canning associations. The unpublished figures also revealed certain instances in which published prices did not completely reflect the extremes of price ranges. In fact, the price ranges recorded here do not include certain individual sales made at very extreme prices. However, they do include some very low prices at which tomatoes were sold by field brokers, as well as the high prices at which certain nationally advertised brands were sold.

To obtain the cost of canned goods at terminal markets, the costs of shipping must be added to the wholesale price, which is that given as the price at the factory. Transportation costs were obtained from the railroads, the truck lines, the steamship companies, and the freight conference associations.<sup>2</sup> These rates were recorded for each type of carrier used in a particular movement of goods. Ranges of rates were recorded from the lowest possible cost to the highest cost per dozen at which any appreciable quantities of canned vegetables moved from factory to market. Costs include the expense of hauling canned goods from cannery to dock when water lines are used, as such charges must be met by the wholesaler. But costs do not include the terminal costs of the buyer of canned goods, as these differ with each individual purchaser.<sup>3</sup>

Basic data dealing with raw-material costs, carry-over, and packs were obtained from *Western Canner and Packer*, and publications of *The Canning Trade*, *The National Canners Association*, and the United States Departments of Agriculture and Commerce.

### Terms Used.

All information on surveys of beans, tomatoes, and spinach has been given in terms of No. 2 cans so that materials gathered from different parts of the country would be comparable. This can size is predominant for these three products throughout most of the country except California, where both spinach and tomatoes are commonly packed in No. 2½ cans; as these are considerably larger than the No. 2 cans, quantities given are converted to cases of No. 2 cans

<sup>2</sup> Common carrier truck rates were used throughout. Contract and private carrier rates were not sufficiently accessible to be included, though canned vegetables may be moved by these means of transportation.

<sup>3</sup> There may also be differential terminal charges for goods shipped by water as compared to those shipped by rail and by truck. These costs cannot be adjudged with sufficient accuracy to be tabulated.

and prices given are those quoted on No. 2 cans. Data on pimiento packs, from the United States Census of Manufactures, are in actual cases of all sizes, and prices are quoted for 4-ounce and 7-ounce cans, the most common sizes in which pimientos are packed.

### Producing Regions (Names Used in Report).

Throughout this report several producing regions have been designated by names that are to be considered as including the States indicated below.

1. *Tri-State*.—Maryland, New Jersey, and Delaware. The canneries in this region are in and around Baltimore, in western Maryland, on the eastern shore of Maryland, in Delaware, and in southern New Jersey. The largest number are within the State of Maryland.

2. *Ozark*.—Arkansas and Missouri. The larger number of canneries in this region are in Arkansas.

3. *Indiana-Ohio*.—Indiana and Ohio. The canneries in these two States are in the same producing region, with Indiana having the larger output.

4. *Northwest*.—Oregon and Washington. Green beans are packed in both these States in what constitutes a single producing region. Though California beans do not enter eastern markets to any great extent, the quality and type of pack in this State are similar to those of Oregon and Washington. Furthermore, factory prices for the three coast States are approximately the same. Wage rates are slightly higher in California, but Oregon and Washington scales are considerably above other major bean-canning regions, so it is possible to consider these three States together as has been done in the text of this report.

### GENERAL MARKETING PRACTICES

The process of movement of canned goods from manufacturer to consumer may follow a number of different channels. Canned goods may be sold directly to the retail distributor by the manufacturer, as occurs when a chain-store organization buys from a packer. They may be purchased from the manufacturer by a field broker, whose function is that of a buying and selling organization for canned goods of all kinds; he in turn sells to the retail chains and to the wholesalers. They may be sold to distributors through brokers in marketing regions who have the exclusive right to represent a particular manufacturer in such sections. They may be handled by both field broker and associated broker, the former in the general region where the canneries are located and the latter in the marketing region.

It is impossible to determine specifically what proportions of all canned goods or of particular products are handled in the different ways enumerated above, or how much of the canned foods purchased by wholesale buyers comes directly from the canner, from the field broker, and from the regular broker. There are three factors that make each of these important and also tend to limit their field of operation.

The first of these three factors is the size of the canning plant. A small canner cannot afford to maintain a sales force in every marketing center in which he wishes to have his goods sold. This means

that to have access to the marketing center he is forced to obtain representation through some kind of broker who is not dependent on the single account of one manufacturer. Only a large canning firm can afford to have direct representation in even the larger cities. Cannerymen of substantial size usually market their goods through brokers who are their exclusive representatives in a particular city. Small canners may rely more largely on field brokers<sup>4</sup> who represent a number of canners and whose sales area is not restricted. Still other small canners may have connections with a field broker who helps them financially during the packing season, who sells their goods, subtracts his expenses, and returns to them what is left.

The second factor operates to make buying direct. A large wholesale purchaser may wish to eliminate entirely any sales intermediary and to do business directly with the canner. In case a portion of his purchases are from small canneries, he may purchase through a field broker who holds title to the goods he sells.

The third factor that to some extent directs the course of purchases is the operation of the Robinson-Patman Act of June 1936. The provisions of this act, as they affect purchases and sales of canned foods, prohibit discrimination in price "between different purchasers of commodities of like grade and quality" when such transactions are in interstate commerce, but permit such differentials in price as "make only due allowance for differences in the cost of manufacture, sale, or delivery resulting from the differing methods or quantities \* \* \* sold or delivered." The courts decided in 1940 in a case involving the Great Atlantic and Pacific Tea Company that the company could not accept brokerage allowances on its purchases, and that the acceptance of such allowances constituted a discrimination of price. In compliance with this court decision the company has directed its buyers to avoid any possible acts that might involve the company in transactions susceptible to adverse interpretation, and at the same time to attempt in so far as possible to make their purchases from sellers who employ no brokers.<sup>5</sup>

While accurate figures are not available, it is estimated that the wholesale buyers visited in Chicago and New York make at least one-fourth of their purchases of the four canned vegetables under consideration in this report directly from owners, that is, from canners or from field brokers who had title to the canned goods they sold.

### Quality, Grades, and Labels.

The problem of the quality of canned goods, under which is included grading and labeling practice, is fairly complicated because of the varieties of crops and the number of interested parties. The majority of canners classify their output as to grade, and associations of canners may issue standards. The United States Department of Agriculture has enunciated grade standards, and the buyers of canned goods

<sup>4</sup> The field broker differs from the regular broker in that he may represent a number of canners, his sales territory is not restricted in the same way as that of the regular broker, and his sales are made either through other brokers or to wholesale distributors. Characteristically he represents the smaller canner who has no sales organization of his own and who is therefore dependent on the field broker for the sale of his product. However, the field broker may also function as sales representative for canners who sell through other agencies and may therefore have a variety of accounts ranging from a few thousand cases for some canners to the total pack for others. He sometimes extends his operations and becomes the purchaser of canned goods, which he then sells directly to wholesale distributors.

<sup>5</sup> The Great Atlantic and Pacific Tea Co., Manual on the Robinson-Patman Act, pp. 7-8.

may also have definite and personal opinions of grade. In respect to each of these groups there is a tendency toward the stabilization of grades around some norm, but individual departures from any set grading formula are not uncommonly met with and overall quality within grades may vary considerably from season to season depending on the quality of crops.

The most important single factor in the determination of quality has been the Department of Agriculture's Canned Fruit and Vegetable Grading Service, which has organized a procedure whereby a canned product may be scored on such factors as uniformity, flavor, color, tenderness, drained weight, and character of medium. The sum of the individual scores determines whether a particular lot of canned goods shall be classed as A, B, C, or D in grade. These grade designations are similar, respectively, to the trade grades of Fancy, Extra Standard or Choice, Standard, and Substandard. This service, which is permissive and not regulatory, is often called for by buyers and sellers both to establish grades in purchases and for arbitration in cases where disputes over grades arise.

In addition to this service the Department also may arrange for continuous inspection of a firm's canning process and the product of such a firm may carry a statement of grade on the labeled merchandise. This inspection service has been operating in only four canneries on an experimental basis, two of which can one or more of the products with which this report is concerned.

The Federal Food and Drug Act of 1938 also has a bearing on the quality of canned goods. Under this act standards of quality, identity, and fill can be set by the Food and Drug Administration to which labeling must conform. At the present time only the standards of quality for tomatoes and corn have been formulated. For canned tomatoes the label must carry a declaration of any added ingredients, such as strained tomatoes and spices, and if the product is substandard in quality or fill this must be indicated.

The majority of canners also are engaged in classifying their product by grade. In some cases they may even make distinctions within a trade or Government grade. For example, some of the California pimiento canners have two standards of quality within the Fancy or Grade A designation, and the Indiana tomato canners sell both a Special Extra Standard or Near Fancy and an Extra Standard tomato which fall within the Extra Standard or B grade. However, in the case of spinach and pimientos, the great bulk of these products fall within the Fancy grade, as no Extra Standard or B grade has been recognized, and in such cases wide qualitative differences may exist between the standards of different packers or of different producing areas. In such a case the quality of a lot of canned goods as stated in terms of its grade is not particularly revealing.

The practices of buyers have considerable significance in regulating the quality of canned foods. The price paid to the manufacturer is directly associated with quality and therefore a number of methods have been developed to insure the purchaser the quality he wishes to obtain. The most far reaching of these methods involves the inspection of the canning process at the cannery and a number of firms undertake to do this. Another way in which the buyer may

establish grade is by obtaining a certificate of inspection from the Department of Agriculture's Canned Fruit and Vegetable Grading Service at the time of purchase. Buyers may also purchase on grade subject to approval of samples.

Labels may be classed into three groups: Advertised canner's labels, other canner's labels, and private or buyer's labels. The first of these, the advertised label, may receive either national or regional advertising and recognition. The second, a packer's label, has no such brand value and is often used as a competitive weapon by buyers. The private or buyer's label is one sponsored by a wholesaler or chain distributor and its sales area is identical with that of the distributor or its sponsor.

Usually the owner of a nationally advertised or of a private label is concerned with maintenance of a standard of quality which he wishes to have the public associate with the label. It is customary trade practice to associate a certain label with a particular grade of canned products and to attempt to purchase or manufacture, for that label, a quality of product that exceeds the minimum specification for the grade desired. To this general practice there may be certain exceptions. Different grades may be marketed in different sales regions under the same label when a particular market will not buy above a certain price. Some firms may use one of their labels for all Grade A canned products except tomatoes, for example, because they feel they have no call for fancy canned tomatoes. Finally, crop failures or crop-damaging factors may affect the quality of goods within a particular grade.

In a study carried out by the Federal Trade Commission<sup>6</sup> of the quality of canned vegetables sold in retail stores, some findings were made on samples of canned vegetables under private and manufacturers' brands, as graded by the Department of Agriculture, to see if variation in grade occurred within samples packed under the same label. It was found that about 47 percent of the manufacturers', 38 percent of the cooperatives', 37 percent of the wholesalers', and 30 percent of the chains' samples showed variation in grade. This is a considerable percentage, especially when the fact is considered that the number of cans per lot was small.

Some distributors have adopted the practice of declaring the grade of a canned product on the label, either in connection with the brand name or separately. In such a case, a significant departure from the grade declared may make the distributor liable to a complaint for mislabeling.

<sup>6</sup> Federal Trade Commission, Chain Stores: Quality of Canned Vegetables and Fruits (under brands of manufacturers, chains, and other distributors). Doc. No. 170, Government Printing Office, Washington, D. C., 1933.

## SUMMARY OF FINDINGS

The four canned-vegetable markets studied illustrate clearly the extent of competition between products originating in low-, medium-, and high-wage regions. Each of these vegetables is canned in places with different wage levels. Two markets, the tomato and snap bean, illustrate competitive marketing conditions when the products are grown and canned in many States; the spinach and pimiento markets are illustrative of marketing conditions when products are grown in limited areas. Together their handling affords answers to the questions for which the survey was undertaken.

**First: To what extent are products sold outside the State in which canned?**

Major canning States market the larger part of their canned vegetables outside the State of production. Minor canning States with large wholesale food markets may dispose of most of their pack within the State of production.

The major tomato-canning States are Maryland, Indiana, and California; 60 percent to 80 percent of the tomatoes canned are marketed outside the State of pack origin. New York, a secondary tomato-canning State, markets over 80 percent of its total pack within New York State, by far the largest food-distributing State in the country.

The major snap-bean-canning States are Maryland, the Wisconsin-Michigan region, the Oregon-Washington region, and New York. The first three of these market the major part of the snap-bean production outside the States of origin; New York canners market a smaller but material volume outside New York State. Production of snap beans in California is largely directed to local use.

California, Arkansas, and Maryland have canned about 80 to 85 percent of the total spinach pack in the last six years. Each State ships three-fourths or more of its canned spinach to markets outside the specific State. Texas, a growing but still minor producer of canned spinach, ships out about one-fourth of its product.

Georgia produces over two-thirds of the canned pimientos; over 90 percent leave the State. California packs about one-fourth of the volume of pimientos and sales are confined largely to the Pacific coast.

**Second: To what extent do these canned vegetables compete in the major wholesale markets?**

New York City and Chicago are the largest canned-goods markets. About 60 percent of New York's domestic canned tomatoes are packed in the Tri-State region of Maryland, Delaware, and New Jersey; about 15 percent each come from Indiana and

from New York, with smaller amounts shipped from California, Pennsylvania, Virginia, West Virginia, and Michigan. The Indiana-Ohio producing region supplies the Chicago market with its largest volume of canned tomatoes, with some originating in Illinois, Michigan, the Tri-States, Utah, Wisconsin, California, and New York.

About one-third of New York's canned snap beans are produced in New York State, one-third in the Tri-State region, one-sixth in the Northwest, with smaller amounts from a number of other States. The Chicago market is supplied by Wisconsin, Michigan, the Tri-States, and New York, with smaller amounts coming from the Northwest and the Ozarks.

About half the canned spinach marketed in New York City comes from Maryland, about 30 percent from California, and smaller amounts from New York, Arkansas, Texas, and other States. The major producing regions for canned spinach sold in the Chicago market are California, Arkansas, and Maryland.

In both the New York and Chicago markets all but about one percent of the pimientos originate in Georgia, the remainder coming from California. These figures do not take into consideration imported Spanish pimientos, which are difficult to secure.

**Third:** Under what price disadvantages are competing products marketed from places with different wage levels?

New York and Indiana Standard canned tomatoes were found to sell at from 7½ to 11½ cents a dozen more than Maryland and Delaware tomatoes in the New York City market. Average earnings of workers in Maryland were lower by 5 cents an hour than those in New York State and Indiana.

New York Standard cut No. 2 canned snap beans sold at 65 cents to 67 cents a dozen, while Tri-State beans brought 56 cents to 72 cents in the New York market. Northwest beans were sold chiefly as Fancy cut at \$1.13 to \$1.25 a dozen. Average hourly earnings of workers in New York and Maryland differed by only 1½ cents an hour, while Washington workers earned three-fourths again as much as Maryland workers.

In the Chicago market, Tri-State Standard cut beans were delivered at slightly lower prices than Wisconsin beans. New York and the Northwest competed in the Chicago market chiefly on Extra Standard or Fancy grades, as they could not compete on Standard grades. Wisconsin and New York wages are similar, but those in the Northwest are very much higher.

Delivered prices for a dozen No. 2 cans of spinach in the New York market were as follows: Maryland, \$0.76 to \$0.945; California, \$0.98 to \$1.325; New York, \$0.80 to \$0.92; and Texas, \$0.64 to \$0.805. Average hourly earnings were \$0.208 in Texas, \$0.258 in Maryland, \$0.275 in New York, and \$0.465 in California.

In Chicago, California spinach at \$1.02 to \$1.27 competed with Arkansas spinach at \$0.685 to \$0.835, and Maryland spinach at \$0.825 to \$1. Maryland and Arkansas wages on spinach were similar, but California earnings on spinach were 85 percent higher than those.

Georgia pimientos delivered prices in Chicago were, per 4-ounce can, \$0.41 to \$0.51, California pimiento prices \$0.55 to \$0.80. Earnings in Georgia were \$0.207 an hour, in California \$0.38 an hour.

Fourth: Is there evidence that the expansion of the canning industry in low-wage regions leads to its curtailment where wages are high?

Yes, when canning is limited to specific regions because of soil or climatic conditions.

In 1934 California produced 71.2 percent of the Nation's canned spinach, the Ozark (Arkansas-Missouri) region 6 percent. In 1939 California produced 47.5 percent and the Ozark region 24.6 percent. The decline in the importance of California spinach in the Chicago market is ascribed directly to the cheapness of the Ozark product by the distributing firms in Chicago. California wages on spinach canning are 85 percent higher than Arkansas wages. California spinach prices in the Chicago market are almost 50 percent higher than Arkansas prices. In the New York market California spinach has had to compete with Maryland spinach, though California prices are about 30 to 40 percent higher and earnings of workers about 80 percent higher than Maryland's.

Maryland, with wages only a little higher than those paid in Arkansas, has been able to maintain a relatively stable position in production, with a steady eastern market that was protected from Arkansas competition by considerable advantage in freight rates.

California pimiento canners, paying hourly wages about 85 percent higher than Georgia pimiento canners, are losing their pimiento markets. In 1927 California canned 51.6 percent of the pack, Georgia 47 percent; in 1937 California canned only 27.8 percent and Georgia canned 68.3 percent. California pimientos enter the major markets today only as they are handled by several large distributors who operate on a Nation-wide basis; Georgia pimientos can be found in Pacific coast markets.

The study of markets for the four canned vegetables indicates that high-wage regions can compete with medium- or low-wage regions only on a quality basis. California spinach, Northwest snap beans, the best grades of Middle Western and New York tomatoes command premium prices.

However, the great volume of the canned vegetables marketed is bought and sold on a price basis and quality is a secondary consideration. No figures on pack by grade are available, but trade practice in buying clearly indicates, for example, that the Tri-State region, as the one most important single source of supply for three of the canned vegetables considered, competes in the mass production of beans, tomatoes, and spinach by stressing output that can be sold at low cost, and this is associated with low hourly rates of pay. This same demand for merchandise at a price attractive to buyers has developed the importance of canning of Georgia pimientos and Ozark spinach.

# COMPETITIVE CONDITIONS OF CANNED SPINACH MARKETING

## Trends in Production.

The production of canned spinach in past years has varied considerably, both in the total amounts packed and in the States from which the pack came.

As with the packs of other agricultural products, crop failures as well as curtailment of production may influence the output for certain States.<sup>7</sup>

While the National Canners Association combines production figures for several States in the following table, Delaware and Missouri spinach canning is insignificant. California, Arkansas, and Maryland have been the primary spinach-canning States in the last six years.

TABLE 1.—Total cases packed in United States and proportions packed in major producing States, 1934 to 1939—SPINACH

[Basis: 24 No. 2 cans to the case]

Year	Total number of cases	Percent of total produced in—					
		New York	Maryland and Delaware	Arkansas and Missouri	Texas and Oklahoma	California	Other States
1934	3,602,131	3.3	11.5	6.0	3.5	71.2	4.5
1935	4,318,001	3.4	10.1	3.9	2.2	70.5	9.9
1936	4,143,167	4.3	7.3	7.1	2.5	65.4	13.4
1937	6,136,051	3.8	8.2	28.0	4.5	48.1	7.4
1938	2,883,106	4.9	15.9	19.2	4.8	46.3	8.9
1939	4,000,476	3.3	12.0	24.6	4.5	47.5	8.1

Source: National Canners Association. Canned Food Pack Statistics, 1937, 1939.

Two significant trends may be observed from the table: The first is the rapid advance of Arkansas and Missouri from a minor to a major producing region; the second is that California has suffered a proportionate decline in conjunction with the rise of Arkansas-Missouri canning.

## Labor Costs.

The hourly earnings of labor are quite different in the various sections producing spinach. The Women's Bureau study of earnings in the canning industry showed the following average hourly earnings for productive workers in 1939, by State:

State	Number of workers with hourly earnings reported	Average hourly earnings (cents)
Arkansas	1,387	25.1
California	4,654	46.5
Maryland	602	25.8
New York	151	27.5
Texas	85	20.8

<sup>7</sup> No figures on carry-over available for total packs in the United States.

It will be seen that Texas earnings are lowest, with Arkansas practically  $4\frac{1}{2}$  cents higher than Texas. New York workers have earnings almost 2 cents higher than Maryland workers. California's average hourly earnings of 46.5 cents are 86 percent higher than the minimum required by the Wage and Hour Administration for the period under consideration and almost 70 percent higher than the average for New York, which ranks second. Detail by occupation and by earnings distribution is shown in tables I and II in the appendix.

The attempt was made to collect the labor costs per case of packing spinach in different parts of the country, as this cost might be expected to vary with the average wage rates paid. Unfortunately, as methods of cost accounting vary from firm to firm, the interpretation of cost figures is difficult. Judging from data collected, the labor cost per case in California, where the prevailing can size is the No. 2 $\frac{1}{2}$ , is around 25 cents a case. In other States, where the prevailing size is the No. 2 can, labor costs given were below 10 cents a case for most canners in Arkansas, about 11 cents for one New York canner, and from 10 to 12 cents for Texas. No figures were obtained for Maryland and Delaware that could be used to represent labor costs. Obviously, differences in earnings are reflected in differences in labor costs per case of spinach.

#### **Distribution by Producing States.**

Information was collected from associations, brokers, and canners concerning the percentage of canned spinach sold outside the State. In most cases the percentages obtained were estimates, though the South Texas Canners Association has made a study of the distribution of Texas canned goods and information of an exact nature was available for Texas canned vegetables.

*California.*—Canners, brokers, and associations in California gave estimates of the percentage of canned spinach moving out of the State. These estimates ranged from 75 to 95 percent. The lower figures came from the canners and probably are more accurate, since they reflect more closely the recent decline in markets for California spinach. All persons interviewed agreed that insofar as markets for California spinach still existed, they were not confined to any section of the country, but that spinach was sold throughout the United States in all sections but the South.

*Arkansas and Missouri.*—No inquiry was conducted in Arkansas, and therefore it is not possible to say exactly how much Arkansas spinach was shipped out of the State. However, since this section produced almost one-quarter of the total United States pack of spinach in 1939 and Arkansas spinach was found in both the Chicago and New York markets, by far the larger proportion was shipped out of the State in which it was produced.

*Tri-States.*—Estimates obtained on distribution in this producing region did not attempt to distinguish between Maryland and Delaware as producing States, though the bulk of the spinach is canned in Maryland. The Tri-State Packers Association estimate was that from 75 to 80 percent would be approximately correct for out-of-State sales.

*New York.*—Probably the New York canned spinach is used almost entirely within the State. This was the opinion of local whole-

salers consulted. Some may be marketed in nearby States and New England.

*Texas.*—In Texas the South Texas Cannery Association recently made a study of the movement of Texas canned products. While figures for Texas spinach are not exactly the same as for all Texas products, the association believed that the following estimates would be quite accurate for the distribution of Texas spinach.

	<i>Percent</i>
Within the State.....	75 to 80
Outside Texas.....	20 to 25
Middle West.....	3
Gulf and Southwest.....	10
Atlantic seaboard.....	10
Arkansas and Missouri.....	1

### Grading.

The trade practices with respect to grading and labeling have been discussed in the general section on grading. Some features of practice are peculiar to spinach and are noted here.

Both Arkansas and California spinach, the chief competitors in middle-western markets, are graded as Fancy spinach. Fancy or Grade A spinach has been defined by the Agricultural Marketing Service of the Department of Agriculture as "the product prepared from very tender succulent leaves of the spinach plant; is practically free from grit, tough or stringy leaves, and other defects. The product is dark green in color, possesses the typical flavor of fresh spinach, and scores not less than 85 points when scored according to the scoring system outlined herein." The Standard canned spinach differs from Fancy in that it need be only reasonably free from grit, tough or stringy leaves, and other defects; possesses a "desirable" flavor and scores not less than 70 points.

However, the wholesale grocer who has his own labels does not market California spinach under the same label as the Arkansas spinach, nor does it bring the same price. Upon examination it would seem that the quality differences within the Fancy grade may vary considerably.

### Marketing Localities.

Sixty-eight wholesalers visited in New York and Chicago sold almost three-fourths of the 1939 spinach pack.

*New York City.*—Forty-three New York wholesalers who sold 603,000 cases of canned spinach in 1939 were consulted in August 1940. The 22 New York brokers visited reported a total of about 277,000 cases sold in that year. Of this, 35 to 40 percent came from California, a little more than 30 percent from Maryland and Delaware, about 15 percent from New York, less than 10 percent from Arkansas, and from 1 to 5 percent each from Virginia and West Virginia, the Midwest, and Texas.

The 21 other distributors visited (including jobbers, chains, and manufacturing jobbers) reported 326,000 cases of spinach sold in 1939. Of this, more than 60 percent was from the Maryland region, roughly 30 percent from California, 1 to 5 percent each from New York and Texas, with about 1 percent from Arkansas and the Midwest. The high percentage of Maryland spinach reported by this latter group is due partly to the effect of a few large buyers whose

policy is to buy very considerable quantities of spinach from Maryland field brokers or direct from Maryland canners. This practice probably would not be so common among smaller wholesalers. The brokers, on the other hand, do not represent Maryland and Delaware adequately, as these States sell so much of their produce through field brokers direct to jobbers.

Taking these deviations into consideration in combining these figures, it may be estimated that for the New York district something better than 50 percent of the canned spinach came from Maryland, about 30 percent from California, 5 to 10 percent from New York, 1 to 5 percent each from Arkansas and Texas, and minor amounts from Wisconsin, Illinois, Virginia, and West Virginia.

*Chicago.*—Twenty-five Chicago wholesalers, who sold 525,000 cases of spinach in 1939, were consulted. The 11 brokers reported a total of about 325,000 cases of spinach in 1939; of this about 60 to 65 percent came from Arkansas, about 20 percent from California, about 15 percent from Maryland, and the remainder from Wisconsin. The 14 other distributors (including jobbers, chains, and manufacturing jobbers) reported a total of some 200,000 cases, of which about one-half came from California, about 35 percent from Arkansas, 5 to 10 percent each from Illinois and Maryland, and less than 1 percent each from Wisconsin, New York, and Texas.

It will be noted that while the brokers account for three times as much Ozark as California spinach, the distributors used considerably more California spinach. It would appear from a consideration of the individual returns for distributors that several of the large firms purchase quantities of California spinach directly from canners. Distributors are a somewhat more adequate sample of total purchases than brokers, even though a part of their sales are outside the Chicago district.

The major producing regions for canned spinach sold in the Chicago market are California, Arkansas, and Maryland, in the order named, with Arkansas a close second. California delivered prices on spinach are very much higher than those of Arkansas, and even Maryland spinach is more expensive than that of Arkansas.

#### Delivered Prices.<sup>8</sup>

Delivered prices in New York per dozen No. 2 cans of spinach classified from low to high were as follows:

California.....	\$0.98 to \$1.32½
New York.....	.80 to .92
Maryland.....	.76 to .94½
Texas.....	.64 to .80½

Delivered prices in Chicago per dozen No. 2 cans classified from low to high were these:

California.....	\$1.02 to \$1.27
Arkansas.....	.68½ to .83½
Maryland.....	.82½ to 1.00

About equal amounts come from California and Arkansas; Maryland spinach is a little better than that from Arkansas and commands higher prices, in the opinion of firms visited.

<sup>8</sup> See appendix table III.

In both Chicago and New York, California spinach can compete only on the basis of quality. Arkansas spinach is the spinach selling on a price basis in Chicago, and Maryland spinach sells on a similar basis in New York. Though the cheapest Texas spinach could be sold in New York at a lower delivered price than that from any other region, its importance was relatively slight due to the small size of the pack in Texas and to the fact that the Texas spinach actually sold in New York tended to be of the better qualities packed in Texas, and therefore marketed well above minimum Texas prices.

#### **Other Marketing Localities.**

There is no statistical basis on which one can estimate the sources of production for marketing localities not covered in this study. However, by combining the information obtained from packers, associations, and others concerned with the marketing of canned vegetables, certain general statements may be made:

1. California spinach is distributed throughout the United States and enters, in varying proportions, into sales in most cities.
2. Maryland spinach is sold chiefly in the East and Southeast, and also to some extent in the central part of the United States.
3. Arkansas spinach is sold in the central and south central parts of the country.
4. Texas spinach is sold in the Gulf States and on the eastern seaboard.
5. New York spinach is sold locally for the most part.

## COMPETITIVE CONDITIONS OF PIMIENTO MARKETING

### Trends in Production.

The canning of pimientos in the United States is confined almost entirely to the two States of Georgia and California, where pimientos are grown. While no figures on production are available on pimientos in the report of the National Cannery Association, figures obtained from *Western Canner and Packer* show actual cases produced by two-year intervals since 1927. The percentage of the total produced in these States is shown in table 2.

TABLE 2.—Total cases packed in United States and proportions packed in major producing States, 2-year intervals, 1927 to 1937—PIMIENTOS

Year	Total number of cases	Percent of total produced in—			Year	Total number of cases	Percent of total produced in—		
		California	Georgia	Other States			California	Georgia	Other States
1927.....	486,611	51.6	47.0	1.4	1933.....	269,649	30.2	65.5	4.3
1929.....	506,012	50.6	44.2	5.2	1935.....	712,270	16.4	79.3	4.3
1931.....	274,499	22.5	71.4	6.1	1937.....	626,205	27.8	68.3	3.9

Source: *Western Canner and Packer*. Year Book, 1940, p. 160. Estimated pack for 1939 is 250,000 cases in California, 475,000 in Georgia.

No figures on carry-over or shipments are available. The position of California declined rapidly from a little better than half the pack in 1927 to not much more than a fourth in 1937.

### Labor Costs.

Average hourly earnings of labor in Georgia, for 1,628 productive workers for whom hours were reported, were 20.7 cents. In California for 987 productive workers the average hourly rate was 38 cents. (For detail see appendix tables IV and V.)

Labor costs per case in Georgia in plants that gave 1939 figures ranged between 18 and 28 cents a case of 48 4-ounce cans. In California, for the same size of case, costs ranged from 30 to 38 cents.

### Distribution by Producing States.

*Georgia.*—Georgia pimientos are sold in all parts of the United States, including California, and dominate the markets of the South, the Middle West, and the Atlantic seaboard. Over 90 percent of the Georgia pack leaves the State.

*California.*—Sales of the California product are confined largely to the Pacific coast. However, several large distributors who operate on a Nation-wide basis handle California pimientos in central and eastern markets.

### Grading.

Fancy or Grade A pimientos are defined by the Department of Agriculture as "practically whole; firm; are fairly uniform in size; are not less than 2 inches in length and width when flattened; possess a uniform full red color; are practically free from defects; possess a typical pimiento flavor; and score not less than 85 points when scored." Fancy pieces must satisfy the same criteria except for wholeness and uniformity of size. Pimiento pieces usually are packed in No. 2½ cans and sold to restaurants, packers of cheese, and other manufacturers who use pimientos in flavoring foods.

Though the grades set up by the Department of Agriculture do mention a Standard grade, none of these were found in marketing localities.

It is true, however, that there are considerable qualitative differences between various parts of the pack of the same canners, the higher quality commanding a market premium from some buyers.

### Marketing Localities.

Fifty-three wholesalers visited in New York and Chicago had sold in 1939 over 350,000 cases of pimientos.

*New York.*—Twenty-eight wholesalers, handling 152,500 cases of pimientos in 1939, were interviewed. Relatively few of the brokers visited had pimiento accounts and only 8 were seen who handled pimientos in 1939. They accounted for 95,500 cases, of which more than 99 percent were canned in Georgia. The presence of California pimientos in New York City markets is associated with the presence of sales offices of large California canners who carry pimientos to round out their line of products. Twenty other distributors selling pimientos were visited who sold about 57,000 cases of canned pimientos in 1939. Of this amount also less than 1 percent came from California, practically all coming from Georgia.

An interesting feature of the New York market for canned pimientos has been the gradual disappearance, in the last years, of imported Spanish pimientos, which were preferred by some buyers because of their characteristic flavor. Difficulties of importation have reduced the presence of these pimientos very markedly and most of the firms previously importing from Spain now market domestic pimientos from Georgia.

*Chicago.*—Twenty-five Chicago wholesalers visited had distributed 202,000 cases of pimientos in 1939. Twelve brokers handled a total of about 163,000 cases, of which only 2,000 cases, or a little more than 1 percent, were from California, all the rest being from Georgia. The 163,000 cases included a considerable amount for industrial use. Thirteen other distributors reported total sales of about 39,000 cases in 1939. About 6 percent of these, or 2,500 cases, were from California, well over 90 percent being produced in Georgia.

Since California prices are considerably higher than those of Georgia, the emphasis placed on Fancy Pack by California canners would seem to be the chief reason for selling any California pimientos at all in Chicago.

Judging from the almost complete absence of California pimientos from the markets of both Chicago and New York, it is safe to conclude that very few California pimientos are sold in the Middle West or the

East. Georgia manufacturers would be, of course, at even greater advantage in the South, since freight costs to markets would be less. The only area of competition between California and Georgia pimientos would appear to be that west of the Rockies. Georgia pimientos are marketed even there.

### Delivered Prices.

The absence of California pimientos in significant quantities from the Chicago and New York markets is explained by the difference in delivered cost to these cities. (See appendix table III.) In Chicago the delivered price per dozen 4-ounce cans ranged for Georgia from 41 to 54 cents, for California 55 to 80 cents. These prices do not even overlap. Similarly, per dozen 7-ounce cans the ranges were 68 to 79½ cents for Georgia, 96 cents to \$1.33 for California.

Georgia pimientos dominated the New York market for the same reason. The delivered price per dozen 4-ounce cans was Georgia 41½ to 54 cents, California 54 to 78 cents; per dozen 7-ounce cans, Georgia 69 to 79½ cents, California 94½ cents to \$1.29.

### Competitive Factors.

The Crop Reporting Board of the Department of Agriculture reports the following prices paid by canners to growers. Judging by prices for the three years given in table 3, there would seem to be no significant difference between the two producing regions in the cost of fresh pimientos. However, there may be some qualitative difference in product, as the California pimientos are grown on irrigated land while the Georgia pimientos are not.

TABLE 3.—Average price per ton received by grower, 1937 to 1939—PIMIENTOS

State	Average price per ton received by grower		
	1937	1938	1939
California.....	\$33.40	\$32.10	\$32.50
Georgia.....	33.80	33.30	27.30

Source: U. S. Department of Agriculture, Bureau of Agricultural Economics, Crop Reporting Board, Truck and Canning Crop Reports.

# COMPETITIVE CONDITIONS OF CANNED TOMATO MARKETING

## Trends in Production.

Though individual tomato canning regions vary considerably in relative importance from year to year as crop failure or abundance affects the yield of tomatoes and as prospects of profit change, apparently there was little or no shift in the relative position of the major tomato-canning States in the 7 years 1933 to 1939 covered by table 4.

TABLE 4.—Total cases packed in United States and proportions packed in major producing States, 1933 to 1939—TOMATOES

[Basis: 24 No. 2 cans to the case]

Year	Total number of cas	Percent of total produced in—					
		New York	Maryland, New Jersey, and Delaware	Virginia and West Virginia	Indiana and Ohio	California	Other States
1933.....	20,460,903	4.0	25.1	8.1	17.7	13.1	32.0
1934.....	22,376,349	5.6	31.6	7.7	19.6	19.7	15.8
1935.....	26,984,642	4.2	29.4	11.7	16.3	15.2	23.2
1936.....	24,208,740	3.9	33.8	7.2	15.9	19.5	19.7
1937.....	26,076,094	4.0	25.2	7.4	17.3	16.3	29.8
1938.....	22,960,184	4.9	24.5	8.0	19.2	11.7	31.9
1939.....	24,209,434	5.9	26.1	6.7	21.0	15.3	25.0

Source: National Canners Association, Canned Food Pack Statistics, 1937, 1939.

No figures are available on pack, carry-over, and shipment of tomatoes for the United States as a whole. Data are available for the United States exclusive of California and for California separately, but since they are for years beginning respectively July 1 and June 1, the figures cannot be combined. Table 5 shows these separate data.

TABLE 5.—Carry-over, pack, and shipments of canned TOMATOES in actual cases of all sizes, 1936 to 1940

Item	Number of cases (thousands)				
	1936	1937	1938	1939	1940
<i>A.—United States, not including California (year beginning July 1)</i>					
Carry-over.....	946	1,582	2,501	3,071	2,569
Pack.....	17,513	19,950	18,259	18,240	-----
Shipments.....	16,877	19,031	17,689	18,742	-----
<i>B.—California (year beginning June 1)</i>					
Carry-over.....	526	1,095	1,769	647	-----
Pack.....	3,504	3,045	1,994	2,769	-----
Shipments.....	2,936	2,371	3,117	-----	-----

Source: National Canners Association. Production Planning Statistics, 1940, p. 18; *ibid.*, News Letter of July 17, 1940. Western Canner and Packer, Year Book, 1940, p. 172.

Retrenchments in pack in 1938 occurred both in California and in the rest of the United States and amounted to about 2.7 million actual cases (3.1 million converted cases). There was a further retrenchment of minor extent in the pack for 1939 in States other than California, but the considerable recovery in the California pack more than compensated for such decrease.

### Labor Costs.

Average hourly earnings of canning workers on tomatoes varied more by State than did earnings on other products. The figures following show hourly earnings for the major producing States that probably are representative also for the States adjacent to them included in the production figures. Detailed earnings data by occupation and by State will be found in appendix tables VI and VII.

State	Number of productive workers with hourly earnings reported	Average hourly earnings (cents)
New York	4, 519	30. 6
Maryland	2, 408	25. 3
Virginia	624	17. 3
Indiana	9, 963	30. 3
California	7, 852	46. 9

The rate for Virginia is only 37 percent of that for California. The Indiana rate is about the same as that for New York, and Maryland is somewhat lower.

Such figures as are available on labor costs per case of 24 No. 2 cans of Standard tomatoes indicate that they would range from 10.5 to 15 cents a case in Maryland, from 17.6 to 23.2 cents a case in Indiana, and would be less than 10 cents in Virginia. California costs usually are based on cases of No. 2½ cans and therefore are not strictly comparable, but they appear to be higher even when the difference in can size has been taken into account.

### Distribution by Producing States.

*Maryland, New Jersey, and Delaware (Tri-State).*—As with other products, the Tri-State Packers Association estimates that about 75 to 80 percent of the Tri-State pack of tomatoes is sold outside the States in which it is produced, chiefly in eastern markets, with some going to the Middle West.

*California.*—With respect to California tomatoes, there seem to be one group of canners who concentrate their attention on local markets within the State and another group who manufacture with an eye to markets outside the State. These divergent tendencies between groups of canners are associated to some extent with the ratio of canned tomatoes to tomato products and juice.

Judging by the size of the groups of canners reporting in these two classes, it is estimated that from 60 to 70 percent of the tomatoes packed in California go out of the State. The markets for California tomatoes are the Eastern seaboard, the Gulf States, and the Northwest, in the order named. It may be noted that California tomatoes are sold almost exclusively in those localities where a water rate makes shipping costs low.

*Indiana and Ohio.*—The Indiana Canners Association and a number of field brokers were consulted on the Indiana tomato-canning situation. Since the Ohio canneries are in a position quite similar

to that of Indiana canneries, and since the field brokers visited also handled Ohio tomatoes, Ohio was included in the estimates of distribution. From the various estimates it is safe to say that not more than 20 percent, probably only 10 or 15 percent, of the tomatoes packed in Indiana and Ohio are sold within these States. The chief markets for Indiana tomatoes are, of course, in the Middle West, to such cities as Chicago, Cleveland, Cincinnati, St. Louis, Kansas City, and so forth, but they are sold also in eastern markets such as Boston, New York, and Philadelphia.

*New York.*—New York tomatoes are able to command satisfactory prices in local markets and probably over 80 percent of the total pack is sold within the State.

### Grading.

The grading practices already referred to in the general description of grading, page 5, are applicable to tomatoes. No special features can be added in so far as tomatoes are concerned except that in 1940 tomatoes were among the few products for which the Food and Drug Administration had set standards of quality, identity, and fill.

### Marketing Localities.

Sixty-nine wholesalers visited in New York and Chicago were reported to have sold almost one-fifth of the 1939 domestic tomato pack.

*New York.*—The New York market for canned tomatoes uses both domestic and imported (Italian) tomatoes. It is by far the largest single market for imported tomatoes, consuming some 50 percent of the total United States imports, according to estimates of a number of importers and of the Italian Chamber of Commerce in New York City. The imports of Italian canned tomatoes were reported at almost 55½ million pounds in 1939, and this amounts to something more than a million cases of No. 3 cans, half of which New York is reputed to consume. This figure agrees with the estimates of several importers interviewed. Five hundred thousand cases of No. 3 cans are the equivalent of about 850,000 cases of No. 2 cans, so Italian imported tomatoes form a considerable part of the total New York consumption; this in spite of the fact that imported Italian tomatoes sold in New York wholesale at a minimum of about \$2.15 a dozen No. 3 cans, equivalent to at least \$1.25 a dozen for No. 2 cans, somewhat higher than the highest delivered cost of any domestic tomatoes.

However, these tomatoes follow a rather different channel of marketing from that of other canned tomatoes, as a considerable quantity are sold directly to retailers by the importers and the rest go mainly to wholesale houses dealing in Italian specialties; hence they do not form an appreciable part of the sales of the distributors visited.

At present, imports are negligible due to war conditions, and it is possible that the California product, which of all domestic tomatoes is most similar to the Italian variety, may enjoy a favorable market.

Forty-five New York wholesalers, handling about two and one-half million cases of domestic tomatoes in 1939, were visited. The 25 brokers reported a little in excess of a million cases of sales from

domestic sources, of which about 40 percent came from the Tri-States, about 20 percent each from New York and California, 10 to 15 percent from Indiana-Ohio, and 5 to 10 percent from Pennsylvania. The 20 other distributors interviewed (jobbers, chain stores, and importing jobbers) reported in excess of a million and a half cases handled in 1939 from domestic sources, about 70 percent from the Tri-States, 10 percent each from New York and Indiana-Ohio, 5 to 10 percent from Pennsylvania, and amounts of around 1 percent each from California, Virginia, West Virginia, and Michigan.

Because of the part played by field brokers, from whom no returns were obtained, the figures from brokers significantly underestimate the percentage of canned tomatoes received from the Tri-States, while the figures from wholesalers probably overestimate the importance of the Tri-States, as they do not include a number of Italian firms dealing in California tomatoes. Combining the two sources of information, it is estimated that about 60 percent of New York's domestic canned tomatoes come from the Tri-States, about 15 percent each from New York and Indiana, 5 to 10 percent each from Pennsylvania and California, with fractions of 1 percent each coming from Virginia, West Virginia, and Michigan.

*Chicago.*—Twenty-four Chicago wholesalers, who sold about 2 million cases of tomatoes in 1939, were interviewed. Ten brokers reported sales of about 950,000 cases during the year. Of this total about 90 percent were from Indiana and Ohio, from 2 to 5 percent each from Michigan and Illinois, and less than 1 percent each from Wisconsin and New York. The 14 other distributors, comprising jobbers, chains, voluntary chains, and manufacturing jobbers, reported about one million cases sold—85 to 90 percent from Indiana and Ohio, 6 percent from Michigan, 2 to 4 percent each from the Tri-States, Utah, and California, and a small amount from Illinois.

The two groups of wholesalers show about the same sources of production for tomatoes in Chicago. The Indiana-Ohio producing region supplies the overwhelming amount of Chicago's canned tomatoes. Competition in the 10 to 15 percent of the remaining market is widespread.

### **Delivered Prices.**

*New York.*—By far the largest amount of Standard tomatoes sold in New York are produced in the Tri-States and had delivered price ranges of 58½ to 72 cents per dozen No. 2 cans in 1939. California No. 2 Standards ranged from 78 to 96½ cents; however, the California pack is sweeter in taste and contains puree from trimmings which make it a somewhat different product. It is on this basis that Standard California tomatoes are sold in the New York market.

New York Standards sell from 7½ to 11½ cents higher per dozen in New York City than Tri-State Standard tomatoes, and Indiana-Ohio Standard tomatoes sell at a similarly higher price level. From statements of brokers and wholesale distributors it would appear that the bulk of tomatoes sold in New York City from New York State and Indiana canneries are Extra Standard and Fancy in grade.

*Chicago.*—Close to 90 percent of canned tomatoes sold in Chicago are produced in Indiana and Ohio, while less than 5 percent are Tri-State tomatoes. The delivered prices of No. 2 Standard cans are

about 2 cents less per dozen for the Midwest pack than for that of the Tri-States. Since the quality of the Indiana-Ohio output is equal to if not better than that of the Tri-States, it would seem that lower delivered price is the largest factor in accounting for the predominance of Indiana-Ohio produced tomatoes in the Chicago market.

### Other Marketing Localities.

The following distribution of product is estimated for the major producing States:

1. Tri-State tomatoes are sold chiefly on the eastern seaboard and in the South.
2. Virginia and West Virginia tomatoes are sold chiefly in the Southeast.
3. Indiana and Ohio tomatoes are sold in the Midwest and also to some extent in the East.
4. California tomatoes are sold on the west and the east coasts.
5. New York tomatoes are sold chiefly in adjacent markets.

## COMPETITIVE CONDITIONS OF CANNED GREEN AND WAX BEAN MARKETING

### Trends in Production.

Green and wax beans are produced in all sections of the United States. Considerable quantities are canned in a far larger number of States than any other of the three canned vegetables with which this report is concerned. The National Canners Association lists 15 States or groups of States that canned more than 100,000 cases of beans in 1939, from California, which canned 107,285 cases, to Maryland and Delaware, which canned 2,057,896 cases.

TABLE 6.—*Total cases packed in United States and proportions packed in major producing States, 1933 to 1939—GREEN AND WAX BEANS*

[Basis=24 No. 2 cans to the case]

Year	Total number of cases	Percent of total produced in—					
		New York	Maryland and Delaware	Michigan	Wisconsin	California, Oregon, and Washington	Other States
1933	5,531,865	16.8	23.1	9.8	9.5	5.1	35.7
1934	6,300,362	17.6	20.8	8.6	12.6	12.4	27.9
1935	7,161,107	15.4	18.8	10.7	11.1	13.8	30.2
1936	6,629,469	15.9	25.4	6.2	9.3	17.7	25.5
1937	10,051,843	12.9	22.8	6.1	8.8	20.0	29.5
1938	10,914,997	13.0	22.3	7.4	10.7	16.4	30.2
1939	8,486,770	11.8	24.2	6.8	12.2	12.3	32.6

Source: National Canners Association. Canned Food Pack Statistics, 1937, 1939.

The table indicates that in the 7 years 1933 to 1939 the percentage of total United States pack declined in New York and Michigan, maintained its general level in Maryland and Wisconsin, and increased considerably in the far western area. The increase on the Pacific coast was chiefly in Oregon.

The total pack for the United States in 1939 was considerably curtailed in comparison with the 1938 pack (2,428,327 standard cases—basis 24 No. 2 cans). Table 7 shows the position of the industry with respect to pack, carry-over, and shipments, and indicates that 1940 reductions in carry-over were achieved by the 1939 curtailments in pack rather than by increased sales.

TABLE 7.—*Carry-over, pack, and shipments of canned GREEN AND WAX BEANS in actual cases of all sizes, years beginning July 1, 1937 to 1940*

Item	Number of cases (thousands)			
	1937	1938	1939	1940
Carry-over	74	967	2,014	769
Pack	9,539	10,332	8,056	
Shipments	8,646	9,285	9,301	

Source: National Canners Association, Production Planning Statistics, 1940, p. 21; *ibid.*, News Letter of July 17, 1940.

**Labor Costs.**

There is considerable variation in the average hourly earnings of labor in the major producing regions for canned green and wax beans. Though the Women's Bureau study of earnings in the canning industry for 1939 did not cover all sections canning green beans, the following averages are available:

State	Number of productive workers with hourly earnings reported	Average hourly earnings (cents)
Arkansas -----	946	23.7
New York -----	2,403	27.3
Maryland -----	2,151	25.8
Wisconsin -----	2,821	27.3
Washington and California -----	734	<sup>1</sup> 47.0
Texas -----	229	20.9

<sup>1</sup> Washington 45.5 cents an hour, California 50.3. Oregon rates equivalent to or better than Washington, according to data in Women's Bureau files.

The far western States had the highest rates, almost 90 percent higher than the Federal Wage and Hour minimum for that season and 72 percent higher than the rates for New York and Wisconsin. Maryland rates were 1½ cents lower than the 27.3 of New York and Wisconsin.

**Distribution by Producing States.**

*Maryland and Delaware.*—Estimates from the Tri-State Packers Association indicate that between 75 and 80 percent of the Maryland-Delaware pack is sold outside the producing States.

*Michigan and Wisconsin.*—No reports were obtained directly from Michigan or Wisconsin canners' associations, but judging by the considerable volume of Michigan and Wisconsin green beans handled in Chicago and the proximity of these States to a large middle-western marketing locality it may be assumed that at least a large part of the pack of beans in these States is sold outside the State of origin.

*New York.*—No information on the extent of the market for New York beans was obtained from canners or associations in the State. The broker and wholesale distributors visited in Chicago reported about 10 percent of their beans as coming from New York State, while the New York City wholesalers and brokers obtained about one-third of their beans from New York. Since New York beans do enter the Chicago market to a certain extent, though it is comparatively close to the bean-canning States of Wisconsin and Michigan, the assumption may be made that the New York product is marketed to some degree in the Middle West, and of course to a larger degree in the Middle Atlantic States and New England.

*Washington, Oregon, and California.*—From interviews with field brokers handling California green beans and from conversations with canners in California, it is judged that between 80 and 85 percent of California beans are sold within the State, and that production in California is directed to local use. Though no figures were obtained in the Washington-Oregon bean-canning region, the understanding among brokers in the marketing localities is that northwestern (Washington and Oregon) beans, being of a special variety and quality, sold very largely outside the States in which they were produced.

### Grading.

The individual feature in bean grading is that beans are packed in a wide variety of styles. Grading specifications as set by the Department of Agriculture rate beans only on the basis of uniformity of kind, color, quality of liquor, freedom from discoloration, toughness, strings and defects, and flavor. In addition to these factors, they may be green or wax beans, they may be packed whole or cut, vertically or in a jumble pack; and there are packed also some French-style sliced beans.

Distributors in market localities may buy all or most of their Standard beans from one region, and their Choice or Fancy grades from another. Thus competition between producing regions may be directly related to the grades of beans packed. For example, Washington and Oregon beans apparently are purchased in limited quantities by a number of distributors because of their quality. In general, demand for certain qualities and varieties of beans is closely related to the States from which beans are purchased.

The Fancy or Grade A beans must score 90 points or better on the criteria set by the Department of Agriculture as described in an earlier paragraph. Extra Standard or Grade B beans are not quite so tender or uniform; the quality of the liquor is only reasonably clear; the beans are reasonably free from discoloration, toughness, strings, and defects; they possess a desirable bean flavor and score not less than 75 points. Standard or Grade C beans are less high-grade than Extra Standards in all respects and score not less than 60 points.

### Marketing Localities.

Seventy-two wholesalers visited in New York and Chicago sold more than three-tenths of the 1939 bean pack.

*New York.*—Forty-seven wholesalers of 1,300,000 cases of snap beans were scheduled in New York. The 26 brokers visited reported about 700,000 cases sold during the year. Of this amount it was estimated that about 40 percent came from New York, about 25 to 30 percent each from the Northwest and the Tri-States, about 5 percent from Pennsylvania, and small amounts, not exceeding 1 percent, from Michigan and Wisconsin. The 21 other distributors handled well over 600,000 cases. From the estimates as to source of supply made by them, about 35 percent of the total came from the Tri-States, 30 percent from New York, 10 to 15 percent each from the Northwest and Michigan, and from 2 to 5 percent each from Pennsylvania, Texas, Louisiana, Maine, and other States (midwestern).

Both of these sources are subject to some error insofar as representing the New York market is concerned. Brokers do not represent certain canners who sell direct, and the distributors include some sales made outside the New York district. Adjusting for these two errors, it is estimated that of the supply of canned beans for New York about one-third comes from New York and one-third from the Tri-States, about one-sixth from the Northwest, from 5 to 10 percent each from Pennsylvania and the Middle West, and relatively minor amounts from the Southwest and from Maine.

*Chicago.*—Twenty-five wholesalers, who sold 1,350,000 cases of green beans, were visited in Chicago. The 11 brokers visited re-

ported about 800,000 cases sold during the year. Of this about 60 percent came from Wisconsin, about 10 percent each from Michigan and New York, between 5 and 10 percent from Maryland, and from 1 to 5 percent from Arkansas, Indiana, the Northwest, and Georgia. Only a negligible quantity of California beans were sold. The 14 other distributors interviewed (including jobbers, chains, and voluntary chains, as well as manufacturing jobbers) reported about 550,000 cases sold, with Wisconsin contributing between 35 and 40 percent of the total, Michigan 25 to 30 percent, Tri-States 15 to 20 percent, New York about 10 percent, the Northwest about 5 percent, Indiana, Ozark area, Louisiana, and Mississippi less than 1 percent each, and Illinois and California insignificant amounts.

A combination of these figures from brokers and distributors would indicate that the most important producing States selling canned snap beans in Chicago are Wisconsin, Michigan, Tri-States, and New York, in the order named, with additional smaller amounts coming from Washington, Oregon, Arkansas, and Missouri.

**Delivered Prices.**

Delivered prices on beans are not very suitable figures from which to develop the pattern of competition between regions of production, because beans are canned in a number of ways as well as in different grades. However, since the major proportion of canned beans consumed probably are Standard cut beans, figures for these can be compared.

In New York, Standard cut No. 2 delivered prices per dozen cans of snap beans were—

New York.....	\$0.65 to \$0.77
Tri-State.....	.56 to .72

In Chicago, delivered prices per dozen for Standard cut No. 2 beans were—

Michigan and Wisconsin.....	\$0.63 to \$0.81
New York.....	.69½ to .80½
Tri-State.....	.62½ to .77½

Tri-State beans, even with shipping costs added, were cheaper than nearby Michigan and Wisconsin beans. For Fancy cut beans, New York delivered prices were slightly lower than those of Michigan and Wisconsin, but the supply from the Northwest was bought in spite of its higher price range of \$1.17 to \$1.27 per dozen delivered.

**Other Marketing Localities.**

The following distribution of product is estimated for the major bean-packing States:

1. Northwest beans are sold in many sections of the United States, though they appear only in limited quantities in any one market.
2. New York beans are sold in both the East and the Middle West.
3. Tri-State beans are sold in the East, the Middle West, and the South.
4. Michigan and Wisconsin beans are sold chiefly in the Mississippi Valley.
5. California beans are sold almost wholly within the State.

## APPENDIX TABLES

TABLE I.—Average hourly earnings of employees in season of 1939, by State and occupation—SPINACH

State	Employees with hours worked reported																			
	All occupations						Productive workers								Maintenance and custodial workers		Outside yard and truck workers		Cannery office workers	
	Total		Time workers		Piece workers		Total		Preparers		Key positions		Other productive		Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)
	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)						
Arkansas.....	1,457	25.3	1,457	25.3	-----	-----	1,387	25.1	892	25.0	46	27.1	449	25.2	40	26.5	23	(1)	7	(1)
California.....	4,781	46.8	2,662	47.8	2,119	45.6	4,654	46.5	2,319	43.4	128	63.2	2,207	48.8	78	60.3	6	(1)	43	(1)
Maryland.....	613	26.0	477	27.2	136	21.9	602	25.8	390	25.1	16	(1)	196	26.5	7	(1)	-----	-----	4	(1)
New York.....	160	28.0	160	28.0	-----	-----	151	27.5	98	25.0	6	(1)	47	29.5	8	(1)	1	(1)	-----	-----
Texas.....	87	20.9	87	20.9	-----	-----	85	20.8	42	18.8	9	(1)	34	(1)	2	(1)	-----	-----	-----	-----

1 Not computed; base too small.

TABLE II.—Distribution of employees according to hourly earnings in season of 1939, by State—SPINACH

Hourly earnings	Total	Arkansas	California	Maryland	New York	Texas
Number of employees with hours worked reported.....	7,098	1,457	4,781	613	160	87
<i>Percent distribution</i>						
Under 20 cents.....	1.4		0.1	10.1		41.4
20 cents.....	.2			1.3		3.4
21, under 25 cents.....	.6		.3	5.1		
25 cents.....	25.7	95.1	.6	41.9	68.1	51.7
26, under 30 cents.....	4.0	3.0	1.7	25.3	.6	
30 cents.....	2.5	1.2	1.7	7.3	21.3	2.3
31, under 35 cents.....	3.9	.1	5.1	4.1	.6	
35 cents.....	6.7	.3	9.6	1.6	2.5	1.1
36, under 40 cents.....	4.4		6.3	1.1	1.3	
40 cents.....	2.1		3.0	.3	.6	
41, under 45 cents.....	10.2	.1	15.1	.3		
45 cents.....	4.3	.1	6.2	.3	1.3	
46, under 50 cents.....	4.3	.1	6.3	.5		
50 cents and over.....	29.7	.1	43.9	.7	3.8	

TABLE III.—F. o. b. cannery prices, shipping costs, and delivered prices at Chicago and New York of canned SPINACH, PIMIENTOS, TOMATOES, AND SNAP BEANS in 1939<sup>1</sup>

Canning State and grade	F. o. b. price range per dozen		Chicago				New York			
			Shipping cost range per dozen		Delivered cost range per dozen		Shipping cost range per dozen		Delivered cost range per dozen	
	Low	High	Low	High	Low	High	Low	High	Low	High
<b>SPINACH</b>										
Arkansas-Missouri No. 2.....	\$0.60	\$0.75	\$0.085	\$0.085	\$0.685	\$0.835	\$0.12	\$0.145	\$0.72	\$0.895
California No. 2.....	.85	1.10	.17	.17	1.02	1.27	.13	.225	.98	1.325
Maryland and Delaware No. 2.....	.725	.90	.10	.10	.825	1.00	.035	.045	.76	.945
New York No. 2.....	.75	.85	.095	.105	.845	.955	.05	.07	.80	.92
Texas No. 2.....	.55	.70	.125	.125	.675	.825	.09	.105	.64	.805
<b>PIMIENTOS<sup>2</sup></b>										
California:										
Fancy 4 ounce.....	0.51	0.75			0.55	0.80			0.54	0.78
Fancy 7 ounce.....	.90	1.25			.96	1.33			.945	1.29
Georgia:										
Fancy 4 ounce.....	.385	.51	0.025	0.03	.41	.54	0.03	0.03	.415	.54
Fancy 7 ounce.....	.645	.75	.035	.045	.68	.795	.045	.045	.69	.795
<b>TOMATOES</b>										
New York:										
Fancy No. 2.....	0.90	1.10	New York tomatoes not sold in Chicago.				0.05	0.07	0.95	1.17
Extra standard No. 2.....	.675	.75					.05	.07	.725	.82
Standard No. 2.....	.65	.725					.05	.07	.70	.795
Tri-State:										
Fancy No. 2.....	.80	1.00	0.10	0.10	0.90	1.10	.035	.045	.835	1.045
Extra standard No. 2.....	.675	.75	.10	.10	.775	.85	.035	.045	.71	.795
Standard No. 2.....	.55	.675	.10	.10	.65	.775	.035	.045	.585	.72
Indiana:										
Fancy No. 2.....	1.05	1.10	.035	.06	1.085	1.16	.09	.10	1.14	1.20
Extra standard No. 2.....	.70	.85	.035	.06	.735	.91	.09	.10	.79	.95
Standard No. 2.....	.60	.70	.035	.06	.635	.76	.09	.10	.69	.80
California:										
Fancy No. 2.....	.80	1.05	California tomatoes not sold in Chicago.				.13	.14	.93	1.19
Standard No. 2.....	.65	.825					.13	.14	.78	.955

<sup>1</sup> Transportation costs were obtained from the railroads, the truck lines, the steamship companies, and the freight conference associations. These rates were recorded for each type of carrier used in a particular movement of goods. Ranges of rates were recorded, from the lowest possible cost to the highest cost per dozen at which any appreciable quantities of canned vegetables moved from factory to market. The figures do not include terminal charges.

<sup>2</sup> California pimientos not sold in significant quantities in either New York or Chicago.

TABLE III.—*F. o. b. cannery prices, shipping costs, and delivered prices at Chicago and New York of canned SPINACH, PIMIENTOS, TOMATOES, AND SNAP BEANS in 1939—Continued*

Canning State and grade	F. o. b. price range per dozen		Chicago				New York			
			Shipping cost range per dozen		Delivered cost range per dozen		Shipping cost range per dozen		Delivered cost range per dozen	
	Low	High	Low	High	Low	High	Low	High	Low	High
BEANS										
New York:										
Fancy whole No. 2.....	\$1.00	\$1.40	\$0.095	\$0.105	\$1.095	\$1.505	\$0.05	\$0.07	\$1.05	\$1.47
Fancy cut No. 2.....	.90	1.00	.095	.105	.995	1.105	.05	.07	.95	1.07
Extra standard cut No. 2.....	.625	.75	.095	.105	.72	.855	.05	.07	.675	.82
Standard cut No. 2.....	.60	.70	.095	.105	.695	.805	.05	.07	.65	.77
Tri-State:										
Fancy whole No. 2.....	1.00	1.40	.10	.10	1.10	1.50	.035	.045	1.035	1.445
Fancy cut No. 2.....	.90	1.00	.10	.10	1.00	1.10	.035	.045	.935	1.045
Extra standard cut No. 2.....	.65	.75	.10	.10	.75	.85	.035	.045	.685	.795
Standard cut No. 2.....	.525	.675	.10	.10	.625	.775	.035	.045	.56	.72
Michigan. (See prices for Wisconsin.)										
Wisconsin:										
Fancy whole No. 2.....	1.10	1.50	.03	.06	1.13	1.56	.09	.13	1.19	1.63
Fancy cut No. 2.....	.80	1.10	.03	.06	.83	1.16	.09	.13	.89	1.23
Extra standard No. 2.....	.675	.85	.03	.06	.705	.91	.09	.13	.765	.98
Standard cut No. 2.....	.60	.75	.03	.06	.63	.81	.09	.13	.69	.88
Northwest:										
Fancy whole No. 2.....	1.00	1.50	.17	.17	1.17	1.67	.13	.15	1.13	1.65
Fancy cut No. 2.....	1.00	1.10	.17	.17	1.17	1.27	.13	.15	1.13	1.25
Extra standard cut No. 2.....	.80	1.00	.17	.17	.97	1.17	.13	.15	.93	1.15
Standard cut No. 2.....	.75	.80	.17	.17	.92	.97	.13	.15	.88	.95
Pennsylvania. (See prices for New York.)										

TABLE IV.—*Average hourly earnings of employees in season of 1939, by State and occupation—PIMIENTOS*

State	Employees with hours worked reported													
	Productive workers								Maintenance and custodial workers	Outside yard and truck workers	Cannery office workers			
	Total		Preparers		Key positions		Other productive							
	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)		
California.....	987	38.0	654	37.1	14	(1)	319	39.2	16	(1)	-----	-----	4	(1)
Georgia.....	1,628	20.7	971	18.7	44	31.8	613	23.1	14	(1)	24	(1)	51	28.8

<sup>1</sup>Not computed; base too small.

TABLE V.—Distribution of employees according to hourly earnings in season of 1939, by State—PIMIENTOS

Hourly earnings	California	Georgia
Number of employees with hours worked reported.....	1,007	1,717
	<i>Percent distribution</i>	
Under 10 cents.....		7.8
10 cents.....		5.6
11, under 15 cents.....	0.1	11.5
15 cents.....		4.8
16, under 20 cents.....	1.4	7.6
20 cents.....	.6	7.7
21, under 25 cents.....	3.1	6.3
25 cents.....	8.8	33.8
26, under 30 cents.....	7.5	7.2
30 cents.....	2.4	2.3
31, under 35 cents.....	19.2	2.5
35 cents.....	4.2	.7
36, under 40 cents.....	9.0	1.1
40 cents.....	8.3	1.9
41, under 45 cents.....	7.4	-----
45 cents.....	10.7	-----
46, under 50 cents.....	4.6	-----
50 cents and over.....	12.8	-----

<sup>1</sup> 40 cents and over.

TABLE VI.—Average hourly earnings of employees in season of 1939, by State and occupation—TOMATOES

State	Employees with hours worked reported																			
	All occupations						Productive workers						Maintenance and custodial workers		Outside yard and truck workers		Cannery office workers			
	Total		Time workers		Piece workers		Total		Preparers		Key positions		Other productive		Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)		
	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)						
Arkansas.....	443	16.9	443	16.9	-----	-----	413	16.7	185	16.0	36	19.7	192	16.8	19	( <sup>1</sup> )	5	( <sup>1</sup> )	6	( <sup>1</sup> )
California.....	8,046	47.3	4,891	49.6	3,155	43.8	7,852	46.9	3,723	43.1	184	60.9	3,945	49.9	123	61.9	20	( <sup>1</sup> )	51	59.8
Florida.....	170	22.4	170	22.4	-----	-----	166	22.3	27	( <sup>1</sup> )	11	( <sup>1</sup> )	128	21.5	3	( <sup>1</sup> )	1	( <sup>1</sup> )	-----	-----
Illinois.....	984	41.0	982	40.9	2	( <sup>1</sup> )	871	38.5	425	32.5	85	49.5	361	42.9	77	61.1	23	( <sup>1</sup> )	13	( <sup>1</sup> )
Indiana.....	10,710	30.7	9,591	30.8	1,119	29.8	9,963	30.3	4,560	27.8	373	39.8	5,030	31.9	342	40.1	327	31.0	78	32.9
Iowa.....	1,593	31.3	1,462	31.6	131	28.3	1,491	30.7	991	28.2	96	39.0	404	35.0	57	42.0	25	( <sup>1</sup> )	20	( <sup>1</sup> )
Maryland.....	2,550	25.4	2,226	25.4	324	25.3	2,408	25.3	838	24.7	81	32.4	1,489	25.2	33	31.5	96	24.5	13	( <sup>1</sup> )
New York.....	4,822	31.5	4,646	31.4	176	34.4	4,519	30.6	2,705	27.0	200	46.2	1,614	34.8	137	50.7	105	37.4	61	44.5
Texas.....	1,161	20.1	1,064	20.5	97	14.9	1,118	19.9	347	18.2	61	25.8	710	20.3	31	( <sup>1</sup> )	7	( <sup>1</sup> )	5	( <sup>1</sup> )
Virginia.....	656	17.3	624	17.1	32	( <sup>1</sup> )	624	17.3	136	17.4	65	22.1	423	16.6	7	( <sup>1</sup> )	23	( <sup>1</sup> )	2	( <sup>1</sup> )
Wisconsin.....	1,116	27.4	925	27.3	191	27.9	1,068	27.1	760	25.6	36	34.5	272	30.2	23	( <sup>1</sup> )	13	( <sup>1</sup> )	12	( <sup>1</sup> )

<sup>1</sup> Not computed; base too small.



TABLE VIII.—Average hourly earnings of employees in season of 1939, by State and occupation—SNAP BEANS

State	Employees with hours worked reported																			
	All occupations						Productive workers								Maintenance and custodial workers		Outside yard and truck workers		Cannery office workers	
	Total		Time workers		Piece workers		Total		Preparers		Key positions		Other productive		Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)
	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)	Number	Average hourly earnings (cents)						
Arkansas.....	978	23.9	978	23.9	-----	-----	946	23.7	600	23.2	31	(1)	315	24.6	18	(1)	10	(1)	4	(1)
California.....	235	50.4	168	45.1	67	63.8	231	50.3	90	39.6	10	(1)	131	57.2	3	(1)	1	(1)	-----	-----
Illinois.....	72	25.2	72	25.2	-----	-----	72	25.2	54	25.1	7	(1)	11	(1)	-----	-----	-----	-----	-----	-----
Iowa.....	475	29.5	475	29.5	-----	-----	457	29.2	319	27.3	30	(1)	108	32.8	15	(1)	-----	-----	3	(1)
Maryland.....	2,245	26.1	2,245	26.1	-----	-----	2,151	25.8	1,156	24.4	71	35.5	924	26.8	31	(1)	48	28.6	15	(1)
New York.....	2,607	28.2	2,595	28.2	12	(1)	2,403	27.3	1,444	24.4	129	42.6	830	30.0	101	41.7	65	34.2	38	43.5
Texas.....	239	21.4	239	21.4	-----	-----	229	20.9	146	19.7	17	(1)	66	22.5	8	(1)	-----	-----	2	(1)
Washington.....	534	45.9	499	45.2	35	56.2	503	45.5	255	40.1	10	(1)	238	50.8	12	(1)	2	(1)	17	(1)
Wisconsin.....	2,977	28.0	2,974	27.9	3	(1)	2,821	27.3	2,056	25.0	153	33.3	612	32.5	62	40.7	44	33.8	50	42.1

<sup>1</sup> Not computed; base too small.

TABLE IX.—Distribution of employees according to hourly earnings in season of 1939, by State—SNAP BEANS

Hourly earnings	Total	Arkansas	California	Illinois	Iowa	Maryland	New York	Texas	Washington	Wisconsin
Number of employees with hours worked reported	10,362	978	235	72	475	2,245	2,607	239	534	2,977
	<i>Percent distribution</i>									
12½ cents	0.2	1.6								(1)
15 cents	2.1	11.5				1.6		31.4		
16, under 20 cents	1.1	.1				.2	3.6	7.5		0.6
20 cents	2.8	1.2				5.9	4.4	7.1		.1
21, under 25 cents	.8				3.2	2.0	.9			.7
25 cents	56.7	79.1	3.8	95.8	25.1	57.5	54.1	50.2		70.1
26, under 30 cents	6.9	4.4			33.4	18.3	3.3			.7
30 cents	8.8	1.0		4.2	9.3	9.6	12.9	2.1		9.9
31, under 35 cents	2.5	.2	7.2			1.7	3.0			4.2
35 cents	5.6	.5	1.7		23.8	.8	8.7	.4		7.1
36, under 40 cents	.7		2.1			.8	.8			.8
40 cents	4.6				4.4	.6		.8		2.9
41, under 45 cents	1.3	.2	32.3			.3	.9		51.1	.4
45 cents	.7		.4		.2	.1	1.1		2.8	1.3
46, under 50 cents	.3	.1	2.1			.1	.4		.6	.2
50 cents and over	4.7		50.2		.6	.5	2.6	.4	44.6	1.7

<sup>1</sup> Less than 0.05 percent.