# BUREAU OF AGRICULTURAL ECONOMICS UNITED STATES DEPARTMENT OF AGRICULTURE 



## CIGARETTES

Estimated Farm Valüe of Leaf Tobacco, Marketing Margins, and Taxes

year beginning july i. * retailers and wholesalers.
o payment to farmers for tobacco equivalent to package of cigarettes.
U.S. DEPARTMENT OF AGRICULTURE

NEG. ABI $15-X X$ BUREAU OF AGRICULTURAL ECONOMICS

The farm value of the leaf tobacco in a package of standard-size, popular brand cigarettes increased approximately 23 percent from 1945-46 to 1951-52; the combined manufacturers' and distributors' margin increased 46 percent; and Federal and State excise taxes 20 percent. The retail price of a package
of cigarettes rose about 30 percent during the period. It is estimated that the farm value of the leaf tobacco was about 16 percent of the retail price in 1951-52; the manufacturers' and distributors' margin was 37 percent; and Federal and State excise taxes were 47 percent.


I/ Average annual quantities of farm-food products purchased per family of three average consumers, $1935-39$.
2/ 42 cotton articles of clothing and housefurnishings, weighted by average annual quantities bought by wage earners and clerical workers as reported in 1934-36 survey. Data are for last month of quarter. 3/ Four tobacco products from 1 pound of leaf tobacco (farm-bales weight), weighted by leaf equivalents of tax-paid withdrawals, 1935-39. Data are for year beginning July 1. $4 /$ Seasonally adjusted annual rates, calculated from U. S. Dept. of Commerce data. 5/ U. S. Dept. of Labor. Indexes of wholesale prices converted from 1947-49 base. 6/ Weighted composite earnings in steam railways, food processing, wholesale trade and retail food stores, calculated from data of U. S. Dept. of Labor and Interstate Commerce Commission. 7/Seasonally adjusted, U. S. Dept. of Comerce. Annual data for 1951 are on average monthly basis. $8 /$ Seasonally adjusted, Board of Governors of Federal Reserve System. 9/Converted from 1910-14 base.

Approved by the Outlook and Situction Board February 10, 1953


## SUMMARY

Farm prices of food products declined during 1952 but increased marketing costs of'fset almost all the advantage consumers might have expected from these declines. Charges for marketing the famn-produced foods in the family market basket were approximately 7 percent higher in the final cuarter of 1952 than in the same period of 1951. The average retail cost of these foods was about the sume in both periods but their farm value was about 7 percent lower in the last quarter of 1952. Decreases in the farm prices of meat animalsaccounted for most of the decline in the farm value.

With marketing charges higher and farm prices lower, the farmer's share of the dollar consumers spent for fami-produced foods averaged 46 cents in the final quarter of 1952 compared with 50 cents a year earlier.

Costs of performing marketing services increased during the year. Average hourly earnings of employees in food merketing enterprises were 5 percent higher in November than a year earlier. Transportation rates of both rail and motor carriers were raised during 1952. Rents and other costs of firms marketing agricultural products advanced during the year. No significant reduction in wages, rents, or transportation costs is anticipated in the near future. Therefore, it seems reasonable to expect that the present level of food-marketing charges probably will be at least maintained in 2953.

The retail cost of 42 articles of cotton clothing and household furnishings averaged about 5 percent less in 1952 than in 1951. Farmers received 8 percent less for the lint cotton from which the articles were made. The spread between the retail cost and farm value decreased 4 percent. The farmer's share of the dollar thet consumers spent for these articles was 14.0 cents in 1952 compared with 14.5 cents in 1951.

It is astimated that during the year beginning in July 1951, Federal and State excise taxes represented 47 percent of the average retail price of a package of standard-size cigarettes, the combined leaf deslers', manufacturers', and distributors' margin accounted for 37 percent, and the payment to the farmer for the leaf tobacco for 16 percent.

Consumers have spent'approximately 27 percent of their disposable income for food in each quarter since the first quarter of 1951 when they spent 28 percent. Consumers' expenditures for food (seasonally adjusted) in the fourth quarter of 1952 were at an annual rate of 4406 per person, about 3 percent higher than a year earliex.

## FARM-EETAIL PRICE SPPEADS

The Herket Basket of Farm Foods 1/
Farm Value Lower in 1952
The annual average fom velue of the foods the market basket declined 2 percent from $\$ 360$ in 1951 to $\$ 353$ iri 1952 (table 1). On a monthly basis, the fiarm value decreased charply from Junuary to February and then rose to on annual rate of $\$ 365$ in July, the high for the year. By December the farm vilue had dropped to $\$ 331$, the lowest since Novenber 1950.

All comodity groups except drixy products and frujts and vegetables had lower annual average farm values in '1952 than in 1951. The meat products group showed the largest decline (table 2).

## Marketing Charges Rech New High

Charges for marketing the foods in the market basket established a record annual average of $\$ 386$ in 1952 , which was 7 percent higher than the \$362 in 1951. 2/ Marketing charges during 1952 varied from a low annual rate of $\$ 369$ in March to a high of $\$ 400$ in December. The December estinate was 7 percent above that for Decenber 1951.

Annual average marketing charges for all commodity groups, except miscellaneous products, were higher in 1952 than in 1951. But the fruits and vegetables and meot products $\xi$ roups accounted for most of the over-all increase.

1 The "market basket" contains quantities of farm food products equal to the 1935-39 average annual purchases per fumily of three average consumers. Full details are presented in Agricultural Information Bulletin No. 4 , "Price Spreads Between Farmers and Consumers."

2/ Marketing charges, as used here, are the charges for all marketing operations between farmers and consumers and include charges for assembling, processing, transporting, and distributing.

Table 1.- THE MARKET BASKET: Retail cost of 1935-39 average annual purchases of farm food products by a family of three average consumers, farm vilue of equivalent quentities sold by producers, marketing charges, and farmer's share of the consumer's food dollar, 1935-52


1/Calculated from retail prices collected by the Bureau of Labor Statistics and the Bureau of Agricultural Economics.

2/ Payments to farmers for equivalent quantities of farm produce minus imputed value of byproducts abtained in processing.

3/ Marketing charges equal margin (difference between retail cost and farm value) minus processor taxes plus Government payments to marketing agencies. 4/ Revised.

Table 2:- The market backet of fam food protactsz:. Anmal average retail cost, fart value; marketing:charges, and t'trmer's share, ;1950 and 1951


Costs of performing marketing services generally were higher in 1952 than in 1951. Hourly earnings of employees in food marketing firms averaged about 5 percent higher in the first 1) months of 1952 (data for the final month are not yet available) than in the same period of 1951. Transportation rates of both rail and motor carriers were raised during the year. Average hourly earnings of Class I railroad emplovees were 6 percent higher in the first 10 months of 1952 than in the same period of 1951.

## Retail Cost of Farm Foods Rises to Record Level

A record annual average retail cost of $\$ 740$ was established by the foods in the market basket in 1952. 3/ This was 118 or 2 percent above the previous high of $\$ 722$, recorded in 1951. During the second half of 1952 the retail cost declined from a peak annual rate of $\$ 755$ in July to $\$ 731$ in December.

Annual averages for the meat products, poultry and eggs, and miscellaneous products groups were lower then in 1951; but these decreases were more than offset by increases for the other groups. The largest gain was made by the fruits and vegetables group, whose annual average was $1 / 4$ percent higher than in 1951.

## Farmer's Share 2 Cents Smaller

The annual average share that the furner received of the dollar the consumer spent for farm foods in 1952 was 48 cents compared with 50 cents in 1951. $4 /$ During 1952 the farmer's share varied from 49 cents in the first 3 months of the year to 45 cents in December.

Changes in Anmual Averages from 1951 to 1952
by Commodity Groups
Meat Products: Annual average charges for marketing the meat products in the family market basket were $\$ 10$ higher in 1952 than in 1951. But the retail cost and the farm value were down $\$ 5$ and $\$ 15$, respectively, from the averages for the previous year (table 2). The share received by the farmer from the dollar that the consumer spent for meat products was 60 conts in 1952 compared with the record of 65 cents in 1951.

[^0]Dairy Products: This was one of the two commodity groups showing in increase in the farm value from 1951 to 1952. Since charges for marketing these products did not advance appreciably, the retail cost rose only slightly more than the farm value.

Each of the principal individual products in the group (fluid milk, , butter, American cheese, and evaporated milk) showed increases in its onnual average retail price and farm value. Marketing charges for most of the products advanced, the largest increase was about 4. percent.

Farmers received an average of 56 cents of the dollar that consumers spent for dairy products in 1952 compared with 55 cents in 1951. The record annual average of 59 cents was established in 1947.

Poultry and Eggs: Both the rutail cost and the farm value of the poultry and eggs group declined about the same amount, Charges for marketing these products were about the same as in 1951 and the furmer's share . declined from 67 cents in 1951 to 64 cents in 1952. The farmer's share for the poultry and eggs group in 1952 was 2 cents smaller then in 1935-39. Sheres for $6 l l$ other groups were higher than prewar.

Bakery and Other Cereal Products: The farm value of this group of products declined about 2 percent from 1951 to 1952. But this decrease was inore than offset by a 4 percent increase in marketing charges and the retail cost increased 3 percent. The advances in the retail cost and marketing charges continued trends that began when World War II price. controls were removed.

Of the money that consumers spend on these products, more is spent for white bread than for any other item. The retail price of white bread and charges for marketing it both averaged higher in $1952^{\circ}$ (table 17), but the farm value was slightly lower.

Fruits and Vegetables: The retail cost, farm value, and marketing charges for this group all averaged substantiolly higher in 1952 than in 1951. These increases were cuused by the fresh products in the group as the retail cost and merketing charges for the canned items were lower in 1952 than in 1951. Increases were larger for fresh vegetables than for fresh fruits.

Farmers received 37. cents of the dollar that consumers spent for fruits and vegetabies in 1952. During the postwar years the farmer's share has: varied from 43 cents in 1946 to 35 cents in 1950 and 1951.

Recent Farm-Retail Price Spreads

## for Meat Products

The average retail price of Choice grade beef cuts in the final quarter of 1952 was epproximately 4 cents per jound below the post-Korean peak reached a year eirlier (table 3). . Famp prices of Choice grade beef cattle rose to a high in tho first quirter of 1951. The net farm value of the liveweight equivalent of a pound of choice grade beef cuts at that time was about 6 cents higher than in the last quarter of 1952. Smaller increases in the averuge retail price than in the net farm value reduced the margin between the two in the last quarter of 1950 and the first quarter of. 1951.

Table 3.- Fam-retail pricé spreads for meat products: Reteil price per pound, farm value of equivalent quentities sold by producerṣ, byproduct adjustment, marketing marein, and farser's. share of retail price, quarterly averages, 1950-52


Subsequent advances in the retail price and decreases in the form prices of beuf' cattle widened the margin from 21 , cents in the first quarter of 1951 to 27 cents in the third quarter of 1952. The share farmers received of the dollar consumers spent for Choice grade beef' cuts rose to a high of 76 cents in the first quarter of 1951. It declined to 68 cents in the third quarter of 1951. Part of the reduction in the farn pricerof berf cottle during the last 2 years was caused by decreases in the prices of hides, tallow, and other nonedible byproducts.

Prices of lower grude cattic declined more than jrices of the Choice grade during the second half of.1952. Farm-retail price spreads are not available for lower grade cuttic because rettil:prices are collected only for Choice grade cuts.

The composite retail price of 1 pound of pork prodicta including lard in the last quartar of 1952 was about 5 cents lower than the peak in the third quarter of 1951 . The net fiarm value was about 6 cents lower then the high in the third quarter of 1950. Margins between the composite retail price and farm value increased from the second to the fourth quarter of 1952. The fourth quarter margin was approximately 1 cont. less than the maximum reached a year earlief. F'armers received 53 conts of the dollar consumers spent, on pork and lard in the last quarter of 195\%. During'1951 and 1952 the farmer's share varied from 58 to 65 cents. The retail price of lard declined 35. percent from the first quertier of 1951 to the final quarter of 1952. This accounted for auch of the reduction in the composjete retail price.

The average retail price of lamb per pound in the last quarter of 1952 was almost 10 cents below the jeak reached a year earlier and was at the lowest level since the first quarter of 1950. Farm prices of lambs averaged lower than during any other quarter in the 1950-52 period: The farm value was about one-third Jower than the high in the second quarter of 1951. The margin between the retail price and farm value established a new record in the fourth quarter of 1952 . It: was 5 cents wider than year earlier. Farmers received 54 cents of the dollar consumers spent for lamb in the fourth quarter. During 1950-52, the farmer's share varied from 54 cents to 73 cents. Decreases in the prices of wool accounted for part of the decline in the farm price of lambs in 1951 and 1952.

## Famn-Retail Price Spreads for Cotton

The spread (marketing charge) between the retail cost of 42 cotton articles and the farm. value of the lint cotton from which they were made was about the same in December 1952 as in. December 1951. (See table on inside of cover.) Farm value of the lint cotton declined 21 percent, or about \$2, during the period. The retail cost declined approximately 4 percent, or about ${ }_{W} 2$, during the year ended in Decenber 1952. The retail cost, marketing charges, and firm value in December were still higher than in June 1950 , before the rise, that followed the invasion of South Korea. Marketing charges lagged behind retail prices during the advance and during the decline that began in the summer of 1951. The farmor's share of the dollar that consumers spent for these articles was 12.4 cents in December compared with 15.2 a year earlier and 12.8 cents in: June 1950.

Mill margins for 17 constructions of cotton cloth declined from 33.9 cents in September 1951 to a low of 24.4 cents in June 1952, then rose to 31.1 cents in September 1952 and to 36.4 cents in December. These margins are the differences between wholesale prices of unfinished cloth and the value of the cotton used in its menufacture. The average mill margin of 36.4 cents in December, or about 53 percent of the cloth prices, compares with an average of 42.0 cents, or 56 percent of the cloth prices, during the crop years 1947-49.

## Farm-to-Retail Price Spreads for Cigarettes

The spread between the retail price of cigarettes and the farm value of an equivalent quentity of leaf tobacco valued at current farm prices has increased each crop year since 1942-43 (table 4). 5/ It was 17.9 cents per package during 1951-52 compared with the 1935-39 average of 12.4 cents. Most of the increase since the prewar period resulted from higher Federal and State excise taxes and a larger margin for distributors (cover chart). The manufacturer's and leaf dealer's margin in recent years was about equal to the 1935-39 average. Federal and State excise taxes have made up more then one-half of the total spread since 1931.

## The Manufacturer's and Leaf Dealer's Margins

The margin of the manufacturer and the leaf dealer is the difference between the farm value of the tobacco and the average of the monthly wholesale prices (exclusive of the Federal excise tax) received by manufacturers during the year from July 1 through June 30. The farn value is a weighted average of prices farmers receive during the crop year for three types of domestic tobacco -- flue cured, Burley, and Maryland. The manufacturer's margin includes the cost of stemming, redrying, and aging the leaf in addition to the manufacturing and selling costs.

Tobacco of these types is also exported and some is used in other tobacco products. Prices of the leaf bought for these uses may be lower than those paid for that used in cigarettes. As prices paid for tobacco bought exclusively for use in cigarettes are not available, the farm value was calculated from average prices received by farmers for all grades sold. For that reason, it may be too low, particularly in earlier years. In recent years the average price of tobacco used in cigarettes was relatively closer to the average market price than was true for earlier years. It is also true that a larger quantity of the total supply was used in cigarettes and less remained for other uses. Some imported tobacco generally is used in cigarettes to heighten their flavor and aroma. In the prewar years the imported tobacco was about 10 percent of the total weight of the tobacco used, but in recent years it accounted for 5 or 6 percent. This imported tobacco usually costs manufacturers more than that grown in this country. If the imported tobacco costs more than the domestic leaf, the cost to the manufacturer of the tobacco in cigarettes is more than the farm value which is based entirely on prices of domestic tobacco.

[^1]Table 4.- Faru-to-retail price spreads for cigarettes, saerage retail and wholecale prices per package, farm value of equivalent leaf tobacco, excise taxes, marketing margins, and farmer's share of retall price, averages 1935-39 and 1947-49, annual 1926-51


1/ Simple average of quarterly prices reported by the Bur. of Labor Statistics for Sept., Dec., Mer., and June. Prices were collected in 34 cities 1926-46 and in 18 cities 1947-51. (Before 1935 prices were reported semiannually.)

2/ Simple average of monthly prices, July-June, reported by the Bur. of Labor Statistics. These prices are averages of list prices of three manufacturers for popular brands of cigarettes delivered to wholeselers and jobbers - edjusted for cash and trade discounts. Wholesale price includes Federal excise tex.

3/Value of 0.065 pound of leaf tobacco (farm-sales weight), calculated from season average prices received by farmers for cigarette-type tobacco, using types 11-14, weighted 61 percent; type 31,37 percent; and type 32, 2 percent.

4/ Total revenue from State cigarette taxes divided by tax-paid withdrawals. For States not reporting revenue separately from other tobacco products, it was necessary to estimate the proportion derived from cigarettes.

5/ Difference between farm value and wholegale price, exciuding Federal excise tax.
6/ Retail-wholesale price spread less average State tax.
7 Taxes paid by processors from which benefit payments to farmers were made were not included in these computations. They amounted to 0.2 cent per peckage of cigarettes in 1933 and in 1935 and 0.3 cent in 1934.

The combined margin of the manufacturer and leaf dealen (difference between farm value of leaf and manufacturer!s wholesale price of cigarettes less the Federal excise tax) shows a rather unusual trend. It rose to a high of 5.5 cents a package in 1931-32 when wage rates and other costs were down and was lowest during the 1942-46 period of price controls, when it varied from 2.2 to 2.4 cents. The margin increased gradually to 3.7 cents in 1949 and has remained at approximately that level for the last 3 years. As pointed out above, it seems likely that differences between the average farm value of the types of tobacco used in cigarettes and prices acturally paid for leaf by cigarette manufacturers and the declining relative inportance of imported leaf affect the comparability of the margins.

Prices were increased by the major companies in 'October 1946, July 1948, and July 1950. Controls were reestablished in early 1951. The Office of Price Stabilization pernitted a price rise in November 1951, but only by the amount of the increase in the Federal excise tax. The manufacturer's wholesale price (including the tox) for 1951-52 was 21 percent higher than in 1945-46, when World War IT price controls were in effect. This increase compared with an increatse of 22 percent in farm prices of cigarette-leaf tobacco. But comperison of the 1951-52 wholesale price and farm vilue with those for 1935-39 show a much larger percentage increase in farm value than in wholesale prices.

Technological developments and the expanding dennand for cigerettes, which made large-scale operations feasible, have enabled cigarette companies to increase output enormously with relatively small increases in the number of emplayees. In 194'7, about 370 billion cigarettes were produced compared with 122 billion in 1929. But the number of production and related workers in the cigarette industry in 1947 was only 21 percent more than the number in 1929, according to census data. Total wage payments jncreased from 18.4 to 55.0 million dollars during the same period. 6/ The labor cost per package of cigarettes in 1947 was about the same as in 1929 although weekly earnings were about $2-1 / 2$ times higher.

Production of cigarettes increased 13 percent between 1947 and 1951 a. though the number of production workers in the industry remained about the same. Average weekly earnings in 1951 were 28 percent more than in 1947. Hourly eamings increased 30 percent but the work week was shartened slightly. Thus, during recent years labor costs increased relatively more than production.

Total operating profit, less provision for Federal income and excess profits taxes, for four large tobacco companies whose principal product is cigarettes was about the same in 1951 as in 1947 but ratios of profits to sales were smaller. Operating profit (less taxes) as a percentage of sales, which averaged 9.2 percent in 1935-39, declined to 4.6 percent in 1944 and 1945, and then gradually rose to 6.1 percent in 1949 . It was 5.8 percent in 2950 and 4.5 percent in 1951.

[^2]The Distributor's rein
The distributor's margin, 'which' goes to the wholesaler and retailer, is the difference between the retail and manufacturer's wholesele prices less the estimated State excise tax. Except for 2 years, tho retail price has increased each your aince 1933. The increase has been larger but more gradual than the increase in the manufecturer's wholesale price.

The avernge spread between retail and tholesale prices increased from 2.9 cents in 1935-39 to 6.6 cents in 1951-52, but it is estimated that 1.6 cents of this increase was in State excise taxes. i// The distributor's margin, exclusive of State' taxes, increased from 2.2 con's in the prewar period to 4.3 cents in 1951-52. A small part of this increase can be attributed to city taxes which have not been taken into account. The percentage increase in the distributor's mergin batween 1947 and 1951 was about the srme as the increase in the margin for the manufacturer and leaf dealer.

## Federal and State Excise Trxes

The Federid excise tax on cigarettes was 6.0 cents a package through June $1940,6.5$ cents from July 1940 to October 1942; 7 cents fron November 1942 through October 1951, and 8 cents beginning November 1951. Under the existing law, the rate will continue ot 8 cents until April 1, 1954, when it wili revert to 7 cents. Together, Federal and State excise taxes have accounted for 45 to 51 percent of the retail price in all years since 1931. 8/ The Federel. tax during 1947-51 varied from 34 to 38 percent of the retail price which compores with a 1935-39 average of 44 percent. State excise taxes have risen substontially since the prewar period and in recent years hav accounted for' 10 to 12 percent of the retail price compared with 5 percient in 1935-39. Fistimated state taxes increased from an average of 0.1 cent per package in 1926 to 2.3 cents in the last 2 years. The Federal and State taxes absorbed lo'cents of the average retail price of 21.3 cents for the $1951-52$ crop year.

## CONSUMER INCOMES AND EXPENDITURES

Disposable personal income (perconal income less personal taxes) rose from a seasonally adjusted annual rate of $\$ 1,486$ per person in the third guarter of 1952 to a record $1,52 \%$ in the Courth quarter (table 5). Expenditures per person for consumer goods and services rose to a record level although expenditures for food ramained unchanged. Since the increase in consumers' expenditures wes about equal to the increase in their incomes, their savings per person did not change aignificantly. Consumers saved between 8 and 9 percent'of their disposable income in the third and fourth quarters compared rith 7 percent in the first half of the year.

[^3] percent of the revenue $i s$ collected in the 29 States. The reverue for the 12 Etates was prorated in a rather arbitrary manner to obtain totnl estimated revenue from cigarettes.

8/ A processing tax was levied on menufacturers effective October 1933. From the proceeds of this tux, benefit payments were made to growers. The processing tax paid on the tobacco in a package of cigaretteg was estimated to be 0.2 cent in 1933 and 1935 and 0.3 cent in 1934. These taxes are not included in the tax and margin data presented in this report.

Table 5.- Per capita food cost and expenditure related to disposable personal income, United States, average 1935-39; annual 1944-52


1/ Computed from aggregate income and expenditure data of the Dept. of Commerce. For methods of computation and data for 1929-43 see the September 1950 issue of this publication.

2/ Cost to consumers of fixed quantities of foods representing average annual consumption per person during 1935-39 is calculated by taking as a base the actual food expenditure per person in 1935-39 (渄18.6) and applying to this base cost a U. S. average consumer's food price index. 'The index is a weighted average of Indexes representing (a) retaij tood prices in 56 cities (U. S. Bureau of Labor Statistics), (b) retail food prices in other cities and towns, and (c) prices received by producers applied to foods consumed on farms where produced.

3/ Quarterly data are estimates by the Bureau of Agricultural Economics from expenditures for food and alcoholic beverages reported by the Dept. of Commerce.

## Little Change in Experditures for Food During 1952

Consumers' expenditures, for food were comparativoly stable during 1952, varying from a seasonally adjusted ennual rate of $\$ 401$ per person in the first quarter to $\$ 406$ in the fourth quarter. Amud expenditures of $\$ 404$ in 1952 were about 3 percent higher than the previous record of \$392.established in 1951. Prices paid by consumers for food averaged about 2 percent higher in $195 \%$ than in the previous yeur:

Consumers:spent approximately 27 percent of their disposable income for food in 1952, the same percentage as in 1951. During the postwar years, ennual, expenditures for food have varied from 26 to 28 percont of disposable income.

SOME CUERENT DEVELOPMENTS IN MARKETING FAFM PRODUCTS

## Morketing Activities Continue ut High Level

Farmers marketed a substentially larger volume of crops in the fourth quarter of 1952 than in the same quarter of the previous year and marketings of livestock and livestock products were slightly larger. The index of the physicel volume of farm merkotings (1935-39. $=100$ ) averaged 197 in the final quarter of 1952 compared with 186 in the same quarter of 1951:

The output of monufactured food products in the final months' of 1952 metched the high livel of the preceding year. Tho Federul Reserve Board's seasonally adjuster index in December stood at 161 (1935-39 $=100$ ), about the seme as a year earliter. The book value of inventories held by food menufacturers at the end of November was about 4 percent less than on the some date in 1951.

Production of textiles and textile products increased substantially in August and a larger volume was produced lest fall than during the fall of 1951. The Federal Reserve Board's adjusted index averaged 173 $(1935-39=100)$ in the September-December period compared with 156 for. the same months of 1951. Production of these products in 1952 did not come up to the previous year's level until August. The value' of inventories of textiles held by textile manufacturers on November 30, 1952, wás about 14 percent less than those held a yoar earlier.

The seasonnlly edjusted index of the output of manufactured tobacco products averaged about the same in the foll months of 1952 and 1951. Inventories held by manufacturers in November had sbout the same book. vulue as those held in November 1951.

Food wholesalers hud cobout the same dollur volume of seles in November 1952 as in the sume month of the previous yenr but the value of their inventories was ebout 4 percent harger. Sales of apparel and dry goods wholesalers were down 4 percent but their inventories were slightly larger.

Feteil food-stores' dollar sules were slightly larger in each month of 1.952 than in the corresponding month of 1951. Do.llar sules of retail epprel stores toteled about 3 percent more last year thon in 1951. Eecmber woles were 10 percent larger than in the previous year. The value of inventories held by apperel stores at the end of 1952 was 7 percent lurger than a yeur eirlicr.

## Sone Developments in Marketing Frozen Foods

The revid growth in the production of frozen concentrated orunge juice is the nost, noteworthy trend in the frozen-food industry since the wre anded, The output of frozen concentrated lemonede, grape juice, and virious deciduous fruit juices also has been expending. Between the peck yous $1946-47$ and 1951.-52, the total production of 011 frozon concentrated citine fruit juices increased from epproximately 6 million pounds to about 552 million pounds. Other frozen foods also have grown in volume. The output of frozen vegetables hes risen sharply. Substantial increases have been made in the packs of frozen meats and see foods. The number of frozen products hes been considerably enlarged by the eddition of such specielity items as frozen waffles, chicken pot pies, and recooked and frozen dimers. Host of the increase in the pack during the pust few years has been accomplished by an expansion in the output of firms already in the industry rather then by tine entry of new firms. Although the output of frozen foods has increased ropidy, it is still small in comparison with the quantities canned, and it has caused no reductions in the canned packs of most productis.

## Packing

Perhaps the most outstanding developinent in the jacking of frozen foods during recent years has been the substitution of machines for hand labor in cleaning, sorting, and grading fruits and vegetables and in packing the product. In many plants the packaging and freezing operations have becone a continuous process performed largely by machinery.

During recent years, many pacining plants and warehouses have been remodeled and enlarged and some new plants have been built. Improvements have been made in plant layout and in the handling of materials. By these improvenents in operational efficiency and by increasing the number of products produced, packers have been able to reduce their average costs per unit.
hother result of tile use of machines in sorting and grading fruits and vegetables has been an increase in the unifombity of the product. It wes found that grade standerds could be approxinated more closely than when these operations were performed by hand. This was one reason for introducing "B" grades of frozen fruits and vegetables.

## Storage and Transportration

During recent years, improvements have been made in the facilities for storing and transporting irozen foods. To prevent deterioration in
quality, the tenperature of these products must be held at near zero degrees, erticularly during the long periods when they are in storage and whize in transit from producing regions to consuming markets. Nowtype refrigerator cars and trucks have been luilt in which the temperature can be held near zero degrees, but the supply of both is still inadequate and further improvements are needed. Of the different typen available at the present time, mechonically refrigerated cars and trucks appear to be the most suitable for shipping frozen foods.

The capacity of warehouses in which a temperature of zero degrees can be maintained has been increased. This increase has been brought about both by the construction of new facilities and by the conversion of cooler roons to freezer rooms. According to a recent report of the United States Deparment of Agriculture, gross capacity of warehouses providing sharg freezer storage (temperature at zero degrees or lower) increased from 168 million cubic feet in $19 \% 9$ to 212 million cubic feet in 1951. In most of the new and renodeled warehouses in-and-ont novement ham been faciliteited by improved desifn and the use of nodern nending equipment. These improvements have generally resulted in some reduction in handling, costs as well as in lessening product deterioration.

The need for protecting frozen foods, particujarly meat and moultry, from drying out while in sharp-freezer storage hes been recognized. f.t the present time, this is generally being accomplished through the use of packeging naterials which resist desiccation. Edupment for maintaining high humidity throughout the storage room has been devised, but its use has not becone widespread.

## Wholesajing

Perhaps the most significant change during the pnst 2 years in the wholesaling of frozen foods has been the increase in direct merketing from pockers to chain food-store companies, Until recently, most chainstore companies bought their supplies of frozen foodis from independent distributors, whereas now they usually buy only the speciclty and the slower-moving frozen items from distributors. Sorie of the Jurger chains comnonly sell frozen-foods under their own brands. In some instances the werehousing and delivering is handled entirely in chain-store facilities; in other instances "deels" are worked out with distributors and warehousemen to perform these functions. To compensate for the loss of trade as a renult of direct marketing, distributors have increased the number of specialty items which they carry.

Frequent deliveries to retail stores and less-thar-case-lot sales heve been comon in distributing frozen foods. The frozen-food cabinets in many retail stores provide 'space for only 1 or 2 duys' supply. Some distributors believe that as soon as retill stores expend their storage space, marketing costs can be significantly reduced by making less frequent deliveries and curtiiling less-than-case-lot sales.

## Retailing

The number of retail stores selling frozen foods has increased considerobly during recent years. Although virtually all self-service stores have instrlled frozen-food cabinets, some of the smiller servicetype neighborhood grocery stores have not. as yot added these facilities. In such instances the chief deterrent factors are the high initiul cost of the cabinets and the lack of space in the retail stores. At times, cabinets have been difticult to obtain because of shortages of materials for building them. Uncertainty as to the futurs demend for these products undoubtedly retarded expencion jn the number of stores selling them. Wuch of this hesitution was overcome by the ranid growth in the demand for frozen concentrated orange juice, which provided a frozen-food item that could be sold in volume. Most of the nany new or remoded retail stores have space for frozen-food cabinets. Some observers believe that the shortage of cribinet space in retalil stores is the greatest birrier to growth in the frozen-food incustry et the present time.

Although comercially frozen foods are mad by some locker plants and by firms supplying owners of home freezers, the bulk of the frozen foods sold to consumess are bought fron retail stores. A large part of the sules made by locker plints and home-freezer suppliers are in "quantity" lots for which some discount in price is cllowed.

Recently home-freezer frozen-food plans have attricted much attention. Some sponsore of nlans opercte their own warehouses and delivery trucks. As many of the netionial packer-diatributors of frozen foods have refused to sell to sponsors of food plans, these plans generally heve been able to handle only the products of the smaller and less well known packer-distributors. To compete with dealers eponsoring these plans, other sellers of home freezers have made arrengements for distributors in some of the larger cities to sell and deliver case lots of frozen foods directly to owners of home freezers. These arrangements have usually been neede with distributore whose business is primrily with institutions or restaurants as distributors who sell mainly to retiil stores have refused to compete with these outlets by selling direct to consumers.

The growth of these plans has spurred some distributors and reteilers to provide a means by which housewives could make savings on bulk purchuse; similar to those offered by the sponsors of home-freezer frozenfood plong. The distributors hive cooperated by giving retiolers price discounts on frozen foods sold to consumers under these plans. The sele to the consuner is made in the retail storo, athough in some instances delivery is made from the distributor's or chain-store werehouse direct to the consumer.

## Factors Increasing the Demand

The increase of cabinet space in retail stores has been one of the formost fectors accounting for the growth in the domand for these products.

Displays of frozen foods in retail stores huve cought the attention of consumers and induced many consumers to bry them.

Advertising and other promotional work have increased consumers awareness of frozen foods. Undoubtedly the extensive advertising and pronotional campeigns conducted by the sponsors of home-freezer frozenfood plans have stimulated the sale of frozen foods.

The incroase in the number of home freezers and refrigerators has provided greater space for storing frozen foods in the home. Many of the newer refrigerators have deep-freeze compartments in which frozen foods may be stored without deteriorating. This increase in home storage space has particular bearing upon the demand for frozen food because of the trend to once-a-week shopping. It is reported thet there are currentily over 4 million freezers in Americon homes, whereas 4 years ago there were less than 1 million.

Introduction of a "B" grade has created a market for frozen foods emong families in the lower-income brackets. Although in some instances the "B" grade products have cut into the market for "A" grade products, they have perhaps increased the total sales substantially.

Sales of frozen foods to the Armed Forces have increesed considerably during recent years. Fruits, vegetables, and concentrates hove been purchased for use at home and abroad. Frozen foods are now a regular part of the guartermester Corps' nutritional. program.

The high level oí consumex income has been afactor strengthening the demand for frozen foods. Another has been the growing preference for prepared foods.

FEDERAI EXCISE TAXES ON TRANSPORTATION AS A FACTOR AFFECTING AGRICUITURE

By James F. Sinitzler, Transportation Economist

Transportation costs absorb a corisiderable portion of the wholesale prices of many farm commodities that are produced at a distance from the main terminal markets. Prices of' the comodities that f'armers buy are also uffected by trensportation costs. Most of the increase in these costs since the war ended is due to the sharp rise in freight cherges. Anong other foctors which have increased marketing costs for the farmer are the excise taxes on the transportation of persons and property. The tax on the transportation of property increases transportation costs by the full amount of the tax. It also applies to other services furm by the carrier in connection with shipping a commodity.. The tax on passenger fares indirectly affects froight retes through its influence on the pussenger service deficit.

Transportation taxes were a part of World War I revenue legialation and were repealed on January 1, 1922. The present taxes were enacted during World War II for revenue purposes, al though the tiax on the treinsportation of persons was also designed to discourage unnecessary wartine travel. The total revenue raised by the transportation taxes are large compared with that from the other excise taxes; in frict, it.is exceeded only by the revenue from distilled spirits, cigerettes, and fermented meilt liquors.

A tax on the transportation of persons became effective at the rate of 5 percent on October 10, 1941. It was increased to 10 percent on November 1, 1942, and to 15 percent on April 1, 1944. The tax applies to charges by carriers for seating or sleeping accomodations furnished percons traveling within the United States by rail, motor vehicle, wister, or air.

The tax on the transportation of property became effective on December 1, 1942. It is levied at the rate of 3 percent of the transportation charges made by rail, motor, water, or air carriers, except on coal which carries a, rate of 4 cents per short ton. I/ All types of for-hire transportation are subjected to the tax including common and contruct carriers, local moving firms, express companies, freight forwarders, etc. Exemptions to the tax that offect agriculture are:

1. Payments for the transportsition of property intended for export. 2. Payments for the transportation of property by a freight forwarder, express company, or other carrier for which a transportation tex has already been paid.

Through September 1952 taxes collected on the transportation of persons totaled 2,283 million dollars while taxes collected on the transportation of property exceeded 2,800 million dollars (table 6). It has been estimated that approximately 22 percent of the tax collections on the transportation of property from 1943 through 1948 wes derived from the movement of agricultural products. 2/ The effect that the tax on the transportation of persons hes on freight rates
$1 /$ An excise tax of $\overline{4-1 / 2}$ percent is also levied on the trunsportation of petroleum by pipe line.

2/ Ezekiel Limmer, The Federal Excise Tax on the Transportation of Property With Special Reference to Agriculture. Bur. Agr. Econ., June 1949.
cannot be quantitatively estimated. However, the general effects of this tax on rail revenues, freight revenues, and transportation charges are discussed below.

Table 6. - Treasury receipts from transportation taxes, 1942-52


1/ Effective Apr. 1, 1944, tax rate was increased from 10 percent to 15 percent.

Dept, of the Treasury, Ennual Reports of the Comissioner of Internal Revenue, and Comparative Statements of Internal Kevenue Collections.

The Economic Effects of the Tax on the Transportation of Property

## Effects Upon Prices

The tax on the transportation of property tends to increase the prices of the commodities which the farmer buys and to reduce the prices that he receives for the commodities which he sells. The division of the tax among the parties involved may differ in the long run and in the short run. In the short run, market conditions may result in producers or dealers absorbing all or part of the tax. The long-run effects, however, are likely to be quite different. To the extent that competition exists within markets and complete mobility of factors of production prevails, there is a tendency for consumers eventually to bear a substantial portion of the tax. 3/ Since the tax is a fixed percentage, any increase in the rate will be accompanied by an increase in the tax. Freight rates have been increased 12 times since the end of the war; therefore, the tax in cents per 100 pounds has increased substantielly during this period. For example, on the movement of fresh meats from South St. Paul, Minn., to New York City, N. Y., the rate increased from $\$ 1.13$ per 100 pounds in 1946 to $\$ 2.21$ in 1952. This increased the tax from 3.4 cents to 6.6 cents.
$3 \sqrt{\text { For further discussion of this point see D. P. Locklin, Economics of }}$ Transportation, 1947, pp. 27-30.

The jncrease in the prices paid by consumers resulting from the transportation tax is of'ten grester than the tax itself. The increase in price will exceed the amount of the tax to the extent that middlemen price goods at a fixed percentage above the cost. To illustrate, ascume that a retailer purchases goods valued at $\$ 5,000$, including transportation costs of $\$ 800$, exclusive of the tax. At a 25 percent mark-up on cost, the retailer's gross margin would equal 41,250 and the selling price would equal $\$ 6,250$. However, when the transportation: tax of $\$ 24$ ( 3 percent of \$800) is added, total costs now equal \$5,024. Computing the mark-up on the basis of the larger cost increases the sel.ling price to $\$ 6,280$. This latter figure exceeds the former selling price plus the transportation tax by $\$ 6$; an amount which represents a 25 percent merk-up on the transportation tax. The more often this process is repeated the greater the effect of the tax. In complex trade channels made up of several midalemen, the result may be to increase prices substantially.

Another significant aspect of the effect of the tax results from the fact that changes in transportation charges tend to lag behind price changes. Thus, when the price of a conmodity is declining, transportation charges make up an increasing proportion of the retail value. Since the transportation tax is a fixed percentage of the freight charges, it also increases in relation to the retail price.

Effects Upon the Competitive Positions of Producers and Shippers
A flat percentage increase in freight rates will affect adversely the competitjve position of the long distance shipper. This principle has been recognized in many general rate increases through the use of "hold-doms" on a number of agricultural commodities. Maximum rate increases on selected agricultural comnodities were linited to a specified, amount in cents per 100 pounds. 4/ In some cases the effect of the "hold-down" was to maintain the status quo for distant producers within a given market while in others the rate differentials in dollars and cents were increased by less than would have been the case had the full amount of the general rate increases been applied.

When the 3 percent tak on property is applied to the individual rates, the rate differentials between long- and short-haul producers is increased. The Federal excise tax thus has the same effect on rate differentials as a 3 percent general freight-rate increase without "hold-down" provisions. For exariple, the rates on shipments of celery to New York City are ${ }^{6} 2.38$ per 100 pounds from Chula Vista, Calif., and 60 cents from Marion, N. Y., or a difference of $\mathrm{H}_{\mathrm{H}} .78$ (table 7). When the tax is added to the rates, the differential becomes $\$ 1.83$. 5/ Similar results are illustrated for the other commodities listed in table.7. If protective services were included, the increase in the differentials due to the tax would be even greater.

[^4]Table 7. - Comparative freight rates per 100 pounds and taxes for selected fruits and vegetables from specified origin points to New York City, Deccmber 1, 1952 I

| Commodity and origin | Rate |  | Tax |  | Rate plus tax |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Anoun $\qquad$ | $\begin{aligned} & \text { Exces } \\ & \text { over } \\ & \text { lowes } \\ & \text { origin } \end{aligned}$ | Amoun | Exces over lowes origi | Amou | Excess over lowest origin |
|  | Cent | C'ents | Cents | Cents | Cents | Cents |
| ¢ : |  |  |  |  |  |  |
| Celery |  |  |  |  |  |  |
| Marion, N. Y. .......... | 60 | --- | 1.8 | --- | 61.8 | --- |
| Sanford̀, Fla. .......... | 145 | 85 | 4.4 | 2.6 | 14.9.4 | . 87.6 |
| Chula Vista, Calif. ... | 238 | 178 | 7.1 | 5.3 | 245.1 | 183.3 |
| Potatoes : |  |  |  |  |  |  |
| Fuverhead, L. I. ....... | 43 | $\cdots$ | 1.3 | --- | 44.3 |  |
| Caribou, Maine ........: | 86 | 43 | 2.6 | 1.3 | 88.6 | $44 \cdot 3$ |
| Iduho Falls, Idaho ....: | 16.1 | 118 | 4.8 | 3.5 | 165.8 | 121.5 |
| Bakersfield, Calif. ...: | 182 | 139 | 5.5 | 4.2 | 187.5 | 143.2 |
| Cabbege |  |  |  |  |  |  |
| Williamson, N. Y. | 59 | --- | 1.8 | --- | 60.8 | --- |
| Winter Garden, Fla. ... | 135 | 76 | 4.0 | 2.2 | 139.0 | 78.2 |
| Harlingen, Tex. .......: | 182 | 123 | 5.5 | 3.7 | 187.5 | 126.7 |
| Tomatoes |  |  |  |  |  |  |
| Goulds, Fla. | 174 | -- | 5.2 | --- | 179.2 | --- |
| Jacksonville, Tex. .... | 200 | 26 | 6.0 | . 8 | 206.0 | 26.8 |
| Carbona, Calif. ........: | 238 | 64 | 7.1 | 1.9 | 245.1 | 65.9 |
| Oranges |  |  |  |  |  |  |
| Lake Waleg, Fla. ....... | 110 | -- | 3.3 | --- | 113.3 | --- |
| Fulierton, Calif. | 185 | 75 | 5.6 | 2.3 | 190.6 | 77.3 |
| Lettuce |  |  |  |  |  |  |
| Sanford, Ha. | 157 | -- | 4.7 | --- | 161.7 | - |
| Phoonix, Ariz. ......... | 228 | 73. | 6.8 | 2.1 | 234.8 | 73.1 |
| Salinae, Calif. .......: | 238 | 81 | 7.1 | 2.4 | 245.1 | 83.4 |
| , : |  |  |  |  |  |  |
| Peaches |  |  |  |  |  |  |
| Candor, iv. C. | 121 | -- | 3.6 | --- | 124.6 | --- |
| Ridge Springs, S. C. | 129 | 8 | 3.9 | . 3 | 132.9 | 8.3 |
| Ft. Valle\% ${ }^{\text {a }}$ Ga. ........ | 140 | 19 | 4.2 | . 6 | 144.2 | 19.6 |
| Yubu City, Calif. .....: | 204 | 83 | 6.1 | 2.5 | 210.1 | 85.5 |
| : |  |  |  |  |  |  |
| Apples |  |  |  |  |  |  |
| Germantown, N. Y. ...... | 43 | - | 1.3 | --- | 44.3 | --- |
| Vinchester, Va. .......: | 62 | 19 | 1.9 | . 6 | 63.9 | 19.6 |
| Hood River, Oreg. ..... | 204 | 161 | 6.1 | 4.8 | 210.1 | 165.8 |
| 1/ Excludes protective services. Compiled from data furnished by Production and Marketing Administration. |  |  |  |  |  |  |

Finally, since transportation by private carriage is not subject to the tax, ghippers who provide thejr own transportation have a 3 percent advantage over other shippers, Testimony presented at the congressional hearings on proposed revisions of the Internal hevenue Code indicated that the move toward increased private carriage has been accelerated since the tax went into effect.

## Effects Upon Carriers

The principal effect of the tax upon comon cirriers (rail, motor, water, and air) has been to divert traffic to private carjiate.,. In its 6 2nd Annual Report, the Interstate Comerce Commission pointed out this problem by declaring: "This method of taxation . . . adds to the difficulties of for-hire carriers in their competition with private.transportation since the war, it appears reasonable to question whether continued use of for-hire carriers for tax-collecting purposes.is justified." Furthermore, the tax has undoubtedly tendad to reduce long-heul transportiation and thus to affect carriers' revenues adversely.

Since the transportation tax tends to increase the prices of the vast majority of commodities sold on the American market, the operating costs of carriers will show a corresponding rise. Increases in cost of carrier operations with subsequent rectuctions in net revenues are invamiably followod by requests for rate increases. In the long run, a failure to raise rates in line with increases in costs would mean a decline in the quantity and quality of comon carrier operations.

## The Economic Effects of the Tax on the Transportation of Persons

The Federal excise tax on the transportation of persons is one of the factors affecting freight rates on agricultural commodities because the everjncreasing passenger service deficit is being borne by freight shippors in the form of higher rates. To the extent that the transportation tax reduces rail passenger revenues through diversion of traffic to private autos, it increases the carriers' unit costs and, ot the same time, increases the pussenger deficit. 6/ In addition, the fact that the deficit necessitates higher freight rates increases the difficulties of the railroads in meeting competition from other kinds of transportation in hauling freight. Inasinuch as railroad passenger operating deficits have occurred regularly since World War II (table 8), this problen has become increasingly important to agriculture.

## Effect of the Tax on the Passenger Deficit

One indicator of the diversion of passenger traffic is the compurison of totail passenger-miles by type of trunsportation (table 9). For example, the upsurge in paissengermiles for private ato since 1946 contrasts sharrily with the substantial decline experienced by the railroads during the same period. In 1951, private automobiles accounted for noarly 85 percent of the

[^5]Table 8.- Net ralway operating incone derived from carrying fraight and passengers, and percentage of income from freight absorbed by pasisenger deficit

$1 /$ Deficit.
2/ Decline below 1949 level was due largely to a retroctive mail payment of 107 million dollars.

Statistics of Railway in the Urited States, 1936-50, and Ostribution of the Passenger Derjcit for the Year 1951 by Pypes of Traffic, Interstate Commerce Commission.

Table 9.- Volume of intercity traffic in passenger-miles, by type of transportation, 1942-51


Annual Renorts; 1242-50, and Monthly Comment on Transportation statistics; Nov. 14, 1952, Interttate Comnerce Commission.
entire volume of intercity passenger-miles. The increase in traffic brought about by removal of the tax would not be confined to the railroads. It is reasonable to expect, however, that the railroads would register a gein in passenger traffic, particularly over the distances lying betwen the nearby areas in which private autos and buses compete with railroads and the more distant arens tn which air transportation is most competitive. A substantial net gajn in revenues would be derived from this treffic since additional passengers could be carried at very little extra cost. Railrood passonger operations during the wer yoars illustrate this fact (trable l0). Between 1940 and 1944 , revenue pussengermiles increvsed 302 percent while ciperoting expenses increased only 96 percent. With revenue passenger-milos in 1951 only slightly greater than in 1941 , little difiticuity would be experienced In absorbing additional traffic. 7/

Table 10.- Paesenger and allied services: Revenue passenger-miles operating revenues, operating expenses, and net operating revenuer; Class I railway:s, 1940-51


1 Net rents and taxes ure not included.
Coinpiled from testimony presented by Production and Marketing Administration for Ex Purte 175, Feb. 18, 1952, and Stitictics of Reilways in the United States, 1951, Interstate Commerce Comaission.

[^6]The Ef'fect of the Deficit on Freight Rates
Increases in the passenger-service deficit in the postwar years have stimulated requests by the railroads for higher freight rates: : The inportance of the passenger-service deficit in the freight-rate pattern is illustrated by the pronouncements of the Interstate Comrnerce Commission in authorizing the last two general freight-rate increases." In Ex Parte 168, the Conmission stated:
". . . if passenger service inevitably and inescapably cannot bear its direct cost and its share of joint or indirect costs, we have felt compelled in a general rate case to take the passenger deficit into account in adjustment of freight retes and charges. Both the freight and passenger services are essential, and revenue losses or deficits on the one necessarily must be compenseted by earnings on the other if the carriers are to continue operations. Eoth may be subjected to reasonable rates and charges to produce the fair aggregate return, even though thereby a higher rate of retum may be exacted from the one than from the other." $8 /$

The Cormission reaffirmed its position in Ex Parte 175 by again stating:
"The drain which the pessenger-train service deficit makes on freight revenues was an important factor in our decision.
in Ex Porte 175." $2 /$
The extent to which the passenger deficit is a burden on freight traffic may be show by distinguishing between the common costs and the directly assigned costs which make up the deficit. Directly assigned costs are those items of outlay which can be traced directly to the passenger-service operation. The common or overhead costs, on the other hand, are related to both passenger and freight operations. These latter costs are apportioned by means of a fixed formula. 10/ A recent study estimated the directly assigned passenger deficit (the difference between passenger revenues and directly assigned costs) at about 70 million dollars in 1948 and 87 million dollars in 1949. The directly assigned passenger deficit for 1951 undoubtedly wis between 50 and 100 million dollars as passenger revenues and expenses in 1951 were similar to those for 1948 and 1949. The total passenger deficit of 681 million dollars in 1951 included the common costs allocated to the passenger service as well as the directly assigned costs. The burden

8/ Ex Parte 168 , Increased Frejght Rates, 1948, 276 I.c.C. 35.
2/ Armual Report, Interstate Commerce Comission, Nov. 1, 1951, p. 5. $10 /$ In 1936, the Interstate Comerce Comission prescribed certain accounting rules governing the separation of railway operating expenses, taxes, and rents between freight and passenger service. The directly assicned costs, $s s$ determined by the Comission, have varied between 70 and 75 percent of the annual passenger-service expenses.
on the freight service for 1951 is the difference between the directly assigned passenger deficit of 50 to 100 million dollars and the total passenger deficit of 681 million dollars. In a 1951 study, the Interstate Commerce Commission estimuted the passenger deficit based upon direct costs, i.e., directly assigned costs plus a portion of the common costs, at 418 million dollors. This figure probably is a close approximation to what could be considered as the burden on the freight service. Recent study of the deficit indicates that a considerable portion of the common costs would be eliminated if the passenger service were discontinued. For example, the operation of pascenger trains over the same railroad used for freight operations. tends to restrict the efficiency of the latter operation. Then too, because of the greater speeds, passenger trains require heovier rails, better maintenance, etc., than freight trains. All of these factors tend to increase the proportion of the costs which are directly attributable to pessenger operation. Those comron costs which would still remain even if the entire passenger service were eliminated are a necessary charge on the freight service.

The deficit, as discussed, is not strictly a passenger deficje but rather a passenger and allied services deficit. A recent study by the Interstate Commerce Commission reveals that "head-end traffic," i.e., ailied services, such as the carriage by passenger trains of mail, express, baggage, milk, etc, accounted for 32 percent of the total passenger deficit, This study provides further insight into the passenger deficit problem by defining more precisely areas of unprofitable operation. The express service was the largest single contributor to the head-end traffic deficit. But express-rate increases may not be the solution to this problem. Although express-rete increases have been granted, revenues from domestic express survice heve declined during the past 2 years. Shippers strongly opposed these increases and indicated they would divert traffic to air freight, parcel post, or truck. This would increase the deficit of the express service and jncrease further the burden on frejght shippers.

# MEASUREMENTS OF COMPARATIVE COSTS OF RETAILING selectei frish fruits and vegetables, CHARLOTPE, N. C. 

By

H. Wayne Bitting, Agricultural Economist

Producers have argued that retail margins should be directly related to the costs of handling specific commodities. But the retailers and wholesalers contend that it is neaningless to attempt to explain the margin for any one product or a department on the basis of costs because pricing policies must be based upon net returns from the sale of all commodities. Recearch workers are generally agreed that consideration must be given to the over-all store operations in relating retail margin's to handling costs.

One phase of a recent study in Charlot,te, N. C., was designed to explore some of the relationships affecting retail margins. Data for the produce, grocery, and meat departments in 20 sample stores were obtained for the calendar year 1950. Deteiled records were collected in the sample stores for notatoes, sweetpotitoes, carrots, onions, head lettuce, tomatoes, cabbage, apples, oranges, and grapefruit covering a 17 -week period from January 22 through Muy 19, 1951. The stores were sampled to be representative of four size groups with gross sales volume over $\$ 35,000$ per year. Also, the stores were selected to be representative of the principal residential sections of the city. The data were collected by Alderson \& Sessions under contract as authorized by the Agricultural Murketing Act of 1946 (RMA, Title II).

This report is on the exploratory phase of the Charlotte study. It examines the following relationships: (1) The extent to which the allocation of floor space between departments is related to gross profits per square foot of display areas, (2) the extent to which pricing practices relate differences in margins for selected fresh fruits and vegetables to differences in operating costs, volume of sales, and spoilage, and (3) the differences in labor costs between size groups of stores.

## Allocation of Floor Space

The findings showed that the larger volume stores had roughly twice the dollar volume of sales per square foot of floor space in the grocery and meat departments as the smaller sized stores did. This was not the case for fresh produce. Produce sales in the smaller stores were high relative to the grocery and ineat departinents (table 11).

Table 11.- Totel sales andrgross profit per suate foot of selling epace for produce, groceries; and meats, 20 stores, by store size group, Charlot,te,'N. ©., 1950 I/

$\underline{1}^{\prime}$ Frozen foods are included with groceries; dairy products ire included with meats.

2/ Stores were grouped according to dollar volune of sales during 1950.
 $\$ 299,999$; group III

3/ Obtained by applying the grose profit murgins of 15.46 percent for groceries, 19.02 percent for meats, and 26.85 percent for produce. Thesr: margins are given in Progressive: Grocer, heport on atudy of Scles and Margins by Comodities, Mede in the Providence Public Markets, Providence, R. I., Oct.-Dec. 1950. This study included doiry products in the mert departinent ana frozen foods in the grocery department.

Gross profits 1/ per squere foot of floor space in loth puoduce nd meat departments exceeded those in groceries. Gross arolits per square foot of floor space for produce in the stores with totel seles under \# 300,000 a yetr (store groups II, III, and IV) were from 3.5 to $6.9 \cdot$ times those in the grocery department. In the largest stores (groun I) produce gross profits were 2.3 times those in groceries. Since the lengest storos had a relatively larger proportion of their floor spice devoted tu procuce, this would suggest that the smaller stores should explore the possibility of increasing their profits by shifting spsee from groceries to produce (tables 12 and 13). This calls for experimentation by ench of the individual stores in order to determine the net effect of such changes upon their over-illl seles and protits. The Charlotte deta do not purmit such a detarmination since gross profits are expressed in terms of averuges rithor then murginal terms and profits were calculuted as gross rather than not profits.

1/Gross profits represent the difference between the price pail and price reccived for the goods sold.

Table la.- Retio of gross profit per square foot of selling area of meat and produce to grocery department, 20 stores, Charlotte, N. C., 1950


1/Stores were grouped according to doliar volume of sales during 1950. Group I represents those stores heving more than $\$ 300,000$; group II \$150,000-\$299,999; group III \$100,000-\$149,999; group IV under ${ }^{(100,000 .}$

Teble 13.- Allocstion of floor space between the grocery, produce, and meat departments, 20 stores, grouped according to size, Charlotte, N. C., 1950

$1 /$ Stores were grouped according to doliar volume of sales during 2950. Group I rearesents those stores having more than $\$ 300,000$; group II \$150,000-4299,999; group III $\$ 100,000-\$ 149,949 ;$ group IV under $\$ 100,000$.

A recont study of retail food stores in Byracuse, N. Y., by M. P. Hesmussen and W. E. Hinkle, revealed that labor costs per dollar of sales for produce were roughly twice those for groceries in both corporate chains and irdependent grocery stores. $2 /$ Gross profits for produce exceeded those in groceries by more then two to one, particularly in the smoller sized stores. This would indicate thet small reteil merchents indght examine their om operations to see if profita could be increased by shifting space from groceries to produce.

## Pricing Practices

Individual stores did not follow any consistent pricing pructices in tems of percentage or absolute margins. The lack of consistency in margins
$2 /$ In both ehain and onner-operieted stores, average grocery sales per hour of labor were about twice ha large as average bales of fruits and vegetables, and salea of meats were at least 50 percont greater. Walter B. Hinkle, Jr., Merchandiging Fresh Fruits ind Vegetablos in Retail Stores, Part I, A. E. 818, New York State College of Agriculture, May 1952.
apparently arose from the fact that retailers tend to majntan fined selling price rather than imnediately reflect changes in purchase price. This suggests the need for investigating the effect which such pricing practices have upon relative sales and profits for the various commodities as compared with a more flexible selling price based upon a fiyed percentage or absolute margin. In turn, these findings would neas to be evaluated in light of their effecta upon over-all store profitis and sules.

The differences in retail margins anong the 10 produce items could not be explained on the basis of differences in total sales, spoilage, and operating coste. Eastern apoles, for example, carried an average retail margin of 31 percent. Orances averaged 25 percent and lettuce and carrots 23 percent. These differences in margins were urelated to the difference in volume of sales, spoilage, and operating costs. 3/

From the pricing practices observed in Charlotte, apoarently retailers look upan thelir store operations as a unit and give little consideration to the effect thet margins of individual comodities may have upon the relative sales and profits of particular items.

## Labor Costs

The cost of labor usually accounted for more than 60 percent of the operating expenses in the produce deparments in the sample stores. Approximately 56 percent of the total labor cost wias incurred before the consumer selected the produce.

The largest stores made better use of their labor in terms of pounds sold per man-hour. They also paid higher wage rates. However, the higher wage rates were more than offect by greater labor productivity (table 14).

Table 14.- Labor productivity in terms of pounds of produce sold per man-hour and dollar cost of labor by size groups of stores, Charlotte, N. C., January 22-May 19, 1951

$1 /$ Stores were grouped accorting to dollar volume of sales during 1950 . Group I: represents those stores having more than \$300,000; group II $\$ 150,000-\$ 299,999$; group III $\$ 100,000-\$ 149,999$; group IV under $\$ 100,000$.

[^7]In terms of dollar sales per dollar of labor cost, there were no significant differences between the four size groups of stores (table 15). The advantages which the largest stores (over $\$ 300,000$ ) enjoyed in terms of greater physical productivity of labor were offset by the lower selling prices per pound of produce sold. This is due to either or both of two factors: (1) the larger stores may have sold their produce for lower prices, (2) the larger stores may have sold a greater proportion of the heavy-weight, low-priced produce (potatoes, for example).

Table 15.- Dollar sales per dollar of labor cost by size groups of stores, Charlotte, N. C., January 22-May 19, 1951


1/ Stores were grouped according to dollar volune of sales during 1950. Group I represents those stores having more than $\$ 300,000$; group II $\$ 150,000-\$ 299,999$; group III $\$ 100,000-\$ 149,999$; group IV under $\$ 100,000$.

## INDEX OF SPECIAL ARTICLES <br> IN <br> THE MARKETING AND TRANSPORTATION SITUATION 1952

## Marketing Costs and Margins


An Analysis of Price Spreads for White Bread ........................ May-July
Transportation
The Farmer's Concern with Transportation Policy ................... Mar. - Apr.
Miscellaneous
Labor in the Marketing of Form Food Products ..................... May-July
Trends in Retail Food Trade ................................................ May-July

## ANNUAL OU'TLOOK FOR MARKETING AND TRANSPORTATION

| 1953 | Outlook Issue |
| :---: | :---: |
|  | The General Outlook for Agricultural Marketing in 1953 |
|  | Food Marketing Charges and Farmer's Share |
|  | Nationel Marketing Bill for Farm Food Products |
|  | Marketing Charges and Farmer's Share for Nonfood Products |
|  | Costs and Profits in Marketing Farm Products |
|  | Consumer Incomes and Expenditures |
|  | Trends in Marketing Agricultural Products |

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4. "Fating Places as Marketers of Food Products," by Lester C. Sartorius and Aarguerite C. Burk, U. S. Dent. Agr. Marketing Res. Rept. 3, 1952. (RMA Contract Report; BAE and Univ, of Minn. cooperating.)
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20. "Trade in Western Livestock at Auctions," Part 2, "Analysis of Livestock Marketings," by Clive R. Harston and Edwin C. Voorhies, Wash. Agr. Expt. Stas. Bul. 537, June 1952. (Agr. Expt. Stas. of the Western States, BAE and BAI cooperating; RMA:)

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Table 16. - Price spreads between farmers and conmaners - food productas Betall price, farm value of equivalent quantitias soid by producerb, byproduct adjuctment, werkoting oharges, and facser's share of retall price, annual 1951 I/


1


 the meat-products group inoluies vegl and mutton, fam sales of lower grede cettile, allowance for retail value of bjproducts and processed meats, in addition to lamb, pori (including Lard), and carcase beef of Choice grade.
2/ Marketing charges oqual zargin adjusted for byproduct allowaces minus Coverment maricoting taxes plus Covernment payments to marketing agencies.
3 Grose farn value before adjusting for Choice grade premiun has 54.5 cents.
4/ Average for 11 months; no retail data in July.

Table 18.- Price spreads between farmern and consumers - food productbz fotali price, farm valus of equivalent quantities bold by producers, byproduct adjustment, mariceting charges, and farmer's share of retail price, September 1952 1/


I/ Full dotalls concerning the calculation of price spreads for commodity groups and individual items are presented in Agr. Inform. Bul. No. 4, "Price Spreade Between Farmers and Consumers," Hov. 1949, and Hisc. Pub. No. 576, "Price Spreade Between Parmare and Consumers for Food Products, 1913-44," Sopt. 1945 (out of print). Commodity-group estimates are derived from date more inoluaive than the individual items listed in this table.
$\frac{2}{3 /}$ Marketing charges equal margin adjusted for byproduct allowances winus Covernment marketing taxes plus Government payments to marketing agencies. in In addition to the individual meat itams --. lamb, pork (including lard), and carcass beef cholce grade -- for which price-spread data are listed in this table, the meat-products group includes veal end mutton, farm sales of lower grade cattle, and allowances at the retail level for meat byproducts and processed meats. Farm prices of lower grade cattle declined more than those of choice grade during the second half of 1952 . Retail prices are collected oply for choice grade beef cuts. If retall prices of lower grade beef declined more than those for Choice grade, the margin inputed for all beef may be too large and the farner's share computed for the meat-products group may be too small. It should be noted, however, that even with a constant merbin, lower prices at both farm and retail levels result in a smaller proportion of the retail price going to the farmer.
4. Gross farm vulue before adjusting for Choice grade premium was 51.4 cents. byproduct adjustant, marketing obarges, and farmor's share of rotail price, October 1952 1/

 Sont. 1945 (out of print). commodity-group estimates are derived from data more inaluaive than the individual iteas listed in this table.
2/ karketing chargez equal margin adjustec sor byproduct biloviances minus covernment marketing taxer plus covernment payments to marketing agencies.
$\frac{2}{3}$ In addition to the individual meat items - lamb, pork (including lard), end carcess beef Choice grade -- for which price-spread data are ilsted
In this table, the meat-products group includes veal and mutton, farti sales of lower grade cattle, and allowances at the retatl level for meat by-
products and processed meats. Farm prices of lover grade cattie deciined more than those of Choice grade during the gecond half of 1952. Retail
products and processed meats. Choice grade beef cuts. If retail prices of lower grade beef declined more than those for Cholce grade, the margin
prices are collected only for Cholce grade beef cuts. if retail prices of lower grade beef declineत more than those for Choice grade, the margin
imputed for ell beef may be too large end the farmer's share computed for the meat-products group may be too suall. It chould be noted, however,
imputed for etl beef may be too large and the farmeris share computed ior the meat-products group may be tho suall. It chould be notec, hourver,
that even with a constant margin, lower prices at both farm and retail levela re
$3 /$ Gross farm value before adjueting for choive srade premiun kas 47.5 cente.

- 41 -

Table 20.- Price spreads between farmera and conmaers - food productes Retail price, farm value of equivalent quantitien eold by producers, byproduct adjustment, marketing oharges, and farmer's share of reteil price, Noveaber 1952 I/

|  | Farm equivalent | $\begin{aligned} & \text { Rotall } \\ & : \end{aligned}$ |  | Grose farm value | 2 $:$ <br> 2 Byproduct:  <br> ielilowares  <br> 1 2 | Het fars ralu* | Margin <br> adjusted <br> for <br> ibyproducte | Government marketing taxes ( - ) and paymeate ( +$)^{2}$ | ${ }^{2}$ Marketing charges 21 | nrerte share |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ? |  | 3 | Dollare | Dollara | Dollara | Doliare | Dopliex | Dollara | Dollare | Pumarat |
| 2 |  | : | 3 |  |  |  |  |  |  |  |
| $:$ |  | : | 1737 |  |  |  |  |  |  |  |
| Harkot baskot ........................ |  | \% | 737.12 | --- | --- | 339.49 | 397.92 | -0.34 | 397.58 | 46 |
| Moet protucte $3 /$ |  | 2 | 214.84 | 119.48 | 5.23 | 114.25 | 100.59 | --- | 100.59 | 53 |
| Meat producti 3 ....e.............s |  | 2 | 8 21.,84 | 119.48 | 5.23 | 11.4.25 | 100.59 | --- | 100. 59 | 53 |
| Deliry products .................... |  | : | 141.09 | 80.60 | --- | 80.60 | 60.49 | -- | 60.49 | 57 |
| poultry and egga ..................8 |  | 1935-39 | : 57.42 | 38.13 | -- | 38.13 | 19.29 | $\cdots$ | 19.29 | 66 |
| , |  | annual | : |  |  |  |  |  |  |  |
| Bakery and other coreal |  | average | ! |  |  |  |  |  |  |  |
| produotaz | Farm produce equivalent | quantitios | 12073 |  |  |  |  |  |  |  |
| All ingredients ................. | of annual fanily | purchased, | 207.36 | --- | --- | 28.60 | 78.76 | - . 04 | 78.72 | 27 |
| Grain ............................ | purchases | 2 per fanily | $:--$ | 27.98 | 5.34 | 22.64 |  | -- |  | 27 |
| ( ${ }^{\text {a }}$ |  | 3 of three | 130 |  |  |  |  |  |  |  |
| Other cereal produote .......... |  | average | 38.53 | 18.83 | 3.71 | 15.12 | 23.41 | --- | 23.41 | 39 |
| 111 frutio and veretabler |  | constmers | : 174 |  |  |  |  |  |  |  |
| A11 fruits and vegotables .......is |  | \% | 174.74 | 61.87 | --- | 61.87 | 112.37 | --- | 112.37 | 36 |
| Frash frutte and vegotables ... |  | : | 138.12 | 53.52 | -- | 53.52 | 84.60 | - | 84.60 | 39 |
| Fresh vogotables ............ |  | ! | 86.08 | 33.02 | --- | 33.02 | 53.06 | --- | 53.06 | 38 |
| Cannod fruita and vegotables - |  | : | 23.53 | 4.25 | --- | 4.25 | 19.28 | -- | 19.28 | 18 |
| 1 |  | 2 | 1 2 46 |  |  |  |  |  |  |  |
| Miscelleneous products ........... |  | 1 | 42.46 | --- | --- | 16.04 | 26.42 | -. 30 | 26.12 | 38 |
| 仡 |  | : | : |  |  |  |  |  |  |  |
| 8 |  | 2 | 2 |  |  |  |  |  |  |  |
| : |  | * | 1 |  |  |  |  |  |  |  |
| : |  | \% | Cents | Cents | Centis | Cente | Cents | Cents | Cents | Porcent |
| 1 |  | : | : |  |  |  |  |  |  |  |
| ( ${ }^{2}$ |  | : |  |  |  |  |  |  |  |  |
| Beef (Cbolce grade) ................. | 2.16 lb . Choice grade cattle: | : Pound | 84.4 | 4/64.7 | 5.0 | 59.7 | 24.7 | --- | 24.7 | 7. |
| Lanb .................................. | . 16 1b. lambs | Pound | 69.2 | 45.1 | 7.2 | 37.9 | 31.3 | -- | 31.3 | 55 |
| Pork (including lard) ..............sl | . 41 1b. hoga | Pound | 40.1 | 23.5 | - 3 | 23.2 | 16.9 | - | 26.9 | 58 |
| 1 |  | \% | : |  |  |  |  |  |  |  |
| \% |  | 2 Prom | $: 1$ |  |  |  |  |  |  |  |
| Butter ............................... 3 | Gutterist and fame butter | Pound | 81.4 | 58.9 | - | 58.9 | 22.5 | - | 22.5 | 72 |
| Cheese, Amerlican ..................... | 10.08 lb gilk | Pound | 66.3 | 6.0 | -- | 42.0 | 24.3 | - | 24.3 | 63 |
| Evaporated milk .....................isl | .95 1b. Milk | 141-oz. can | 15.5 | 7.81 | --- | 7.81 | 7.7 | - | 7.7 | 50 |
| Fluid milt ............................s. | Parm retail and uboleanle | Quart | (23.6) | 14.16 | --- | 14.16 | 9.4 | --- | 9.4 | 60 |
| Ic cresm .............................. | . 8 1b. milk | Plint | 31.5 | 8.33 | -- | 8.33 | 23.2 | - | 23.2 | 26 |
| 1 |  | 1 | ? |  |  |  |  |  |  |  |
| 1 |  | 3 - | $: 1$ |  |  |  |  |  |  |  |
| Egge ................................... | . 03 doz. | Dasen | 72.3 | 53.5 | --- | 53.5 | 18.8 | --- | 18.8 | 74 |
| Chicken ............................. | . 136 1b. | Pound | 54.8 | 30.0 | -- | 30.0 | 24.8 | --- | 24.8 | 55 |
| : |  | 3 - | 3 |  |  |  |  |  |  |  |
| \% |  | : | 2 |  |  |  |  |  |  |  |
| White bread ......................... | . $912 \mathrm{1b}$. wheat | Pound | 16.9 | 3.24 | . 60 | 2.64 | 14.3 | --- | 14.3 | 16 |
| ) |  | : | : |  |  |  |  |  |  |  |
| ( ${ }^{\text {a }}$ |  | $\pm$ | 1 |  |  |  |  |  |  |  |
| Corn nakes ............................ | . 05 1b. comm | 8-03. pirg. | 14.0 | 3.64 | 1.13 | 2.31 | 11.7 | -- | 11.7 | 16 |
| Corn meal ............................si | . 343 1b. comn | Pound | 8.6 | 3.48 | - 52 | 2.96 | 5,6 | --- | 5.6 | 34 |
| Plour, white ......................... ${ }^{\text {a }}$ | . 41 1b. wheat | Pound | 8.9 | 5.01 | . 93 | 4.08 | 4.8 | -- | 4.8 | 46 |
| Rice .................................. | . 68 1b. rough | Pound | 17.3 | 10.23 | 1.46 | 8.77 | 8.5 | --- | 8.5 | 51 |
| folled outs .......................... | .05 1b. oste | Pound | 14.8 | 5.42 | 1.23 | 4.19 | 10.6 | - | 10.6 | 28 |
| : |  | $\pm$ ( | : |  |  |  |  |  |  |  |
| : |  | : | : |  |  |  |  |  |  |  |
| Apples ..............................s | . 0224 bu. | Pound | 13.2 | 6.32 |  | 6.32 | 6.9 | -- | 6.9 | 48 |
| Oranges .............................. | . 0613 box - frebh use | Dozen | 50.8 | 14.0 | --- | 14.0 | 36.8 | -- | 36.8 | 28 |
| ! |  | : | 3 |  |  |  |  |  |  |  |
| (1) |  | $t$ - | : |  |  |  |  |  |  |  |
| Beans, batap .......................... | .0375 bu. | Pound | 29.3 | 12. 56 | 6 | 12.56 | 16.7 | -- | 16.7 | 43 |
| Cabbage ................................ | . 10 1b. | Pound | 6.6 | 2.62 | 2 --- | 2.62 | 4.0 | --- | 4.0 | 40 |
| Carrots ............................. | . 0222 bu. | Brach | 12.4 | 4.22 | 2 | 4.22 | 8.2 | --- | 8.2 | 34 |
| Lettuce ............................... | . 0185 crt . | Head | 16.0 | 7.31 |  | 7.31 | 8.7 | --- | 8.7 | 46 |
| Onions ............................... | . 06 Ib. | Pound | 11.1 | 5.00 | - | 5.00 | 6.1 | --- | 6.1 | 45 |
| Potatoss .............................. | . 0174 bu. | Pound | 7.3 | 3.78 | 8 | 3.78 | 3.5 | --- | 3.5 | 52 |
| Sweetpotatons ............................ | .0204 bu. | Pound | 11.8 | 6.34 | - | 6.34 | 5.5 | $\cdots$ | 5.5 | 54 |
| Tomatoes ............................... | . 0231 bn. | Pound | 324.4 | 10.54 | - | 10.54 | 13.9 | -- | 13.9 | 43 |
| 1 |  | 5 |  |  |  |  |  |  |  |  |
| 1 |  | $5{ }^{5}$ | 133.6 |  |  |  |  |  |  |  |
| Peachos, canned .....................sl | 1.89 1b. Gallf. aling | : Ho. 2 交 ann | 33.6 | 6.55 | 5 | 6.55 | 27.1 | -- | 27.1 | 19 |
| Corn, canned .........................13 | . 03 1b. sweet | : Ho. 2 emm | 23.9 | 3.76 | 6 | 3.76 | 20.1 | -- | 20.1 | 16 |
| Peas, canned | .89 lb . | \% Ho. 2 can | 1 15.4 | 3.87 |  | 3.87 | 11.5 | - | 11.5 | 25 |
| Tomatoes, canned ...................... | 2.41 1b. | : Ho. 2 ean | $128 . \hat{2}$ | 3.31 |  | 3.31 | 14.9 | --- | 14.9 | 18 |
| 1 |  | \% | , |  |  |  |  |  |  |  |
| Pmes |  | $\pm$ P | $: 280$ |  |  |  |  |  |  |  |
| Promes .................................11 | 1b. dried, Callfornia | Pound | 28.0 | 8.47 | 7 | 8.47 | 19.5 | -- | 19.5 | 30 |
| havy beans ........................................ | Ib. M1ch. and M. I. pea beans | Pound | : 15.6 | 7.08 | 8 -- | 7.08 | 8.5 | --- | 8.5 | 45 |
| ! |  | \% | 8 |  |  |  |  |  |  |  |
| , |  | : | 10 |  |  |  |  |  |  |  |
| Beat augar | 7.23 lb . sagar beots | Pound | 11.0 | 4.23 | . 21 | 4.02 | 7.0 | -. 54 | 6.5 | 37 |
| Cone sugar ........................... | 14.61 lb . sugar cane | Pound | 10.7 | 4.65 | 1.09 | 3.56 | 7.1 | -. 54 | 6.6 | 33 |
| Margarine .............................. 1 | cottonseed, soybeans, and | - | 1 10. |  |  |  |  |  |  |  |
|  | akim mill | Pound | 30.3 | --- | - --* | 11.05 | 19.2 | --" | 19.2 | 36 |
| Vogetable shortening ..............sicoin | Cottonseed and soybeans | Pound | 30.7 | 13.62 | --- | 13.61 | 17.1 | --- | 17.1 | 4 |
| : |  | 3 | . |  |  |  |  |  |  |  |
| - | ( | 2 | 1 |  |  |  |  |  |  |  |

1/ Fuli detalls concerning the csiculation of price apreads for comodity groups and individual items are presented in Agr, Inform. Bui. No. 4, "Price Spreade Between Parmors and Consumers, " Fov. 1949, and Misc. Pub. No. 576, "Price Spreads Between Parmors and Conevimers for Food Procucts, 1913-44," sopt. 1945 (out of print). Commodity-group estinates are derived from date more inclualve than the individual iteas insted in this table.
$\frac{2}{3 /}$ Markating charges equal marigin adjusted for byproduct allowances minus Government marketing taxes plus Government payments to marketing agencies.
3/ In addition to the individual ment itams -- lamb, pork (Including lard), and carcass beef Choice grade -- for which price-spread date are Ilsted in this table, the meat-producte group includes veal and mutton, farm ables of lower grade cattle, and allowances at the retail level for aeat byproducte and processed meats. Farm prices of lower grade oattle declined more than those of Choice grade during the second half of l952. Retall prices are collected only for Choice grade beef cuts. If retail prices of lower grade beef declined more than those for Cholce grade, the margin inputed for all beef may be too large and the farmer's share corcputed for the meat-products group may be too sall. It should be noted, hovever, that even with a constant margin, lower prices at boti faril and retail levels result in a emiller proportion of the retail price going to the farmer.
$4 /$ Gross farm value before adjuating for Choice grade premium was 46.0 centa.

U. S. Department of Agriculture Wexshington 25, D. C.

OFFICIAL BUSINESS
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Permit No. 1001

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[^0]:    $3^{\prime}$ Total retail cost of all foods currently consuned per family of three average consumers is roughly 60 percent higher than the retail cost of the "market basket." The market basket of farm-food products does not include imported foods, fishery products, or other foods of nonfarn origin; it does not include food consumed in households on farms where produced; it measures the cost at current prices of 1935-39 average prewar purchases and does not allow for the currently higher level of per capita food consumption, which is 10 to 15 percent above the level for 1935-39; and does not include additional mark-ups for preparation and service of meals purchased in eating places.

    4/ Estimates of the division of the retail price between farmers and marketing agencies are based on comparisons of concurrent prices at the farm and retail levels, except for seasonal ctuning crops, dried fruits, sugar, and vegetable-oil products. During a period of rising prices, the farmer's share calculated on this basis is somewhat higher than the share which would be obtained by comparing prices received by farmers for particular lots of products with prices paid by consumers for the same lots after they have moved through the marketing system. The reverse is true in periods of declining prices.

[^1]:    $5 /$ The price-spread series for standard brand cigarettes is a revision of data previously published in the April 1951 issue of this publication. Data in the present series relate to crop years rather than calendar years as in the previous series. Also, the estimates of farm value are determined from prices during the current crop jear rather than an average of prices 2 and 3 years earlier.

[^2]:    6 Plants classified in the cigarette industry are those whose principal products are cigarettes. Some of these plants produced other tobacco products and some cigarettes were produced in plants classified in other industries, so that an exact comparison cannot be made.

[^3]:    7 At the present tine, 29 States tax cigarettes only axnong the tobacco products and 12 tax cigarettes and sone other tobscco products. About 80

[^4]:    $4 /$ Fresh fruits and vegetables, melons, edible nuts, and caned and preserved food products were permitted a maximun increase of 12 cents per 100 pounds; sugar, 10 cents per 100 pounds; and grain 12 percent. Ex Parte 175, Increased Freight Rates, 1951, 284 I.C.C. 662.

    5 Based upon a minimurn carload of 20,000 pounds, the California producer would pay $\approx$ tax of $\$ 14.28$ per carload, while the New York producer Days is tax of only $\$ 3.60$ per carload.

[^5]:    6 The Interstete Commerce Comission pointed out this difficulty in 1950 by stating: "The need for volume passenger trovel is obvious from the experience of World War II, but the competition of travel by privato car and other means is one which few railroads have met with any success and gencrally only as to particular trains." Annual Report, Interstate Commerce Comrnission, Nov. 1, 1950, p. 5.

[^6]:    7] Another method advocated for reducing or eliminating the deficit is to renove fron survice the individual passenger trains which are operating at a loss. This method has becn thoroughly explored in two recent studies: Foctors Affecting Freight Rates on Agricultural Comodities: The Pailroad Pasgenger Deficit, Transportation and Warehousing Eranch, Production and Mirkoting Administration, Apr. 1951; and Feport of the Speciol Committee on Cooperation with the I.C.C. in the Study of the Fajiroud pussenger Deficit Problem, National Association of Keilroac end Utilities Commissioners, Nov. 11, 1952.

[^7]:    $3 /$ These three fictors accounted for 15 percent of the variation in retail margins for group III stores and 36 percent of the variation for group II stores and group IV stores. For group I stores these factors accounted for only 19 percent of the variation in the 10 produce margins.

