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PRICE SPREADS FOR BEEF AND PORK

REVISED SERIES, 1949-69

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ABSTRACT

To more accurately measure price spreads for beef and pork, the methods of estimating U.S. composite prices of beef and pork at the retail, wholesale, and farm levels have been updated. The revised price spreads calculated from these new composite prices are presented for the 1949-69 period, thereby providing a historical time series for these data. In addition to presenting the farm-retail, farm-wholesale, and wholesale-retail price spreads, several examples tracing both beef and pork through the marketing channel illustrate costs and gross returns associated with the marketing of livestock and meat.

Key Words: Animal products, livestock-meat, market performance, prices

PREFACE

This report analyzes the trend of prices and price spreads for beef and pork at various stages in the marketing process during 1949-69, and discusses the factors responsible for the trend and their implications for producers and consumers. A brief discussion of recent procedural changes in computing estimates is included. This report supersedes "Price Spreads for Beef," Miscellaneous Publication No. 992, February 1965, and "Price Spreads for Pork," Miscellaneous Publication No. 1051, January 1967.

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SUMMARY

The farm-retail price spread for beef increased 60 percent between 1949 and 1968, an increase of 11.2 cents per pound. Most of this increase occurred by 1960. The increase between 1961 and 1968 was only 0.3 cent per pound. The farm-carcass spread for beef increased slowly between 1949 and 1956, but has been decreasing slowly since 1956, with the spread almost a cent lower in 1968 than in 1949. The carcass-retail spread for beef was 106 percent larger in 1968 than in 1949. However, the rate of increase has been smaller recently than in earlier years.

The farm-retail spread for pork increased 67 percent from 1949 to 1968, with 71 percent of the 13.2-cent increase contributed by the wholesale-retail spread and 29 percent by the farm-wholesale spread. In 1949, the wholesale-retail spread represented 32 percent of the farm-retail spread for pork; by 1968, it had expanded to 48 percent.

The ways in which meat comes to market have changed markedly in the past 25 years. To more accurately measure price spreads under these new conditions, the methods of estimating these values have been brought up to date. The revised price spread series are presented in this report.

For both beef and pork, prices tend to rise with short supplies and drop during periods of high production. Price spreads tend to be smaller during periods of increasing prices and larger during periods of falling prices. Cycles and seasonal patterns occur for both beef and pork. Seasonal patterns have become somewhat less pronounced in recent years.

A significant difference between beef and pork production and consumption patterns exists, as pork consumption per capita has remained relatively stable over the years while beef consumption has risen rapidly.

Short-term variations in both beef and pork price spreads often result from more stable prices at the retail level than at the farm and wholesale levels.

Farm-retail spreads for beef and pork are of similar magnitude. The breakdown into farm-wholesale and wholesale-retail spreads, however, is quite different. This is a result of the greater number of services provided by the packer and wholesaler in the case of pork. Wholesale values of beef represent beef carcasses, while pork wholesale values represent wholesale cuts, many of which have been smoked or cured.

Examples for beef and pork, using two time periods, are presented to trace the animal (and meat) from the farm to the consumer. These examples provide a more detailed look at the costs and gross returns in the various stages of the marketing channel.

PRICE SPREADS FOR BEEF AND PORK: REVISED SERIES, 1949-69

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INTRODUCTION

Meat is the most important food in menu planning and in the consumer's food budget. Beef and pork are the most important meats, both in quantity consumed and in value of expenditures. Total red meat consumption in 1968 was 182.7 pounds per capita, with beef contributing 60 percent or 109.4 pounds and pork 36 percent or 66.0 pounds. Beef consumption in 1949 was 63.9 pounds and in 1959, 81.4 pounds. The steady rise in beef consumption resulted in a 71-percent increase during 1949-68. At the same time, beef prices, although fluctuating, have tended until recently to increase at a slower rate than the general level of prices as indicated by the Consumer Price Index. During the first half of 1969, beef prices increased rapidly to about the same level as prices of all consumer goods. The increased consumption over the years thus resulted from an increasing demand as consumer income rose.

Pork consumption in 1949 was 67.7 pounds per capita and in 1959, 67.6 pounds. Consumption for years other than these points tended to be lower, especially after 1959. In 1966, only 58 pounds of pork were consumed per capita. Although absolute consumption of pork per capita has decreased only slightly over the years, it has decreased substantially as a percentage of all red meat consumed. Pork made up 47 percent of all red meat in 1949 and 42 percent in 1959, compared with only 36 percent in 1968. Pork prices have increased over the years, but at a slower rate than the general price level.

Livestock and livestock products accounted for 53 percent of total cash receipts from farming in 1968. Cattle and calves contributed 24 percent and hogs 8 percent. In dollar terms, cash receipts from cattle and/or hogs provide the main income for a large proportion of U.S. farmers. Variations in cattle and hog prices are of real and immediate concern to many thousands of farm families in all parts of the United States.

Livestock marketing consists of a series of steps that convert livestock on the farm into meat purchased by the consumer from the retail store, restaurant, or institutional kitchen. These steps between farm and consumer, as well as the actual production itself, have become increasingly specialized.

Most of the cattle that make up our beef supply are born and spend the first part of their lives on ranges of the West or grass pastures of the South. They are usually sold to feeders in the Corn Belt, Colorado, California, or the Southwest, where they are placed in feedlots for 3 to 12 months. Feeders may then sell slaughter cattle directly to packers or through auctions or terminal markets. Packers then sell to retailers, wholesalers, restaurants, or institutions. Hog production is concentrated in the Corn Belt, which contributes about three-fourths of total production. The marketing channel from farm to consumer for hogs also includes several alternatives at each market level.

Services provided after livestock leave the farm gate cost the consumer almost as much as the share obtained by the producer. To measure the cost of these services, an equivalent amount of product is priced at each market level. The differences between the prices--the spreads--measure the costs of the services provided. For instance, the difference

between the price of 1 pound of meat sold at retail and the value of an equivalent quantity of the live animal is the farm-retail spread, which serves as an estimate of the charge for the marketing services per pound of meat sold. Since the spreads are obtained as the differences between prices, their accuracy depends on the accuracy of the estimated prices. Spread series are most valuable as measures of changes between different periods of time, rather than as measures of absolute levels of marketing charges.

This publication replaces Miscellaneous Publications 992 and 1051. In addition to giving more current data, it provides historical data, back to 1949, that differ from those previously published because of revisions in the methods of calculating prices and values at each level. Changes in procedure causing the revisions are discussed briefly; however, a more thorough discussion of the revisions can be found elsewhere.[1]

Price spreads for beef and pork have been computed since the early twenties, when Congress asked the Department of Agriculture to undertake special studies of marketing margins for livestock. In 1934, at the request of livestock producers, the Department developed a statistical series to measure changes in marketing costs for a number of agricultural commodities. In March 1935, the Department published a preliminary report that summarized price spreads for beef, pork, and eight other important farm-produced food products for 1910-34. In 1936, the Department issued a report on price spreads for 58 food items, including beef and pork. Since 1941, farm-retail price spreads for beef and pork have been published periodically. Spreads for beef are for U.S. Choice grade beef, and pork spreads are for barrows and gilts.

THE NATURE OF PRICE-SPREAD DATA

Three market levels–farm (live animal), wholesale (carcass beef or wholesale pork cuts), and retail (retail cuts)–are used as the basis for estimating prices. From the differences between selected pairs of these prices, three price spreads for each species can be estimated–farm-wholesale, wholesale-retail, and farm-retail.

Prices at wholesale and the farm are more correctly termed values, as a conversion is needed so that the quantity priced is equivalent to 1 pound sold at retail. For beef, 2.28 pounds of live animal and 1.41 pounds of carcass are required to produce 1 pound sold at retail. The conversion factors used to obtain equivalent quantities for pork are 1.97 pounds at the farm level and 1.07 pounds at the wholesale level. Part of the weight loss from farm to wholesale is waste and part is salable byproducts. Byproducts are not included in price spread data as all values are based on meat sold at retail.

The loss in weight between wholesale and retail includes shrink, bone, and fat trim. This loss is much smaller for pork than for beef as the pork carcass has already been broken into wholesale cuts before sale to retailers. This places most of the trim loss for pork into the farm-wholesale spread rather than the wholesale-retail spread.

Because a single retail price for Choice grade beef or for pork does not exist, individual cut prices must be combined. Prices are combined by weighting the price of each cut by the yield or percentage this cut represents of the total salable retail cuts in the carcass. The information at the bottom of figures 1 and 2 explains the difference between live weight and the amount of meat sold. The percentage for each salable retail cut is that cut's percentage of the total salable cuts. These percentages are the ones used in the

[1] Duewer, Lawrence A., "Revised Beef and Pork Price Spreads," Marketing and Transportation Situation, Econ. Res. Serv., U.S. Dept. Agr., Nov. 1969.

calculations for the revised procedure. At the wholesale level for beef, the entire weight of the carcass is priced. For pork, wholesale cuts rather than the entire carcass are priced at the wholesale level. Pork priced at wholesale includes the 117.9 pounds of total salable retail cuts and 1.6 pounds waste listed under wholesale cuts.

Twenty-nine retail cuts are used in computing the composite retail beef price and 20 retail cuts in computing the composite retail pork price. Use of all retail cut prices, weighted by their relative proportion of all retail cuts from the carcass, is necessary because of the wide difference in value between cuts. Tables 1 and 2 show these variations in price and how they are combined to obtain a composite price. The revised procedures also provide for the reflection of increased volume of movement when items are specialed. These tables, however, are included only to indicate how the various priced cuts are combined. Information concerning the entire procedure in detail can be obtained from other sources.[2]

Spreads obtained as differences between values at different market levels are a measure of the gross return per unit to the marketing and processing industries for their services. However, they indicate costs of these services only roughly since they include profits as well as the costs of processing and marketing. Costs include not only the labor in slaughtering the animals and processing the meat, but also overhead, transportation, packaging, refrigeration, storage, advertising and promotion, and other costs. Changes in spreads can accompany changes in processing and distribution costs or the profit structure of an industry, and the spreads will not indicate which factor or combination of factors caused the change.

Products priced at wholesale and retail do not include byproducts. Thus, the portion of the farm value contributed by byproducts must be substracted. Tables 3 and 4 show the gross farm value and byproduct allowance as well as the net farm value.

Although revised price and spread estimates presented are believed to be more accurate than the series previously published, they are still estimates and not exact measurements. More reliance can be placed on trends than on the specific levels of spreads and prices. The revised estimates are, however, the best available evidence of the relative size of the gross returns to various segments of the marketing system.

IMPROVEMENTS IN PRICE–SPREAD SERIES PROCEDURES

Many changes have been incorporated in the calculation procedures for estimating retail price, wholesale value, and net farm value for both beef and pork. These changes were made to improve the accuracy of the estimates. Some individual changes tended to raise the estimates, while others tended to lower them. The accuracy of the spreads, of course, depends on the accuracy of the values at each market level.

Data used at all levels now are averages for the entire month. Previously, data represented only a short period near the first of the month. Tables 3 and 4 provide only quarterly and annual estimates to conserve space. However, estimates are computed each month.

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[2] The article listed under footnote 1 gives the most detail on procedures. The following source provides the background material for determining the specific constants used relative to the effect of specials. Duewer, Lawrence A., "Effects of Specials on Composite Meat Prices," Agr. Econ. Res., Vol. 21, No. 3, Econ. Res. Serv., U.S. Dept. Agr., July 1969.

Only those cuts priced by the Labor Department's Bureau of Labor Statistics (BLS) were used to obtain the composite beef and pork retail prices in the past. Prices of 29 beef and 20 pork cuts are now used (figs. 1 and 2 and tables 1 and 2). A continuing survey conducted by the Animal Products Branch, Marketing Economics Division, Economic Research Service (ERS), provides both prices for cuts not included by BLS and a means of converting the BLS prices, collected during a 3-day period, to averages for the month. The Animal Products Branch survey includes about 40 retail chain divisions located throughout the United States. All regular and special prices are obtained each week from the cooperating firms.

Special prices affect the composite price in two ways. The reduction in price of the cut on special decreases the average price of all cuts sold. This decrease is termed the price effect. When the price is reduced, consumers tend to buy more of that cut than they ordinarily would. As a result, a store may sell several times more than the carcass proportion of a cut when it is on special. A thorough investigation indicated that the composite price obtained using volume data and special prices received by all stores over time was less than the composite price obtained when only the special prices were used. This additional decrease in the composite price, called the volume effect, was examined in a study conducted in five cities with 20 retail chain divisions cooperating.[3] Results of this study are used with data available each week in the retail meat price survey of the Animal Products Branch to reflect the total effect of specials in the revised series.

Retail shrink is the difference between the actual value of the meat at retail prices at the time it is cut and packaged and the actual value received for the meat by the store. Allowances were not made in the past for the decreases in value resulting from pilferage, spoilage, refacing, conversion to lower-valued uses, and the extra weight added to the package to allow for dehydration loss. The revised procedure allows a 5-percent loss for beef and a 5½-percent loss for pork. These are reflected in the farm and wholesale product equivalent conversion factors.

In calculating revised wholesale values, in most cases carlot rather than less-than-carlot wholesale prices have been used. Most meat now moves by carlot. For beef, Chicago carlot prices of 600-700 pound Choice steer carcasses are used to represent all U.S. wholesale markets for carcass beef except the West Coast, where an average of carlot and less-than-carlot prices is used. A transportation differential is added to the Chicago price to make it representative of the area for which it is used. Chicago carlot prices, with a transportation differential, are used to estimate the pork wholesale value.

In the past, computations of farm values for both beef and pork were based on the "Prices Received by Farmers" series estimated by the Statistical Reporting Service, USDA. [4] The revised procedure uses primary market prices and deducts the marketing costs of the producer. Prices of Choice steers at seven Midwestern markets and a California price are used to obtain the beef farm price. The average monthly price of barrows and gilts at eight Corn Belt markets are used, along with the deduction for marketing costs, to obtain the farm price of pork. These farm prices are multiplied by the farm product equivalent conversion factors to obtain the gross farm values.

Computation of the byproduct allowance for both beef and pork were revised to reflect present yield and use. The hide and offal value published by Market News is now

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[3] See source concerning specials, footnote 2.

[4] Among other sources, published in Livestock Meat Wool Market News Weekly Summary and Statistics, Livestock Div., Consumer and Mktg. Serv., U.S. Dept. Agr.

used as the base in beef byproduct allowance calculations. The pork byproduct allowance procedure was changed to reflect the decreasing yield of lard as hogs marketed have become meatier.

The farm and wholesale conversion factors for pork were also changed. Improvement in hog quality over the years has changed not only the total yield of salable pork, but also the relative yield of the different pork cuts. These new values were incorporated in the revised procedures. An adjustment made in the previous series to reflect changing beef cutting practices was also included in the computation of the revised historical series.

Several adaptations were needed to obtain beef and pork price series over the historical period that were consistent with revised procedures. In some cases, specific data used in the revised procedure were not available for the earlier years of the historical period. For revisions such as the change in hog quality, procedures had to be developed to allow the change to be made gradually as it occurred. The revised series are presented in tables 3 and 4 from 1949 to present. Figures 3 and 4 present the data graphically by years.

EFFECTS OF REVISIONS ON PRICES AND SPREADS

Estimates made by the revised procedures differ somewhat from values obtained by previous methods. The revised series, however, does not make an abrupt change in the existing series. As comparable estimates have been made for all years back to 1949, the new series essentially replaces the previous series. If comparison between values obtained is desired, data in the earlier price spread publications can be compared with data in tables 3 and 4, this report.

A few brief statements provide a fairly complete summary of the effects of the changes. The retail beef price averages 1 to 1½ cents lower using the revised procedure. The revised beef carcass value is about the same as the previous series, and the net farm value averages 3½ to 4 cents higher. As a result, all three spreads–farm-carcass, carcass-retail, and farm-retail– decrease. The lower retail price and higher net farm value not only result in about a 5-cent decrease in the farm-retail spread but also an increase in the beef farmer's share of the retail price of about 5 percentage points. The farm price change, byproduct value change, addition of retail shrink, and inclusion of the total effect of specials were the factors causing the farmer's share to increase.

Values obtained by the revised procedure were only slightly higher at the farm and retail levels for pork. The wholesale price, however, increased about 3 cents, resulting in an increase in the farm-carcass spread and a decrease in the carcass-retail spread. The farm-retail spread decreased only slightly, with the farmer's share increasing less than half a percentage point.

Some revisions tended to increase and others decrease prices obtained and thus tended to be offsetting at both the retail and farm levels. The increase in the wholesale price occurred as a result of the new wholesale conversion factor (reflecting retail shrink and the carcass-to-retail cutout) and the transportation differential added to the Chicago price. The previous procedure used Chicago prices without adjustment.

Differences between the previous and revised series mainly reflect changes which are felt to more accurately indicate absolute levels. The accuracy of the absolute levels tends to provide a greater degree of confidence in the series even though changes from one period to the next may be indicated quite well by either set of procedures. The revised spreads are presented graphically using annual data in figures 5 and 6.

PRODUCTION, CONSUMPTION, AND PRICES

As explained previously, price spreads are the differences between prices at different levels. These prices result from an interaction of supply or amount available at each level with the demand or the amount persons or firms desire to purchase at each level. The initial supply point is the production at the farm level. The final demand point is the consumption level preferred by the consumer.

Total production and total consumption are about equal for both beef and pork in the United States because of the relatively small quantities of imports and exports. [5] Total production and per capita consumption vary similarly except that a slow increase in total production is needed to maintain the same per capita consumption as population increases. Production and per capita consumption for beef and pork are plotted along with price levels in figures 7 and 8. When production is low, an amount smaller than is desired is available for consumption. The amount available is thus rationed by an increase in price as consumers compete for the smaller amount available. When production increases, more is available than is desired by the consumer; this situation causes the price to drop, which encourages the consumer to buy more. This opposite movement of price and consumption or production is more evident for pork than beef. While pork consumption has remained relatively stable over the years, beef demand and consumption have been increasing steadily. If total beef production had not been rapidly increasing during the last two decades, the ever-increasing demand would have resulted in much larger price increases.

Cyclical Variation

Production and prices vary in somewhat set patterns both within a year and over a period of years. Cattle and hog cycles are the terms used in relation to the long-term patterns. Figure 8 indicates, starting from a given price and production relation (for instance, low price and high production in 1952), that the same relationship occurs about every 4 years--thus, there is a 4-year hog cycle. The cycle is not as apparent for beef (fig. 7) because of the continuing increase in production. Production lows in 1951, 1958, and 1965 do indicate the beef cycle to be about 7 years in length. The beef cycle has seemed less pronounced during recent years. These cycles result or are caused by the time lag between the decision to change production levels and the change in the number of animals actually reaching market. For instance, hog prices in one period affect decisions concerning how many pigs will be farrowed in a later period. The number of pigs farrowed then affects the number slaughtered in a later period. Then the number slaughtered affects the price of hogs, which in turn affects decisions concerning breeding plans--and the cycle continues. When cattle prices are low, a smaller calf crop is planned, and when the smaller number reaches market the price increases. The higher price causes an increase in the calf crop planned, and so forth. The cattle cycle tends to be longer than the hog cycle because of the greater length of time between breeding and marketing.

Seasonal Variation

Both beef and pork production and prices tend to follow similar seasonal patterns from one year to the next. Figures 9 and 10 indicate these variations by month. Note that the variations for beef are smaller than for pork as the scale on the beef charts move

[5] Beef imports are virtually all of lower quality beef. As a result, beef imports do not significantly affect Choice beef production, consumption, and prices.

from 90 to 110 percent of the yearly average while the scale for pork varies from 80 to 120 percent. Each chart presents three lines–an average for 1949-59, 1960-64, and 1965-68.

Beef production is lowest in February, partly because of the smaller number of marketing days, and reaches a peak in October. The variation was somewhat less in later years–1965-68–than during 1949-59 (fig. 9). Retail prices of beef show only a small seasonal effect, but there is a tendency for prices to be higher in the last half of the year. The net farm value fluctuates more than the retail price during the year, but similar seasonal direction changes occur. The farm-retail spread fluctuates widely between the three groups of years charted. A comparison of the same year-group lines on the farm and spread charts indicates that the spread tends to decrease during periods of rising farm prices and increase during periods of decreasing farm prices.

Pork production is at its lowest point in July (fig. 10). It then rises sharply in the late summer and early fall as the spring pig crop reaches market. In recent years, production has declined in late fall and during the winter. Part of the decrease in February results from the fewer number of marketing days. Production rises somewhat in March as the fall pig crop is marketed. Production then decreases steadily through July. The three year-group lines indicate both that the variation during the year is decreasing and that the spring pig crop is tending to move to market earlier. Pork retail prices and net farm values tend to be highest when production is lowest–during the summer. Lowest farm and retail prices occur in late fall when the bulk of the spring pig crop reaches the market and in the spring with the fall pig crop marketings. The farm-retail spread is largest in the fall while prices are falling and lowest during May, June, and July, when prices are rising.

For both beef and pork, seasonal fluctuation in the net farm value is greater than in retail prices. This difference results from retail prices changing more slowly than live prices–a lag which partly results from the length of time required for a change in supply to move from the live to the retail level. Other factors are also important. For instance, retailers tend to prefer stable prices and will accept changed margins for a short period before changing prices. Retailers also partially depend on specials to move larger supplies, rather than change their regular prices, when increases in supply may be of short duration.

TRENDS IN BEEF SPREADS

Differences between the retail, carcass, and net farm values are shown in figure 3 as the carcass-retail and farm-carcass spreads. These two spreads combined are the same as the farm-retail spread. Each of the spreads is recorded in figure 5 as the cents per retail pound for that spread. The base of each spread is zero (for example, the retail-carcass spread does not start at the farm-carcass line but at zero). The farm-retail spread increased steadily between 1949 and 1961; since 1961 it has remained fairly stable. The farm-retail spread was 60 percent larger in 1968 than in 1949. The highest annual average farm-retail spread during 1949-68 was 30.3 cents per pound in 1964. The increase in the farm-retail spread has resulted from increases in the carcass-retail portion of the spread rather than the farm-carcass portion of the spread, which has actually been decreasing since 1956. The carcass-retail spread increased 106 percent between 1949 and 1968.

The carcass-retail spread includes the cutting, processing, packaging, and merchandising of retail cuts of beef. Although there is presently a trend toward cutting carcass beef to primal cuts or even retail cuts at the packer level, computation procedures assume retailers

buy beef in carcass form. The spread has increased because of rising labor and other costs. Included in the reasons for the carcass-retail spread increase is the extra labor required as a result of the trend toward removing the bone from more cuts and the practice of trimming more of the fat from the cuts in recent years. [6] Improved technology and increases in efficiency have been greater than the increases in costs of labor and equipment, resulting in slowly decreasing farm-carcass spreads. The farm-carcass spread accounted for 39 percent of the total farm-retail spread in 1949 and only 21 percent in 1968.

TRENDS IN PORK SPREADS

Wholesale-retail and farm-wholesale spreads for pork are shown as the differences between retail and wholesale values and wholesale and farm values in figure 4. These two spreads, singly plus added together to get the farm-retail spread, are charted in figure 6. Again, each spread is charted from the base (or zero) line. The farm-retail spread for pork has been increasing steadily since 1949 except for a slight drop in 1953, a jump in 1959, and a drop in 1965. Both the farm-retail and the wholesale-retail spreads have contributed to this increase, although the wholesale-retail spread has been increasing much more rapidly. From 1949 to 1968, 71 percent of the 13.2-cent increase in the farm-retail spread resulted from increases in the retail-wholesale spread and 29 percent from the farm-wholesale spread.

In 1968, the farm-wholesale spread accounted for 52 percent of the total farm-retail spread, compared with 68 percent in 1949. The farm-retail spread covers the costs of all services between the farm gate and the consumer. Included are the costs of transportation, marketing, slaughtering, curing, processing, and retail distribution. The wholesale price is a weighted average of prices for wholesale pork cuts, rather than a carcass price as used for beef. As most of the cutting, curing, and processing operations are performed by the packer or wholesaler, the farm-wholesale price spread for pork is considerably larger than for beef. Hams, bacon, picnics, sausage, and in some cases other cuts go to the retail firm ready for retail sale.

The 28-percent increase in the farm-wholesale spread between 1949 and 1968 annual averages appears to be the result of several factors. The number of services performed by slaughtering firms has increased, as well as the cost of labor, materials, and transportation. Increases in efficiency and improved technology have partially offset these cost increases.

Wholesale-retail spreads for pork have fluctuated more as well as increased faster than the farm-wholesale spread. Short-run fluctuations in the wholesale-retail spread are partly a result of the tendency of retailers to be reluctant to change prices until clearcut trends are observed. Between 1949 and 1968, the wholesale-retail spread increased 149 percent. This spread covers retailing costs such as advertising, overhead, and labor.

TRENDS IN THE FARMER'S SHARE

Retail prices of meat reflect the cost of all services in converting the live animal to the retail package of meat purchased by the consumer, in addition to the value of the live animal. The portion of the composite retail price of meat that the farmer receives is called

[6] Because of the changing cutting and trimming practices of retailers, the retail cut yield per 100 pounds of carcass decreased from 80 pounds in 1951 to 74.6 pounds in 1962 and later years.

the "farmer's share." The last column in tables 3 and 4 lists the estimated farmer's share by quarters and years from 1949 to present. The farmer's share for both beef and pork has decreased over the years. The marketing bill portion of the retail price, although increasing almost steadily, is much more stable from year to year than the farm price. As a result, when prices are high the farmer's share is larger than when prices are low.

A decrease in the farmer's share of the beef consumer's dollar from 72 percent in 1949 to 65 percent in 1968 indicates that there has been an increase in marketing services and in the cost of these services over the years. The beef farmer's share was highest in 1951 (a year of high prices) with a value of 77 percent. In 1964, prices were the lowest since 1957 and the farmer's share reached its lowest value of 60 percent.

Between 1949 and 1968, the farmer's share of the pork consumer's dollar changed from 64 to 51 percent. The highest farmer's share was 67 percent in 1953, and the lowest share was 46 percent in 1959 (table 4). The net farm value was lower in 1959 than in any other year for which data are presented. Only 1 year has a higher net farm value than 1953.

Use of absolute spread values provide a better measure of marketing charges and changes in the costs of marketing services than the farmer's share values.

EXAMPLES OF MARKETING COSTS AND GROSS RETURNS

Price spreads discussed earlier in this publication have been derived as the difference between prices at three market levels–farm, wholesale, and retail. The following examples, one for steers fed to U.S. Choice grade at two different time periods and one for 220-pound butcher hogs marketed at two different time periods, show the several steps and the specific costs and returns from farm to retail.

The examples are not intended to represent U.S. average conditions for all farms. They also are not necessarily representative of different locations or points in time other than those listed. The examples merely illustrate selected marketing channels for livestock marketed at two different times. They do, however, illustrate a possible channel for both beef and pork and the costs associated with this channel. Two time periods are used to indicate the varying gross returns when prices are at different levels. The same costs are used for both time periods.

Figure 11 shows the estimated distribution of the consumer's dollar spent for beef and pork in the examples. It is important to note that marketing is a dynamic process, and returns to the various participants vary over time. This is shown by the differences between the two time periods for the same marketing situation and channel. Changes in the location where the various operations are carried out and changes in the marketing channel utilized would also affect the distribution of the consumer's dollar.

Example 1.–Feeder Steer from Ranch in Wyoming to Consumer in New York City

This example assumes that on two different dates 710-pound U.S. Good grade feeder steers were marketed from a ranch near Casper, Wyo. The steers were purchased in the Omaha livestock market in January 1967 and January 1969 by a cattle feeder near Lincoln, Nebr. In each case, the feeders were then placed on a 120-day typical Corn Belt feeding program. At the end of the feeding period, 1,000-pound U.S. Choice grade steers

were shipped to the Omaha livestock market during May 1967 and May 1969. An Omaha packer purchased and slaughtered the steers, obtaining 620-pound carcasses. The packer shipped the carcasses to a retailer in New York City who cut a total of 463 pounds of retail cuts from each carcass. After retail shrink was allowed for, a total of 440 pounds of retail cuts were sold to consumers in each time period. Returns at each market level are as follows:

	May 1967	May 1969
Return to Rancher		
Sale value of 710-pound U.S. Good grade feeder steer at Omaha--		
January 1967 at $24.25 per 100 pounds...	$172.18	
January 1969 at $25.25 per 100 pounds...		$179.28
Less marketing expense--		
Trucking expense from ranch in Wyoming to Omaha--$7.05		
Marketing cost at Omaha, including commission, yardage, feed, etc. per head--$3.07		
Total marketing expense.....	10.12	10.12
Gross return to rancher.....	$162.06	$169.16

	May 1967	May 1969
Return to Feeder		
Sale value of 1,000-pound U.S. Choice grade slaughter steer at Omaha--		
May 1967 at $24.75 per 100 pounds.....	$247.50	
May 1969 at $32.45 per 100 pounds.....		$324.50
Less marketing expense--		
Trucking expense from feedlot to Omaha--$2.50		
Marketing charges at Omaha, including commission, yardage, feed, etc. per head--$3.37		
Total marketing expense.....	5.87	5.87
Receipt from sale of fed steer.....	$241.63	$318.63
Less cost--		
Cost of 710-pound U.S. Good grade feeder steer at Omaha--		
January 1967 at $24.25 per 100 pounds--$172.18		
January 1969 at $25.25 per 100 pounds--$179.28		
Expense of shipping steer from Omaha to feedlot near Lincoln, Nebraska--$1.78		
Total cost.....	173.96	181.06
Gross return to feeder.....	$ 67.67	$137.57

	May 1967	May 1969
Return to Packer-Wholesaler		
Sale value of 620-pound U.S. Choice grade carcass, New York City--		
May 1967 at $41.65 per 100 pounds.....	$258.23	
May 1969 at $54.10 per 100 pounds.....		$335.42
Value of byproducts.....	18.00	21.10
Total.....	$276.23	$356.52
Less expense of shipping carcass from Omaha to New York City.....	12.03	12.03
Receipt from sale of beef carcass and byproducts.....	$264.20	$344.49
Less cost of 1,000-pound U.S. Choice grade slaughter steer at Omaha--		
May 1967 at $24.75 per 100 pounds.....	247.50	
May 1969 at $32.45 per 100 pounds.....		324.50
Gross return to packer-wholesaler.....	$ 16.70	$ 19.99

	May 1967	May 1969
Return to Retailer		
Sale value of 440 pounds of U.S. Choice grade beef, New York City--		
May 1967 at an average price of 83.2 cents per pound.....	$366.08	
May 1969 at an average price of 100.3 cents per pound.....		$441.32
Value of bones and fat.....	1.67	1.67
Receipt from sale of beef.....	$367.75	$442.99
Less cost of 620-pound U.S. Choice grade carcass delivered to New York City--		
May 1967 at $41.65 per 100 pounds.....	$258.23	
May 1969 at $54.10 per 100 pounds.....		$335.42
Gross return to retailer.....	$109.52	$107.57

Estimated Distribution of Consumer's Beef Dollar 1/

	May 1967		May 1969
		-Percent-	
Retailing		29.8	24.3
Wholesaling and meatpacking:			
Transportation	3.3		2.7
Other	4.0		4.1
Total		7.3	6.8
Marketing livestock:			
Expense at markets	1.6		1.4
Transportation	2.9		2.4
Total		4.5	3.8
Return to cattle feeder		17.2	29.2
Return to rancher		41.2	35.9
		100.0	100.0

1/ These percentages were estimated by including at each level only the proportion of product eventually sold at retail. For May 1967, fat and bones contribute 0.5 percent of retailer sales; byproducts 6.5 percent of wholesaler sales; and the two combined, a 7-percent total effect at the live level. For May 1969, these percentages are 0.4, 5.9, and 6.3.

Example2.–Hog From Farm in Iowa to Consumer in Los Angeles

This example assumes that on two different dates, April 1967 and April 1969, a farmer in western Iowa shipped his butcher hogs, averaging 220 pounds, by truck to a terminal public market at Sioux City. In each case the hogs were slaughtered and processed by a local packer. The 119.5 pounds of wholesale cuts of pork derived from each hog were shipped by the packer to Los Angeles. The retailer obtained 117.9 pounds of salable retail cuts from the wholesale cuts. After allowance for retail shrink 111.5 pounds were sold to consumers in each time period. Returns at each market level are as follows:

Return to Farmer	April 1967	April 1969
Sale value of 220-pound hog at Sioux City--		
April 1967, at $17.67 per 100 pounds	$38.87	
April 1969, at $20.36 per 100 pounds		$44.79
Less marketing expense--		
Shipping hog from farm to Sioux City--$0.55		
Expense at market--$1.03		
Total marketing expense	1.58	1.58
Gross return to farmer	$37.29	$43.21

	April 1967	April 1969
Return to Packer-Wholesaler		
Sale value of 119.5 pounds pork cuts (excluding lard) at Los Angeles--		
April 1967, at $47.65 per 100 pounds.....	$56.94	
April 1969, at $52.23 per 100 pounds.....		$62.41
Less expense of shipping wholesale cuts from Sioux City to Los Angeles.....	3.23	3.23
Net received from sale of pork.....	$53.71	$59.18
Cost of 220-pound hog at Sioux City--		
April 1967, at $17.67 per 100 pounds--$38.87		
April 1969, at $20.36 per 100 pounds--$44.79		
Less value of lard and inedible byproducts--		
April 1967--$2.88		
April 1969--$3.01		
Value of hog less value of lard and byproducts.....	35.99	41.78
Gross return to packer-wholesaler.....	$17.72	$17.40
Return to Retailer		
Sale value of 11.5 pounds of retail pork cuts, excluding lard, at Los Angeles--		
April 1967, at an average price of 63.2 cents per pound.....	$70.47	
April 1969, at an average price of 68.8 cents per pound.....		$76.71
Less cost of 119.5 pounds of wholesale pork cuts--		
April 1967.....	56.94	
April 1969.....		62.41
	$13.53	$14.30

Estimated Distribution of Consumer's Pork Dollar 1/

	April 1967		April 1969	
	- - - - - -Percent - - - - - -			
Retailing		19.2		18.6
Wholesaling and meatpacking:				
Transportation	4.6		4.2	
Other	23.7		21.4	
Total		28.3		25.6
Marketing livestock:				
Expense at market	1.4		1.3	
Transportation	0.7		0.7	
Total		2.1		2.0
Return to producer		50.4		53.8 2/
		100.0		100.0

1/ These percentages were estimated by including at each level only the proportion of product eventually sold at retail. For April 1967, byproducts contribute 4.8 percent of packer-wholesaler sales. For April 1969, 4.6 percent.

2/ Due to rounding.

Table 1.--Retail price per pound, proportion cuts are of total retail cuts, and retail value per cut and per 100 pounds retail cuts from carcass 1/

Item	Percentage of total retail cuts from carcass	Price per pound	Value per 100 pounds
	Percent	Dollars	Dollars
Steaks:			
Porterhouse, BI	2.1	1.58	3.32
Club, BI	1.3	1.49	1.94
Club, BO	0.5	2.18	1.09
T-Bone, BI	3.6	1.55	5.58
Sirloin, BI	6.6	1.33	8.78
Round fullcut, BI	3.6	1.16	4.18
Round top, BO	3.5	1.28	4.48
Round bottom, BO	2.9	1.32	3.83
Chuck, steak, BI	2.3	.74	1.70
Rib, BI	2.0	1.24	2.48
Flank, BO	0.7	1.36	.95
Roasts:			
Rib, Roast, BI	6.0	1.10	6.60
Rib, Rolled, BO	1.2	1.57	1.88
Chuck blade, BI	8.2	.71	5.82
Chuck arm, BI	5.0	.85	4.25
Chuck roast, BO	5.4	.94	5.08
Sirloin/round tip, BO	3.5	1.34	4.69
Eye round, BO	1.5	1.53	2.30
Rump, BO	3.8	1.26	4.79
Rump, BI	1.2	.94	1.13
Other cuts:			
Plate, BI	2.1	.38	.80
Short rib, BI	3.1	.59	1.83
Brisket, BO	2.8	1.09	3.16
Ground Beef	16.4	.62	10.17
Ground chuck	2.0	.83	1.66
Stew, BO	6.0	.93	5.58
Shin or shank, BO	0.3	.83	.25
Shin or shank, BI	2.0	.60	1.20
Kidney	0.3	.39	.12
Total	100.0	---	2/ 99.64

1/ Prices used were for May 1969.
2/ In other words, a composite price per retail pound of 99.6 cents.

Table 2.--Retail price per pound, proportion cuts are of total retail cuts, and retail value per cut and per 100 pounds retail cuts from carcass 1/

Item	Percentage of total retail cuts from carcass	Price per pound	Value per 100 pounds
	Percent	Dollars	Dollars
Loin, center chops	2.4	1.07	2.57
Loin, center rib chops	3.2	1.05	3.46
Loin, center cut chops	3.2	1.09	3.49
Loin roast, rib end	4.7	.65	3.06
Loin roast, loin end	4.3	.78	3.35
No. 2 chops	1.3	.69	.90
Tenderloin	0.9	1.43	1.29
Ham, butt end	6.5	.65	4.22
Ham, shank ends	8.4	.56	4.70
Ham, center slices	4.7	1.26	5.92
Whole ham	3.4	.68	2.31
Butts	8.6	.66	5.68
Spareribs	4.3	.76	3.27
Sausage	7.5	.70	5.25
Neckbones	1.9	.28	.53
Pigs feet	2.1	.30	.63
Tails	0.3	.30	.09
Picnics	10.8	.51	5.51
Bacon, sliced	17.7	.83	14.69
Bacon, square	3.7	.55	2.04
Total	100.0	---	2/ 72.96

1/ Prices used were for May 1969.
2/ Or a composite price per retail pound of 73.0 cents.

Table 3.--Beef, Choice grade: Retail price, carcass value, farm value, farm-retail spread, and farmer's share, by quarters, 1949-69

Year and quarter	Retail price per pound 1/	Carcass value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share 6/
						Total	Carcass-retail	Farm-carcass	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1949:									
January-March	64.2	50.8	49.8	5.9	43.8	20.4	13.4	7.0	68
April-June	66.8	54.2	52.9	5.8	47.1	19.7	12.6	7.1	71
July-September	69.9	58.9	57.0	5.9	51.1	18.8	11.0	7.8	73
October-December	70.1	61.7	60.1	5.8	54.3	15.8	8.4	7.4	77
Annual average	67.8	56.4	54.9	5.8	49.1	18.7	11.4	7.3	72
1950:									
January-March	67.5	56.6	55.9	5.5	50.4	17.1	10.9	6.2	75
April-June	72.9	60.3	60.6	6.1	54.6	18.3	12.6	5.7	75
July-September	79.1	63.9	64.1	7.4	56.8	22.3	15.1	7.2	72
October-December	78.8	65.8	66.8	8.0	58.8	20.0	13.0	7.0	75
Annual average	74.6	61.7	61.9	6.8	55.2	19.4	12.9	6.5	74
1951:									
January-March	86.1	72.8	75.2	9.2	66.0	20.1	13.3	6.8	77
April-June	87.4	75.2	76.0	8.8	67.1	20.3	12.2	8.1	77
July-September	87.7	74.9	76.1	8.7	67.4	20.3	12.8	7.5	77
October-December	87.9	75.5	75.3	7.7	67.5	20.4	12.4	8.0	77
Annual average	87.3	74.6	75.6	8.6	67.0	20.3	12.7	7.6	77
1952:									
January-March	87.2	72.2	72.0	6.2	65.8	21.4	15.0	6.4	75
April-June	86.4	70.9	69.4	5.8	63.6	22.8	15.5	7.3	74
July-September	85.3	71.4	68.0	5.8	62.3	23.0	13.9	9.1	73
October-December	83.9	68.0	65.7	5.2	60.4	23.5	15.9	7.6	72
Annual average	85.7	70.6	68.8	5.7	63.0	22.7	15.1	7.6	74
1953:									
January-March	70.4	55.1	51.9	4.7	47.2	23.2	15.3	7.9	67
April-June	65.9	48.9	45.4	4.5	40.9	25.0	17.0	8.0	62
July-September	68.6	56.2	51.6	4.5	47.1	21.5	12.4	9.1	69
October-December	68.6	54.5	50.6	4.5	46.1	22.5	14.1	8.4	67
Annual average	68.4	53.7	49.9	4.5	45.3	23.1	14.7	8.4	66
1954:									
January-March	67.5	52.1	49.8	4.5	45.3	22.2	15.4	6.8	67
April-June	67.4	52.7	50.0	4.6	45.4	22.0	14.7	7.3	67
July-September	67.4	54.6	50.2	4.3	45.9	21.5	12.8	8.7	68
October-December	68.9	57.0	53.0	4.1	48.9	20.0	11.9	8.1	71
Annual average	67.8	54.1	50.8	4.4	46.4	21.4	13.7	7.7	68

--Continued

Table 3.--Beef, Choice grade: Retail price, carcass value, farm value, farm-retail spread, and farmer's share, by quarters, 1949-69--Continued

Year and quarter	Retail price per pound 1/	Carcass value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share 6/
						Total	Carcass-retail	Farm-carcass	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1955:									
January-March	68.9	57.5	53.9	4.1	49.8	19.1	11.4	7.7	72
April-June	67.0	52.8	48.8	4.0	44.8	22.2	14.1	8.0	67
July-September	66.3	52.0	47.5	4.1	43.3	23.0	14.3	8.7	65
October-December	65.1	49.0	43.8	4.0	39.9	25.2	16.1	9.1	61
Annual average	66.8	52.8	48.5	4.1	44.4	22.4	14.0	8.4	66
1956:									
January-March	61.5	45.6	40.5	3.6	36.9	24.6	15.9	8.7	60
April-June	62.0	46.6	43.2	4.1	39.1	22.9	15.4	7.5	63
July-September	67.8	57.4	52.2	4.4	47.8	20.0	10.4	9.6	70
October-December	70.1	54.7	49.2	4.1	45.1	25.0	15.4	9.6	64
Annual average	65.4	51.1	46.3	4.1	42.2	23.2	14.3	8.9	65
1957:									
January-March	65.7	49.3	44.2	3.9	40.3	25.4	16.4	9.0	61
April-June	69.0	52.8	49.1	4.5	44.6	24.4	16.2	8.2	65
July-September	72.5	57.0	53.2	4.8	48.4	24.1	15.5	8.6	67
October-December	72.4	56.3	52.9	4.4	48.5	23.9	16.1	7.8	67
Annual average	69.9	53.9	49.8	4.4	45.5	24.4	16.0	8.4	65
1958:									
January-March	78.0	62.0	59.3	4.7	54.6	23.4	16.0	7.4	70
April-June	82.0	63.4	61.5	5.2	56.3	25.7	18.6	7.1	69
July-September	80.5	59.8	57.8	5.0	52.7	27.8	20.7	7.1	65
October-December	80.2	60.9	57.4	4.9	52.5	27.7	19.3	8.4	65
Annual average	80.2	61.5	59.0	5.0	54.0	26.2	18.7	7.5	67
1959:									
January-March	82.2	63.6	60.5	5.1	55.5	26.7	18.6	8.1	68
April-June	82.6	64.6	62.8	6.1	56.7	25.9	18.0	7.9	69
July-September	81.8	61.6	59.8	5.9	53.9	27.9	20.2	7.7	66
October-December	81.3	58.7	56.3	4.8	51.5	29.8	22.6	7.2	63
Annual average	82.0	62.1	59.9	5.5	54.4	27.6	19.9	7.7	66
1960:									
January-March	80.4	61.6	58.4	4.6	53.8	26.6	18.8	7.8	67
April-June	81.3	61.2	58.9	4.9	53.9	27.4	20.1	7.3	66
July-September	79.8	57.7	54.6	4.6	49.9	29.9	22.1	7.8	63
October-December	79.1	57.6	55.2	4.6	50.6	28.5	21.5	7.0	64
Annual average	80.2	59.5	56.7	4.7	52.1	28.1	20.7	7.4	65

--Continued

Table 3.--Beef, Choice grade: Retail price, carcass value, farm value, farm-retail spread, and farmer's share, by quarters, 1949-69--Continued

Year and quarter	Retail price per pound 1/	Carcass value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share 6/
						Total	Carcass-retail	Farm-carcass	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1961:									
January-March	80.9	60.3	56.8	4.5	52.3	28.6	20.6	8.0	65
April-June	78.3	54.5	51.4	4.8	46.6	31.7	23.8	7.9	60
July-September	76.1	54.0	51.4	5.0	46.4	29.7	22.1	7.6	61
October-December	78.1	56.3	54.7	4.9	49.8	28.3	21.8	6.5	64
Annual average	78.4	56.3	53.6	4.8	48.8	29.6	22.1	7.5	62
1962:									
January-March	80.0	60.5	58.1	4.7	53.4	26.6	19.5	7.1	67
April-June	80.1	59.4	57.5	5.0	52.5	27.6	20.7	6.9	66
July-September	81.9	62.7	61.2	5.0	56.2	25.7	19.2	6.5	69
October-December	84.6	64.7	63.7	5.0	58.7	25.9	19.9	6.0	69
Annual average	81.6	61.8	60.1	4.9	55.2	26.4	19.8	6.6	68
1963:									
January-March	80.6	57.3	55.2	4.4	50.8	29.8	23.3	6.5	63
April-June	76.5	53.4	50.4	4.2	46.2	30.3	23.1	7.2	60
July-September	78.6	56.9	54.3	4.2	50.1	28.5	21.7	6.8	64
October-December	78.4	53.7	50.6	4.2	46.5	31.9	24.7	7.2	59
Annual average	78.5	55.3	52.6	4.2	48.4	30.1	23.2	6.9	62
1964:									
January-March	75.8	51.8	47.9	3.8	44.1	31.7	24.0	7.7	58
April-June	73.5	50.0	46.5	4.1	42.4	31.1	23.5	7.6	58
July-September	77.7	56.5	54.1	4.3	49.8	27.9	21.2	6.7	64
October-December	79.0	54.9	52.9	4.3	48.6	30.4	24.1	6.3	62
Annual average	76.5	53.3	50.3	4.1	46.2	30.3	23.2	7.1	60
1965:									
January-March	76.2	54.3	51.9	4.0	47.9	28.3	21.9	6.4	63
April-June	79.9	59.7	58.2	4.6	53.6	26.3	20.2	6.1	67
July-September	82.8	60.1	58.8	5.1	53.7	29.1	22.7	6.4	65
October-December	81.6	57.9	57.0	5.0	51.9	29.7	23.7	6.0	64
Annual average	80.1	58.0	56.5	4.7	51.8	28.3	22.1	6.2	65
1966:									
January-March	82.7	61.3	60.7	5.4	55.2	27.5	21.4	6.1	67
April-June	83.4	58.8	58.4	5.6	52.8	30.6	24.6	6.0	63
July-September	81.8	57.6	56.9	5.6	51.4	30.4	24.2	6.2	63
October-December	81.7	56.2	54.4	4.7	49.8	31.9	25.5	6.4	61
Annual average	82.4	58.5	57.6	5.3	52.3	30.1	23.9	6.2	63

--Continued

Table 3.--Beef, Choice grade: Retail price, carcass value, farm value, farm-retail spread, and farmer's share, by quarters, 1949-69--continued

Year and quarter	Retail price per pound 1/	Carcass value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share 6/
						Total	Carcass-retail	Farm-carcass	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1967:									
January-March	80.7	56.6	54.6	4.2	50.3	30.4	24.1	6.3	62
April-June	80.6	58.2	55.7	4.0	51.8	28.8	22.4	6.4	64
July-September	84.3	62.2	59.7	3.9	55.9	28.4	22.1	6.3	66
October-December	85.0	60.7	57.8	3.6	54.2	30.8	24.3	6.5	64
Annual average	82.6	59.4	57.0	3.9	53.0	29.6	23.2	6.4	64
1968:									
January-March	85.0	62.0	59.2	3.6	55.6	29.4	23.0	6.4	65
April-June	85.7	62.3	59.6	3.7	55.9	29.8	23.4	6.4	65
July-September	87.5	64.1	61.5	3.8	57.7	29.8	23.4	6.4	66
October-December	88.1	64.1	61.8	4.0	57.8	30.3	24.0	6.3	66
Annual average	86.6	63.1	60.5	3.8	56.7	29.9	23.5	6.4	65
1969:									
January-March	90.1	66.1	63.7	4.0	59.7	30.4	24.0	6.4	66
April-June	97.9	74.6	73.3	4.8	68.5	29.4	23.3	6.1	70
July-September	101.0	69.7	67.9	5.1	62.8	38.2	31.3	6.9	62

1/ Estimated weighted average price of retail cuts from Choice grade carcass.

2/ Wholesale value of quantity of Choice grade carcass beef equivalent to 1 lb. of retail cuts. A wholesale carcass equivalent of 1.32 was used prior to 1952; it was increased gradually to 1.41 for 1962 and later years.

3/ Payment to farmer for quantity of Choice grade beef cattle equivalent to 1 lb. of retail cuts. The farm product equivalent of 2.12 was used prior to 1952; it was increased gradually to 2.28 for 1962 and later years.

4/ Portion of gross farm value attributed to edible and inedible byproducts.

5/ Gross farm value minus byproduct allowance.

6/ Percent net farm value is of retail price.

Table 4.--Pork: Retail price, wholesale value, farm value, farm-retail spread, and farmer's share, by quarters, 1949-69

Year and Quarter	Retail price per pound 1/	Wholesale value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share 6/
						Total	Wholesale-retail	Farm-wholesale	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1949:									
January-March	54.3	48.8	41.2	4.7	36.5	17.8	5.5	12.3	67
April-June	55.1	48.9	39.0	4.2	34.8	20.3	6.2	14.1	63
July-September	57.6	52.3	43.0	4.4	38.6	19.0	5.3	13.7	67
October-December	51.2	42.7	33.0	3.6	29.4	21.8	8.5	13.3	57
Annual average	54.5	48.2	39.1	4.3	34.8	19.7	6.3	13.4	64
1950:									
January-March	48.6	41.4	33.0	3.6	29.5	19.1	7.2	11.9	61
April-June	52.1	45.0	37.1	4.1	33.0	19.1	7.1	12.0	63
July-September	60.0	53.9	47.8	5.4	42.3	17.7	6.1	11.6	71
October-December	54.7	45.6	37.9	5.0	33.0	21.7	9.1	12.6	60
Annual average	53.8	46.5	37.0	4.5	34.4	19.4	7.3	12.1	64
1951:									
January-March	57.6	49.7	44.3	6.4	38.0	19.6	7.9	11.7	66
April-June	57.8	49.2	43.1	6.0	37.1	20.7	8.6	12.1	64
July-September	59.1	50.9	43.5	5.7	37.8	21.3	8.2	13.1	64
October-December	56.9	46.7	38.1	5.0	33.1	23.8	10.2	13.6	58
Annual average	57.8	49.1	42.3	5.8	36.5	21.3	8.7	12.6	63
1952:									
January-March	53.8	44.2	34.6	4.1	30.5	23.3	9.6	13.7	57
April-June	54.8	48.2	38.7	4.1	34.6	20.2	6.6	13.6	63
July-September	59.9	52.9	42.9	4.0	38.9	21.0	7.0	14.0	65
October-December	56.3	46.1	35.2	3.1	32.1	24.2	10.2	14.0	57
Annual average	56.2	47.9	37.8	3.8	34.0	22.2	8.3	13.9	60
1953:									
January-March	56.0	49.2	39.6	3.5	36.1	19.9	6.8	13.1	64
April-June	62.7	55.9	47.6	4.1	43.4	19.3	6.8	12.5	69
July-September	67.8	58.8	51.9	5.1	46.8	21.0	9.0	12.0	69
October-December	61.6	51.7	45.1	5.2	39.8	21.8	9.9	11.9	65
Annual average	62.1	53.9	46.0	4.5	41.5	20.6	8.2	12.4	67
1954:									
January-March	66.4	58.5	52.0	5.7	46.4	20.0	7.9	12.1	70
April-June	67.2	59.1	52.1	5.9	46.2	21.0	8.1	12.9	69
July-September	62.7	52.7	44.6	4.8	39.8	22.9	10.0	12.9	63
October-December	57.2	46.1	36.2	4.1	32.1	25.1	11.1	14.0	56
Annual average	63.4	54.1	46.2	5.1	41.1	22.3	9.3	13.0	65

--Continued

Table 4.--Pork: Retail price, wholesale value, farm value, farm-retail spread, and farmer's share, by quarters, 1949-69--Continued

Year and Quarter	Retail price per pound 1/	Wholesale value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share 6/
						Total	Wholesale-retail	Farm-wholesale	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1955:									
January-March...	54.1	43.7	32.2	3.3	28.9	25.2	10.4	14.8	53
April-June.....	54.3	46.5	36.6	3.5	33.0	21.3	7.8	13.5	61
July-September..	55.9	46.1	34.2	3.1	31.1	24.8	9.8	15.0	56
October-December	50.1	38.0	24.3	2.6	21.7	28.4	12.1	16.3	43
Annual average	53.6	43.6	31.8	3.2	28.7	24.9	10.0	14.9	54
1956:									
January-March...	46.7	36.4	23.4	2.6	20.8	25.9	10.3	15.6	45
April-June.....	51.1	42.2	31.8	3.3	28.5	22.6	8.9	13.7	56
July-September..	54.5	44.4	32.5	3.1	29.4	25.1	10.1	15.0	54
October-December	53.3	41.8	31.0	3.4	27.7	25.6	11.5	14.1	52
Annual average	51.4	41.2	29.7	3.1	26.6	24.8	10.2	14.6	52
1957:									
January-March...	56.0	45.3	34.5	3.9	30.6	25.4	10.7	14.7	55
April-June.....	58.6	47.9	36.8	3.7	33.1	25.5	10.7	14.8	56
July-September..	64.5	52.2	40.1	3.8	36.4	28.1	12.3	15.8	56
October-December	58.4	46.4	34.5	3.2	31.3	27.1	12.0	15.1	54
Annual average	59.4	48.0	36.5	3.6	32.8	26.6	11.4	15.2	55
1958:									
January-March...	62.2	51.8	39.9	3.7	36.2	26.0	10.4	15.6	58
April-June.....	65.2	55.1	44.4	4.2	40.2	25.0	10.1	14.9	62
July-September..	66.6	54.5	43.2	4.2	38.9	27.7	12.1	15.6	58
October-December	61.4	48.5	36.0	3.5	32.5	28.9	12.9	16.0	53
Annual average	63.8	52.5	40.9	3.9	37.0	26.8	11.3	15.5	58
1959:									
January-March...	58.3	44.3	31.1	2.8	28.3	30.0	14.0	16.0	49
April-June.....	57.4	44.5	31.3	2.8	28.5	28.9	12.9	16.0	50
July-September..	56.5	42.3	27.4	2.2	25.2	31.3	14.2	17.1	45
October-December	53.1	38.9	23.5	2.0	21.5	31.6	14.2	17.4	40
Annual average	56.3	42.5	28.3	2.4	25.9	30.4	13.8	16.6	46
1960:									
January-March...	51.6	40.4	26.7	2.3	24.4	27.2	11.2	16.0	47
April-June.....	55.4	44.4	31.6	2.7	28.9	26.5	11.0	15.5	52
July-September..	58.4	45.9	33.3	3.0	30.3	28.1	12.5	15.6	52
October-December	58.2	46.1	34.2	3.0	31.2	27.0	12.1	14.9	54
Annual average	55.9	44.2	31.4	2.8	28.7	27.2	11.7	15.5	51

--Continued

Table 4.--Pork: Retail price, wholesale value, farm value, farm-retail spread, and farmer's share, by quarters, 1949-69--Continued

Year and Quarter	Retail price per pound 1/	Wholesale value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share 6/
						Total	Wholesale-retail	Farm-wholesale	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1961:									
January-March	58.8	45.9	34.6	3.5	31.1	27.7	12.9	14.8	53
April-June	57.5	43.7	32.4	3.1	29.3	28.2	13.8	14.4	51
July-September	59.3	46.3	35.1	2.8	32.3	27.0	13.0	14.0	54
October-December	58.0	44.2	31.9	2.6	29.3	28.7	13.8	14.9	51
Annual average	58.4	45.1	33.5	3.0	30.5	27.9	13.3	14.6	52
1962:									
January-March	58.3	44.1	32.2	2.7	29.5	28.8	14.2	14.6	51
April-June	57.0	43.4	31.0	2.6	28.5	28.5	13.6	14.9	50
July-September	61.2	48.1	35.9	2.6	33.2	28.0	13.1	14.9	54
October-December	58.4	45.1	31.8	2.4	29.4	29.0	13.3	15.7	50
Annual average	58.8	45.2	32.7	2.6	30.1	28.7	13.6	15.1	51
1963:									
January-March	56.8	41.6	28.6	2.4	26.2	30.6	15.2	15.4	46
April-June	54.7	41.2	29.3	2.4	27.0	27.7	13.5	14.2	49
July-September	59.1	45.7	33.4	2.6	30.8	28.3	13.4	14.9	52
October-December	56.0	41.9	28.2	2.4	25.8	30.2	14.1	16.1	46
Annual average	56.6	42.6	29.9	2.4	27.4	29.2	14.0	15.2	48
1964:									
January-March	54.6	41.0	27.4	2.3	25.1	29.5	13.6	15.9	46
April-June	54.7	40.8	28.5	2.5	26.0	28.7	13.9	14.8	48
July-September	58.3	45.3	32.5	2.7	29.8	28.5	13.0	15.5	51
October-December	56.0	41.7	28.8	2.7	26.2	29.8	14.3	15.5	47
Annual average	55.9	42.2	29.3	2.6	26.8	29.1	13.7	15.4	48
1965:									
January-March	57.1	44.0	31.8	2.9	29.0	28.1	13.1	15.0	51
April-June	61.4	49.7	39.3	3.4	35.9	25.5	11.7	13.8	58
July-September	71.5	57.0	46.4	3.8	42.6	28.9	14.5	14.4	60
October-December	73.2	59.6	49.0	4.1	44.9	28.3	13.6	14.7	61
Annual average	65.8	52.6	41.6	3.5	38.1	27.7	13.2	14.5	58
1966:									
January-March	79.2	62.9	51.9	4.4	47.5	31.7	16.3	15.4	60
April-June	72.4	56.8	45.2	3.7	41.5	30.9	15.6	15.3	57
July-September	74.8	58.5	47.5	3.7	43.8	31.0	16.3	14.7	59
October-December	69.8	53.3	39.0	3.0	36.0	33.8	16.5	17.3	52
Annual average	74.0	57.9	45.9	3.7	42.2	31.8	16.1	15.7	57

--Continued

Table 4.--Pork: Retail price, wholesale value, farm value, farm-retail spread, and farmer's share, by quarters, 1949-69--Continued

Year and Quarter	Retail price per pound 1/	Wholesale value 2/	Gross farm value 3/	Byproduct allowance 4/	Net farm value 5/	Farm-retail spread			Farmer's share 6/
						Total	Wholesale-retail	Farm-wholesale	
	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Percent
1967:									
January-March	66.1	50.4	36.4	2.7	33.7	32.4	15.7	16.7	51
April-June	66.4	52.1	39.4	2.8	36.6	29.8	14.3	15.5	55
July-September	70.2	54.2	40.1	2.6	37.5	32.7	16.0	16.7	53
October-December	66.0	49.2	33.3	2.1	31.2	34.8	16.8	18.0	47
Annual average	67.2	51.5	37.3	2.5	34.8	32.4	15.7	16.7	52
1968:									
January-March	66.4	50.4	35.9	2.2	33.7	32.7	16.0	16.7	51
April-June	66.9	51.8	36.9	2.2	34.8	32.1	15.1	17.0	52
July-September	69.1	53.5	39.0	2.2	36.8	32.3	15.6	16.7	53
October-December	67.3	50.9	34.7	2.1	32.6	34.7	16.4	18.3	48
Annual average	67.4	51.7	36.7	2.2	34.5	32.9	15.7	17.2	51
1969:									
January-March	68.5	52.8	38.4	2.6	35.8	32.7	15.7	17.0	52
April-June	71.9	56.5	43.5	3.0	40.6	31.3	15.4	15.9	56
July-September	77.6	62.1	50.3	3.5	46.8	30.8	15.5	15.3	60

1/ Estimated weighted average price of retail cuts from pork carcass.
2/ Weighted average price of wholesale pork cuts equivalent to 1 lb. of retail cuts. The wholesale carcass equivalent of 1.07 is used for all years.
3/ Payment to farmer for quantity of live hog equivalent to 1 lb. of retail cuts. The farm product equivalent was gradually changed from 2.13 in 1949 to 1.97 in 1969.
4/ Portion of gross farm value attributed to lard and to other edible and inedible byproducts.
5/ Gross farm value minus byproduct allowance.
6/ Percent net farm value is of retail price.

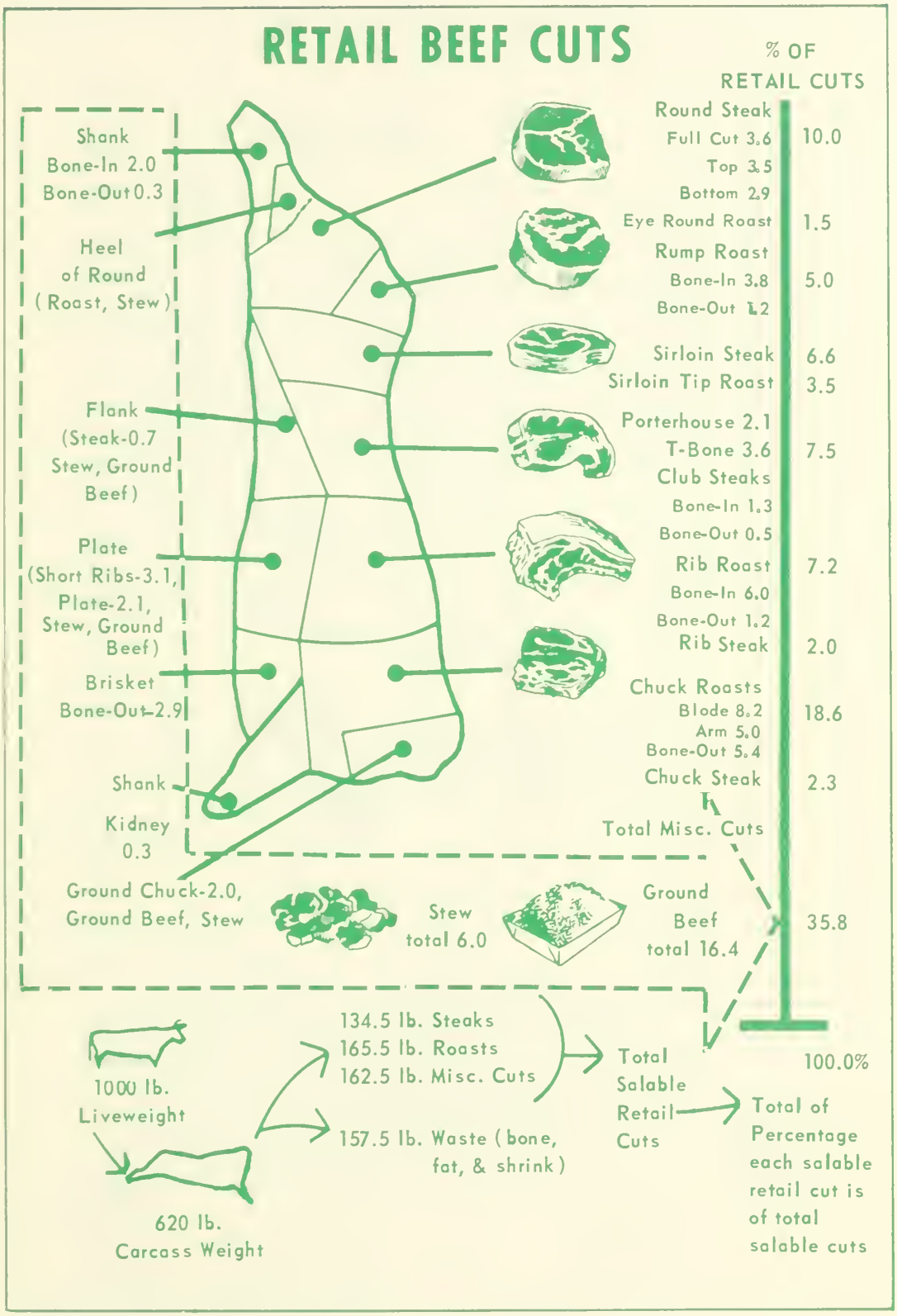

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Figure 1

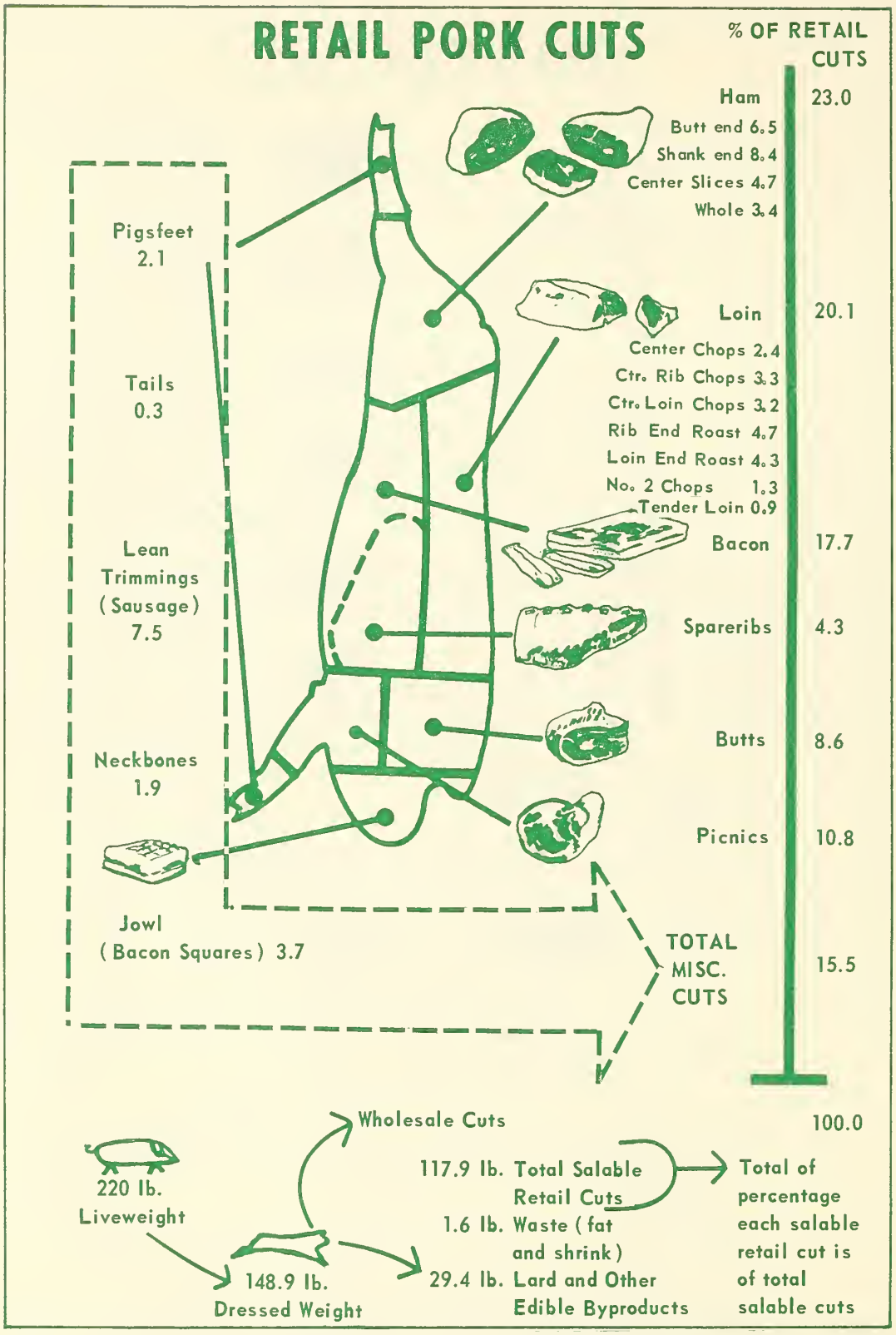

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Figure 2

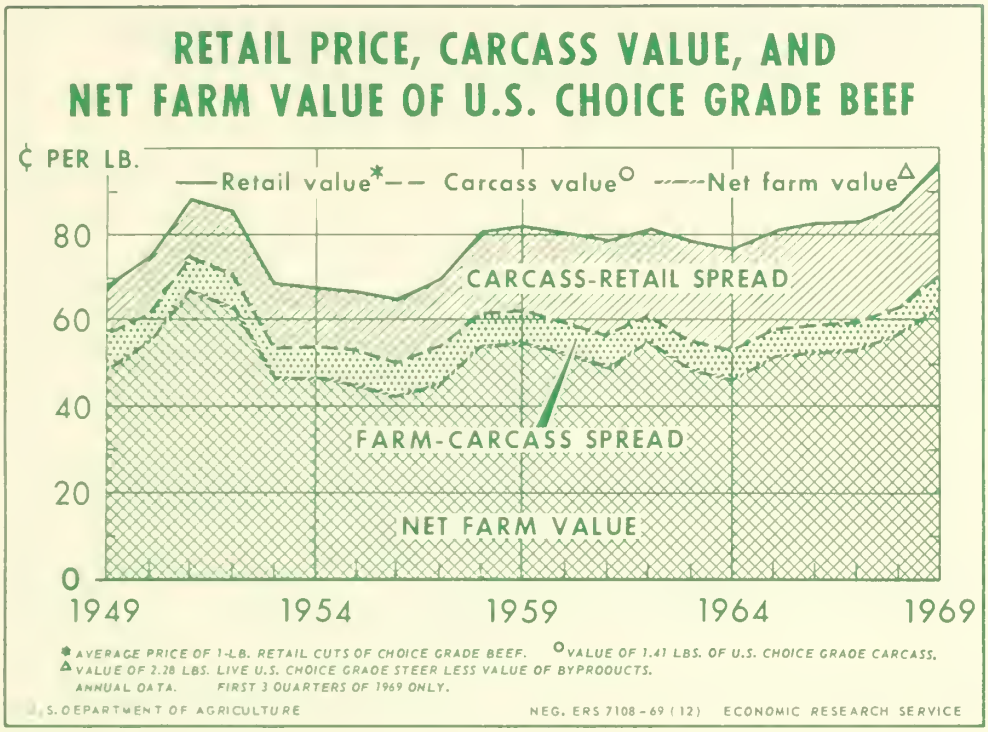
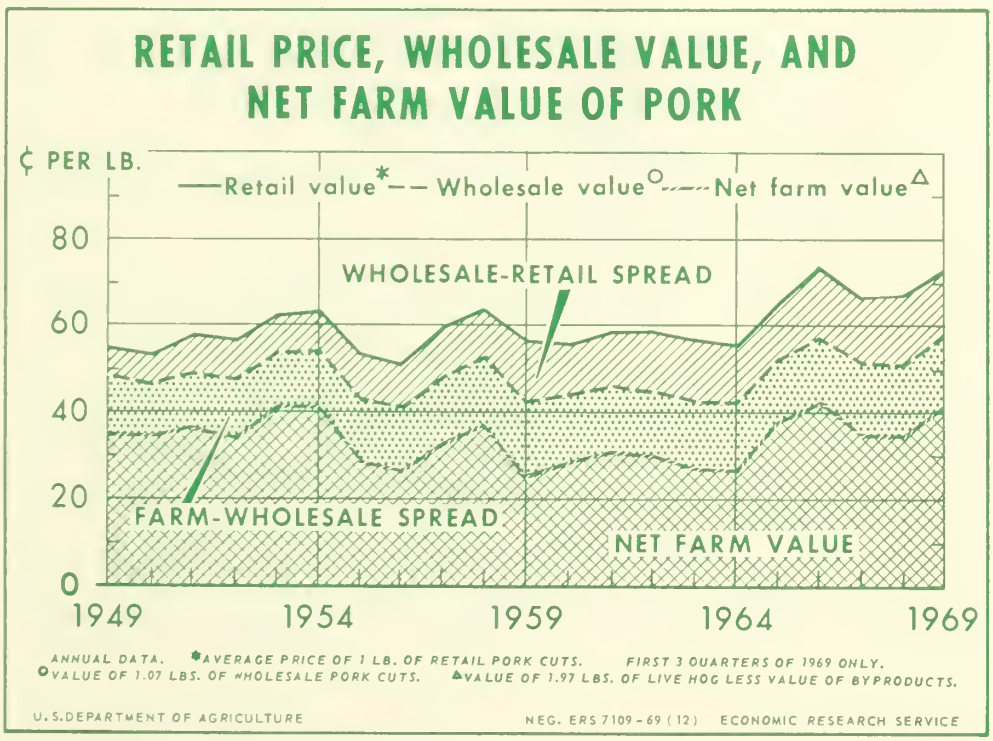


Figure 3



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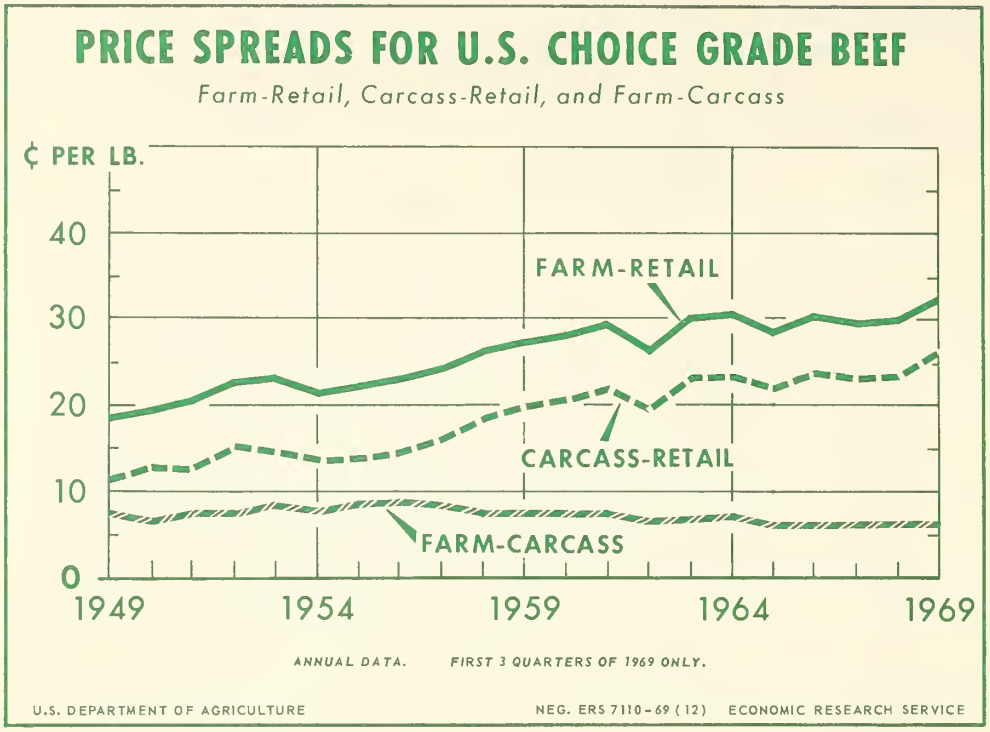

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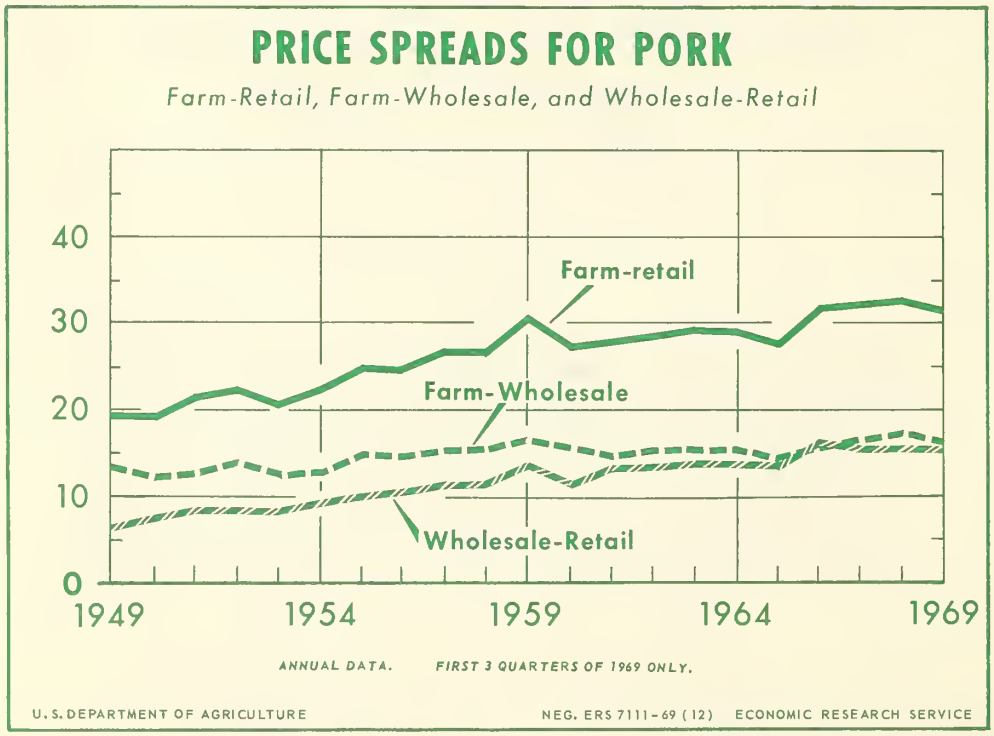

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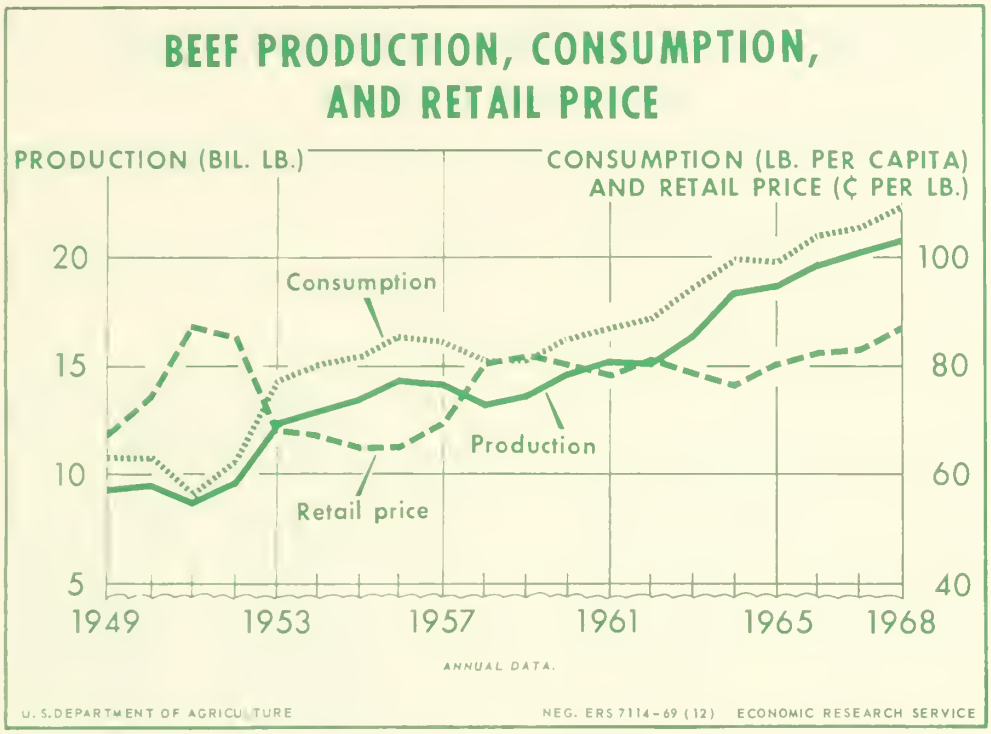

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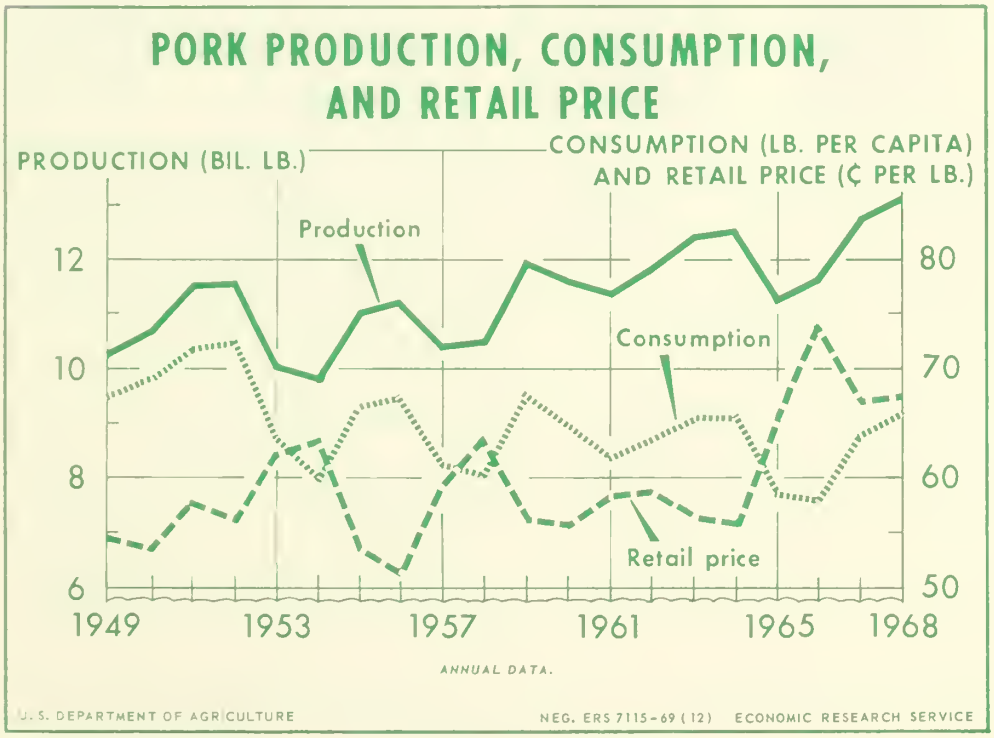

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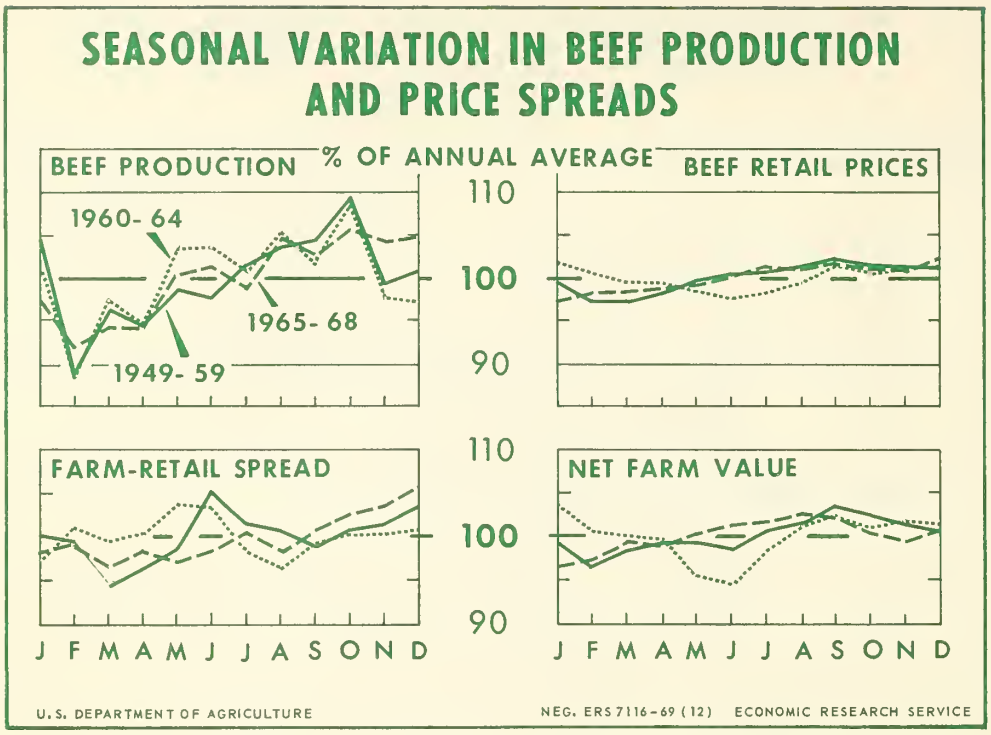

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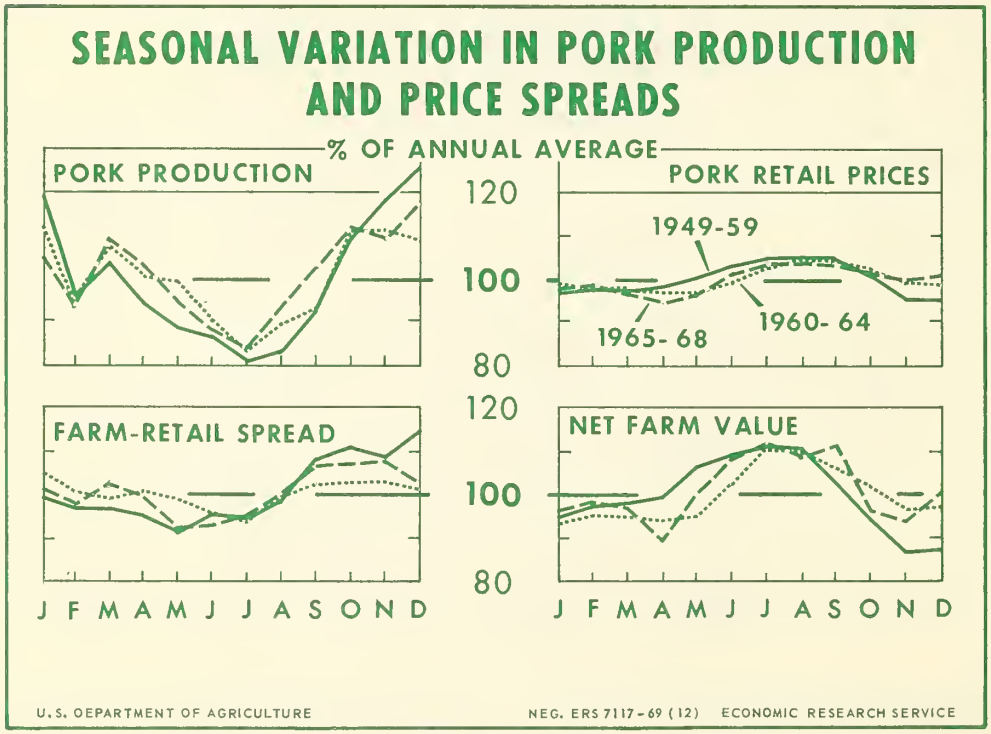

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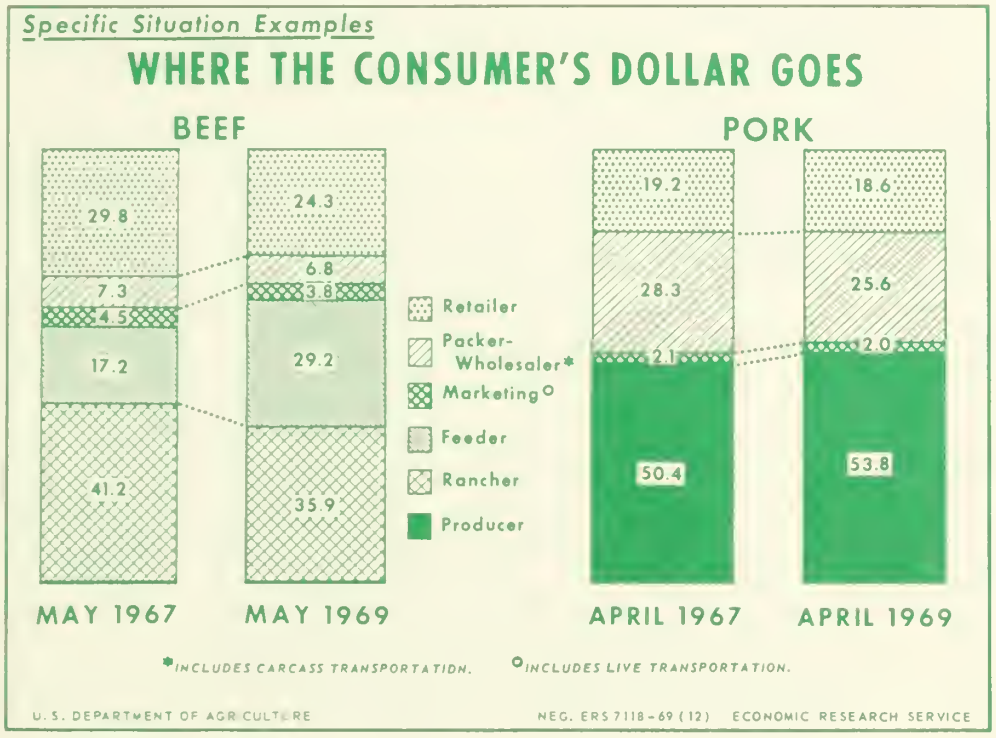

Figure 11

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