



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

A 281.9
Ag 83E

cop. 3

ERS 275

Present and Alternative Methods of PRICING EGGS

NOV 30 1971

U.S. DEPT. OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

CONTENTS

	<u>Page</u>
Summary	iii
Introduction	1
The Egg Pricing Problem	1
How the Egg Pricing System Works	3
Uses of Base Price Quotations	4
Problems Associated With Base Price Quotations	6
The Uncommitted Supply in Price Determination	6
Why Base Prices are Wanted	7
Premiums Paid by Large-Volume Retailers	7
Improvements in the Present Egg Pricing System and Alternatives to It	10
Survey of Egg Handlers	13
Questions and Responses	13
The Need for More Research	19
Bibliography	20
Appendix	25

Washington, D. C.

February 1966

SUMMARY

Although the current egg pricing method, base pricing, has considerable support in the trade, structural changes in egg markets have created a need for ways to improve the present system and for alternatives to it. As a consequence, the egg pricing problem is receiving considerable interest.

Essentially, the egg pricing problem is to arrive at a price or series of prices that are fair to both buyers and sellers at the various trading levels. Base pricing establishes the general level of the price structure. Customary trading differentials above and below the base prices are used in determining actual prices to producers, wholesalers, jobbers, and retailers.

At present, base prices are determined at Boston, New York City, Chicago, and Los Angeles. Commercial reporters determine the base prices by evaluating supply, demand, and sales in the market, and bids, offers, and sales on the mercantile exchanges at New York City and Chicago. Base prices set by Boston markets are used for New England; New York base prices are used from New York State to Florida and as far west as the Rocky Mountains; Chicago base prices are used in an irregular arc that extends south into Tennessee; and West Coast base prices, especially those originating in Los Angeles, are used in the Western States and extend into the intermountain area.

Eggs used as shell eggs and breaking stock can be classified as those that are (1) committed on a week-to-week basis to retail stores, institutions, breakers, and other outlets, and (2) uncommitted supplies. The method of handling uncommitted eggs and the market they find determine base price quotations.

The main problems in using base price quotations are (1) the tendency of many firms to use the base without playing an active role in determining it, (2) the lack of agreement between base-price-producing markets and outlying areas on supply and demand conditions and values, (3) thinness of trading on the mercantile exchanges, and (4) failure of base prices to represent the kind of eggs moving in greatest volume in trade channels, i.e., base prices are for wholesale grades while most of the eggs moving into retail outlets are consumer graded and in cartons.

The egg trade has used base pricing for many years and has considered this system a convenient and efficient means of arriving at actual prices. Base prices also serve as a common denominator that can be used to eliminate haggling over price from one purchase to the next.

Some suggestions for improvements in the present egg pricing system are as follows: Broaden the trading base by encouraging more people to trade on the spot call; lengthen the trading period; increase the size of the trading units to 100-case lots or to truckload lots of 600 cases; offer free inspection service; and establish reporting services in more areas. Alternatives to the current system include decentralized pricing, committee pricing, administered pricing, and Government administration of egg pricing.

A survey of egg handlers conducted in 1962 and 1963 gives some insight into the more important aspects of egg pricing. For example, handlers were asked whether they believed that sharp upward or downward adjustments in the base price quotations were warranted. They replied that sharp upward adjustments are often unavoidable, being due to strong demand, unexpected increases in exports, adverse weather conditions which curtail supplies, and so on. Sharp downward adjustments are due to slackening off of demand, large supplies coming into the market, and similar events. Some believed that when adjustments are needed, they should come about fast; others believed that they should come about slowly.

Because of the need for more research into the egg pricing problem, a steering committee consisting of Federal, State, and industry representatives was established in 1960. Since then, this committee has issued several lists of recommendations designed to improve the egg pricing system.

PRESENT AND ALTERNATIVE METHODS OF PRICING EGGS

By Fred L. Faber, Agricultural Economist
Marketing Economics Division
Economic Research Service

INTRODUCTION

Continual changes in the structure of the egg industry have resulted in increasing demands for improvement in present egg pricing methods or for alternatives to the present methods. In an effort to give producers, egg handlers, and students a better understanding of egg pricing and the problems associated with it, this report defines the egg pricing problem, explains how the present egg pricing system works, and presents alternative systems. The material presented in this report derives in large part from a survey of egg handlers conducted during 1962 and 1963.

THE EGG PRICING PROBLEM

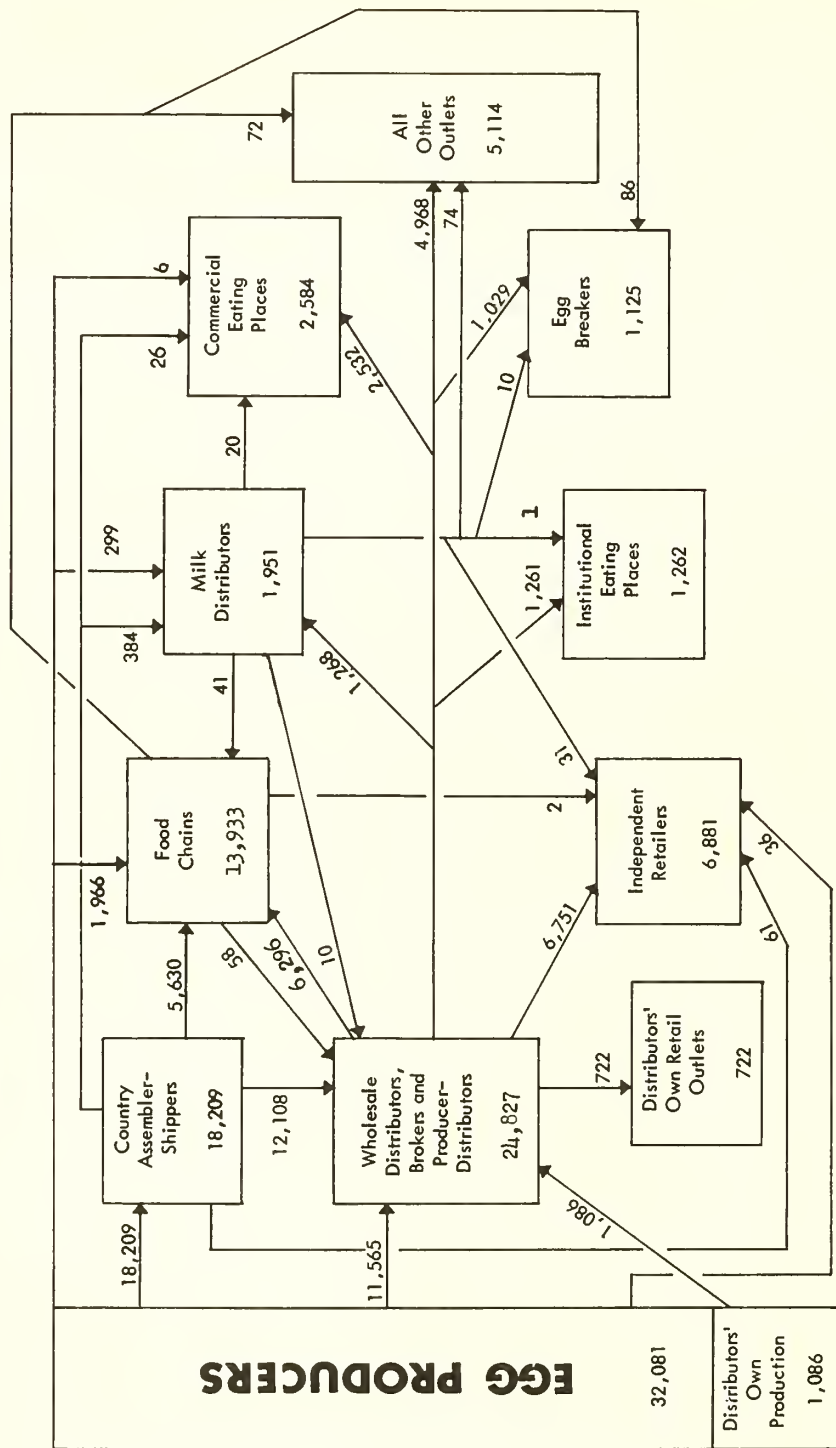
Essentially, the egg pricing problem is to arrive at a price or a series of prices for eggs that are fair to both sellers and buyers. Improvements in the pricing system should not be expected to (1) maintain producer prices above cost of production or at levels desired by producers to provide them with adequate incomes, or (2) increase the demand for eggs at the expense of substitute foods. In given supply and demand situations, the pricing system should be effective in reflecting "true values" for eggs in terms of geographical location, of various time periods, and forms such as hatching eggs, table eggs, and egg products. The pricing system should also facilitate the rapid and effective determination of actual prices at which buyers and sellers trade eggs at various points.

The price the producer receives is usually a residual amount. This applies to other commodities as well as eggs. Margins taken by others in the marketing system generally cover costs; in fact, they must do so if firms are to stay in business. Residual pricing, a characteristic of the present pricing system and of most alternative systems, can be modified only by changing the organization of the industry and by improving the farmer's bargaining power.

The egg pricing problem stems mainly from the changing role of the wholesale markets. In past years, wholesale receivers in central markets occupied a key position between producers, country assemblers, and shippers and between many kinds of jobbing, institutional, and retailing outlets (fig. 1). Prices generated at the wholesale level served as a benchmark or base. Country

In 17 Large Metropolitan Areas, Specific Months, 1959-61* (Chicago not included)

SHELL EGG MARKETING CHANNELS



* FIGURES ARE HUNDREDS OF CASES OF 30 DOZEN EGGS
NEG. ERS 3455-65(1) ECONOMIC-RESEARCH SERVICE

U. S. DEPARTMENT OF AGRICULTURE

Figure 1

assemblers and shippers made deductions to arrive at actual prices paid to producers. The base prices were also used at the other end of the marketing system. Here markups and premiums were added to the base to arrive at actual prices paid by jobbers, institutional outlets, retailers, and others. This system, known as base pricing, remains the traditional method for pricing eggs. However, through the years an increasing volume of eggs has been bypassing wholesale markets and has been going directly from producers, assembler-distributors, and shippers to warehouses of large-volume retailers and others. Even though these structural changes are continuing, the same old system of arriving at the price of eggs is being used.

HOW THE EGG PRICING SYSTEM WORKS

At present, base price quotations are determined in New York City, Chicago, Boston, and Los Angeles (10, 13, 20, 35). ^{1/} In New York City, for example, commercial reporters establish base prices by taking into account three areas of information: (1) Supply, demand, and sales within the wholesale market district, (2) supply, demand, and sales outside the wholesale market district, but within the metropolitan area, and (3) bids, offers, and sales on the spot call of the New York Mercantile Exchange.

Specifically, base price quotations in New York City are determined by a reporter of the Urner-Barry Publishing Company. ^{2/} They are then posted on a board at the New York Mercantile Exchange and published in the Producers' Price Current, a daily publication of the Urner-Barry Publishing Company. The USDA Market News Service report includes the full range of wholesale prices, which generally represents actual sales negotiated in relation to the Urner-Barry base price quotation. The New York Mercantile Exchange provides facilities for and supervision of trading on the spot call and for trading in futures contracts. The Commodity Exchange Authority supervises both the spot call and futures trading for eggs at both New York City and Chicago.

Examination of 3 years of daily data reveals a high degree of relationship between the quotations issued and the bids, offers, and sales on the spot call. Occasionally, the reporters do not give recognition to all of the bids or offers. It is readily apparent, however, that either the trading activity on the spot call is highly important, or that the trading activity during the spot call is representative of actual conditions in the wholesale market most of the time, or both. The amount of trading activity on the spot call appears to be related to the need for a price adjustment--upward or downward. When the prices for particular grades and sizes of eggs are at proper levels to clear the market, little or no activity in bids, offers, or sales is evident. As the need for a price adjustment becomes evident, activity on the spot call increases. On a declining market, offerings become large and, on a rising market, bidding becomes active. When the prices of the bids and offers coincide, a sale is made.

^{1/} Underscored numbers in parentheses refer to items in the Bibliography, pp. 20-24.

^{2/} Names of commercial enterprises used in this report are for identification only and do not constitute endorsement of the firms or discrimination against other firms.

The mechanics of determining base price quotations at Chicago are quite similar to those used at New York, except that on many days there are fewer bids, offers, and sales to guide the commercial reporter.

The methods of determining base price quotations at Boston are necessarily different from New York and Chicago, because no mercantile exchange operates in this city. The market reporter for the Boston Herald obtains information on bids, offers, and sales directly from the trade.

At Los Angeles, the Federal-State Market News Service reports prices paid at various levels of trading. However, in paying producers, egg dealers use prices paid by retailers for loose eggs in cases, f.o.b. distributor's plant. Generally, they pay producers 4 to 6 cents under the top of the range for Grade A large and Grade A medium eggs picked up at ranch, cases exchanged.

Uses of Base Price Quotations

Base prices are used in arriving at actual prices paid to producers and prices paid by retailers in large areas of the continental United States. The use made of base prices to determine actual prices paid to producers is what makes base prices so important. The margins between the base prices and prices paid producers are relatively stable, so the role of base price quotations is to establish the general level of the price structure.

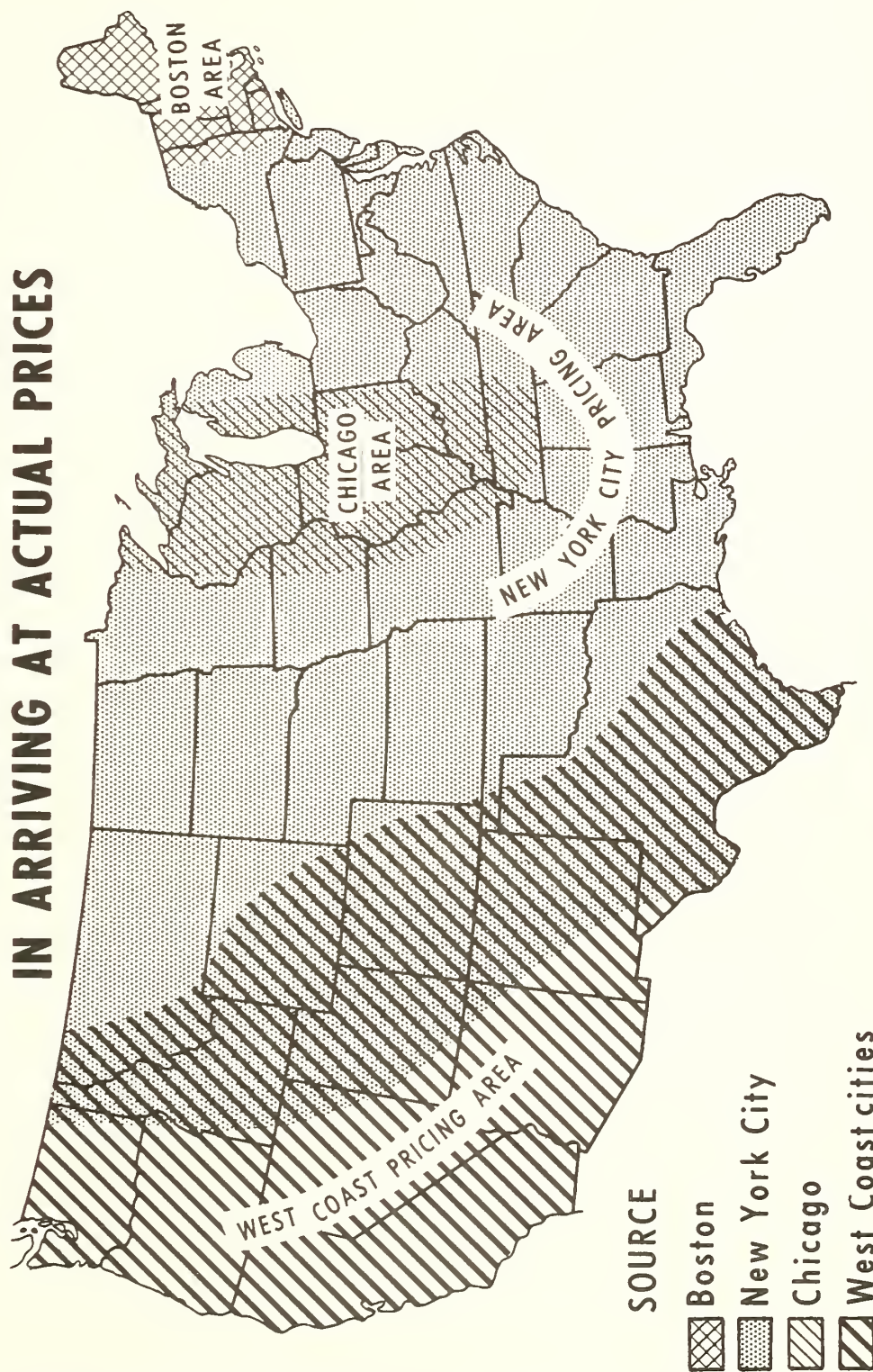
For the New England Region, the prices published in the Boston Herald are generally used to arrive at prices paid to producers (fig. 2). The premium-discount structure around the base price varies with such factors as whether or not egg cases and transportation are provided, number of cases of eggs per pickup, and whether or not the producer is on a quality control program or a marketing agreement.

Chicago base prices, as published in Midwestern papers, are used in an irregular arc extending from Chicago into eastern Iowa, Illinois, Missouri, and the western parts of Tennessee, Kentucky, Indiana, and Michigan. However, some firms in these States also use New York base prices.

Generally, New York base prices are used from New York to Florida and as far west as the Rocky Mountains. Even in the area where Chicago base prices are used, some firms also use New York base prices. The New York base price is used mainly in the Dakotas, Minnesota, Iowa, Missouri, Arkansas, etc. West of these States the influence of New York base prices is irregular, depending upon demand of egg breakers and supply and demand conditions.

West Coast prices are used in the Western States and overlap the New York base pricing area in Idaho, Montana, Wyoming, Utah, Colorado, and Texas. Egg dealers in those States can buy eggs from the most favorable source, whether it is from the Midwestern or Western States. West Coast egg handlers watch price changes at New York and Chicago closely because they know that their prices cannot be out of line with those of the distant markets for very long. Because of the recent year-round surplus in California, this is now even more important than it used to be.

SOURCES OF EGG BASE PRICE QUOTATIONS AND AREAS IN WHICH USED IN ARRIVING AT ACTUAL PRICES



U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 2593-63 (12) ECONOMIC RESEARCH SERVICE

Figure 2

Problems Associated With Base Price Quotations

Use of base price quotations creates a number of problems; these apply to other commodities as well as to eggs.

Many firms tend to use base price quotations as a basis for arriving at actual settlement prices, but do not take an active part in base price determination. This noninvolvement has been carried to the point where relatively few independent decisions are made. These kinds of decisions, however, establish the base price quotations.

Another problem is that the base prices generally reflect supply and demand within the market where they are generated, but not necessarily for distant market areas. As supplies and demand change in the markets, the base prices can fluctuate, sometimes sharply. Outlying areas using the base price quotations to determine actual prices often find that changes in the supply and demand in the base price-generating markets do not match their indicated supply and demand conditions.

Thinness of trading on the mercantile exchanges represents a problem to those who believe that (1) trading on the mercantile exchanges should be in large units, e.g., 600 cases of eggs or more; for example, a sale of 25 or 50 cases should not be enough to change the base price, (2) more people should participate in exchange trading to give the market reporters a better feel for the market, and (3) those who use the base prices should participate more directly in their determination instead of assuming a passive role. Those who believe thinness of trading is not a problem say that (1) trading on the exchanges is only done to achieve a price adjustment so the volume of trading is not significant, (2) small trading units facilitate trading, particularly by small firms, and (3) through the trading members present for the spot call, member and nonmember firms can participate, even though they themselves are not present.

Another problem is that the base prices are for wholesale grades of eggs, while most of the eggs moving into retail outlets are consumer graded eggs in cartons. Thus, the base price quotations do not directly represent the kind of eggs moving in greatest volume in trade channels. A related problem arises in negotiating translations of a particular grade and size at a particular place into values for other grades, sizes, and places. The translation of these values should reflect grade loss as well as direct costs for labor, cartons, etc. Yet another related problem is that the base may understate the general level of prices. At any trading level, a range of actual prices develops which reflects variations in quality, size, packaging, delivery, credit, and other factors. An earlier study showed that the base prices for eggs at New York were at the bottom of or below the actual wholesale price level (8).

The Uncommitted Supply in Price Determination

Farm production accounts for nearly all of the supply of eggs. Very small amounts are added by nonfarm production, imports, and stocks at the beginning of the year. Exports and ending stocks, while very small, are subtracted to determine the aggregate available for consumption.

In 1964, about 85 percent of the eggs were used as shell eggs; 9 percent were broken out to produce liquid, frozen, and dried eggs; and 6 percent were used as hatching eggs. The shell eggs and breaking stock can be further subdivided into those that are (1) committed on a week-to-week basis to retail stores, institutions, and breakers, and (2) uncommitted supplies. Current pricing relationships among end users largely determine whether the uncommitted eggs go for table use, breaking stock, exports, or storage.

While the exact proportion of the committed supply is not known, it is generally agreed that a relatively high proportion of eggs going to shell egg outlets is committed on a week-to-week basis, and that a relatively low proportion of eggs going to breakers is committed on this basis (fig. 3). As shown in figure 3, the portion of the committed supply is large, but does not enter directly into price determination. In contrast, the uncommitted portion is relatively small, but it nevertheless plays a fundamental role in price determination.

Why Base Prices Are Wanted

Base price quotations provide a common denominator that can be easily and conveniently used to arrive at actual prices, thereby eliminating the need to haggle over price from one purchase to the next. The present base price quotations for eggs have been widely used for many years. These base prices are generally recognized and information about them is readily obtainable in trade channels. Most assembler-distributors of eggs use them to arrive at buying and selling prices. ^{3/} Egg buyers for large retail organizations also accept the present base prices since they feel that they can thereby remain competitive in buying and selling. If generally used, other bases might serve equally as well as the present base prices.

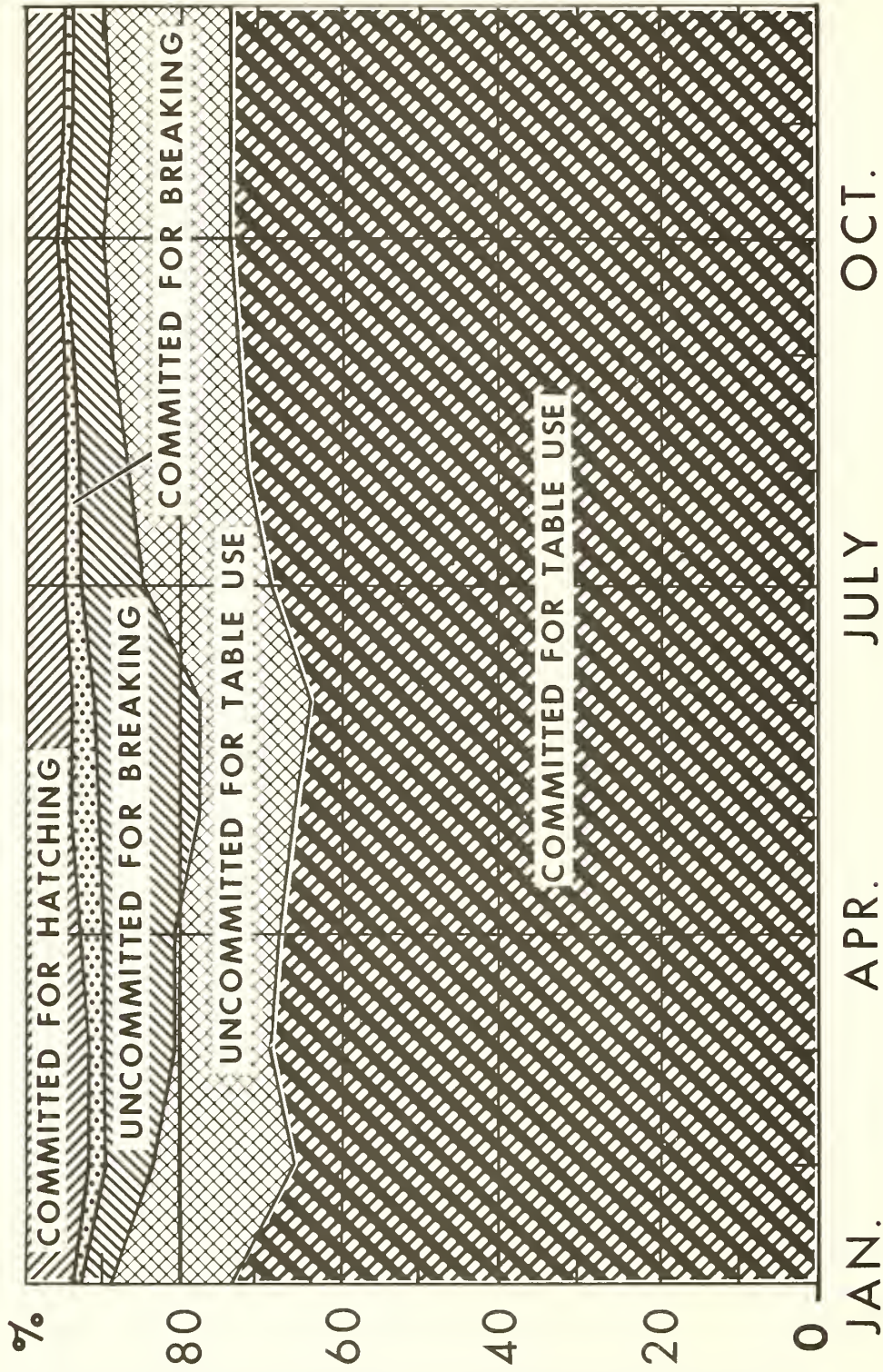
Premiums Paid by Large-Volume Retailers

A study of pricing practices of large-volume retailers reveals that they pay premiums of from 6 to 10 cents per dozen above the commercial base price quotations for consumer-graded large Grade A eggs in cartons delivered to stores or warehouses. Within each metropolitan area surveyed, the premiums paid were highly uniform. Variations occurred mainly according to size of lot delivered, distance and time needed for deliveries, credit extended, and similar factors. Basically, the premiums paid within a metropolitan area are sufficient to recompense the suppliers for the costs of marketing services rendered. Apparently, egg buyers for large-volume retailers let their suppliers cope with the problems of keeping the stores stocked with the kinds, qualities, and volumes of eggs demanded by consumers, i.e., adjusting supply to demand. From one metropolitan area to another, the premiums paid by large-volume retailers vary by approximately the transportation costs (fig. 4).

^{3/} The material in this section is based on the 1962-63 survey of the egg trade (see pp. 13-19 for further information).

MAJOR USES OF EGGS

Estimated Committed and Uncommitted, 1962



U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 2594-66 (1) ECONOMIC RESEARCH SERVICE

Figure 3

TRUCK TRANSPORTATION COSTS FOR SHELL EGGS

Cents Per 30-Dozen Case in Truck Lots of 600-700 Cases, 1963

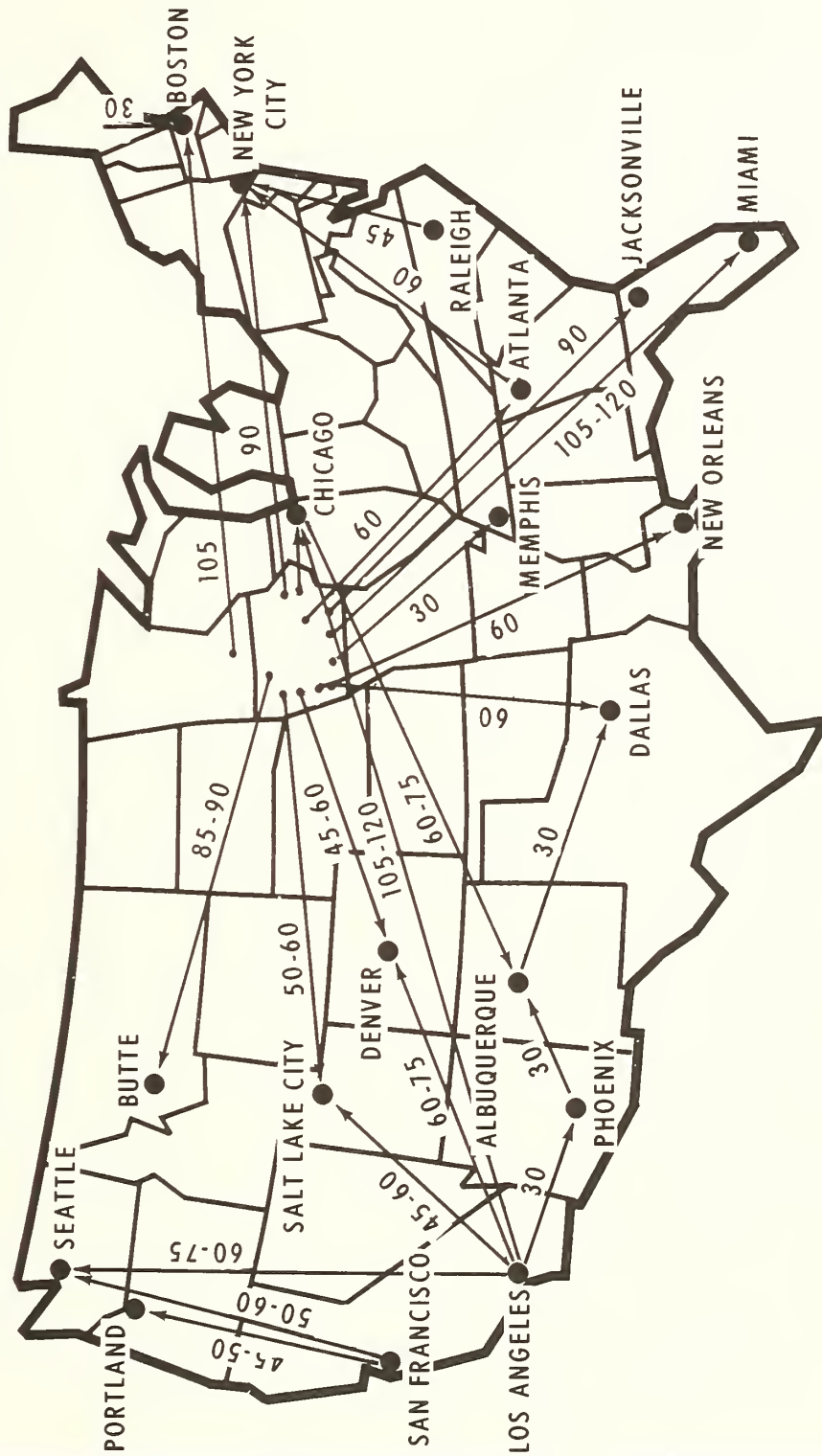


Figure 4

Suppliers serving warehouses of the same large-volume retailer in various metropolitan areas were paid premiums above the applicable base price quotation. At times, State lines appear to be important in determining (1) whether a supplier is paid on the basis of one base price quotation or another, and (2) how much the premium will be over the base. These are the areas of negotiation between suppliers and large-volume retailers, rather than price itself.

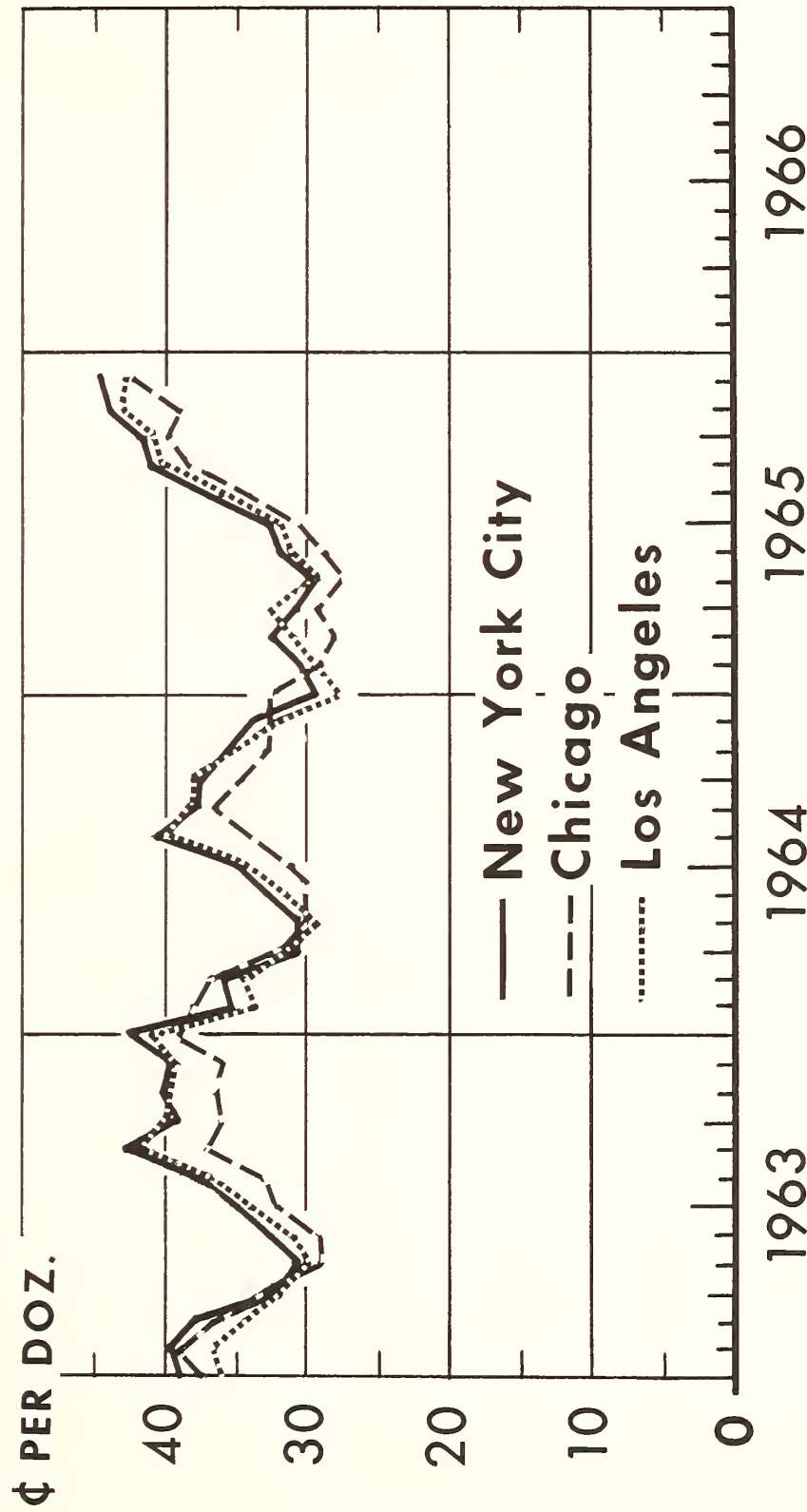
Since eggs move rather freely among the various States and regions of the continental United States, the market for eggs is a national market. Markets for eggs are tied together, even if the relationship between markets may be somewhat loose at times. Thus, over time the price in any one market will be in approximate relationship to the price in other markets. For example, from 1963-65 the prices among the markets of New York, Chicago, and Los Angeles usually rose and fell together (fig. 5).

IMPROVEMENTS IN THE PRESENT EGG PRICING SYSTEM AND ALTERNATIVES TO IT

Since the system of base price quotations for egg pricing has been in effect so long, it is clearly in a strong position. Nevertheless, various people in the egg trade and in other organizations have suggested possible improvements in the present system and alternatives to it. These suggestions are presented in the following section:

1. Improvements in trading on the mercantile exchanges:
 - a. Broaden the trading base by encouraging more people to trade on the spot call.
 - b. Enlarge the trading area by permitting deliveries at various designated points, and by permitting use of a 10-day option.
 - c. Increase the size of the trading units to 100-case lots or to truckload lots of 600 cases.
 - d. Lengthen the trading period.
 - e. Establish a quotation based on consumer graded eggs 90 percent Grade A or better to match requirements of large-volume retailers for cartoned eggs.
 - f. Offer free inspection service.
 - g. Limit price changes to perhaps two times per week and to perhaps a maximum of 2 cents per day.
2. Improvements in the operations of reporting agencies:
 - a. The reporting agencies should place more emphasis on factors other than exchange trading. These would include street trading between dealers, interaction of supply and demand forces outside the immediate wholesale market area, and recognition of regional short-run trends in supply and demand.
 - b. Develop more and better reports on egg movements, supply, demand, and other factors to help arrive at equitable prices.
 - c. Encourage averaging of base prices.
 - d. Establish reporting services in more areas.

AVERAGE WHOLESALE PRICES FOR GRADE A LARGE WHITE EGGS



Source: U.S. Dept. Agr. Market News Service

Most of the people in the industry who were asked for their ideas on alternatives to the present system had few workable alternatives. These suggestions include:

3. Variations of base price quoting:

- a. Use 5-day averages of base price quotations. These are being used more and more by buyers for large-volume retailers; some firms are also averaging two quotations. In this way, they follow the shadow of the market instead of its day-to-day fluctuations.
- b. Use as a base price for some level and conditions of trading other than the wholesale price level; for example, prices paid to producers, prices received by trucklot shippers, or prices paid by large-volume retailers.
- c. Use USDA Market News reports as a base determinant in arriving at prices paid to producers.
- d. Develop regional base prices that would be independent of the national market. Such a pricing system would permit better price adjustments to supply and demand in local markets. The argument against such a system is that local markets cannot remain out of line with the national market unless barriers to trade are erected.

4. Decentralized pricing:

This system, in which prices are negotiated at widely scattered points, could result in a variety of prices for the same grade of eggs even within small geographical areas. It might work if "egg sheds" were to develop around the large cities and with some restriction of movement between the egg sheds. While decentralized pricing may work for livestock, where the end products are highly processed, it may not work as well for eggs because very little processing is done for table eggs.

5. Committee pricing:

In this system, base price quotations would be set by impartial committees. There could be as many committees as needed in various parts of the country. Presumably the committees would adjust their price quotations up and down according to their evaluation of supply and demand. This could result in less frequent price fluctuation than in the presently used public auctions at New York and Chicago. There has been considerable experience with committee pricing for cotton. Special legislation was required to establish the pricing system for cotton. ^{4/}

6. Administered pricing:

This alternative could come about if the egg industry became highly integrated. In this situation, most of the retail organizations, egg breakers, institutions, etc., would have firm arrangements for the supply of eggs needed, with quantities, qualities, and price all specified in advance. Under this system, such eggs could be priced somewhat

^{4/} For a more complete examination of this subject, see Soxman and Holder (46).

independently of the "uncommitted supplies." If some group, such as feed companies or assembler-distributors, became the primary integrators, pricing could be based on cost-plus at the farm level and administratively determined at other levels up to the price to retailers.

7. Government administration of egg pricing:

This alternative has been advocated by those who apparently see no other feasible way to correct what they consider shortcomings of the present system. Some Government administration of support or floor prices and ceiling prices was experienced during World War II.

SURVEY OF EGG HANDLERS

During 1962 and 1963, interviews were conducted with 77 persons in 16 cities and at country points. The cities were: Boston, New York City, Philadelphia, Chicago, Omaha, Raleigh, Atlanta, New Orleans, Dallas, Albuquerque, Phoenix, Los Angeles, Portland (Oreg.), Seattle, Salt Lake City, and Denver. Information was obtained from egg assemblers, brokers, wholesale receivers, traders on the New York and Chicago Mercantile Exchanges, and others. From this survey, 63 usable schedules were obtained.

Questions and Responses

1. "How do you determine your buying prices for eggs?"

The answers to this question depended on what part of the country the egg handler was in, the kind of eggs he handled, and the trading level he was discussing. For example, assembler-shippers in Iowa and Minnesota usually paid producers 8 cents under the Mixed Color quotation at New York City. However, during the breaking season they had to meet the competition and therefore paid $6\frac{1}{2}$ cents under New York. During periods of price instability at New York, they paid producers 10 cents under New York. Midwestern assembler-shippers, who were receiving eggs from producers under quality-controlled production programs, typically paid 4 to 5 cents a dozen more than to producers not under such a program. If the number of cases of eggs per weekly pickup increased, some premiums were paid.

In the New England States, some producers are paid the top of the range and some a premium, depending on whether cases are exchanged. In the nearby States of New York, Pennsylvania, and New Jersey, producers are paid on the basis of the top quotation for white eggs at New York City. Producers are paid premiums and discounts around this quotation, depending on whether cases are exchanged, number of cases per pickup, etc. Some producers are compensated within the premium-discount structure for producing better-than-average quality eggs and for delivering a larger-than-average quantity of eggs. Both of these are cost-reducing to the buyers. In the Western States, various discounts are paid under the prices published by the Federal-State Market News Service, depending again on size of egg, whether cases are exchanged, quality, etc.

From the foregoing discussion, it is evident that there is considerable variation in the way prices paid to producers are determined. However, a few generalizations are possible: (1) Within an area, pricing practices are fairly uniform, while they can be quite different between areas; (2) once a pricing basis is established, it can remain in effect for many years; and (3) competition forces changes in the pricing basis.

2. "How do you determine your selling prices for eggs?"

As eggs move through trade channels, selling prices for one kind of handler become buying prices for another. For example, Midwestern assembler-shippers selling to wholesale receivers in Eastern cities will have very similar pricing arrangements. For loose eggs, 30 dozen to the wholesale case, the pricing basis is typically the New York market for Mixed Colors (70 percent Grade A) day-of-arrival at flat market price or a premium of $\frac{1}{2}$ cent. A small percentage of the loose eggs come into the market on the basis of the day-of-shipment, market price less $2\frac{1}{2}$ cents. The assembler-shippers net the same either way. The only difference is who assumes the risk of price change while the eggs are in transit. A still smaller percentage of the loose eggs is sold on a negotiated basis, i.e., terms of trade and pricing basis are negotiated from one shipment to the next (8).

Midwestern assembler-shippers who sell consumer-graded and cartoned eggs in 1-dozen cartons have two sources of eggs. One is the traditional farm flocks producing nest-run or current receipt eggs. The other is large flocks where quality control is specified. Competition from eggs produced in quality-controlled flocks has made it increasingly difficult for assembler-shippers to consumer-grade and carton eggs from farm-run flocks. In fact, selling the farm-flock eggs to egg breakers has been the best outlet for many months of the year for many assembler-shippers.

At the time of the survey, prices for consumer graded and cartoned eggs moving from Midwestern assembler-shippers to large-volume warehouses of retailers in Eastern cities were 6 to 10 cents over the Mixed Color quotation. Most of the prices determined were day-of-arrival prices, but some 5-day averages of one kind or another were also used. Where cartoned eggs were delivered to individual stores, 1 cent per dozen more was paid than when delivered to warehouses. Extension of credit, size of lots delivered, location of stores, etc., are other factors explaining the range in prices paid.

In different sections of the United States, prices of cartoned eggs varied considerably, but in most instances the actual prices paid were based on specified premiums over one of the base price quotations. The double standard for Grade A large eggs was maintained at this level of trading also. That is, Midwestern eggs were priced on the basis of the Fancy Heavy Weight Mixed Color quotation (minimum 70 percent Grade A) while eggs from nearby States were based on the Extra Fancy Heavy Weight white egg quotation (minimum 10 percent Grade AA and 65 percent Grade A). The difference between these quotations varies

seasonally from about 0.5 to 6.0 cents. The difference averaged 2.5 cents during 1960-62. Southern eggs moving in large volume into North-eastern cities were formerly priced on the basis of the Fancy Heavy Weight quotation, but as producers in the South have learned to produce and market high-quality eggs, their prices are being determined more and more on the basis of the Extra Fancy Heavy Weight quotation.

At the wholesale trading level for loose eggs, wholesale receivers try to get 1 cent per dozen over their paying prices on job lots of 25 to 200 cases. For smaller lots, they get more.

Typically, egg brokers are already in the business of handling eggs in one way or another. They may be country shippers, assembler distributors, or wholesale distributors. A relatively small number operate as brokers only. Their main function is to bring sellers and buyers together on a particular transaction or a series of transactions. Contrary to traditional definitions of brokers, egg brokers usually take title to the eggs, even though they may not handle them physically. This may be for a relatively short time--in some cases, the time needed for transportation from the supplier's place of business to the large retailer's warehouse. When large retailers occasionally reject a shipment, the eggs are sometimes owned by the broker and sometimes by the supplier. Brokers service their accounts by passing complaints of the large retailers back to the suppliers. Brokers collect money from the large retailers and pay the suppliers faster than the large retailers would. Brokers usually receive a commission of $\frac{1}{2}$ to 1 cent per dozen for their service.

Thus, between producers at one end of the marketing system and large-volume retailers, independent retailers, and other end users at the other, there is a whole fabric of price relationships. Various patterns can be discerned. The key role is played by the base price quotations. As they go up and down, so does the whole pricing structure.

3. "How do you reflect quality and size differences in your buying prices?"

Most of the egg handlers who answered this question used some kind of scale of premiums or discounts to adjust their paying prices to producers. In this way, they adjusted for variation in quality, size, and quantity per pickup. Typically, the scales of premiums or discounts were tied in with a quality-control program. Some paid a flat price and some paid on a grade-yield basis.

4. "What factors cause egg prices to fluctuate frequently?"

Most egg handlers answered "supply and demand." As one egg handler put it, "This [fluctuation] happens only in certain periods--when the pattern of supply and demand is not clear." Other factors mentioned were: weather extremes, quality variation, time of the year, and marginal units.

- a. "What factors cause egg prices to fluctuate widely?"

The replies were to the effect that this happens only under unusual conditions such as an accentuation of the factors listed above. One man said, "Sharp drops occur when the commodity becomes over-priced." Another said fluctuation occurs on the down side of the market when demand is slack.

- b. "How can price fluctuations be minimized?"

The only central answer was to control supplies reaching the markets. As one man said, "The shippers should use restraint." The only other answers were concerned with improving trading on the exchanges.

5. "How do you believe base price quotations are determined?"

In the markets where base price quotations are issued, people in the trade were highly knowledgeable, but egg handlers located in the more distant markets had poor concepts of price quotations and even some misconceptions. One egg handler in New York City answered that determination of base price quotations depends on trading of the New York Mercantile Exchange and interpretations by reporters of the Urner-Barry Publishing Company. One market news reporter gave the following criteria as important: (1) Sales, and (2) uncovered offers in new low territory. They thought unfilled bids in new high territory were worthless, and that bids or offers made at the closing bell should not be considered as highly as those made earlier (see 10, 20, 35 for further information).

6. "What reasons do you have for not using other quotations and prices with which you are familiar?"

Egg handlers in the markets where base price quotations are issued said they could not use anything else. Assembler-shippers and others performing similar functions answered that their buyers wanted it this way. In another project, 54 egg buyers for large-volume retailers answered that a common denominator was needed to assure competitiveness among themselves and among their suppliers.

Egg handlers and brokers located especially at country points use any and all quotations. People that buy in different territories follow the pricing practices customary to the area. In general, assembler-shippers pay their producers in relationship to the base price quotation in the markets in which they sell.

7. "How do the base price quotations reflect supply and demand in the area in which you operate?"

The general consensus was that the base price quotations are a good indicator of supply and demand locally (within the market) and regionally. There was a mixture of replies as to how well base price quotations reflect supply and demand nationally and internationally; some thought they did and some thought they did not. Egg handlers located far from the cities where base price quotations are issued used one quotation or another, depending on competition between regions.

In some instances, supply and demand conditions in distant areas will be sufficiently different from the base pricing market, so that the distant areas negotiate prices without regard to the usual relationship.

8. "Do you think the quotations can be held out-of-line with values indicated by a given supply and demand situation?"

Almost all of the persons interviewed answered "Yes" to this question. When asked for how long, there was more variation in the answers. However, most of the answers were 1 to 3 days. When asked by how much, there was again considerable variation, but most of the answers were 1 to 3 cents. The method used was by buying or selling on the mercantile exchange.

In 1961, a group of egg dealers were charged with manipulating cash egg prices by transactions on the New York Mercantile Exchange in violation of the Commodity Exchange Act (47). The egg dealers involved did not contest the citation and, as a result, trading privileges were suspended for one dealer and firm for 90 days, for another dealer and firm 60 days, and for two others, 30 days. The Commodity Exchange Authority of the U.S. Department of Agriculture supervises trading in eggs on the mercantile exchanges at New York City and Chicago.

9. "What are the main causes of sharp upward or sharp downward adjustments in the quotations you use?"

Factors given for sharp upward adjustments were: shortage of merchandise, weather extremes, war scares, rumors, holidays, manipulation, Government entering the market, sellers' decisions to hold supplies, smaller replacement flocks, and others. Factors given for sharp downward adjustments were: oversupply of merchandise, pressure of supply, a lot of eggs in storage, the market will poke along and go to pot all of a sudden, slack demand, lack of consumption, and others. There is considerable criticism of sharp upward or downward adjustments in base price quotations. Assuming that an adjustment is needed in the price level, should it come fast or slow? Proponents of both ideas can be found. The short-run price cycle theory indicates that in free market pricing, price adjustments in either direction tend to be overstated and then corrected later.

10. "What effect does the futures market have on the spot market quotations you use?"

Quite a diversity of answers was given to this question. For example, several said the futures market has a stabilizing effect upon the spot market. Others said it is the other way around--the spot market affects the futures market. One broker said, "The cash market leads the futures for the near term; the futures market leads the cash market for the long term." Another said, "The futures market has little effect on the spot market except when large traders are trying to change the futures market by juggling the spot market." A small percentage of the egg handlers interviewed speculated in the futures market. A slightly larger percentage hedged on sales to the Army or to protect an inventory.

11. "What are the main advantages of your present pricing system?"

In spite of the criticisms voiced against the present system, the egg handlers interviewed generally agreed that the present system is sound, workable, and, on the average, fair. Some of their comments were: "Need a base as a practical matter. The base is equitable for all of the competition." "It gives a daily indication of values in the market." "Free and open market based on an auction. Results in fair prices." "The Exchange call is an open auction where opinions are backed by cash. There is no substitute for this. More extensive use should be made of the Exchanges at New York and Chicago to provide a broader base for the reporting agencies."

12. 13. 14. These questions were concerned with disadvantages of the present system, improvements that can be made in the present system, and alternatives to the present system. Information on these topics is given in considerable detail in other parts of this report.

15. "What kinds of marketing information do you use or follow?"

In general, the egg handlers use all of the information they know about to arrive at decisions on whether to buy, on the accuracy of the base price quotations, on whether base prices represent conditions in the local area. The following is a simplified classification of the kinds of marketing information used; the listing is not necessarily in the order of importance. (1) Federal and State reports on production, prices, hatchings, storage holdings, poultry slaughter, commercial egg movements, movement of eggs into retail channels, etc. These were used extensively by the most active traders in the markets where the base price quotations generate. In distant markets, less use apparently was made of these reports. (2) Reports of the Urner-Barry Publishing Company, especially the daily Producer's Price Current. These reports are used extensively in New York City and in areas where the New York base price quotations are used in arriving at actual prices. (3) Army purchases and prices. Some of the egg handlers specialize in selling to this outlet and others offer their surpluses. Some of the egg handlers believe these prices are more sensitive than the base price quotations. Selling to the Army is selling in the forward market because offers must be made 2 weeks ahead of delivery. (4) A group of factors related to demand. How are eggs moving in the retail stores? Apparently, chain store sales are the best available barometer of this movement. How are eggs moving into the export market? How are dealers' floor stocks moving? Are they piling up or are they moving out? What is the expected movement for the next 7 to 10 days? The answers to these and similar questions give the egg handlers a "feel" for the demand for eggs. (5) Intermarket intelligence. The largest egg handlers call their shippers and others by telephone to exchange information on egg production, movements, prices in various areas, demand, weather, etc. This exchange of information may occur once a week, daily, or even more often if the market is breaking fast. Family relationships are sometimes important. An egg dealer in New York may have a partnership with an egg firm in Chicago, a nephew running an egg breaking plant in Iowa, and an uncle in the business on the West Coast. They talk with each other on the telephone about market

conditions, about when the breakers will be in the market, weather conditions, expected supply and demand, and so on. Firms having this kind of intermarket intelligence can anticipate changes in market tone and prices better than those without it.

THE NEED FOR MORE RESEARCH

The "egg pricing problem" has a long history. In recent years, the National Association of State Departments of Agriculture has become actively interested in this problem. In 1960, the Association established a steering committee consisting of State, Federal, and industry representatives. This committee defined the egg pricing problem as set forth early in this report, and recommended a coordinated research program to study the egg pricing problem and to suggest alternative solutions. Through the years, several lists of recommendations have been prepared. The current list has 12 points:

1. Updating of descriptions of methods of establishing quotations and reporting egg prices.
2. Studies of relative changes in the extent and nature of short-run price fluctuations and their effects.
3. Analyzing methods of pricing "uncommitted supplies" and factors affecting the premium-discount structure on standing agreements.
4. Examining proposed means for improving mercantile exchange trading and other aspects of the base price quotation system.
5. Evaluating possibilities for establishing base price quotations at marketing levels and conditions of trading other than wholesale "loose" eggs (not cartoned).
6. Studying possibilities for expansion or modification of USDA services for providing price, production, and movement information.
7. Studying the effectiveness of present grades and standards as aids to pricing.
8. Appraising the effects of futures trading on eggs and the relationship to spot market prices.
9. Studies of present procurement practices and pricing policies of assemblers, shippers, packers, and distributors.
10. Studying proposals of alternative methods of establishing quotations and reporting egg prices, including decentralized and committee pricing, an expanded role for Market News, and "formula" pricing.
11. Relationships of pricing mechanisms to programs for maintaining producer prices or income.
12. Summary and consolidation of findings; development of a comprehensive general report.

The egg pricing problem can be solved only through considerable and concerted efforts. In recognition of the magnitude of the problem, Congress appropriated funds in November 1965 to implement further research.

BIBLIOGRAPHY

- (1) Baker, R. L.
1958. Pricing Practices of Major Country-Point Egg Handlers in Pennsylvania. Pa. Agr. Expt. Sta., Bul. 640.
- (2) Brown, A. A.
1954. Egg Pricing on the Boston Market. Univ. Mass. Agr. Expt. Sta., Amherst, Mass., Bul. 476.
- (3) Burbee, C. R., and Hess, C. V.
1964 and 1965. How are Minnesota Eggs Priced? In Poultry Patter, Agr. Expt. Ser., Univ. Minn., Pt. I, Dec. 1964 and Pt. II, Jan. 1965.
- (4) Davidson, T. L.
1959. The Problem of the Free Markets and the Role of the Commodity Exchanges in the American Economy. Proceedings of a Symposium Sponsored by the New York Commodity Exchange.
- (5) Earle, W., and Darrah, L. B.
1952. Egg Prices on the New York City Market, 1910-1951. Cornell Agr. Expt. Sta., Ithaca, N. Y., A.E. 816.
- (6) Faber, F. L.
1962. Alternative Egg Pricing Systems. Talk prepared for New Hampshire Poultry Growers Association, Manchester, N. H., Dec. 6.
- (7) _____
1963. How the Egg Pricing System Works. Talk prepared for a workshop of the United States Poultry and Egg Producers Association, Washington, D. C., Nov. 18.
- (8) _____, Pedersen, J. R., and Gerald, J.O.
1961. Reporting Egg Prices at Shipping Points in Iowa and Minnesota. U.S. Dept. Agr., Agr. Mktg. Serv., Mktg. Res. Rpt. 445, Washington, D. C.
- (9) Forker, O. D.
1964. The Pros and Cons of Two-Price Systems. In Pacific Poultryman, Mar.
- (10) Gerald, J. O., and Pritchard, N. T.
1958. Pricing Eggs at Wholesale in New York City. U.S. Dept. Agr., Agr. Mktg. Serv., Mktg. Res. Rpt. 210, Washington, D. C.
- (11) Hartman, R. C.
1959. Are Egg Price Reports Confusing? In Pacific Poultryman, Mar.
- (12) _____
1959. The Los Angeles Egg Market. In Pacific Poultryman, Mar.

- (13) Hester, O. C., and Pritchard, N. T.
1957. Pricing Eggs in Los Angeles. U.S. Dept. Agr., Agr. Mktg. Serv.,
Mktg. Res. Rpt. 161, Washington, D. C.
- (14) Hieronymous, T. A.
1960. Effects of Futures Trading on Prices. Futures Trading Seminar,
History and Development, Vol. I, Mimir Pub. Inc., Madison, Wis.
- (15) Hill, J.
1963. The Egg Price Differential Between the Prairie Provinces and
Eastern Canada. In The Economic Analyst, Dept. of Agr.,
Ottawa, Canada, Feb.
- (16) Jasper, A. W.
1960. AFBF's Jasper Urges Trial for "Base Price Averaging." In Poultry
and Egg Weekly, Feb. 6.
- (17) King, R. A.
1960. What Can We Do About Egg Prices? Talk given at the Egg Industry
Conference conducted by the Department of Poultry Science,
North Carolina St. College, Raleigh, N. C.
- (18) Luckham, W. R., Cray, R. E., and Clayton, P. C.
1959. The Adequacy of Price Quotations (Eggs) at Ohio Terminal Markets
in Reflecting True Market Conditions. Ohio Agr. Expt. Sta.,
Res. Cir. 63, Jan.
- (19) Maduff, S.
1955. Forecasting Egg Futures Price Trends, 1955 Commodity Year Book.
Commercial Res. Bur., New York, N. Y.
- (20) Manchester, A. C.
1954. Price-Making and Price Reporting in the Boston Egg Market.
Harvard Studies in Marketing Farm Products, No. 7-H, Harvard
Univ., Cambridge, Mass., U.S. Dept. Agr. Cooperating.
- (21) March, R. W., and Herrmann, L. F.
1953. Establishment of Central Market Butter Prices in Chicago and
New York. U.S. Dept. Agr., Prod. and Mktg. Admin., Mktg. Res.
Rpt. 53, Washington, D. C.
- (22) Mathis, A. G.
1959. Problems in Initiating a Report of Prices Received for Butter
by Midwestern Creameries. U.S. Dept. Agr., Agr. Mktg. Serv.,
AMS-292, Washington, D. C.
- (23) Meinken, K. W., and Meredith, A. A.
1961. Seasonal Variation in Egg Prices: What It Means to New Jersey
Farmers. N. J. Agr. Expt. Sta., A.E. 271.

- (24) Meredith, A. A.
1961. The Competitive Position of New Jersey's Egg Industry. Part II, Economic Trends in Egg Marketing. N. J. Agr. Expt. Sta., A.E. 266.
- (25) _____
1963. The Competitive Position of the New Jersey Egg Industry. Part III, Transportation Costs and Problems, N. J. Agr. Expt. Sta., A.E. 289.
- (26) Morrison, T. C.
1961. Pricing Eggs in the Boston Market Area. Univ. Conn., Col. Agr., Expt. Sta., Ser. No. 16-17.
- (27) _____
1961. Probable Need for and Problems of Government Administration of Egg Prices in the United States. Univ. Conn., Prog. Rpt. 45.
- (28) _____, and Mamer, J. W.
1959. Feasibility of Marketing Orders and Production Control for the Poultry Industry. Univ. Conn., Col. Agr., Bul. 351.
- (29) Oyløe, T.
1953. Marketing Policies and Practices of Country Egg Dealers in Eastern South Dakota. S. Dak. Agr. Expt. Sta., Col. Sta., S.D. Cir. 143.
- (30) Pedersen, J. R.
1959. Development of a Report on Turkey Prices at Shipping Points in Eight North Central States. U.S. Dept. Agr., Agr. Mktg. Serv., AMS-335, Washington, D. C.
- (31) Planting, M.
1962. Credit Aspects of the Egg Industry. Farm Credit Admin., June.
- (32) Pritchard, N. T.
1959. Changing Egg Pricing Methods to Meet Industry Needs. Speech presented at Ames, Iowa, Aug.
- (33) _____
1959. Pricing Eggs in Central Markets. U.S. Dept. Agr., Agr. Mktg. Serv., AMS-287, Washington, D. C.
- (34) _____
1960. Los Angeles Egg Market. U.S. Dept. Agr., Agr. Mktg. Serv., Mktg. Res. Rpt. 440.
- (35) _____, and Hester, O. C.
1957. Pricing Eggs at Wholesale in Chicago and St. Louis. U.S. Dept. Agr., Agr. Mktg. Serv., Mktg. Res. Rpt. 173, Washington, D. C.

- (36) Reed, F. D.
1962. Proposals and Alternatives to the Egg Pricing Problem. Univ. Maine, Cooperative Ext. Serv., Cir. 367, May.
- (37) _____
1963. What New England Can Learn from the California Egg Industry. Univ. Maine, Cooperative Ext. Serv., Cir. 380, Oct.
- (38) Roberts, J. B.
1943. Marketing and Pricing Eggs In Kentucky. Ky. Agr. Expt. Sta., Bul. 441, Lexington, Ky.
- (39) Rogers, G. B.
1961. The Egg Pricing Problem. Paper presented at Wisconsin Farm and Home Week, Madison, Wis.
- (40) _____
1961. How Can the Poultry Producer Get More Market Power? Talk prepared for the Workshop of the Extension Poultry Production Specialists, Southern Extension Region, Washington, D. C.
- (41) Roush, James R.
1960. Terminal Markets as a Price-Making Mechanism for Eggs. Paper presented at Dept. of Agr. Econ., Univ. Ill., Col. Agr., Urbana, Ill.
- (42) _____
1963. The Relationship Between Central Market Egg Reports and Producer Prices in Selected North Central States. Ill. Agr. Expt. Sta., Bul. 691, Feb.
- (43) Ruttan, V. W., and Laird, W. P.
1957. Pricing of Indiana Eggs at Country and Terminal Markets. Purdue Univ. Agr. Expt. Sta., Statis. Bul. 648, Lafayette, Ind.
- (44) Seale, A. D., Jr.
1964. Equilibrium Prices and Movement of Eggs in the United States for 1958-60 and 1970. Miss. Agr. Expt. Sta., Bul. 690, June.
- (45) Seaver, S. K.
1960. Economic Analysis of the Market Organization and Operation of the California Egg Industry. Calif. Agr. Expt. Sta., Mimeo. Rpt. No. 229.
- (46) Soxman, R. C., and Holder, S. H., Jr.
1962. Official Spot Cotton Quotations--Where and How Quoted. U.S. Dept. Agr., Econ. Res. Serv., Mktg. Res. Rpt. 547, June.
- (47) U.S. Department of Agriculture
1962. Egg Dealers Suspended for Price Manipulation. Press Release 1074-62, Mar. 22.

- (48) 1961. Futures Trading in Eggs, 1960. Commodity Exchange Authority,
Washington, D. C., Mar.
- (49) 1961. Futures Trading in Frozen Eggs. Commodity Exchange Authority,
Washington, D. C., Dec.
- (50) Urner, Gordon
1960. ~~Shell~~ Egg Price Determination and Wholesale Market Quotations
in New York City. In American Egg and Poultry Review. Apr.
- (51) Van Wagnen, A.
1960. Articles In NEPCO News:
 (a) Who Makes Egg Prices? Jan.
 (b) What's Wrong With Our Egg Pricing System? May.
 (c) What's Wrong With Our Egg Pricing System? June.
 (d) What's Wrong With Our Egg Pricing System? July.
 (e) What's Wrong With Our Egg Pricing System? Aug.
 (f) The Changing Egg Price Picture. Dec.
- (52) Vogt, K.
1934. Interrelationships of Daily Prices and Supply in the New York
Egg Market. Cornell Agr. Expt. Sta., Bul. 596, Ithaca, N. Y.

APPENDIX

Response of the New York Mercantile Exchange to Suggestions for Improvements in the Present Egg Pricing System and Alternatives to It

The following are excerpts from a letter from the New York Mercantile Exchange. 5/ Numbers at the beginning of paragraphs correspond to numbered items in the section on "Improvements in the Present Egg Pricing System and Alternatives to It," pages 10-13 of this report.

- 1(a). "Spot call sales are closely regulated by the Exchange. Eggs must grade officially by USDA inspection and cash must be paid, both by 12:00 noon, day of sale. This could inhibit some heavy trading but without rigid standards and supervision indicated prices would not be authentic. Hearsay is very remote from fact.

Many regular deals between shippers and users are at premiums over the base price which restricts some sales.

The tendency of some handlers to prefer ano[ny]mity rather than risk criticism from shippers or customers however unjustified.

The confusion over 23 oz. standards by the Quartermaster Corps and USDA, and 24 oz. standards by New York State, New Jersey, Delaware and most eastern States. The con[s]ensus here is that your Division should help our efforts in getting the Department to raise the standard to 24 oz.

Since trades on the spot call are more an expression of wide industry opinion rather than merchandising, volume, while desirable, is not compelling. Bids and offers are as important evidence of value as sales."

- 1(b). "The present trading area takes in Jersey City and greater New York, except Staten Island. This is considered the important pilot territory as it serves most of the area further out. To expand it poses increased inspection costs which may not even be available. The Exchange would like to expand it, if it can be managed and practicable. We have had ten day option for sometime and will take steps to encourage its greater use."

- 1(c). "The opinion is unanimous that to increase the trading unit to 100 or 600 cases would reduce participation substantially."

5/ The letter (dated January 16, 1963 from Llewellyn Watts, Jr., Chairman, New York Mercantile Exchange, 6 Harrison Street, New York 13, N. Y.) was in response to a speech presented by Fred L. Faber at a meeting of the New Hampshire Poultry Growers Association (6).

United States Department of Agriculture
Washington, D. C. 20250

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF AGRICULTURE

OFFICIAL BUSINESS

