

Purdue University

Purdue e-Pubs

---

Historical Documents of the Purdue  
Cooperative Extension Service

Department of Agricultural Communication

---

6-1-1964

## The Indiana Hatchery Industry

Robert J. Williams

Kelly L. Ball

Edwin E. Niles

Follow this and additional works at: <https://docs.lib.purdue.edu/agext>

---

Williams, Robert J.; Ball, Kelly L.; and Niles, Edwin E., "The Indiana Hatchery Industry" (1964). *Historical Documents of the Purdue Cooperative Extension Service*. Paper 588.  
<https://docs.lib.purdue.edu/agext/588>

For current publications, please contact the Education Store: <https://mdc.itap.purdue.edu/>

This document is provided for historical reference purposes only and should not be considered to be a practical reference or to contain information reflective of current understanding. For additional information, please contact the Department of Agricultural Communication at Purdue University, College of Agriculture: <http://www.ag.purdue.edu/agcomm>

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact [epubs@purdue.edu](mailto:epubs@purdue.edu) for additional information.

## THE INDIANA HATCHERY INDUSTRY

Robert J. Williams, Kelly L. Ball and Edwin E. Niles  
Department of Agricultural Economics

During the past decade, the poultry industry has experienced many dynamic changes in its over-all organization and operating practices. Today, the poultry industry, a \$3.3 billion industry, is vitally concerned with many new ideas. For example, specification buying, integrated complexes, controlled environmental housing, and direct buying of production inputs are a few of the changes being discussed most frequently. These changes, in turn, have affected the hatchery segment of the poultry industry.

### The Problem

Statistics on hatcheries show a decided trend toward fewer and larger firms. The number of hatcheries in Indiana declined from 356 in 1953 to 134 firms in 1963, a decrease of about 60 percent over a span of ten years. During this period total egg capacity also decreased, while average egg capacity per hatchery increased.

Some hatcheries facing declining hatchery sales have looked to integration and product diversification as means of increasing sales volume. Others have closed their doors and entered other lines of business.

To a large extent, changes occurring in the Indiana hatchery industry are closely related to changes occurring in egg production operations. Between 1954 and 1959 the number of farms in Indiana reporting chickens on hand, four months and over, declined from 103,000 to 63,000. However, eggs sold increased from 106 million dozens to 137 million dozens during this five-year period. Thus, Indiana egg producing operations have become more specialized with no indication

that the trend toward fewer but larger producing units is either complete or even slowing down.

As technological, institutional, and organizational changes occurred throughout the production and marketing phases of the poultry industry, the atomistic structure of Indiana's hatchery industry was faced with many problems. To date, little data have been recorded on the adjustments made by hatcheries.

### The Study

To establish some benchmarks on the present status of the Indiana hatchery industry, a personal interview survey was conducted with commercial hatcheries located in Indiana. Information was gathered for the years 1956 and 1961. The specific objectives were:

1. To determine organizational and operational characteristics of hatcheries in Indiana.
2. To determine management practices of Indiana hatcheries in production and marketing policies.
3. To establish a benchmark for future comparative studies of the Indiana hatchery industry.

An attempt was made to contact each firm listed as a member of the National Poultry Improvement Plan or the National Turkey Plan. In total, 82 usable schedules were obtained from a population of active hatcheries estimated to be around 100 hatcheries.

Table 1. Eggs set and egg capacity.

Firm size	Number of firm	Total number of eggs set per hatchery		Average egg capacity per hatchery	
		1961 (000)	1956 (000)	1961 (000)	1956 (000)
Small	38	135	210	67	75
Medium	26	510	700	182	165
Large	18	2,731	2,102	319	284
Total or group average	82	824	781	159	149

Because of the large amount of unused incubator capacity, the 82 firms studied were grouped for analysis on the basis of number of eggs set in 1961. Using this basis, the following three classes were obtained:

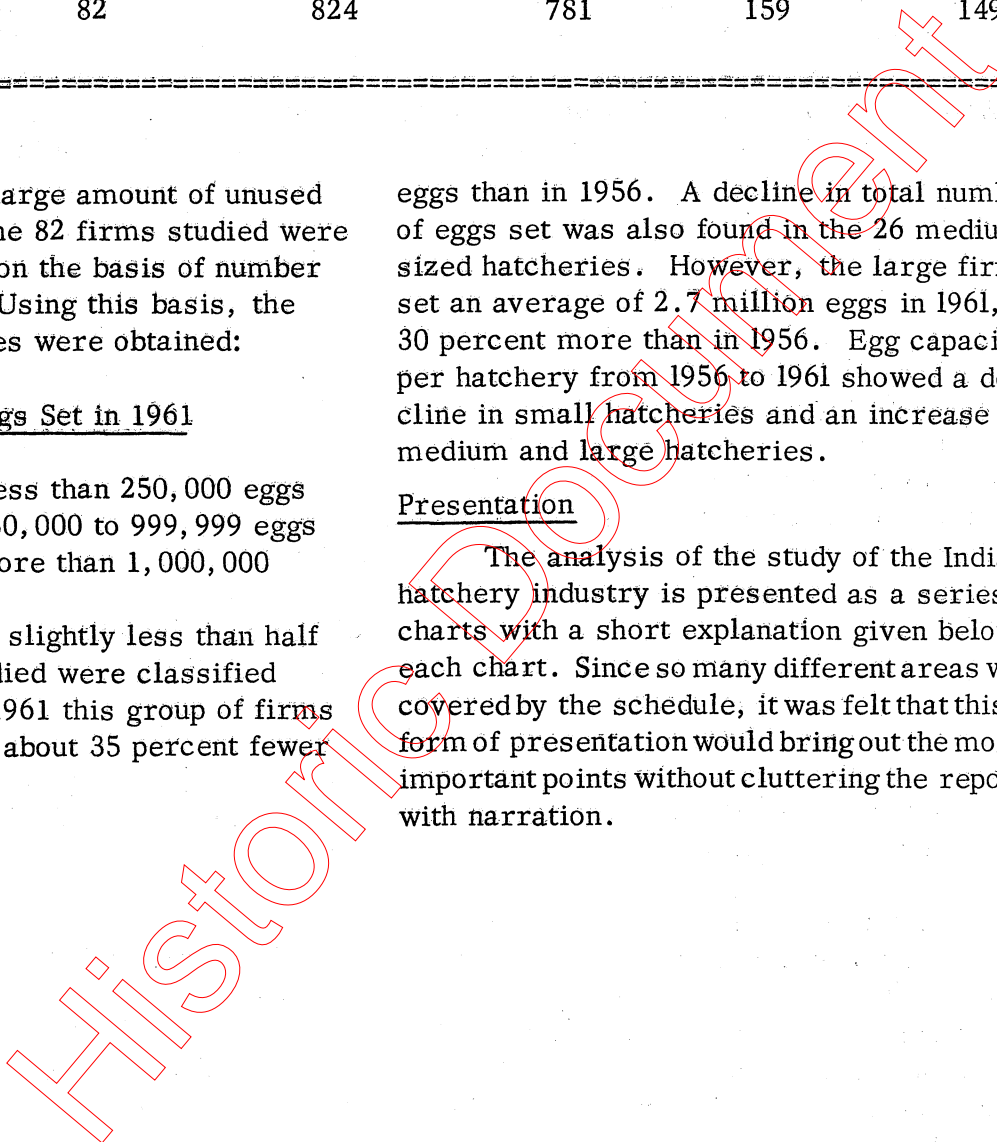
<u>Firm Size</u>	<u>Eggs Set in 1961</u>
Small	Less than 250,000 eggs
Medium	250,000 to 999,999 eggs
Large	More than 1,000,000

Thirty-eight or slightly less than half of the hatcheries studied were classified small (Table 1). In 1961 this group of firms set 135,000 eggs, or about 35 percent fewer

eggs than in 1956. A decline in total number of eggs set was also found in the 26 medium-sized hatcheries. However, the large firms set an average of 2.7 million eggs in 1961, 30 percent more than in 1956. Egg capacity per hatchery from 1956 to 1961 showed a decline in small hatcheries and an increase for medium and large hatcheries.

Presentation

The analysis of the study of the Indiana hatchery industry is presented as a series of charts with a short explanation given below each chart. Since so many different areas were covered by the schedule, it was felt that this form of presentation would bring out the most important points without cluttering the report with narration.



BUSINESS ORGANIZATION

Figure 1. Form of business organization, 82 Indiana hatcheries, 1961.

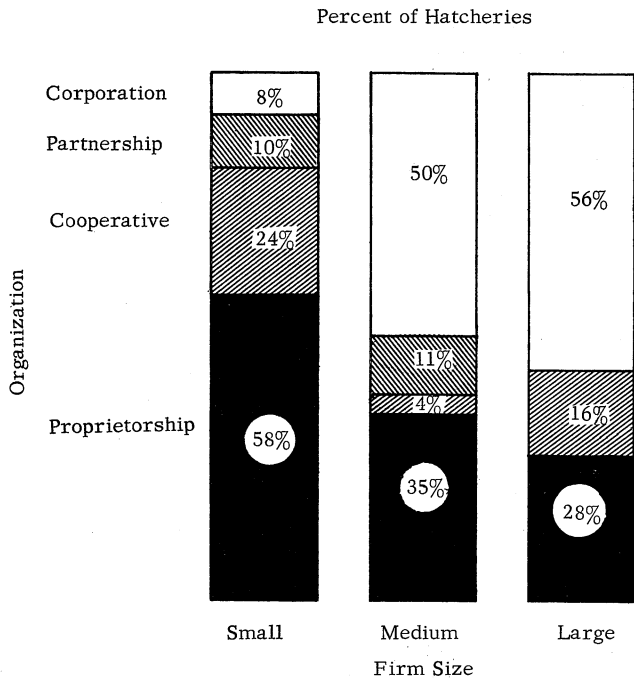
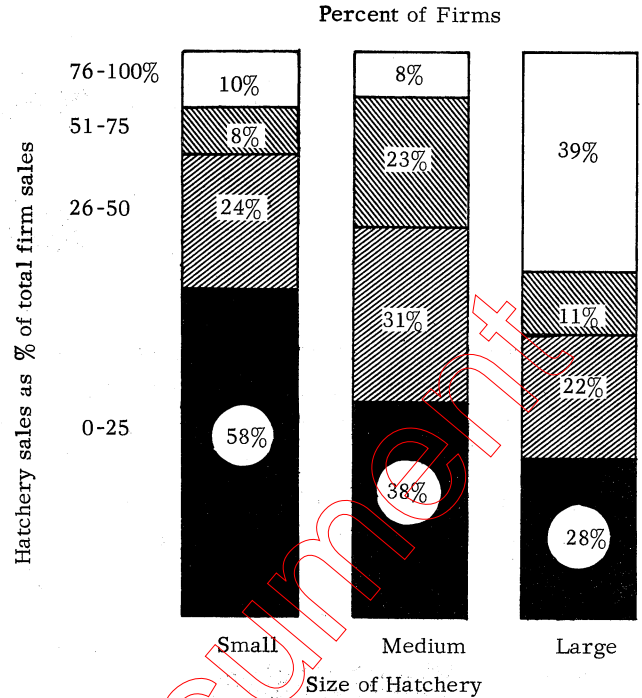


Figure 2. Hatchery sales as percentage of total firm sales, 82 Indiana hatcheries, 1961.

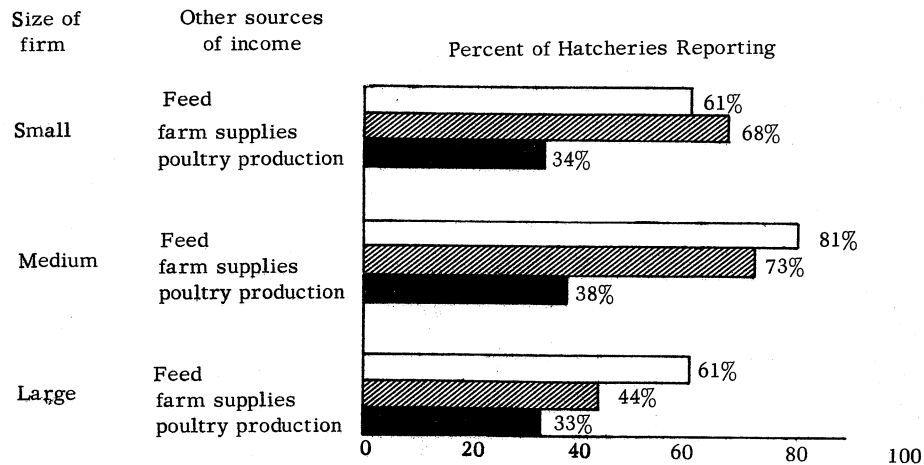


Over half of the large and half of the medium-sized hatcheries were organized as corporations. Cooperatives were found in all three size classifications. Proprietorship was the most common form of organization found in small hatcheries. Because of the limited liability feature and availability of capital, the corporate form of organization seems to offer some advantages to the larger firm.

The percent contribution of chick and poul sales to total firm sales increased as the size of hatchery increased. The ratio of chick and poul sales to total sales averaged 32 percent for small hatcheries, 40 percent for medium hatcheries and 54 percent for the large firm. Large hatcheries on a percentage basis had more firms in the 76-100 percent category than was the case for small and medium hatcheries, indicating less diversification of business by the larger firm.

Historic

Figure 3. Important sources of other income, 82 Indiana hatcheries, 1961.



Most Indiana hatcheries were also involved in businesses other than operating a hatchery. Selling of feed and farm supplies was reported most frequently. About one-third of the hatcheries were engaged in some phase of poultry production.

Figure 4. Egg-type chick sales by type of buyer, 73 Indiana hatcheries, 1956 and 1961.

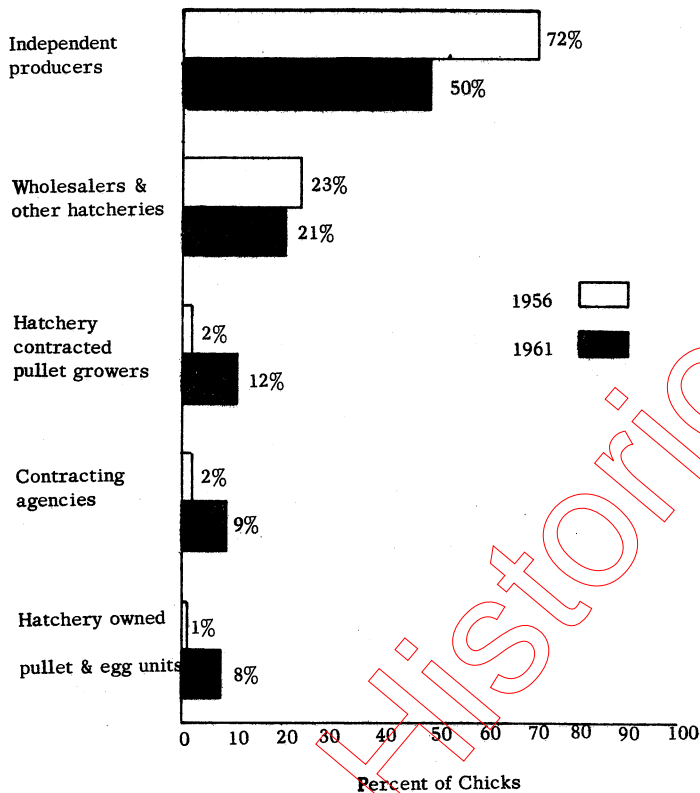
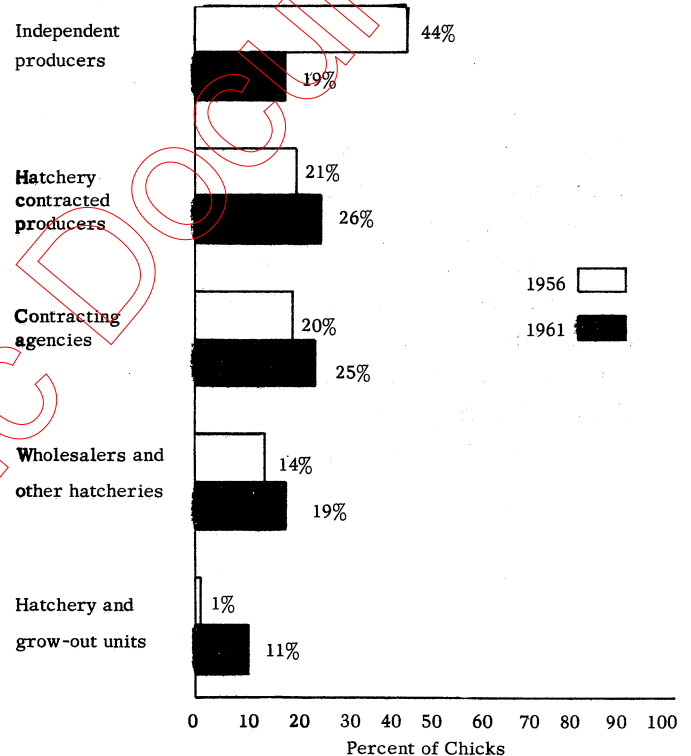


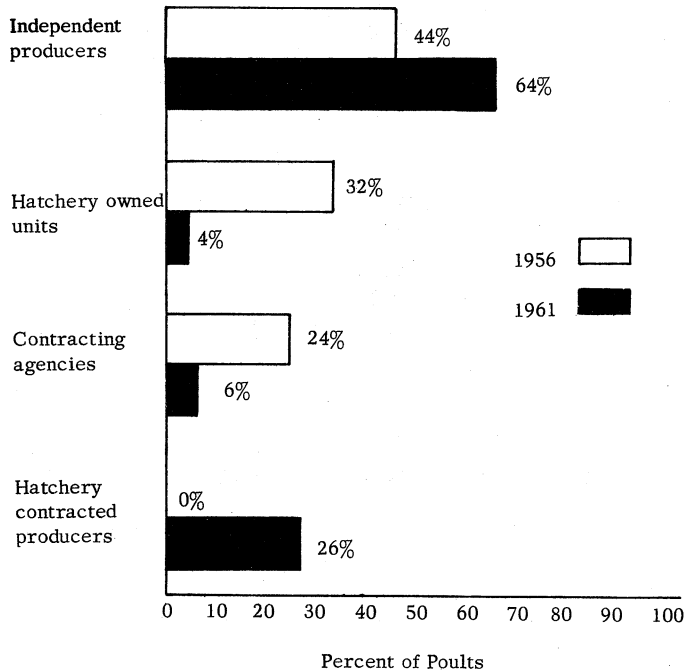
Figure 5. Broiler chick sales by type of buyer, 31 hatcheries, 1956 and 1961.



Although declining in importance, independent producers still account for half the egg-type chick sales in Indiana. The number of egg-type chicks moving into various coordinated programs has increased since 1956.

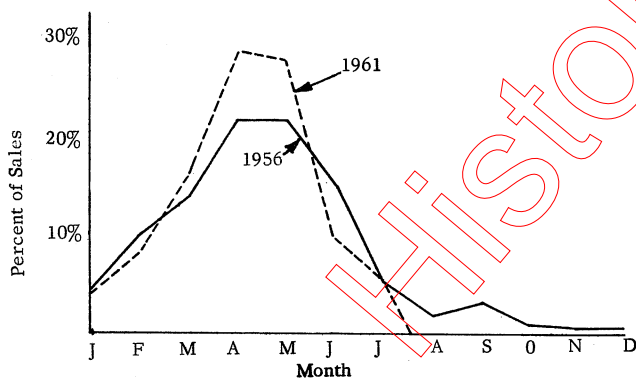
Over the last five years firms operating coordinated programs have gained importance as purchasers of broiler chicks at the expense of independent producers.

Figure 6. Poultry sales by type of buyer, 7 Indiana hatcheries, 1956 and 1961.



Independent growers and hatchery contracted operations purchased 90 percent of poultry sold by the firms studied. Since only 7 of the 82 firms studied reported selling poultry, these figures may only approximate the total situation.

Figure 9. Seasonal pattern of poultry sales, 7 Indiana hatcheries, 1956 and 1961.



Sales of poultry show a definite seasonal pattern. High off-season production costs and seasonal consumer demand tend to keep poultry sales as a seasonal business.

Figure 7. Seasonal pattern of egg-type chick sales, 73 Indiana hatcheries, 1956 and 1961.

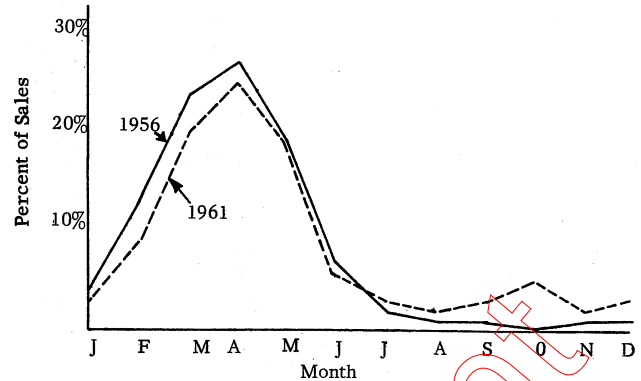
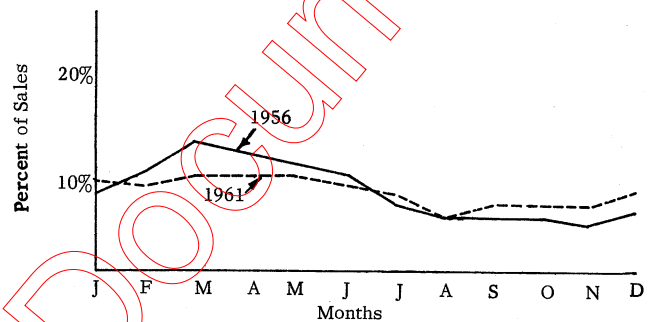
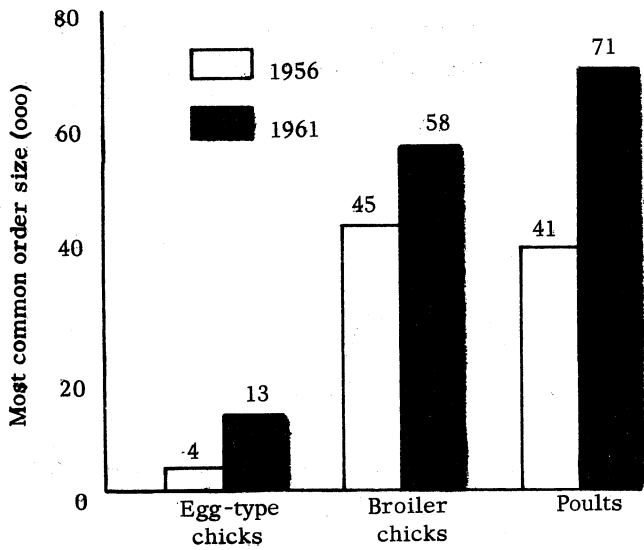


Figure 8. Seasonal pattern of broiler chick sales, 31 Indiana hatcheries, 1956 and 1961.



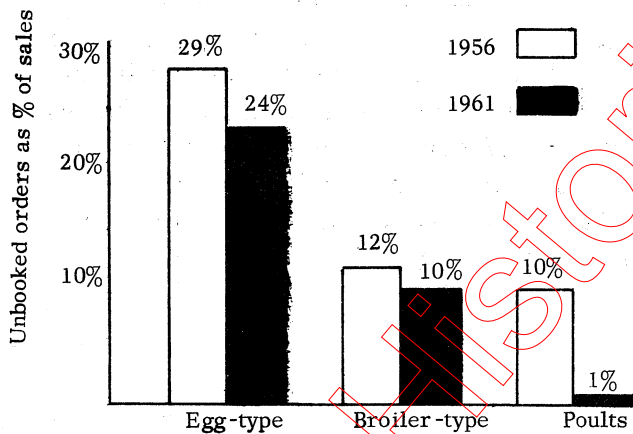
Figures 7 and 8. With changes in technological factors and demand factors, production of table eggs and broilers has become a year-around business. Figure 7 shows that the off-season egg-type chick hatch has increased since 1956. Broiler chick sales showed almost a uniform pattern throughout the year.

Figure 10. Most common order size, 82 Indiana hatcheries, 1956 and 1961.



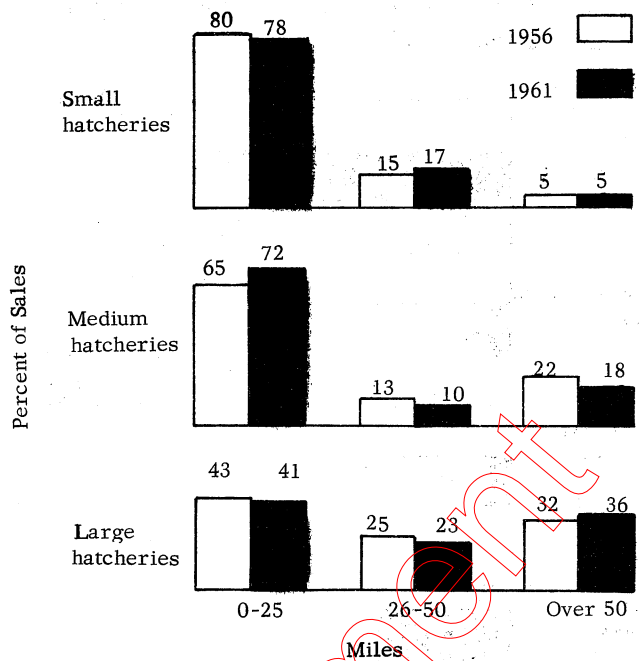
In all cases, the most common order size as reported by the hatcheries studied increased from 1956 to 1961. This increase parallels the trend of increasing flock sizes. The largest percentage increase in the most common order size was made by egg-type chick orders.

Figure 12. Speculation in hatching.



The amount of speculation in setting eggs without a firm order declined from 1956 to 1961. The increase in specialization within the poultry industry has contributed to the decline in speculative activity.

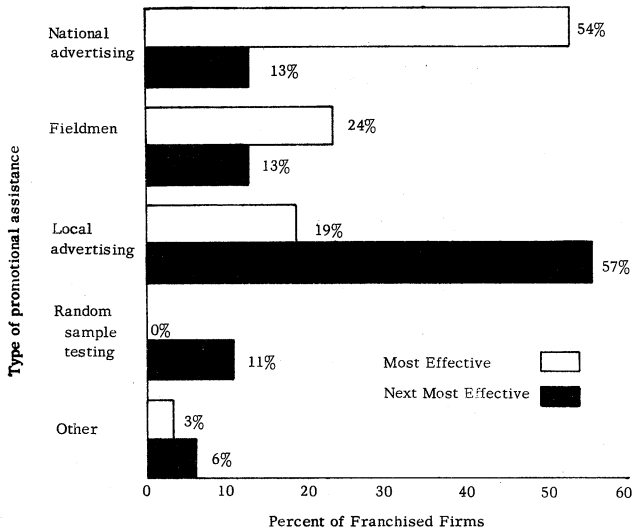
Figure 11. Sales areas, 82 Indiana hatcheries, 1956 and 1961.



Small hatcheries continue to have a large portion of their sales within a 25-mile radius of the hatchery. Selling areas of medium hatcheries were similar to those of small hatcheries. However, large hatcheries had more than half of their sales within an area more than 25 miles from the hatchery. Furthermore, almost 85 percent of the chicks sold by large hatcheries were delivered to the customer. This was not true for small hatcheries where about 40 percent of the chicks were delivered with the remainder being picked up at the hatchery.

## SELLING EFFORT

Figure 13. Rating of assistance available from primary breeders, 62 Indiana hatcheries, 1961.



Sixty-two firms or 84 percent of egg-type hatcheries had at least one franchise from a primary breeder. Usually the franchise privilege was paid for by either a royalty charge per chick sold, by purchasing hatchery stock at premium prices or by a combination plan. To enhance the value of the franchise at the local level, primary breeders provided promotional assistance of various types. When asked to indicate which type of promotional assistance was most effective and next most effective, most hatcheries rated advertising assistance by primary breeders high. Furthermore, approximately 40 percent of the hatchery managers indicated that they would like more help on promotional activities. Even so, 90 percent of the managers rated their franchise agreements satisfactory.

### Summary of Hatchery Selling Efforts

1. Volume discounts were emphasized more by hatcheries selling egg-type chicks and poults than was the case for broiler hatcheries.

2. Early order and seasonal discounts were used most frequently by egg-type and poult hatcheries.

3. Most hatcheries provided such services as: debeaking, dewinging, dubbing, desnooding, and delivery of chicks. At times these services were given without charge as a pricing strategy.

4. Eighty percent of the hatcheries studied extending credit on an open account. This was indicated as a problem area by most hatchery managers.

5. Most selling activities were carried on by the manager in the small hatchery whereas larger firms were more likely to use specialized sales personnel.

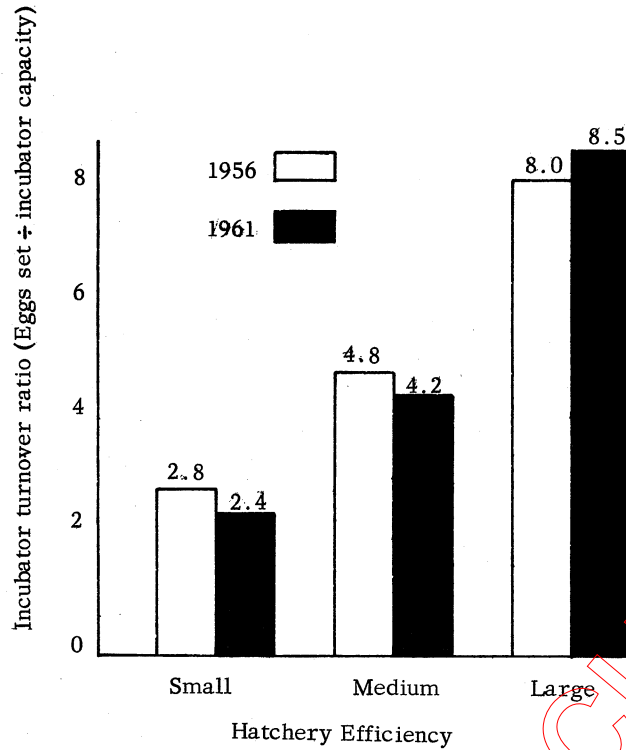
6. Advertising by large hatcheries differed from advertising carried on by small hatcheries in that the large firm did practically no goodwill advertising (county fair, trophies, etc.) and novelty advertising (calendars, pencils, etc.). All hatcheries advertised through newspaper ads, direct mailings and radio.

7. Breeding of chicks ranked ahead of financial assistance and random sample tests as merchandising aids. Some hatchery managers discounted random sample tests because "all" breeders have a winner.



### HATCHERY EFFICIENCY

Figure 16. Incubator utilization, 82 Indiana hatcheries, 1956 and 1961.



Hatcheries classified large showed an incubator turnover ratio (eggs set divided by incubator capacity) twice that experienced by medium hatcheries and almost four times that of the small hatcheries. Higher incubator utilization generally means lower hatching costs since fixed investment costs on incubating equipment are spread over a larger number of selling units.

### HATCHING EGG PROCUREMENT

Figure 14. Sources of hatching eggs, 82 Indiana hatcheries, 1956 and 1961.

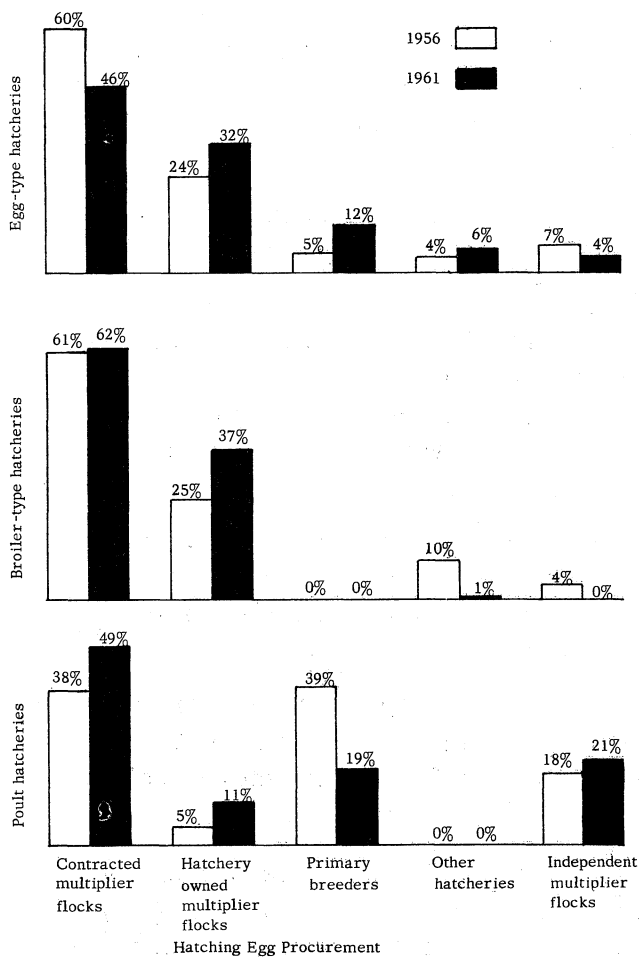
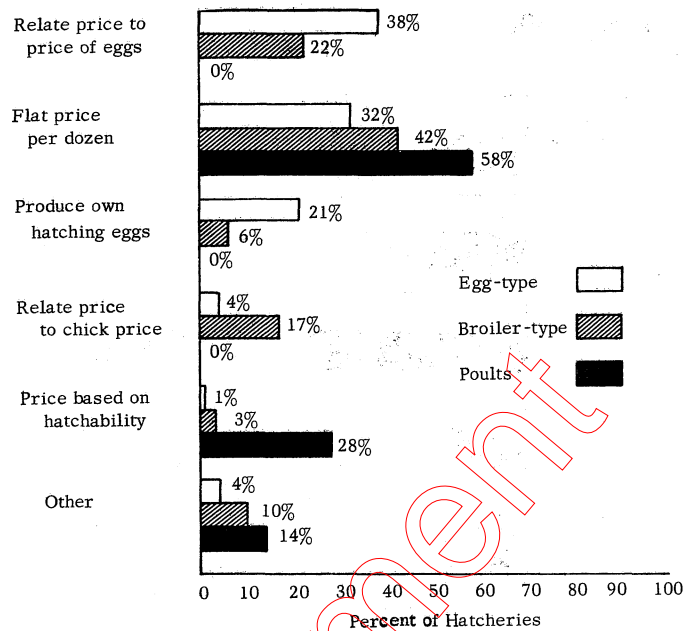


Figure 15. Methods of purchasing hatching eggs, 82 Indiana hatcheries, 1961.



Most hatcheries purchasing egg-type hatching eggs paid producers either on the basis of the market price for eggs or a flat price per dozen. Hatcheries purchasing broiler-type hatching eggs used schedules which either related prices to the market price of eggs, a flat price per dozen or related price to the market price of broiler chicks. Hatcheries purchasing turkey eggs were more inclined to pay on the basis of a flat price per dozen or on a pricing schedule related to hatchability.

Indiana hatcheries used a variety of sources for hatching eggs--contracted and hatchery-owned multiplier flocks were important ones. The data also indicated a trend toward greater use of hatchery-owned multiplier flocks as a source of hatching eggs for all types of chicks and poults. Except for turkey hatching eggs, most of the hatching eggs set were produced in the state. Approximately 60 percent of turkey hatching eggs originated outside Indiana.