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NEWSPAPER ADVERTISING, RETAIL PRICING PRACTICES, AND GROSS RETAIL MARGINS FOR TURKEYS IN SELECTED UTAH AND OTHER U. S. MARKETS FOR VARIOUS YEARS AND SEASONS

by

Gerry R. Flake

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Agricultural Economics

Approved:

_____
Major Professor

_____
Head of Department

_____
Dean of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah

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Gerry R. Flake

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ABSTRACT

Newspaper Advertising, Retail Pricing Practices, and Gross Retail Margins for Turkeys in Selected Utah and Other U. S. Markets for Various Years and Seasons

by

Gerry R. Flake, Master of Science

Utah State University, 1967

Major Professor: Dr. Roice H. Anderson
Department: Agricultural Economics

Newspaper advertising and retail pricing practices for turkeys were ascertained and gross retail margins established for three Utah markets, 1955 to 1966, and for 12 other selected U. S. markets, 1965 and 1966.

Turkey was extensively used as an advertised special item, particularly in holiday seasons. Food retailing organizations advertised turkey at low prices and margins at Thanksgiving and Christmas when consumer demand for turkey is traditionally strong. Prior to these holidays, food retailing organizations in a market simultaneously advertised turkey at identical prices and with little product differentiation thus limiting the effectiveness of turkey as an advertised item to gain competitive advantage for a food retailer.

(67 pages)

INTRODUCTION

Most turkeys purchased for family consumption are obtained through retail stores. Retailers are multi-product handlers and the advertising and pricing attention they give a product influences producers, processors, and consumers of that product. Should retailers use a product frequently as an advertised special, their margins on that product will be low and consumers will become accustomed to purchasing the product only when it is advertised. Relatively low prices to consumers will affect the quantity which can be sold which in turn will affect producers and processors of the product. Newspaper advertising by food retailing organizations constitutes an open presentation of retail advertising and pricing practices. A study of these practices for turkey serves as a barometer, assists in understanding retailer strategies, and provides a decision-making guide to producers and processors.

Approximately 90 percent of the turkeys produced in Utah are exported from the State each year. Utah producers and processors are concerned with national advertising and pricing practices which in turn influence Utah prices.

Per capita consumption of turkey in the United States has increased rapidly in the past decade. In 1966, it reached an all-time high of 7.8 pounds, a 56 percent increase over 1955 (Figure 1). As per capita consumption has been rising, prices have been steadily falling. The deflated farm turkey price in the United States dropped from 52 cents per pound in 1955 to 39 cents in 1966.

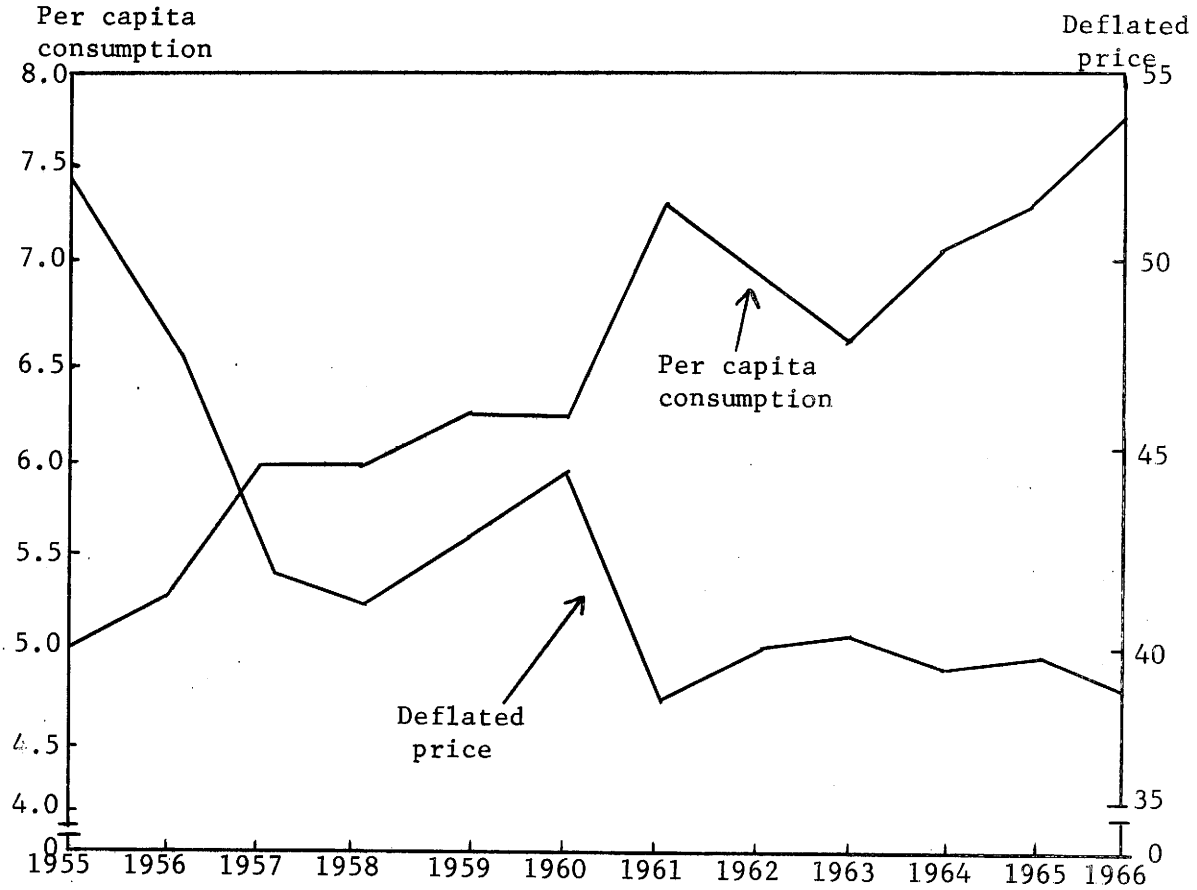


Figure 1. Comparison of per capita consumption and deflated farm price of turkeys, 1955-1966

Per capita expenditure for turkeys at farm prices did not change greatly in this period because the decrease in price largely offset the increase in consumption. It appears that the demand for turkey has not changed but merely greater quantities are being purchased at lower prices.

This study seeks to examine retail pricing and advertising practices for turkey over a period of time and among markets.

OBJECTIVES

The objectives of this study were:

1. To ascertain incidence, space devoted, and product-differentiating characteristics of turkey advertising in newspapers for three seasonal periods in: (a) three Utah markets from 1955 to 1966, and (b) 12 other selected U. S. markets for 1965 and 1966.

2. To study retail pricing practices for turkeys including price levels and variations from 1955 to 1966 in the Utah markets and for 1965 and 1966 in 15 selected U. S. markets.

3. To compare newspaper advertised prices with wholesale and regular retail prices for turkeys and calculate gross margins among markets and time periods.

REVIEW OF LITERATURE

Some research has been done on retail advertising and pricing practices for turkey which was helpful in providing a background for this analysis.

A University of Wisconsin study, based on retail price quotations obtained from newspaper advertising in seven midwest cities, stated that no trend existed to indicate consistently higher or lower turkey prices in any one city. Advertised prices tended to have less variation at Thanksgiving and Christmas than during other periods of the year. This study indicated that turkey was used at particular times throughout the year as an advertised special with low mark-up (5).

Anderson and Bailey concluded in a study regarding merchandising of turkeys through retail stores in Utah that the retail mark-up for turkey was relatively lower than for other meats throughout the year. A tendency to use turkey as a price leader resulted in an even lower retail price mark-up in the holiday season than at other times of the year (1).

A study of consumer purchases of turkey by Michigan State University concluded that prices and quantities of turkey purchased per capita generally had an inverse relationship with each other (4).

The National Commission on Food Marketing indicated that meat usually has about a 25 percent retail mark-up and turkey mark-up at times is as low as 5 percent. Turkey was often used as a special item with low mark-up (3).

The National Commission on Food Marketing reported that accounting data from a large national supermarket chain indicated about two-thirds

of the chain's turkey sales were made in the last two months of the year (2).

A study at Purdue University concluded that the production of turkeys and the price of broilers were the two most important single factors affecting turkey prices from year to year (6).

These studies demonstrated some of the research work that has been done in retail advertising and pricing of turkeys. The previous research provided a useful background of material in setting up and accomplishing the objectives of this study.

SOURCES OF DATA AND METHOD OF PROCEDURE

This study dealt only with retail practices for turkey by food marketing organizations advertised through newspapers.

The advertised special price, incidence, and space devoted to turkey advertising were obtained from reading, recording, and analyzing data from newspaper advertisements of food retailing organizations. Food ads appearing in the Salt Lake Tribune, Ogden Standard Examiner, and Logan Herald Journal from 1955 through 1966 were examined to obtain turkey pricing and advertising information in three Utah cities. A major newspaper was selected and read for each of 12 additional markets in the United States. Turkey pricing and advertising information in these markets was obtained for November and December, 1965 and 1966. A tally count of all food ads was kept but for only those where turkey appeared was the detailed information recorded.

The Urner-Barry price quotation for New York City is widely accepted as the standard wholesale price throughout the country. Transfer costs, differing from market to market, account for the major price variations among markets. Urner-Barry quotations adjusted for transfer costs were used as the wholesale price base in calculating marketing margins in this study.

Regular retail prices were obtained for Utah markets from a weekly retail price guide.

Data on volume of turkey sales in 1966 were obtained from the Salt Lake City districts of two food chains.

Supply data for turkey were obtained from United States Department of Agriculture reports for a 12-year period, 1955-1966.

Since turkey marketing by retail stores is highly seasonal, three within-year periods were used in the analysis. Throughout the study they are labeled: pre-holiday (January through October), Thanksgiving (all of November), and Christmas (all of December).

Various graphical and tabular methods of presenting data have been utilized in this study.

NEWSPAPER ADVERTISING PRACTICES FOR TURKEY

Each link in the marketing chain has an influence or relationship with every other activity in producing and selling a product. The retail food store is the end of the marketing channel. The only reports available on advertising and pricing practices of food retailing organizations are private sources and those published in the advertising of daily newspapers by individual supermarkets and food chains. Just as wholesale and retail pricing variations exist, so do variations in the amount of advertising attention given to a product in different markets and over time.

Newspaper advertising practices for turkey were obtained by reading food ads in daily newspapers. The importance of turkey advertising was measured by the frequency of appearance in the food ad or incidence of advertising, and the space devoted to it.

Incidence of Turkey Advertising

Upon examination of the basic data, it was apparent that turkey was advertised in definite seasonality patterns. Because turkey is a traditional meat for Thanksgiving and Christmas, much greater advertising emphasis was given to it prior to these holidays. Since some retailers began advertising turkey for Thanksgiving and Christmas early in November and December, all of November was used as Thanksgiving advertising and all of December as Christmas advertising.

Newspapers were available to collect advertising and pricing data for Salt Lake City, Ogden, and Logan over a 12-year period. Data were

available in the other selected U. S. markets only for November and December, 1965 and 1966.

Most of the tables in this section have a similar format. Data are presented for the 1955-1966 period for three Utah markets for three within-year time periods followed in the same table by a presentation of Thanksgiving and Christmas advertising data for the two years, 1965 and 1966, for 15 selected U. S. markets. Salt Lake City, Ogden, and Logan were included as three of the fifteen selected U. S. markets for comparison with these markets and also to compare the shorter, more recent with the longer time period. Each year and market was analyzed independently, when differences were not significant, years or markets were combined for presentation of the data.

The newspaper ad reader kept a count of all food ads in the various markets but when turkey appeared, detailed information was recorded for analysis. In this study, 19,959 food ads were tabulated and 13.5 percent or 2,690 of them offered turkey. About two-thirds of the ads offering turkey were obtained from the three Utah markets for the 12-year period and one-third from the other 12 markets for the 2-year holiday period. In the 15 markets combined, 30 percent of all newspaper food ads at Thanksgiving listed turkey as one of the advertised items. About one-fourth of the Christmas ads included turkey (Table 1).

For the Utah markets over the 12-year period, only 6 percent of the pre-holiday ads offered turkey compared with 40 percent at Thanksgiving and 23 percent at Christmas. Incidence of advertising was particularly high in Salt Lake City for Thanksgiving where 50 percent of all ads included turkey. Even though the turkey industry has encouraged retailers

Table 1. Total newspaper food ads and ads offering turkey, selected Utah and other U. S. markets for various years and seasons

Markets and years	Pre-holiday			Thanksgiving			Christmas		
	Total food ads	Ads offering turkey	Percent offering turkey	Total food ads	Ads offering turkey	Percent offering turkey	Total food ads	Ads offering turkey	Percent offering turkey
	(number)		(percent)	(number)		(percent)	(number)		(percent)
Utah markets (1955-1966)									
Salt Lake City	4,968	417	8	545	272	50	562	166	30
Ogden	5,149	259	5	546	174	32	571	108	19
Logan	3,569	165	5	380	135	36	374	79	21
Total	13,686	841	6	1,471	581	40	1,507	353	23
U. S. markets (1965-1966)									
Boston				98	27	28	86	22	26
New York City				107	34	32	93	29	31
Pittsburgh				109	36	33	120	29	24
Atlanta				109	35	32	108	34	32
Dallas				103	24	23	113	25	22
Chicago				110	28	25	123	23	19
Minneapolis				95	34	36	94	25	27
Kansas City				316	89	28	333	94	28
Denver				147	35	24	130	15	12
Seattle				176	62	35	162	28	17
San Francisco				169	65	38	142	47	33
Los Angeles				122	34	36	130	41	32
Salt Lake City	960	66	7	93	30	32	100	19	19
Ogden	1,012	42	4	100	28	28	110	21	19
Logan	612	26	4	72	26	36	72	12	17
Total				1,926	587	30	1,916	464	24

to advertise and sell turkey through the year, turkey is still advertised and marketed on a highly seasonal basis.

The percentage of total ads offering turkey remained quite stable from year to year in the Thanksgiving and Christmas holiday periods in Utah markets but considerable variation existed in the pre-holiday period. Pre-holiday variation was from 2.9 percent of all ads in 1956 compared with 9.3 percent in 1961 (Table 2). The incidence of pre-holiday turkey ads seemed to be directly related to the relative supply of turkey. In 1957 and 1961, two high-supply years, incidence of pre-holiday ads was high. During the 12-year period, relative supply fluctuated by 14 percentage points, from 94 in 1960 to 108 in 1961.

Table 2. Total pre-holiday food ads and proportion offering turkey compared with the relative U. S. supply of turkey, three Utah markets, 1955 to 1966

Year	Total food ads	Ads offering turkey	Percent offering turkey	Supply in percent of trend*
1955	781	26	3.3	96.0
1956	793	23	2.9	99.0
1957	966	83	8.6	103.0
1958	1,072	57	5.3	99.0
1959	1,316	99	7.5	101.0
1960	1,201	71	5.9	94.0
1961	1,243	116	9.3	108.0
1962	1,347	86	6.4	99.0
1963	1,167	68	5.8	97.0
1964	1,216	78	6.4	101.0
1965	1,236	80	6.5	98.0
1966	1,348	54	4.0	102.0**
Total or average	13,686	841	6.1	99.8

*See Appendix for method of measuring supply.
**Preliminary.

Total food ads in the three markets changed from year to year as the number of retail organizations in the Utah cities changed. The number of food ads per year increased until 1959 but has remained fairly constant since that time.

Often when turkey appeared on the newspaper ad, there was more than one turkey item offered due to differentiating characteristics such as grade, sex, brand name, or price. Each different listing of turkey on an ad is referred to in this study as an "entry."

There was an average of two entries per ad at Thanksgiving and Christmas as compared to one entry per ad during the pre-holiday period in the Utah markets indicating a greater degree of product differentiation for turkey in the holiday seasons (Table 3).

Of the 15 U. S. markets compared, only two had less than an average of two entries per ad at Thanksgiving compared with seven markets which averaged less than two entries per ad at Christmas. Los Angeles had 2.8 and 2.6 entries per ad at Thanksgiving and Christmas respectively. Since each turkey item had distinct characteristics, entries were used in presenting results in most of the pricing and advertising analyses.

Turkey as the meat feature

If turkey was the most prominent item in the meat section of the ad, it was considered the featured meat item. In the 15 selected U. S. markets at Thanksgiving, 90 percent of the ads offering turkey used it as the featured meat. The emphasis on turkey as an ad feature decreased to 70 percent at Christmas (Table 4). Ads featuring turkey for Thanksgiving ranged from 97 percent in Atlanta and Los Angeles to 77 percent in Denver. The variation at Christmas was 89 percent in Seattle, 50 percent in Logan, and 54 percent in New York City.

Table 3. Total newspaper food ads offering turkey, number of turkey entries, and entries per ad, selected Utah and other U. S. markets for various years and seasons

Markets and years	Pre-holiday			Thanksgiving			Christmas		
	Ads offering turkey	Number of entries	Entries per ad	Ads offering turkey	Number of entries	Entries per ad	Ads offering turkey	Number of entries	Entries per ad
Utah markets (1955-1966)									
Salt Lake City	417	486	1.2	273	562	2.0	165	316	1.9
Ogden	259	291	1.1	174	369	2.1	108	207	1.9
Logan	165	186	1.1	135	269	2.0	79	154	1.9
Total or avg.	841	963	1.1	582	1,200	2.0	352	677	1.9
U. S. markets (1965-1966)									
Boston				27	65	2.4	22	47	2.1
New York				53	115	2.2	61	122	2.0
Pittsburgh				36	79	2.2	29	68	2.3
Atlanta				35	79	2.2	34	61	1.8
Dallas				24	51	2.1	25	48	1.9
Chicago				28	57	2.0	23	40	1.7
Minneapolis				34	56	1.6	25	32	1.3
Kansas City				89	190	2.1	94	195	2.1
Denver				35	57	1.6	11	18	1.6
Seattle				62	137	2.2	28	63	2.2
San Francisco				69	164	2.4	47	108	2.3
Los Angeles				34	97	2.8	41	106	2.6
Salt Lake City	66	72	1.1	30	66	2.2	19	39	2.1
Ogden	42	44	1.0	34	69	2.0	21	40	1.9
Logan	26	30	1.2	26	56	2.2	12	22	1.8
Total or avg.				616	1,338	2.2	492	1,009	2.0

Table 4. Total newspaper food ads offering turkey, number featuring turkey, and percent featuring turkey, selected Utah and other U. S. markets for various years and seasons

Markets and years	Pre-holiday			Thanksgiving			Christmas		
	Ads offering turkey	Ads featuring turkey	Percent featuring turkey	Ads offering turkey	Ads featuring turkey	Percent featuring turkey	Ads offering turkey	Ads featuring turkey	Percent featuring turkey
	(number)		(percent)	(number)		(percent)	(number)		(percent)
Utah markets (1955-1966)									
Salt Lake City	417	266	64	272	236	87	166	108	65
Ogden	259	157	61	174	145	83	108	62	57
Logan	165	83	50	135	106	78	79	43	54
Total or avg.	841	506	60	581	487	84	353	213	60
U. S. markets (1965-1966)									
Boston				27	23	85	22	14	64
New York City				53	45	85	61	33	54
Pittsburgh				36	33	92	29	19	66
Atlanta				35	34	97	34	23	68
Dallas				24	23	96	25	18	72
Chicago				28	27	96	23	17	74
Minneapolis				34	30	88	25	14	56
Kansas City				89	76	85	94	69	73
Denver				35	27	77	11	7	64
Seattle				62	59	95	28	25	89
San Francisco				69	64	93	47	38	81
Los Angeles				34	33	97	41	33	80
Salt Lake City	66	39	59	30	27	90	19	16	84
Ogden	42	26	62	34	32	94	21	13	62
Logan	26	13	50	26	21	81	12	6	50
Total or avg.				616	554	90	492	344	70

Over the 12-year period at Thanksgiving in Utah markets, 84 percent of the ads offering turkey used it as the featured meat. Sixty percent of the pre-holiday and the Christmas ads used it as a feature.

Turkey entries as feature, sub-feature, or liner

All turkey entries on the newspaper ads were classified as feature, sub-feature, or liner items. The item was considered a feature if it had been given greatest emphasis of any item in the meat section of the ad. A sub-feature item was usually in large print and was given greater emphasis than a liner item but less than the feature item.

In 15 selected U. S. markets, the percentage of turkey entries used as a feature decreased from 42 percent at Thanksgiving to 34 percent at Christmas. Thanksgiving turkey entries as the feature ranged from 61 percent in Salt Lake City to 34 percent in Los Angeles and at Christmas from 42 percent in Minneapolis to 27 percent in New York City and Logan.

In Utah markets, 55 percent of the turkey entries were featured in pre-holiday and 52 percent at Thanksgiving but decreased to 39 percent at Christmas. Turkey entries were featured more frequently in Salt Lake City than in Ogden or Logan (Table 5).

Thanksgiving turkey entries as a sub-feature averaged 31 percent for the 15 markets and ranged from 59 percent in Los Angeles to 4 percent in Logan. At Christmas, 37 percent of the entries were sub-feature varying from 56 percent in Los Angeles to 7 percent in Chicago.

Turkey entries were used less frequently as liner items than as feature or sub-feature items in the 15 markets. Twenty-six percent at Thanksgiving and 29 percent at Christmas were liner items.

Table 5. Proportion of turkey entries classified as feature, sub-feature, or liner, selected Utah and other U. S. markets for various years and seasons

Markets and years	Feature			Sub-feature			Liner		
	Pre-holiday	Thanks-giving	Christ-mas	Pre-holiday	Thanks-giving	Christ-mas	Pre-holiday	Thanks-giving	Christ-mas
	(percent)			(percent)			(percent)		
Utah markets (1955-1966)									
Salt Lake City	58	60	46	19	16	22	22	25	32
Ogden	56	51	37	17	9	13	28	40	51
Logan	45	39	28	18	6	10	37	55	62
Average	55	52	39	18	11	16	27	36	44
U. S. markets (1965-1966)									
Boston		35	29		35	50		29	21
New York City		39	27		24	31		36	43
Pittsburgh		42	28		28	46		30	26
Atlanta		43	38		28	39		29	23
Dallas		43	36		32	32		24	32
Chicago		47	40		10	7		42	52
Minneapolis		54	42		18	36		28	21
Kansas City		40	39		33	32		27	29
Denver		47	39		30	17		23	44
Seattle		43	38		41	49		16	12
San Francisco		39	35		49	48		12	17
Los Angeles		34	31		59	56		7	13
Salt Lake City	54	61	41	18	18	26	28	21	33
Ogden	59	46	32	16	10	12	25	44	55
Logan	43	38	27	17	4	14	40	59	59
Average		42	34		31	37		26	29

In Utah markets, a greater percentage of the entries were liner than were sub-feature items. At Thanksgiving, 36 percent were liner items and 11 percent sub-feature. At Christmas, 44 percent were liner and 16 percent sub-feature.

Product-Differentiating Characteristics of Turkey Advertising

Food retailing organizations differentiate an advertised product through grade, brand name, indication of product preparation, use of additional descriptive terms, etc. This section presents some product characteristics used in advertising turkey in three Utah cities for 1955 to 1966 and in selected U. S. markets for Thanksgiving and Christmas in 1965 and 1966.

Sex identification of advertised entry

When the whole turkey was advertised, it was specified as hen, tom, or turkey. During the pre-holiday period, there was a large percentage of turkey entries advertised without sex identification, while at Thanksgiving and Christmas, the practice was to identify the sex. Hens were designated more frequently than toms in the pre-holiday period which probably means that hens were offered for sale more frequently during this period. A reversal occurred at Thanksgiving and Christmas when toms were designated more frequently indicating a strong demand for large birds for the festive occasions (Table 6).

On an average for all selected U. S. markets, only about 2 percent of the ads failed to designate turkey sex at Thanksgiving and Christmas. In nine of the fifteen markets, 100 percent of the Thanksgiving ads designated sex of turkey. In Boston and Salt Lake City, sex was not designated in 8 percent of the ads.

Table 6. Proportion of turkey entries advertised as tom, hen, or turkey, selected Utah and other U. S. markets for various years and seasons

Markets and years	Toms			Hens			Turkey		
	Pre-holiday	Thanks-giving	Christ-mas	Pre-holiday	Thanks-giving	Christ-mas	Pre-holiday	Thanks-giving	Christ-mas
	(percent)			(percent)			(percent)		
Utah markets (1955-1966)									
Salt Lake City	11	45	46	30	40	41	59	15	13
Ogden	20	51	50	47	39	46	33	11	4
Logan	19	52	56	44	44	41	37	5	4
Average	16	48	50	38	42	43	47	10	8
U. S. markets (1965-1966)									
Boston		55	52		37	44		8	4
New York City		53	47		42	50		6	3
Pittsburgh		54	47		44	53		1	0
Atlanta		34	36		66	63		0	1
Dallas		45	54		55	46		0	0
Chicago		56	43		44	55		0	2
Minneapolis		62	70		34	30		4	0
Kansas City		51	48		50	52		0	0
Denver		53	44		47	50		0	6
Seattle		55	52		45	45		0	3
San Francisco		45	48		55	48		0	4
Los Angeles		50	46		50	53		0	1
Salt Lake City	7	52	49	43	41	46	50	8	5
Ogden	11	49	51	61	45	46	27	6	3
Logan	13	54	57	66	46	44	22	0	0
Average		51	50		48	49		2	2

In Utah markets for the 12-year period, more than 90 percent of the Thanksgiving and Christmas entries specified sex, whereas only about 50 percent of the pre-holiday entries had sex identified. In many of the pre-holiday ads, only one sex was offered so the sex identification was omitted from the ad. For the three within-year periods, the advertised entry was listed without indicating sex more often in Salt Lake City than in Ogden or Logan.

When Beltsville turkeys were advertised, the practice was to make no sex designation. Thirteen percent of all turkey entries in the Utah markets in the pre-holiday period were of the Beltsville variety. Very few Beltsville turkeys were advertised in holiday seasons since the larger turkeys were more popular for large group holiday dinners.

Turkey entry as fresh or frozen

Product differentiation can also be obtained through advertising turkey as either fresh or frozen. With few exceptions, advertised turkey items were identified as fresh or frozen. Frozen was used more frequently than fresh to describe the turkey entry.

In the pre-holiday period, Utah markets had an average of 81 percent of the turkey identified as frozen. Frozen turkey was advertised more frequently in Logan than in Salt Lake City and Ogden.

In the 15 markets, more than 90 percent of Thanksgiving and Christmas turkey entries specified the product as frozen. In six of the markets, every entry was identified as frozen (Table 7).

Boston, Chicago, Los Angeles, San Francisco, Seattle, Salt Lake City, Ogden, and Logan advertised fresh and frozen turkey for both holiday seasons in 1965-1966. A comparison of turkey entries in these eight cities indicated 15 percent of the Thanksgiving entries and 18 percent

at Christmas were advertised as fresh. Price differences between fresh and frozen turkey will be discussed in the section on pricing practices.

Table 7. Proportion of turkey entries advertised as fresh or frozen, selected Utah and other U. S. markets for various years and seasons

Markets and years	Frozen			Fresh		
	Pre-holiday	Thanks-giving	Christ-mas	Pre-holiday	Thanks-giving	Christ-mas
	(percent)			(percent)		
Utah markets (1955-1966)						
Salt Lake City	79	84	88	21	16	12
Ogden	77	86	90	23	14	10
Logan	92	97	97	8	3	3
Average	81	88	91	19	12	9
U. S. markets (1965-1966)						
Atlanta		100	100		0	0
Boston		82	92		18	8
Chicago		93	90		7	10
Dallas		100	100		0	0
Denver		100	100		0	0
Kansas City		100	98		0	2
Los Angeles		84	77		16	23
Minneapolis		100	100		0	0
New York City		97	100		3	0
Pittsburgh		100	100		0	0
San Francisco		82	79		18	21
Seattle		84	83		16	17
Salt Lake City	68	88	78	32	12	22
Ogden	89	83	89	11	17	11
Logan	100	93	82	0	7	18
Average		92	91		8	9

Use of grades in advertised entries

A characteristic of turkey advertising was the prominent use of government grades. More than 97 percent of all turkey entries in this

study indicated grade.

The three federal grades for turkey are A, B, and C. In the 15 selected markets, more than 90 percent of the Thanksgiving and the Christmas turkey entries were identified as Grade A. At Thanksgiving the incidence of Grade A ranged from 100 percent of the entries in five markets to 74 percent in Kansas City and Salt Lake City. At Christmas Grade A ranged from 100 percent of the entries in eight markets to 73 percent in Logan and 78 percent in Ogden. Five markets at Thanksgiving and eight at Christmas advertised only Grade A turkeys (Table 8).

One-third of the pre-holiday turkey entries over the 12-year period in Utah were B and C grades. The higher percentage of B and C grades could be that Utah is a producing area and processors could find local merchants who would move turkeys of the lower grades. Salt Lake City had a higher percentage of B and C grade turkeys in all three within-year periods than Ogden or Logan.

Brand name in turkey advertising

The brand name is another product-differentiating characteristic used in turkey advertising. To facilitate analysis in this study, brand names were aggregated into four categories: retail store brands (A & P, Krogers, Albertsons, etc.), Norbest brand (a national turkey marketing cooperative with headquarters in Salt Lake City), national meat packer brands (Armour, Swift, etc.), and local grower and processor brands. All others were classified as "no brand."

In 15 U. S. markets, brand name was omitted in 39 percent of the entries. Over the 12-year period in Utah markets, brand name was not given for 50 percent of the turkey entries in the pre-holiday period and for 39 percent at holiday seasons (Table 9).

Table 8. Proportion of turkey entries advertised as Grade A or Grades B and C, selected Utah and other U. S. markets for various years and seasons

Markets and years	Grade A			Grades B and C		
	Pre-holiday	Thanks-giving	Christ-mas	Pre-holiday	Thanks-giving	Christ-mas
	(percent)			(percent)		
Utah markets (1955-1966)						
Salt Lake City	61	73	79	39	27	21
Ogden	71	84	89	29	16	11
Logan	74	81	81	26	19	19
Average	67	78	82	33	22	18
U. S. markets (1965-1966)						
Boston		95	100		5	0
New York City		100	100		0	0
Pittsburgh		87	100		13	0
Atlanta		100	100		0	0
Dallas		100	100		0	0
Chicago		100	100		0	0
Minneapolis		86	100		14	0
Kansas City		74	84		26	16
Denver		100	100		0	0
Seattle		96	88		4	12
San Francisco		94	99		6	1
Los Angeles		98	98		2	2
Salt Lake City	65	74	80	35	26	20
Ogden	80	88	78	20	12	22
Logan	83	77	73	17	23	27
Average		91	94		9	6

Table 9. Use of brand name in turkey advertising, selected Utah and U. S. markets

Markets and years	Pre-holiday					Thanksgiving and Christmas				
	No brand name	Norbest	Store brands	Local growers and processors	National meat packer brands	No brand name	Norbest	Store brands	Local growers and processors	National meat packer brands
Utah markets (1955-1966)										
Salt Lake City	60	19	13	7	1	44	35	14	6	1
Ogden	35	21	14	22	8	30	28	16	22	4
Logan	47	22	18	4	9	39	26	18	6	11
Average	50	20	14	12	4	39	31	15	11	4
U. S. markets (1965-1966)										
Boston						62	2	13	11	12
New York City						57	2	12	24	5
Pittsburgh						18	0	13	45	24
Atlanta						43	30	7	18	2
Dallas						43	8	23	11	15
Chicago						18	0	18	45	19
Minneapolis						36	9	4	31	20
Kansas City						44	1	12	28	15
Denver						65	4	3	22	6
Seattle						28	2	18	4	48
San Francisco						34	15	9	16	26
Los Angeles						39	14	17	14	16
Salt Lake City	39	16	28	16	1	22	50	27	0	1
Ogden	42	26	13	17	2	31	37	4	18	10
Logan	24	28	48	0	0	28	25	38	9	0
Average						39	11	14	20	16

Retail store brands were used in 14 percent of the entries in all 15 markets. This ranged from 3 percent in Denver to 27 percent in Salt Lake City and 38 percent in Logan. Store brands accounted for 14 percent of the pre-holiday entries in Utah markets and 15 percent in the holiday seasons.

The Norbest brand was specified in 11 percent of the entries in the selected U. S. markets. This ranged from none in Pittsburgh and Chicago to 30 percent in Atlanta, 37 percent in Ogden, and 50 percent in Salt Lake City. In holiday seasons, Norbest brand was specified in 31 percent of the Utah entries over the 12-year period compared with 11 percent in all selected U. S. markets in 1965-1966. In Salt Lake City, the use of this brand name averaged 35 percent in the 12-year period and 50 percent in 1956-1966 indicating an increase in recent years. In the pre-holiday period, Norbest was identified in 20 percent of the Utah entries.

National meat packer brands of turkey were advertised in 16 percent of the entries in the 15 markets. The use of these brands was most prominent in Seattle with 48 percent compared to none in Logan and 1 percent in Salt Lake City. Four percent of the holiday entries in Utah markets over the 12-year period were national meat packer brands, which was much lower than the 16 percent average in the 15 markets.

Twenty percent of the brand names in the selected markets were of local growers and processors. This ranged from 45 percent in Chicago and Pittsburgh to none in Salt Lake City and 4 percent in Seattle. In Utah, the use of the local grower or processor brand name was much higher in Ogden than in Salt Lake City or Logan over the 12-year period. This could be the result of an aggressive local processor in the Ogden area who has been successful in marketing turkey close to home.

In Utah markets, the use of store brands, local grower and processor brands, and national meat packer brands was similar in pre-holiday and holiday seasons.

Indication of turkey size in advertising

Although always advertised and sold on a per pound basis, the size range of turkeys was frequently included in the ad. In 15 selected U. S. markets, 79 percent of the entries indicated turkey size. In direct contrast, 78 percent of the entries in Utah did not specify turkey size (Table 10).

The advertising of size in turkey ads was quite prevalent except in the Utah markets. In the Utah markets during the pre-holiday period, 48 percent specified turkey size compared to 22 percent in holiday seasons.

Use of additional descriptive terms

Retailers used additional descriptive terms to differentiate turkey. Oven-ready, tender, plump, and Beltsville--a turkey variety--were the four most frequently used terms. In the 15 markets, 13 percent of the entries specified over-ready compared to 7 percent tender and 6 percent plump. Beltsville was a descriptive term used more in the pre-holiday period than in holiday seasons. Thirteen percent of the entries in the Utah markets for the pre-holiday period were described as Beltsville compared to 2 percent in the holiday seasons (Table 11).

In the 15 markets, 73 percent of the ad entries did not use additional descriptive terms. This ranged from 94 percent in Dallas to 40 percent in Boston. In the pre-holiday period, 55 percent of the Utah entries did not have additional descriptive terms.

Table 10. Proportion of turkey entries indicating or not indicating size, selected Utah and other U. S. markets for various years and seasons

Markets and years	Pre-holiday		Thanksgiving and Christmas	
	Size indicated	Size not indicated	Size indicated	Size not indicated
	(percent)		(percent)	
Utah markets (1955-1966)				
Salt Lake City	44	56	20	80
Ogden	49	51	20	80
Logan	56	44	28	72
Average	48	52	22	78
U. S. markets (1965-1966)				
Boston			95	5
New York City			88	12
Pittsburgh			82	18
Atlanta			98	2
Dallas			97	3
Chicago			97	3
Minneapolis			82	18
Kansas City			92	8
Denver			93	7
Seattle			99	1
San Francisco			64	36
Los Angeles			72	28
Salt Lake City	43	57	27	73
Ogden	50	50	21	79
Logan	60	40	24	76
Average			79	21

Table 11. Proportion of turkey entries advertised with various descriptive terms, selected Utah and other U. S. markets for various years and seasons

Markets and years	Pre-holiday					Thanksgiving and Christmas				
	No term used	Oven ready	Tender	Plump	Belts-ville	No term used	Oven ready	Tender	Plump	Belts-ville
	(percent)					(percent)				
Utah markets (1955-1966)										
Salt Lake City	51	12	7	7	15	58	14	14	12	2
Ogden	61	8	6	7	10	68	7	10	13	2
Logan	58	8	10	7	11	58	10	19	11	2
Average	55	10	7	7	13	61	11	14	12	2
U. S. markets (1965-1966)										
Boston						40	27	11	16	6
New York City						69	17	8	5	0
Pittsburgh						70	23	5	2	0
Atlanta						63	20	8	8	1
Dallas						94	0	4	2	0
Chicago						63	27	2	6	1
Minneapolis						55	28	13	1	3
Kansas City						91	3	5	1	0
Denver						81	7	8	4	0
Seattle						64	12	15	8	1
San Franciso						74	10	6	8	2
Los Angeles						63	23	6	7	1
Salt Lake City	49	4	4	8	24	78	2	5	11	3
Ogden	64	2	5	9	11	86	0	8	3	3
Logan	48	6	10	7	13	80	2	10	8	0
Average						73	13	7	6	1

Meaty, barbeque, fryer, broad brested, and local were other terms infrequently used.

Simultaneous Turkey Advertising by Food Retailing Organizations

Items are selected and advertised at special prices for the purpose of attracting customers to shop that particular store or food chain. Before Thanksgiving and Christmas and at times in the pre-holiday period, turkey was used as an advertised special. If several food retailing organizations in a market simultaneously chose to use turkey as an advertised special, it would lose some impact in attracting customers.

Simultaneous advertising refers to the number of retailing organizations advertising turkey the week prior to each holiday. In the pre-holiday period, the only concentration of simultaneous advertising was in the week prior to Easter.

In 15 selected U. S. markets at Thanksgiving, 95 percent of the stores advertised turkey simultaneously. This ranged from 100 percent in seven markets to 83 percent in Salt Lake City and 83 percent in Chicago. At Christmas, the percentage decreased to 82 percent for all markets and varied from 100 percent in three markets, 53 percent in Denver, and 65 percent in Salt Lake City (Table 12).

In Utah markets over the 12-year period, 90 percent of the stores advertised turkey simultaneously at Thanksgiving compared with 74 percent at Christmas and 44 percent at Easter. In all three within-year periods, the percent of simultaneous advertising was lower in Salt Lake City than in Ogden or Logan.

Table 12. Proportion of retail stores advertising turkey simultaneously the week prior to given holiday, selected Utah and other U. S. markets for various years and seasons

Markets and years	Easter	Thanksgiving	Christmas
Utah markets (1955-1966)			
Salt Lake City	38	87	68
Ogden	48	89	77
Logan	54	97	83
Average	44	90	74
U. S. markets (1965-1966)			
Boston		93	71
New York City		100	92
Pittsburgh		94	76
Atlanta		100	100
Dallas		100	100
Chicago		84	68
Minneapolis		100	94
Kansas City		91	84
Denver		90	53
Seattle		97	71
San Francisco		100	90
Los Angeles		100	100
Salt Lake City	44	83	65
Ogden	62	94	81
Logan	46	100	85
Average		95	82

Space Devoted to Advertising Turkey

Newspaper space is measured in column inches. A column inch is one column wide and one inch high. Space devoted to turkey on food ads was measured by comparing the total size of the ad with the column inches devoted to turkey in that ad.

In 15 selected U. S. markets at Thanksgiving, an average of 12 percent of the column inches were devoted to turkey. This ranged from 16 percent in Kansas City and Ogden to 8 percent in Denver, San Francisco, and Los Angeles. At Christmas, space devoted decreased to 8 percent for all markets and varied from 11 percent in Kansas City and Ogden to 6 percent in San Francisco (Table 13).

In Utah markets for 1955-1966, 12 percent of the column inches were devoted to turkey at Thanksgiving and also at Christmas. This compared to 9 percent in the pre-holiday period.

Table 13. Proportion of advertising space devoted to turkey, selected Utah and other U. S. markets for various years and seasons

Markets and years	Pre-holiday	Thanksgiving	Christmas
	(percent of column inches)		
Utah markets (1955-1966)			
Salt Lake City	10	9	10
Ogden	8	16	13
Logan	9	17	12
Average	9	12	12
U. S. markets (1965-1966)			
Boston		10	8
New York City		9	7
Pittsburgh		12	7
Atlanta		13	9
Dallas		12	8
Chicago		15	9
Minneapolis		11	7
Kansas City		16	11
Denver		8	8
Seattle		13	9
San Francisco		8	6
Los Angeles		8	7
Salt Lake City	8	13	9
Ogden	8	16	11
Logan	6	14	9
Average		12	8

RETAIL PRICING PRACTICES FOR TURKEY

According to the economic law of demand, the quantity of any product taken by consumers varies inversely with the price of that product. Thus pricing and mark-up practices of both wholesalers and retailers with respect to turkey have an influence on the size of the industry. The pricing decisions at the retail level as well as the advertising attention given turkey is important to producers and processors. Just as variations exist in the amount of retail advertising attention given turkey, so do wholesale and retail pricing variations exist in different markets and over time.

This section contains a discussion of wholesale, retail, and advertised special prices. It is concerned with marketing margins, identical pricing of turkey, price differences for fresh or frozen turkey, and seasonality of turkey sales by two major Salt Lake City food chains.

Wholesale Price for Turkey

The Urner-Barry price quotation for the New York market provides a guide for the wholesale pricing of turkeys in the United States. This quotation was used in this study because of its preference by the turkey industry. It is realized that a price quotation is used by the trade as a point from which negotiations are made by buyers and sellers and that actual transactions do not always correspond to the quotation.

According to the management of Norbest Turkey Growers, Inc., a producers' cooperative with headquarters in Salt Lake City, the prices at which their turkey sales take place fluctuates both above and below

the Urner-Barry quotation. Rarely do the deviations exceed one-half cent per pound either above or below.

In a Wisconsin study, comparing the acceptance of the Urner-Barry report with daily United States Department of Agriculture quotations, most of the processors interviewed preferred the Urner-Barry report. On days when there was a difference, turkey processors were inclined to accept the Urner-Barry quotation (5).

The use of this quotation to represent wholesale price makes no allowance for deviations above or below the quotation, but from all indications it is representative of the level of turkey prices in the various markets and time periods studied. Daily price quotations for hens and toms were averaged into a weekly quotation for each sex. For weeks when turkey was offered at advertised special prices, each entry was matched with the wholesale quotation for that week in order to establish a marketing margin.

The Urner-Barry quotations, adjusted for transfer costs from New York, were used to establish the prices paid by retailers in the various years and markets. The wholesale price among the 15 markets varied from the New York quotation to levels as much as 2 cents per pound below the New York price.

At Thanksgiving, wholesale price levels for hens in the New York market ranged from 53 cents per pound in 1955 to 34 cents in 1961 (Table 14). The greatest difference in prices between years was a 10-cent per pound decline for hens from 1960 to 1961. Between the same years, supply in percent of trend increased 14 percentage points. Price levels for toms varied from 47 cents in 1955 to 32 cents in 1961. The greatest

year-to-year price difference for toms was an 8-cent decline between 1960 and 1961.

Table 14. New York wholesale prices for Grade A hen and tom turkeys, Thanksgiving, 1955 to 1966

Year	Hens	Toms
	(cents per pound)	
1955	53	47
1956	45	43
1957	42	37
1958	41	37
1959	44	43
1960	44	40
1961	34	32
1962	40	36
1963	40	37
1964	38	36
1965	39	35
1966	41	40
Average	42	39

Regular Retail Price for Turkey

Although turkey was primarily used as an advertised special item at Thanksgiving and Christmas and at various times in the pre-holiday period, it was offered at regular retail prices throughout the pre-holiday period.

The only regular retail price data available for this study were for the Salt Lake City market for 1960 to 1966. Retail prices for several competing retailing groups were obtained from a weekly retail price guide. No regular retail prices were reported at Thanksgiving and Christmas since turkey was offered extensively in these periods as an advertised special item. During these holiday periods, turkey was usually available in stores at the special price even in weeks or parts of the week when the newspaper ad was not in effect.

In the pre-holiday period, 1960-1966, the average regular retail price for hens in Utah markets was 53 cents per pound, 4 cents higher than toms which averaged 49 cents (Table 15). The retail price for hens ranged from 60 cents in 1960 to 49 cents in 1962 and 1963. Toms' prices varied from 54 cents in 1960 to 45 cents in 1962 and 1963. Historically, hens have sold through retail stores for higher prices than toms, but the differential has been reduced in recent years. The higher prices for hens result from the popularity of the smaller bird for family consumption.

Table 15. Regular retail prices for Grade A hen and tom turkeys, Salt Lake City, pre-holiday period, 1960 to 1966

Year	Hens	Toms
	(cents per pound)	
1960	60	54
1961	54	50
1962	49	45
1963	49	45
1964	51	49
1965	53	49
1966	55	51
Average	53	49

Advertised Special Price for Turkey

Because of the traditional nature of turkey as a festive food, virtually all stores advertised turkey at special prices at Thanksgiving and Christmas. It was also used as an advertised special in the pre-holiday period. The advertised special prices were obtained for this study from newspapers in the various markets.

The most representative measure of central tendency in expressing advertised price levels and the one used in this study was the mode. The mode was used because of the skewed distribution of the advertised price variations. For most years or markets in this study, the mode included 50 to 80 percent of all observations. There was a tendency for a large percentage of variation in prices to all occur above or all fall below the mode. Only rarely were the observed prices distributed in a normal manner. An illustration of advertised retail price and wholesale price levels dispersion will be shown in the margins section of this study.

Following World War II there was a practice to advertise hen turkeys at prices as much as 10 cents per pound higher than toms. With the increasing institutional use of large size toms, the difference in hen and tom prices has narrowed. In 1964, 1965, and 1966, the modal advertised price for hens was only 2 cents higher than for toms at Thanksgiving and Christmas (Table 16).

Over the 12-year period in Utah markets, the advertised hen prices ranged from 57 to 37 cents and tom prices varied from 51 to 35 cents. In 1961, the largest relative supply year for turkeys, modal prices reached their lowest level--37 cents for hens and 35 cents for toms. Advertised special prices in the pre-holiday season were at about the same level as

at Thanksgiving and generally lower than at Christmas. They were more variable than at both holiday periods.

Table 16. Modal advertised prices for Grade A hen and tom turkeys, Utah markets for various years and seasons

Year	Hens			Toms		
	Pre-holiday*	Thanks-giving	Christ-mas	Pre-holiday*	Thanks-giving	Christ-mas
1955	53	57	57	49	47	47
1956	53	49	49	51	45	47
1957	46	43	49	40	39	39
1958	44	45	45	39	39	39
1959	40	45	53	39	43	47
1960	43	47	53	39	43	47
1961	43	37	37	39	35	35
1962	39	43	45	35	39	39
1963	40	43	43	35	39	39
1964	39	39	41	37	37	39
1965	42	39	43	36	37	41
1966	41	39	41	39	37	39
Mean	43.9	43.8	46.2	39.8	40.0	41.9

*The mean was used rather than the mode because of scattered data over the longer pre-holiday period.

In 1965 and 1966 for the 15 selected U. S. markets, 39 cents for hens was the most prevalent modal advertised price at both Thanksgiving and Christmas. Ten of the markets in 1965 and 11 in 1966 advertised hens

at 39 cents per pound for Thanksgiving, and seven of the markets in 1965 and eight in 1966 advertised at 39 cents for Christmas (Table 17). For all other markets in both years, hen prices at Thanksgiving were lower--at 37 or 38 cents. At Christmas, with the exception of Los Angeles, prices were higher--at 41 or 43 cents. Thus, on the average for all markets, the modal price of hens was about 2 cents higher at Christmas than at Thanksgiving.

Table 17. Modal advertised prices for Grade A hen and tom turkeys, 15 selected U. S. markets for various years and seasons

Markets	Hens				Toms			
	Thanksgiving		Christmas		Thanksgiving		Christmas	
	1965	1966	1965	1966	1965	1966	1965	1966
Boston	38	39	43	41	33	35	39	39
New York City	37	39	39	43	33	35	35	38
Pittsburgh	39	39	43	43	35	33	35	35
Atlanta	37	37	39	39	33	35	35	37
Dallas	37	39	39	39	35	33	35	33
Chicago	39	39	39	39	35	33	35	37
Minneapolis	39	39	39	39	33	35	35	35
Kansas City	39	39	39	39	35	33	35	35
Denver	39	37	43	39	33	35	39	35
Seattle	39	39	41	39	37	37	39	37
San Francisco	39	37	39	39	35	35	35	37
Los Angeles	37	37	37	37	33	35	33	35
Salt Lake City	39	39	43	41	37	37	41	39
Ogden	39	39	43	41	37	37	41	39
Logan	39	39	43	41	37	37	41	39
Mean	38.4	38.5	40.6	39.9	34.7	35.0	36.9	36.7

There was a 4-cent variation among markets in the advertised modal price for toms at Thanksgiving compared with an 8-cent variation at Christmas, 1965, and a 6-cent variation at Christmas, 1966. The most

frequent modal price for toms was 33 or 35 cents for both holidays in both years, but on the average, prices at Christmas were about 2 cents higher than at Thanksgiving. Among markets, there was a greater variation in the modal advertised price for toms than for hens. Tom prices were also more variable at Christmas than at Thanksgiving.

"Odd-Cent" Pricing of Turkey

When advertising turkey, "odd-cent" pricing was used almost exclusively in all years and markets observed. In 15 markets, 94 percent of all advertised turkey prices were "odd-cent" priced. In Utah markets for the pre-holiday period, 99 percent of the entries were "odd-cent" priced compared with 97 percent at Thanksgiving and 94 at Christmas. The Boston price for hens at Thanksgiving, 1965, and the New York City price for toms at Christmas, 1966, of 38 cents were the only "even-cent" modal prices in the 15 markets for both holiday seasons.

Price Differences for Fresh and Frozen Turkey

With few exceptions, turkey was advertised as fresh or frozen. In most markets where both fresh and frozen were offered, fresh was advertised at higher prices. Eight of the markets studied advertised fresh turkey at both Thanksgiving and Christmas, 1965-1966.

Price premiums for fresh over frozen hens ranged from 10 cents in Boston, Chicago, and Seattle to no difference in Salt Lake City, and for toms the premium ranged from 11 cents in Boston to no difference in Salt Lake City. Salt Lake City was the only city where fresh and frozen turkey was advertised at the same price (Table 18).

Table 18. Average prices for fresh and frozen turkey, eight U. S. markets, holiday seasons, 1965-1966

Markets	Frozen hens		Fresh hens		Frozen toms		Fresh toms	
	Price per pound	Number of entries	Price per pound	Number of entries	Price per pound	Number of entries	Price per pound	Number of entries
Boston	39	19	49	2	34	26	45	2
Chicago	39	23	49	2	35	30	43	2
Seattle	38	25	48	10	37	57	46	13
San Francisco	40	67	45	14	36	52	42	10
Los Angeles	39	45	47	7	34	38	43	8
Salt Lake City	39	29	39	2	36	22	36	4
Ogden	39	32	41	7	37	25	38	10
Logan	40	20	43	6	37	22	41	4

Identical Pricing of Turkey

As previously observed, 95 percent of the food retailing organizations in the selected markets advertised turkey simultaneously prior to Thanksgiving and Christmas. A large number also offered turkey at identical prices.

As an example of identical pricing of turkey, prices for Grade A toms in Salt Lake City were analyzed for the week prior to Thanksgiving. Of 21 simultaneous advertising entries for toms in 1962, 81 percent were priced at 39 cents. In 1963, 76 percent of the entries were priced at 39 cents and in 1964, all of the simultaneous entries were at two price levels--77 percent at 37 cents and 23 percent at 41 cents. The practice

of simultaneous advertising at identical prices was similar for hens in Salt Lake City and for both hens and toms in the other markets.

Turkey used as an advertised special loses much of its effectiveness when advertised simultaneously by all retail stores in a market. It loses even more effectiveness when also advertised at identical prices.

Volume of Sales at Regular and Special Prices

This study has dealt with incidence of advertising and level of advertised prices as obtained from newspaper ads. The question naturally arises as to what proportion of sales are made at regular as compared with advertised prices. Weekly sales data were available from two Salt Lake City chain organizations for turkey, chicken, and beef for the year 1966. The turkey sales were matched against the weeks when these chains advertised turkey at retail to ascertain the proportion of turkey sold at regular and advertised prices. Weekly sales of turkey, chicken, and beef were compared to determine the relative importance of each in the various time periods.

The two chains had turkey available to the consumer in the pre-holiday season either at regular or special prices. Turkey was available only at regular or special prices. Turkey was available only at special prices for Thanksgiving and Christmas.

For the year 1966, Food Chain A sold 86 percent of all turkey at advertised special prices compared to 14 percent at regular prices. Of the amount sold by Food Chain B, 89 percent was at advertised special prices compared to 11 percent at regular prices (Table 19).

Twenty-five percent of 1966 turkey sales by Food Chain A were made in the pre-holiday period as compared to 20 percent for Food Chain B.

At Thanksgiving, Food Chain B sold 46 percent as compared to 41 percent for Food Chain A. Both food chains sold 34 percent at Christmas.

Table 19. Proportion of turkey sales at regular and advertised retail prices by two Salt Lake City food chains, various seasons, 1966

Time period	Food Chain A	Food Chain B
	(percent)	
Pre-holiday at regular price	14	11
Pre-holiday at advertised price	11	9
Thanksgiving at advertised price	41	46
Christmas at advertised price	34	34
Total	100	100

Comparison of Turkey, Chicken, and Beef Sales

Because chicken and beef are two important competitors of turkey, a comparison was made in 1966 of the amount of each meat sold by the Salt Lake districts of the two major food chains studied. In Table 20, the year is divided into thirteen 4-week periods. Turkey, chicken and beef are expressed as a percent of the total of these three meat items. Data were not available on volume of sales of other kinds of meat, for other markets.

In the first eleven 4-week periods, representing the pre-holiday period, turkey sales in percent of the three-meat total by Food Chain A varied from 0.6 percent to 5.6 percent and from 0.4 percent to 3.7 percent by Food Chain B. The proportion of turkey sold by Food Chain A in the

Thanksgiving period was 21 percent compared with 22 percent at Christmas. The proportion of turkey sold by Food Chain B in the Thanksgiving period was 27 percent compared with 21 percent at Christmas.

In both chains, the percentage of chicken sales held up surprisingly well even during the Thanksgiving and Christmas periods when turkey sales were high indicating that chicken was a more acceptable substitute than beef for these festive occasions.

Table 20. Relative importance of turkey, chicken, and beef sales, two Salt Lake City food chains, by 4-week periods, 1966

Four weeks ending	Food Chain A			Food Chain B		
	Turkey	Chicken	Beef	Turkey	Chicken	Beef
	(percent of total)			(percent of total)		
1-29-66	0.8	20.0	79.2	0.9	16.3	82.8
2-26-66	1.0	22.3	76.7	2.7	18.2	79.1
3-26-66	2.1	20.3	77.6	2.2	22.9	74.9
4-23-66	2.8	25.3	71.9	3.7	18.8	77.5
5-21-66	2.2	20.7	77.1	1.0	23.7	75.3
6-18-66	0.6	26.1	73.3	0.5	20.3	79.2
7-16-66	1.5	26.7	71.8	0.6	21.2	78.2
8-13-66	0.7	28.4	70.9	0.4	21.7	77.9
9-10-66	1.3	32.2	66.5	0.4	21.1	78.5
10-8-66	3.8	25.7	70.5	0.8	24.9	74.3
11-5-66	5.6	34.4	60.0	1.4	19.5	79.1
12-3-66 (Thanksgiving)	21.2	17.3	61.5	27.0	21.6	51.4
12-31-66 (Christmas)	22.3	20.5	57.2	20.5	28.6	50.9
Average	5.3	24.8	69.9	5.0	21.4	73.6

GROSS RETAIL MARGINS FOR TURKEY

An economic definition of a marketing margin is the difference between the price of a commodity as an input and its sale as an output. The gross retail marketing margin for turkey is the difference between the wholesale price a food retailing organization pays for it and the price at which it is offered to the consumer.

Retail Margins at Advertised Prices

Since turkey was advertised extensively at special prices in holiday seasons and at times in the pre-holiday period, this study measured the gross retail margin between the wholesale and advertised retail price. The Urner-Barry quotations, adjusted for transfer costs which differed from market to market, were used as the wholesale price in calculating retail margins. Margins for each market are expressed in cent-differences per pound between the two price levels.

Considerable variation occurred in the advertised special retail margin among markets, between hens and toms, and over years.

In Utah markets for the pre-holiday period, the margin for hens varied from 1.3 cents in 1958 to 10.6 cents in 1961, whereas the variation for toms was from -0.2 cents in 1966 to 5.9 cents in 1961 (Table 21). The largest pre-holiday gross margin for both hens and toms was in 1961, the largest relative supply year for turkeys. For the 12-year period, the margin for hens was 0.7 cents higher than for toms at both Thanksgiving and Christmas, although the relationship was not consistent for all years. On an average, margins at Thanksgiving were lower by 1.2 cents per pound

than at Christmas for both hens and toms. This relationship of lower margins at Thanksgiving was consistent for most years.

Table 21. Retail margins for Grade A hen and tom turkeys based on advertised retail prices, Utah markets for various seasons, 1955-1966

Year	Retail margin for hens			Retail margin for toms		
	Pre-holiday	Thanks-giving	Christ-mas	Pre-holiday	Thanks-giving	Christ-mas
	(cents per pound)			(cents per pound)		
1955	3.3	5.6	7.1	0.7	1.4	1.1
1956	7.5	5.9	6.6	3.2	3.6	3.8
1957	6.2	2.6	5.9	3.2	3.9	3.7
1958	1.3	5.7	6.7	1.8	4.0	3.4
1959	2.5	2.9	4.9	2.2	1.0	7.0
1960	2.9	4.2	7.6	0.4	4.7	8.6
1961	10.6	4.3	4.8	5.9	4.0	5.3
1962	4.8	4.7	6.1	1.5	4.2	4.1
1963	3.5	4.1	5.6	0.1	3.4	3.8
1964	4.1	2.7	2.6	1.7	2.5	4.2
1965	5.6	1.2	1.5	1.3	3.1	4.4
1966	2.7	-0.4	-2.1	-0.2	-1.5	0.1
Average	4.6	3.6	4.8	1.8	2.9	4.1

Although the modal price was most representative in calculating retail margins, turkey was also offered at other prices. Figure 2 illustrates the range of price at which hen turkeys were advertised at

Thanksgiving in Salt Lake City in each of the 12 years as well as the wholesale price and indicated margin.

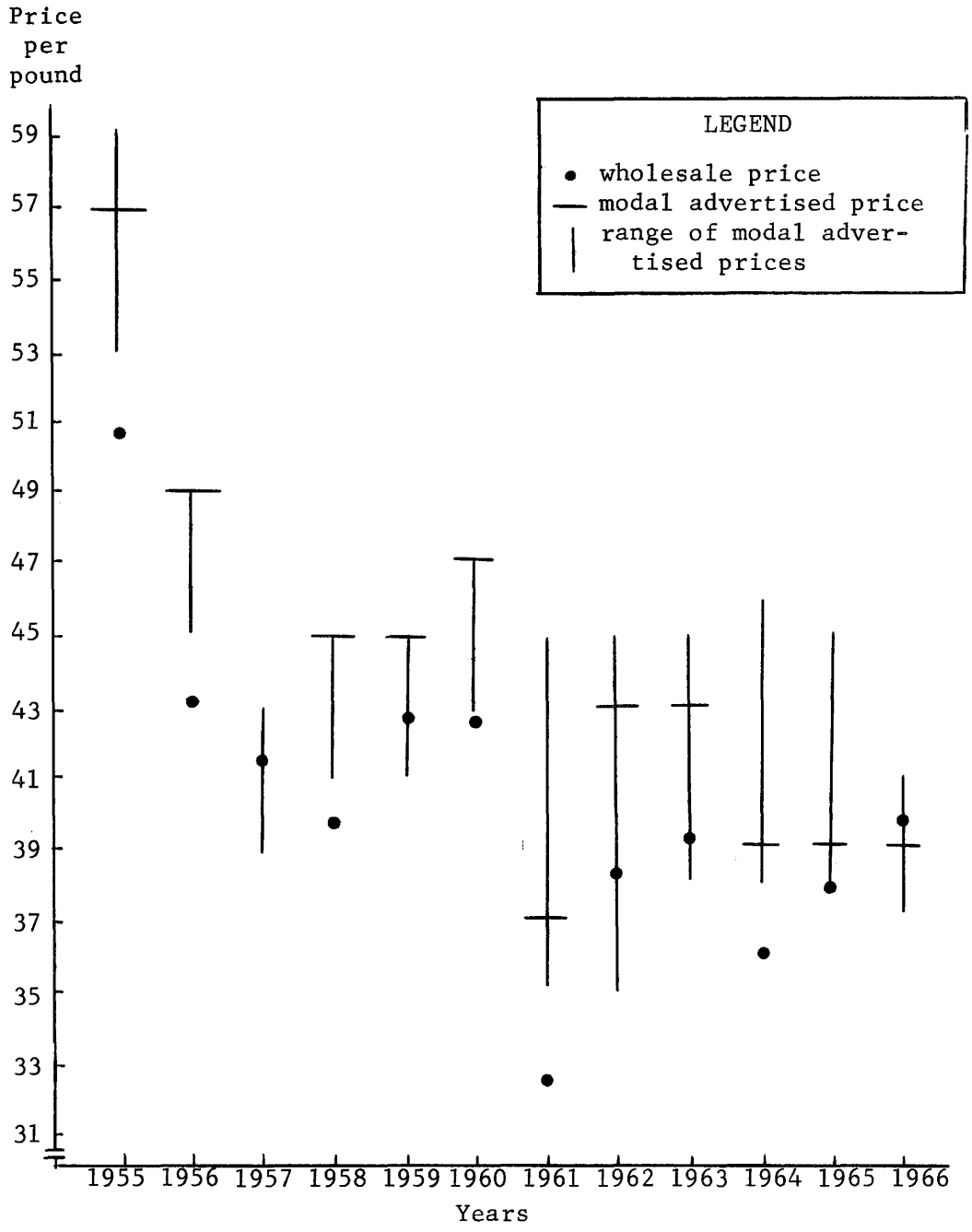


Figure 2. Average wholesale prices and mode and range of advertised retail prices for Grade A hen turkeys, Thanksgiving season, Salt Lake City, 1955-1966

The most important characteristic of gross retail margins in 15 selected U. S. markets was the number indicating an average minus margin or loss to food retailers, especially in 1966. In 1965, five markets had minus margins for hens at Thanksgiving compared with all 15 in 1966. At Christmas, 1965, nine markets had minus margins for hens compared with 13 in 1966 (Table 22). Six markets had minus margins for toms at Thanksgiving, 1965, compared with all 15 in 1966. Nine markets at Christmas, 1965, and 12 in 1966 had minus margins for toms.

Table 22. Retail margins for Grade A hen and tom turkeys based on advertised retail prices, selected U. S. markets, holiday seasons, 1965-1966

Markets	Margins for hens				Margins for toms			
	Thanksgiving		Christmas		Thanksgiving		Christmas	
	1965	1966	1965	1966	1965	1966	1965	1966
	(cents per pound)				(cents per pound)			
Boston	-1.3	-2.1	0.0	-1.6	-2.3	-5.0	0.9	-1.4
New York City	-2.3	-2.1	-4.0	0.4	-2.3	-5.0	-3.1	-2.4
Pittsburgh	0.2	-1.6	0.5	0.9	0.2	-6.5	-2.6	-4.9
Atlanta	-1.8	-3.6	-3.5	-3.1	-1.8	-4.5	-2.6	-2.9
Dallas	-0.3	-0.1	-2.0	-1.6	1.7	-5.0	-1.1	-5.4
Chicago	0.7	-1.1	-3.0	-2.6	0.7	-4.0	-2.1	-2.4
Minneapolis	1.2	-0.6	-2.5	-2.1	-0.8	-3.5	-1.6	-3.9
Kansas City	1.2	-0.6	-2.5	-2.1	1.2	-5.5	-1.6	-3.9
Denver	1.7	-2.1	2.0	-1.6	-0.3	-3.0	2.9	-3.4
Seattle	1.2	-0.6	-0.5	-2.1	3.2	-1.5	2.9	-1.9
San Francisco	1.7	-2.1	-2.0	-1.6	1.7	-3.0	-1.1	-1.4
Los Angeles	-0.3	-2.1	-4.0	-3.6	-0.3	-3.0	-3.1	-3.4
Salt Lake City	1.2	-0.6	1.5	-0.1	3.2	-1.5	4.4	0.1
Ogden	1.2	-0.6	1.5	-0.1	3.2	-1.5	4.4	0.1
Logan	1.2	-0.6	1.5	-0.1	3.2	-1.5	4.4	0.1
Average	0.3	-1.4	-1.1	-1.4	0.7	-3.6	0.1	-2.5

Figure 3 illustrates the range of prices at which hen turkeys were advertised in 15 markets for Thanksgiving, 1966. As shown in the graph, the wholesale price level was higher than the modal advertised price in all markets indicating minus margins. However, since prices ranged above the modal price, all hen turkeys were not advertised and sold at a loss to the retailer.

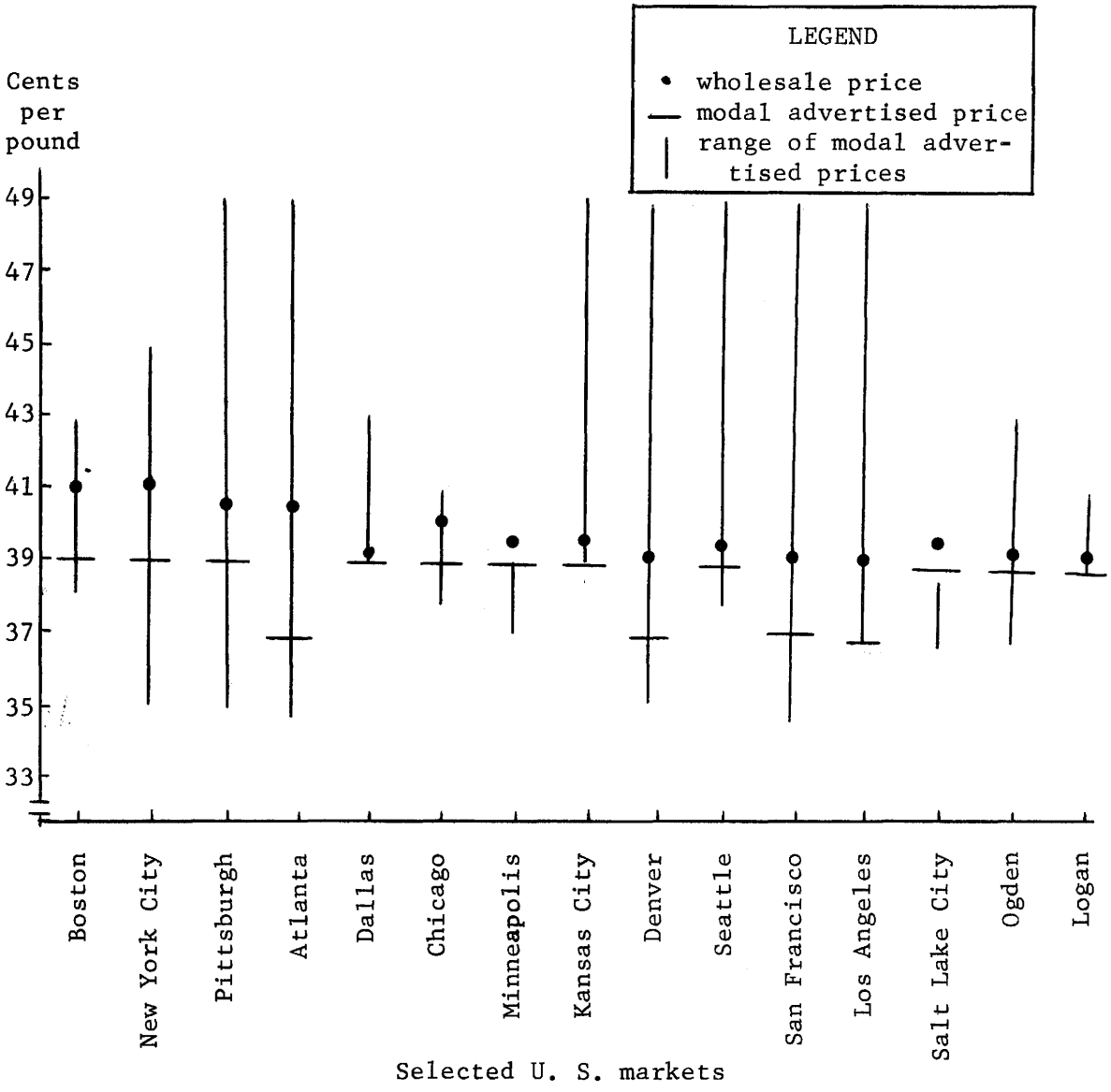


Figure 3. Average wholesale prices and mode and range of advertised retail prices for Grade A hen turkeys, selected U. S. markets, Thanksgiving, 1966

Retail Margins at Regular Retail Prices

Although turkey was offered as an advertised special, it was also available at regular retail prices throughout the pre-holiday period. The regular retail price margins were determined by measuring the differences between average wholesale and retail prices in Utah markets from 1960 to 1966. Table 23 illustrates the difference in retail margins when turkey was used as an advertised special item or offered at regular retail prices.

Table 23. Retail margins for Grade A hen and tom turkeys based on advertised and regular retail prices, Utah markets, pre-holiday periods, 1960 to 1966

Year	Retail margin for hens		Retail margin for toms	
	Advertised special	Regular retail	Advertised special	Regular retail
	(cents per pound)		(cents per pound)	
1960	2.9	22.0	0.4	14.2
1961	10.6	22.9	5.9	17.4
1962	4.8	12.7	1.5	10.8
1963	3.5	12.2	0.1	10.1
1964	4.1	15.6	1.7	12.3
1965	5.6	20.6	1.3	16.3
1966	2.7	19.3	-0.2	15.8
Average	4.9	17.9	1.6	13.8

Regular retail margins for hens ranged from 22.9 cents in 1961, the largest turkey supply year, to 12.2 cents in 1963. Margins for toms

ranged from 17.4 cents in 1961 to 10.1 cents in 1963. There was an average of 13 cents greater margin for hens and 12.2 cents for toms when offered at regular retail prices rather than as advertised specials.

Retail margins are commonly calculated as a percentage of selling price and referred to as mark-up. The retail mark-up for turkey in Salt Lake City in recent years averaged about 8 or 9 percent when priced as an advertised item and about 30 percent when sold at regular retail prices. These can be compared with average retail mark-ups of about 18 percent for grocery departments, 24 percent for meat departments, and 30 percent for produce departments.

SUMMARY

Newspaper Advertising Practices for Turkey

1. Because turkey is a traditional meat for Thanksgiving and Christmas, much greater advertising emphasis was given it prior to these holidays than in the pre-holiday period. Approximately 30 percent of all ads at Thanksgiving and 25 percent at Christmas offered turkey compared with 6 percent in the pre-holiday period.

2. About 90 percent of the ads offering turkey at Thanksgiving used it as the featured meat item compared with 70 percent at Christmas and 60 percent in the pre-holiday period.

3. There was an average of two turkey entries per ad at Thanksgiving and Christmas compared with one entry per ad in the pre-holiday period indicating a greater degree of product selection of turkey in the holiday seasons.

4. Food retailing organizations attempted to differentiate advertised turkey through grade, brand name, indication of product preparation, etc.

a. During the pre-holiday period, turkey entries were often advertised without sex identification while at Thanksgiving and Christmas the practice was to identify the sex. More than 95 percent of the entries in holiday seasons were designated hen or tom compared with 50 percent in pre-holiday.

b. Nearly every advertised turkey item was specified as fresh or frozen. Ninety percent of the entries at Thanksgiving

and Christmas and 80 percent pre-holiday were advertised as frozen. All others were designated fresh.

c. Only 3 percent of the entries failed to mention grade. In U. S. markets, 90 percent were Grade A in holiday seasons and in Utah markets, 80 percent. One-third of pre-holiday Utah entries were graded below A.

d. Brand names were omitted in about 40 percent of holiday advertising and in 50 percent of pre-holiday turkey entries. The Norbest brand was specified in 11 percent of the turkey entries in the 15 markets ranging from none in two of the cities to 50 percent in Salt Lake City. Other brand names were classified as store, local grower and processor, and national meat packer brands.

e. In 15 U. S. markets, the size range of turkeys was included in more than three-fourths of the ads. In direct contrast, more than three-fourths of Utah entries at holiday time did not specify turkey size.

f. About three-fourths of the turkey entries did not contain additional descriptive terms but of those containing additional terms, oven-ready, tender, and plump were most frequently used. In the pre-holiday period, 13 percent of all turkey entries in Utah markets were specified as Beltsville--a small turkey variety--compared with 2 percent in holiday periods.

5. Nearly all stores advertising in the selected newspaper of each market had turkey in their ads the week prior to Thanksgiving and Christmas. At Thanksgiving, 90 percent, and at Christmas, about 80

percent of the stores advertised turkey simultaneously. In the pre-holiday period, the most important concentration of simultaneous turkey advertising was at Easter when 44 percent of the stores advertised turkey.

6. At Thanksgiving, 12 percent of the column inches on ads offering turkey were devoted to turkey. This decreased to 8 percent at Christmas. Nine percent of the column inches in pre-holiday ads of Utah markets were devoted to turkey.

Retail Pricing Practices for Turkey

1. Average New York City wholesale price levels for hens from 1955 to 1966 varied from 53 to 34 cents per pound and for toms from 47 to 32 cents. Prices were lowest in 1961, the year of largest relative U. S. supply.

2. Turkey was offered from January to October at regular retail prices. In Salt Lake City from 1960 to 1966, regular retail prices varied from 60 to 49 cents for hens and 54 to 45 cents for toms. No regular retail prices were reported at Thanksgiving and Christmas since turkey was offered extensively in these periods as an advertised special item.

3. In the 15 U. S. markets at Thanksgiving, the modal advertised price for hens was 37 to 39 cents per pound in 1965 and 1966. The most frequent modal price for toms was 33 or 35 cents at Thanksgiving. Prices of both hens and toms were about 2 cents higher at Christmas than Thanksgiving in most markets. In the 12-year period for Utah markets, modal prices for hens varied from 57 to 37 cents and for toms from 47 to 35 cents. Lowest prices for hens and toms occurred in 1961, the year of largest relative U. S. supply. Advertised special prices in pre-holiday

seasons of each year were at about the same level as at Thanksgiving and generally lower than at Christmas.

4. Following World War II, hen turkeys were advertised at prices as much as 10 cents per pound higher than toms. This difference has gradually narrowed to 2 cents in the last three years.

5. "Odd-cent" pricing of turkey was a practice used almost exclusively in all years and markets for both regular and special prices.

6. In all markets except Salt Lake City where both fresh and frozen turkey was offered, fresh was advertised at higher prices. Differences as much as 10 to 12 cents were observed in some markets.

7. Most food retailing organizations advertising turkey simultaneously prior to Thanksgiving and Christmas also offered turkey at identical prices. Seventy to eighty percent of the simultaneous entries were offered at identical prices.

8. Sales data obtained from two Salt Lake City food chains in 1966 indicated more than 85 percent of their 1966 turkey sales were made at advertised special prices. More than 70 percent of sales were made at Thanksgiving and Christmas.

Gross Retail Margins for Turkey

1. The most important characteristic of retail margins at advertised prices for turkey was the low retail margin or mark-up. Retail mark-up for turkey in Salt Lake City in recent years averaged about 8 or 9 percent. Retail margins expressed in cent-differences averaged about 3 or 4 cents per pound in Utah markets from 1955 to 1966. All 15 U. S. markets at Thanksgiving, 1966, had minus margins for hen and tom turkeys. Several markets in holiday seasons, 1965, and most markets at Christmas, 1966, had minus margins.

2. Retail margins at advertised prices were slightly higher for toms than for hens and were usually greater at Christmas than at Thanksgiving for both hen and tom turkeys.

3. There was about 12 or 13 cents greater margin for turkey when offered at regular retail rather than at advertised special prices. Retail mark-ups in Salt Lake City at regular prices were about 30 percent in recent years.

LITERATURE CITED

1. Anderson, R. H., and J. A. Bailey. The merchandising of turkeys through retail stores; five Utah cities, 1951-52. Agricultural Experiment Station, Utah State University, Mimeograph Series 401. November 1953.

2. Anonymous. Organization and competition in the poultry and egg industries. National Commission on Food Marketing, Technical Study 2. June 1966.

3. Anonymous. Food from farmer to consumer. National Commission on Food Marketing. June 1966.

4. Larzelere, H. E., and J. D. Shaffer. Purchases of turkey by families of the M. S. U. consumer panel, 1951-1954. Agricultural Experiment Station, Michigan State University, Article 38-12. August 1955.

5. Mortenson, W. P. Turkey prices and pricing. Agricultural Experiment Station, University of Wisconsin, Bulletin 551. March 1961.

6. Paarlberg, Don, and D. J. Watson. Factors affecting the price of turkeys. Agricultural Experiment Station, Purdue University, Bulletin 536. 1949.

APPENDIX

Supply Variations of Turkey

Annual supply of turkey was determined by the pounds of turkey produced in each year minus the cold storage holdings at the end of that year plus cold storage holdings from the previous year. From 1955 to 1966, the annual supply increased 87 percent. Because supply increased so rapidly during this time period, high-, average-, and low-supply years were measured as deviations from trend. The trend was calculated by using a 3-year moving average. The following is a list of the years and their grouping as to supply relative to trend:

Low-supply	Average-supply	High-supply
1955	1956	1957
1960	1958	1961
1963	1959	1966
	1962	
	1964	
	1965	

The following graph illustrates year-to-year variation in supply and the calculated trend line.

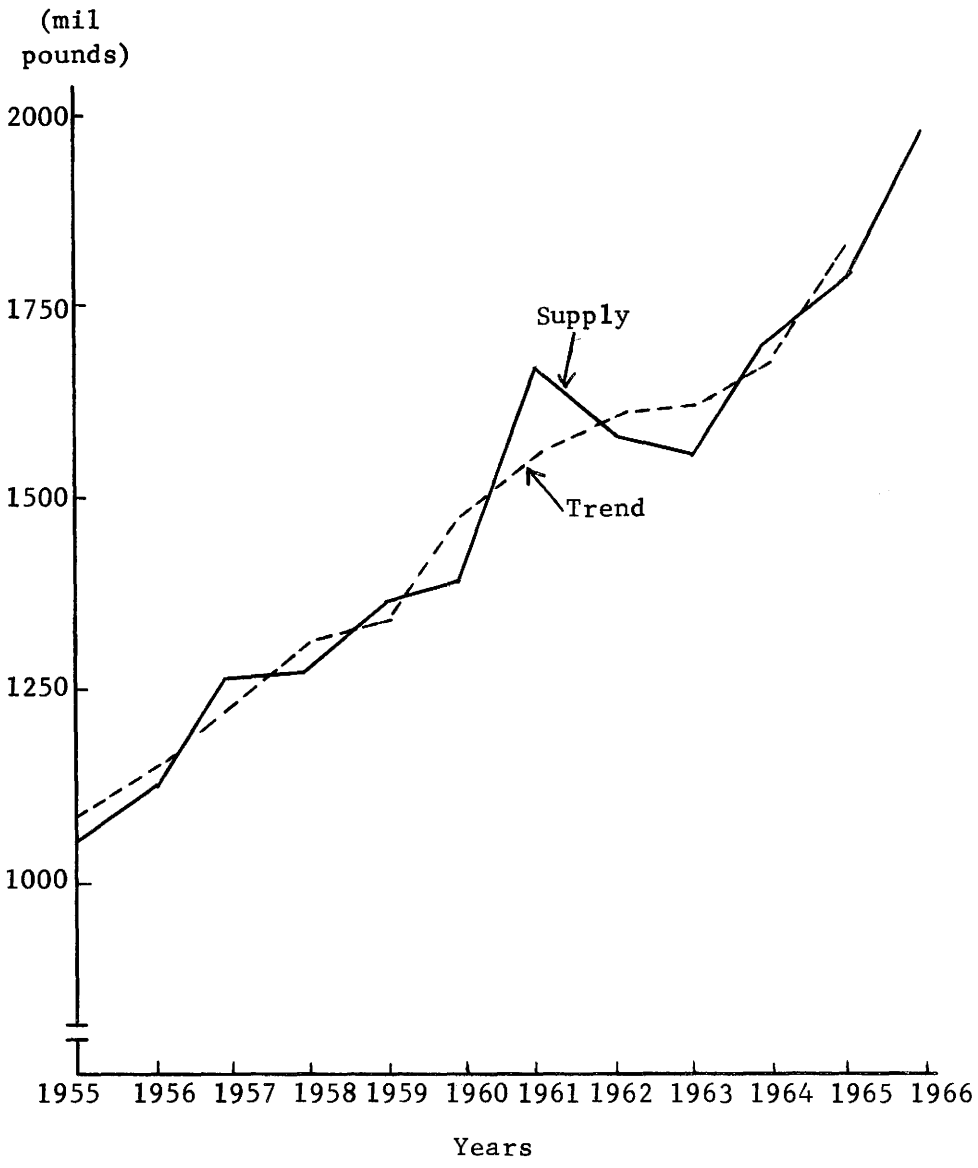


Figure 4. Supply of turkey in the United States, year-to-year changes and 3-year moving average, 1955-1966

VITA

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