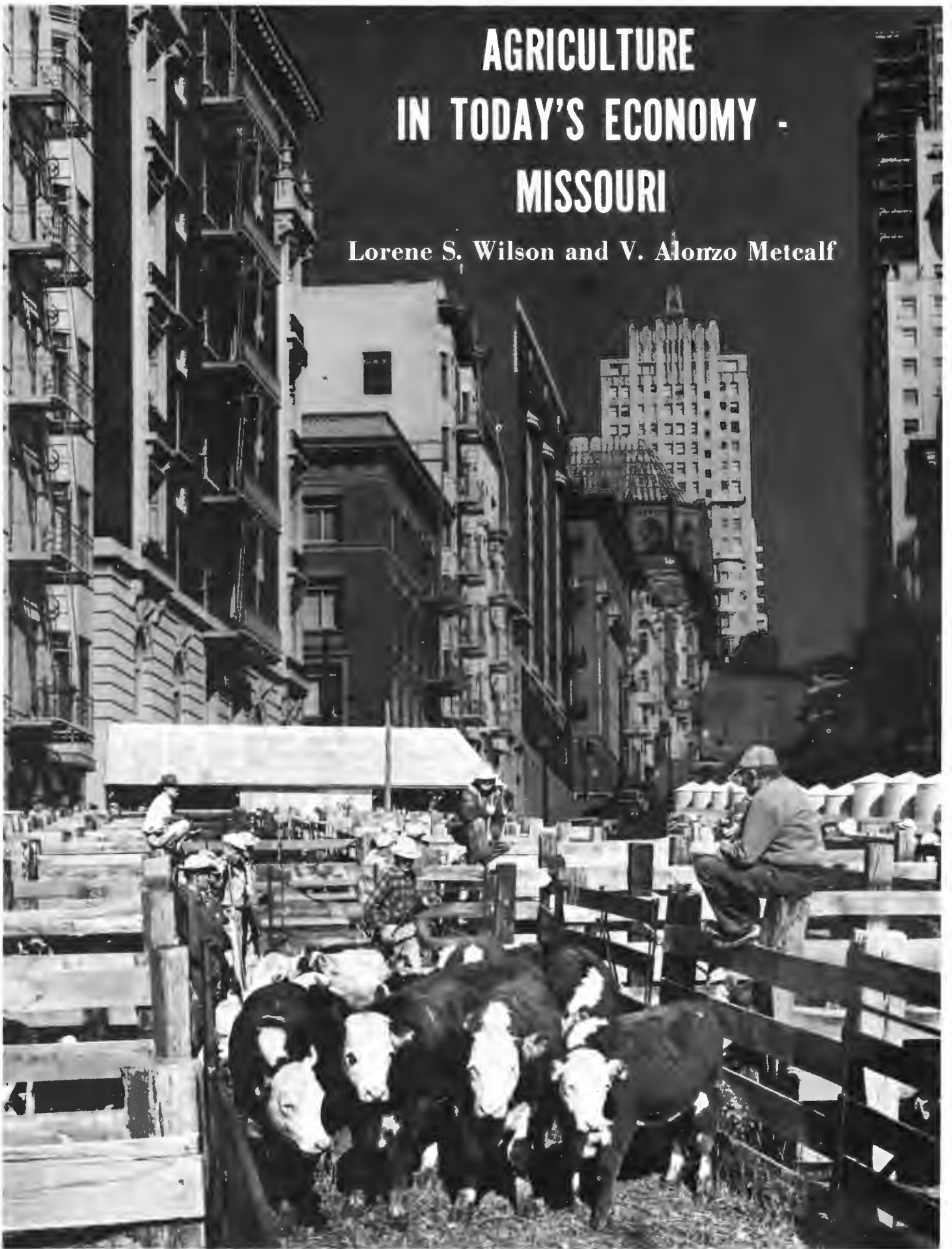


AGRICULTURE IN TODAY'S ECONOMY - MISSOURI

Lorene S. Wilson and V. Alonzo Metcalf



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Issued in furtherance of cooperative extension work, acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. C. B. Ratchford, Director, Cooperative Extension Service, University of Missouri, Columbia, Mo.

AGRICULTURE IN TODAY'S ECONOMY - MISSOURI

"Never was so much owed by so many to so few".

These famous words of Winston Churchill express well the tremendous contribution of America's agriculture to our high level of living. Because of agricultural research and its manifold contributions to the Nation's food supply, we are the best fed Nation in the world. And, what would our world be like today if our rivals could match our food production capacity?

U.S. Agriculture
is strength

Truly, our agriculture is a national strength of which we can well be proud.

\$38 billion of
food per year

Today, American farmers grow food worth over \$38 billion per year. (See Table 1)

Table 1-UNITED STATES FARM PRODUCTION, 1920-61

Year	Current value of total gross farm production ^a / (Millions)	Index of volume of farm output (1947-49=100) ^b / /
1920	\$16,595	70
21	9,956	62
22	10,907	68
23	12,074	69
24	12,253	68
25	14,032	70
26	13,263	73
27	13,120	72
28	13,693	75
29	13,773	74
1930	11,163	72
31	8,845	79
32	6,481	76
33	6,756	70
34	7,165	60
35	9,791	72
36	9,628	65
37	11,809	82
38	9,787	79
39	9,888	80

(Continued on Page 2)

Table 1-UNITED STATES FARM PRODUCTION, 1920-61
(Continued)

Year	Current value of total gross farm production ^{a/} (Millions)	Index of volume of farm output (1947-49=100) ^{b/}
1940	\$10,596	83
41	13,704	86
42	19,216	96
43	22,664	94
44	23,226	97
45	24,591	96
46	28,963	98
47	32,278	95
48	36,389	104
49	30,772	101
1950	33,014	100
51	38,213	103
52	37,663	107
53	34,431	108
54	34,098	108
55	33,400	113
56	33,658	114
57	34,135	114
58	37,731	124
59	36,925	126
1960	37,634	129
61	38,666	128

^{a/}Include farm sales, home consumption of food and dwelling, and inventory changes. As is customary in data on production, capital appreciation or depreciation is not included.

^{b/}A volume measure, not affected directly by changes in general price level, of the production covered in column 1, excluding dwelling.

Source: U.S.D.A., Agr. Handbook 118, p. 41.

Economic Report of the President, Jan. 1961, p. 37.

8% of population
farmers

It requires less than eight per cent of the United States population to produce America's food supply. One hundred years ago, 67 per cent of all Americans were working on farms. (See Table 2)

23+ M. or 37% U.S.
work force in agr.
related business

It requires the full time efforts of 23,400,000 Americans (about 37 per cent of the total labor force in the United States), to grow, process and sell this gigantic food supply, worth \$90 billion at retail level.

Table 2-ESTIMATED EMPLOYMENT IN AGRICULTURAL INDUSTRY
UNITED STATES, MID-FIFTIES

Employment	Numbers (Millions)	Per Cent
Farm production	7.4	
Processing and distributing farm products	10.0	
Manufacturing and distributing production supplies to farmers	6.0	
Total agricultural employment	23.4	37
Total civilian employment	64.0	100

Source: USDA, Background On Our Nation's Agriculture, 1961;
Economic Report of the President, Jan. 1961, p. 146.

On the average, each American farm worker now produces enough food for 26 people. Compare this to Russia where 40 per cent of the total population tills the land and each farmer grows only enough food for five people. This is where the United States was a century ago.

U.S. farmer supports
self and 26 others

The cropland acreage in the United States has decreased steadily during the past 40 years. In this same period, population has increased 70 per cent. (See Table 3)

Cropland acreage
decreasing--the
population
decreasing

Table 3-FARM NUMBERS, SIZE, AND ACREAGE IN USE,
UNITED STATES, 1940-1961

Year	Numbers of farms	Average size of farm in acres	Land in farms in acres	Cropland used for crops in acres
1940	6,097,000	174	1,060,852,000	363,000,000
45	5,859,000	195	1,141,615,000	379,000,000
50	5,382,000	215	1,158,566,000	387,000,000
54	4,782,000	242	1,158,192,000	380,000,000
59	3,703,642 ^a	302	1,120,089,000	366,000,000
60	3,956,210	297	1,174,565,000	
61	3,818,200	307	1,172,910,000	

a/Change in farm definition in 1959 accounts for decrease from 1954 of 232,000 farms.

Source: USDA Agricultural Statistics, 1960, p. 442; 1959 Census of Agriculture for U. S. Preliminary.

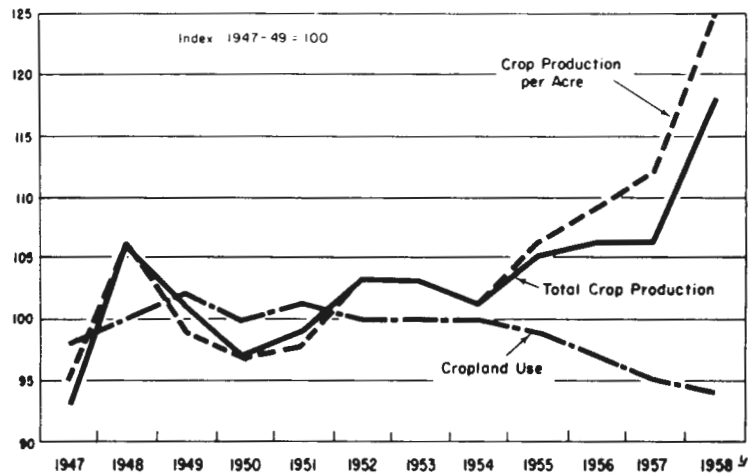
Crop production up 27%, acreage down 2%, No. of farm workers down 29%

Total crop production in 1959 was up 27 per cent from 1947 despite a decline of 2 per cent in acreage and a 29 per cent decline in the number of farm workers. (See Figure 1)

Figure 1

MORE CROPS GROWN ON FEWER ACRES

Cropland Used and Crop Production, Total and Per Acre, 1947-1958



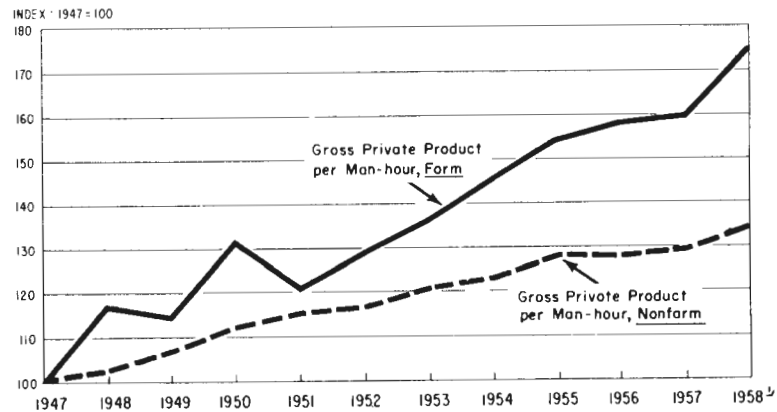
Source: 1958 Conference on Progress, Toward A New Farm Program, Washington, D.C., p. 44.

Crop production per acre is 65 per cent higher than in 1919-21. Output per breeding animal is 88 per cent greater. (See Figure 2)

Crop production up 65%

Figure 2

FARM PRODUCTIVITY HAS RISEN FAST

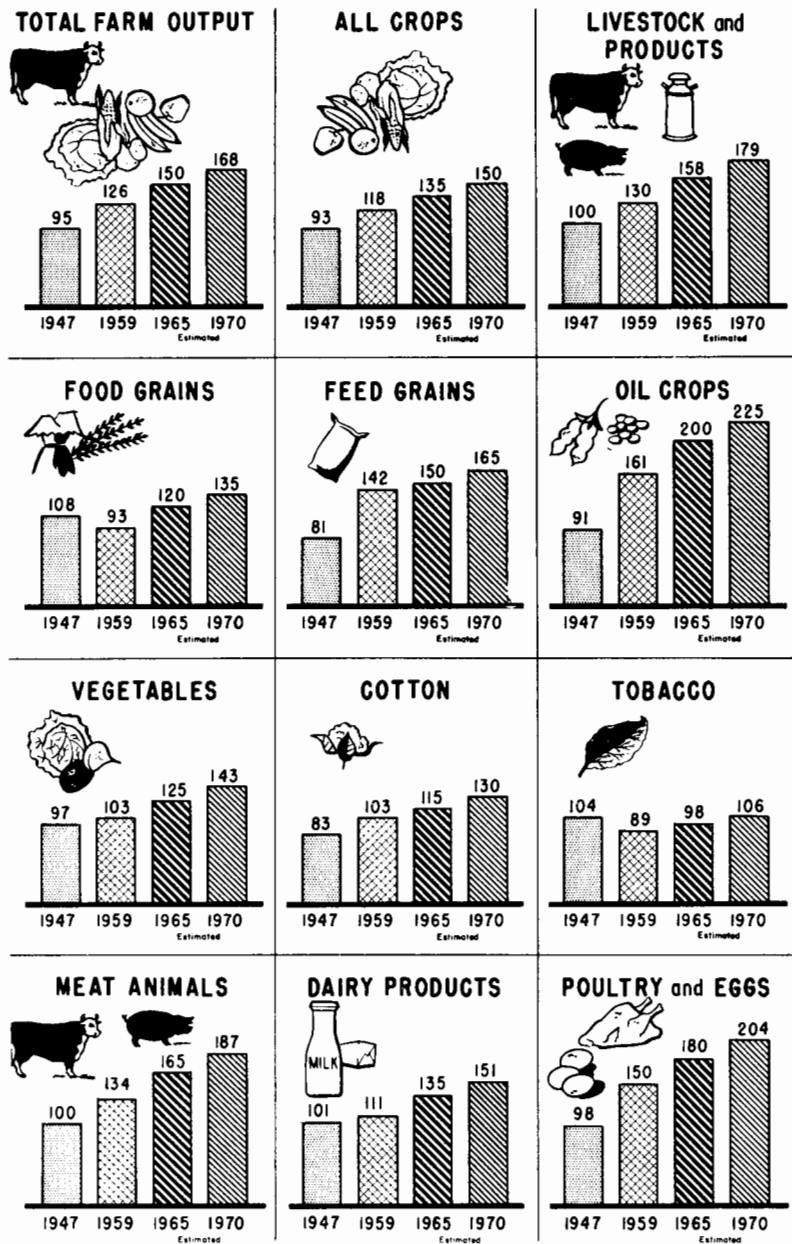


Source: 1958 Conference on Progress, Toward A New Farm Program, Washington, D.C., p. 43.

Figure 3

FARM OUTPUT IS RISING RAPIDLY

(Index Numbers, 1947-'49 = 100)



Note: 1959, indicated as of December 1959.

Source: Food and Freedom, Conference on Economic Progress, 1960, p. 13.

Table 4-INDEXES OF PRODUCTIVITY PER MAN-HOUR AMONG
 NONGOVERNMENTAL WORKERS, UNITED STATES,
 1947-1960 (1947-49=100)

Year	Total workers	Farm workers	Nonfarm workers
1947	97	90	98
48	100	107	99
49	103	102	103
50	110	116	109
51	113	114	111
52	116	124	112
53	120	139	115
54	123	148	117
55	128	154	122
56	128	156	122
57	133	167	125
58	136	182	128
59	142	181	133
60	146	192	136

Source: Handbook of Basic Economics Statistics, Oct. 16, 1961,
 p. 91. Bureau of Labor Statistics Data.

Many factors are responsible for these developments. Research programs, both publicly and privately supported, and the ingenuity and initiative of many farmers and non-farm businessmen have contributed. Major research discoveries have helped raise yields of many crops, have increased feed efficiency in livestock production, have led to the development of machines to reduce labor requirements, and have developed more efficient management methods for producing and marketing firms. Continuing educational efforts by research and extension workers, in cooperation with federal, state and private groups in the food industry, have been instrumental in the quantity and quality of farm products. As a direct result, milk, meat, poultry, eggs, fruits and vegetables are today nationally recognized as possessing high sanitary and culinary qualities.

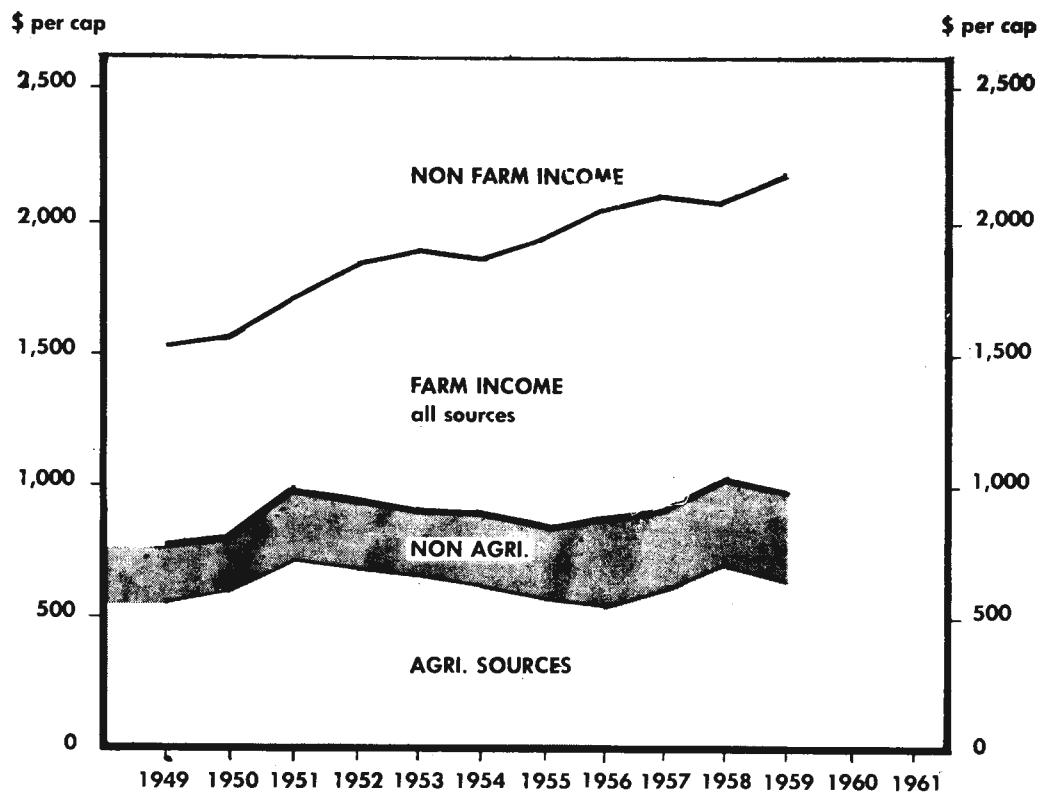
This advance in modern technology has generally brought about gains in incomes and living standards to most sectors of American life, the result of more productive power being put into actual use. However,

Reasons:
 Education, Research,
 Ingenuity, Initiative,
 Increased yields, in-
 creased feed efficiency

Technology increased
Incomes up, Standard
of living up, but not
farmers

farmers as a group have not shared in this prosperity. Of course, the increased supplies of food and fibers has met the need of a growing population. It has also helped mightily to uplift the standard of living for a large majority of the American people. Nonetheless, this has been accomplished ironically by the evil of declining farm prices and deflated incomes for farmers and farm laborers. (See Figure 4)

Figure 4



Source: Significant Trends in Agriculture, Business & Government Review, Vol. III, No. 3-May & June, 1962, p. 15, by Alonzo Metcalf & J. Wendell McKinsey.

Farmers get 12% less
of food bill

The farmer receives 12 per cent less for a typical

"Market Basket" of farm-grown food than he did in 1947-49. This explains why marketing costs are 36 per cent higher, while the retail price for this food basket is only 12 per cent higher. The

Marketing costs up 35%
Retail prices up 12%

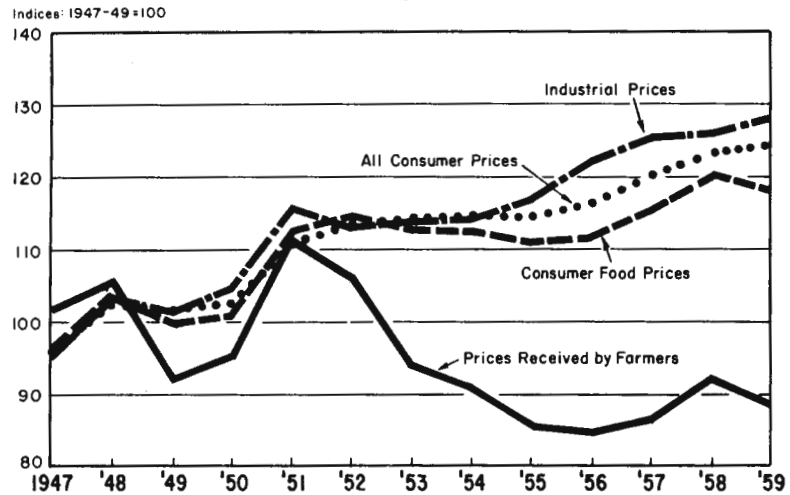
No. of workers market-
ing food up 12%, hourly
wages up 77%

Marketing costs up
Containers, packaged
materials, fuel,
freight rates,
interest rates

number of workers marketing food is 12 per cent greater. Their hourly earnings are 77 per cent greater. Prices of containers, packaging material, fuel, and most other items used in marketing are higher. Freight rates, interest rates and other costs also are up. (See Figure 5)

Figure 5

THE LONG-TERM CONTRAST: FARM PRICES DOWN; OTHER PRICES UP



Source: 1958 Conference on Economic Progress,
Toward A New Farm Program, Washington,
D. C., p. 48.

Convenience in foods
cost \$7½ billion

We pay about \$7.5 billion a year more than we did in 1940 for the convenience of having some of the work of food preparation transferred to the factory or restaurant.

Farm income is far below average. (See Table 5)

Table 5-INCOME PER CAPITA FOR FARM AND NONFARM
POPULATION, UNITED STATES, 1935-61

Year	Farm Population			Total income from all sources ^{b/}	Nonfarm population from all sources ^{b/}
	From agriculture	Government payments ^{a/}	From non-farm sources		
	Net cash income, inventory change, home consumption, value of dwelling, farm wages				
1935	\$167	\$15	\$ 62	\$ 244	\$ 517
40	153	21	88	262	685
45	528	26	166	720	1,312
50	616	10	212	838	1,585
51	741	10	232	983	1,763
52	701	10	251	962	1,849
53	658	8	265	931	1,902
54	644	10	262	916	1,852
55	593	9	281	883	1,979
56	576	21	300	897	2,074
57	586	41	306	933	2,121
58	694	46	299	1,039	2,082
59	615	29	321	965	2,216
60	791		464	1,255	2,309
61	899		474	1,373	2,345

^{a/}Direct payments to farmers but not including government expenditures which improve farm product prices or farmers' services.

^{b/}Represents returns to labor, management, and owned capital.

NET INCOME PER FARM FROM FARMING IN CURRENT AND CONSTANT
DOLLARS, UNITED STATES, 1935-60

Year	Current ^{a/}	Constant prices, 1960
1935	\$ 778	\$1,809
40	720	1,714
45	2,080	3,302
50	2,479	3,302
51	2,951	3,208
52	2,829	3,042
53	2,502	2,690
54	2,440	2,624
55	2,313	2,487
56	2,338	2,487
57	2,426	2,501
58	2,952	2,962
59	2,548	2,574
60	2,640	2,640

^{a/}Includes net cash income, inventory change, home consumption, value of dwelling, farm wages to farmers, and government payments. Does not include off-farm income.

Source: USDA, Farm Income Situation, July 1960, 1961; Economic Report of the President, Jan. 1961, p. 201.

Farmers share of food dollar 39¢

10% increase in farm price gives 4% increase in retail price

Farmer gets 2-1/3¢ for corn in 23-4/5¢ box of corn flakes

2-1/3¢ for wheat in 20-1/3¢ loaf of white bread

The farmers share of our food dollar is so small (only 39 cents in 1960), that moderate increases in farm prices have little total effect on our food bill. A 10 per cent increase in farm prices would result in an increase of only 4 per cent in retail price. (See Figures 6, 7 & 8)

The more that food is processed between farm and kitchen, the less effect farm price increase has on its cost to consumers. For example: The farmer gets 2-1/3 cents for the corn in a box of corn flakes selling for 25-4/5 cents in 1960.

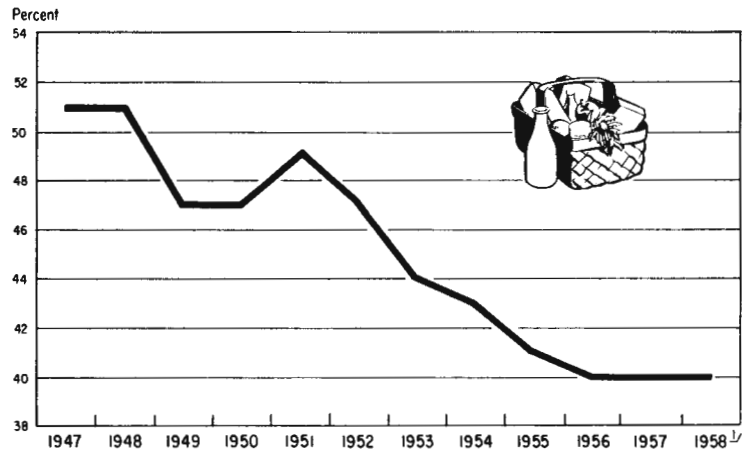
If the farm price rose from its average of about \$1 per bushel in 1960 to \$1.20, the farmer would get only one-half of one cent more for the corn in a box of flakes.

The farmer received 2-1/3 cents for the wheat in a pound loaf of white bread selling for 20-1/3 cents last year.

Even if wheat went up from its average farm price of about \$1.80 a bushel to \$2.00, the farm cost of the wheat in a pound loaf of white bread would rise only one-fourth cent.

Figure 6

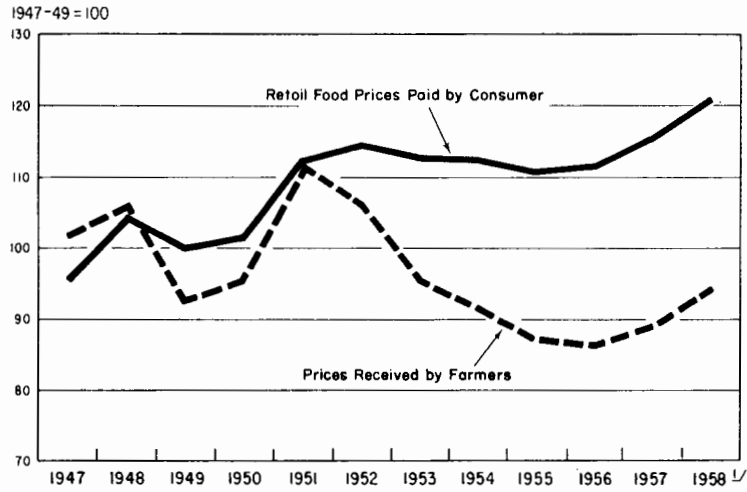
FARM TO MARKET SPREAD HAS GROWN- THE FARMER GETS A SMALLER SHARE OF CONSUMER'S FOOD DOLLAR



Source: 1958 Conference on Economic Progress, Toward a New Farm Program, Washington, D.C., p. 49

Figure 7

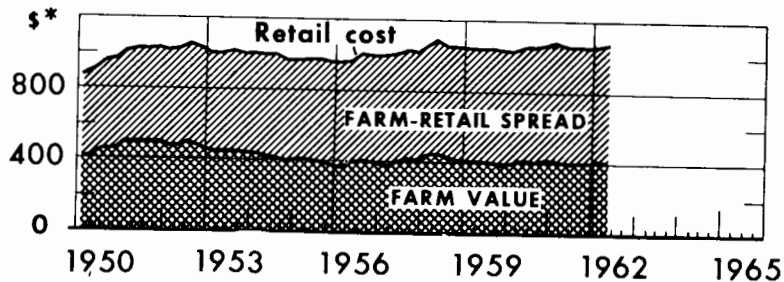
RETAIL FOOD PRICES HAVE RISEN WHILE FARM PRICES HAVE FALLEN



Source: 1958 Conference on Economic Progress, Toward A New Farm Program, Washington, D.C., p. 49

Figure 8

Marketing Spread Accounts for Rise in Retail Prices



*ANNUAL RATE. DATA FOR 1962 PRELIMINARY.
 DATA ARE FOR MARKET BASKET OF FARM FOODS CONTAINING AVERAGE 1952 PURCHASES BY URBAN FAMILIES.
 U. S. DEPARTMENT OF AGRICULTURE NEG. ERS 1273-62 (7) ECONOMIC RESEARCH SERVICE

And, what is the direct relation of agriculture to the over-all economy of Missouri?

In 1958 (1958 Census of Manufacturing, Missouri), retail food stores, eating and drinking establishments, wholesale groceries and the manufacturing of food and kindred products, employed 210,801 with a total payroll of \$877,601,000 in Missouri.

Table 6

Agricultural Related Industry, Missouri, 1958*

Enterprise	Establishments		Sales		Employment		Payroll Dollars
	Number	Percent	Dollar	Percent	Number	Percent	
			(1,000)				(1,000)
Retail Trade:							
Total	47,825	100.0	5,150,480	100.0	214,305	100.0	553,495
Food Stores	8,240	17.2	1,153,332	22.4	27,678	12.9	74,068
Eating and Drinking	9,304	19.5	342,069	6.6	39,682	18.5	67,803
Total Agri. Related	17,544	36.7	1,495,401	29.0	57,360	31.4	141,871
Wholesale Trade:							
Total	8,428	100.0	9,460,542	100.0	86,702	100.0	426,051
Groceries	1,014	12.0	1,220,356	12.9	10,970	12.7	50,009
Manufacturing:							
Total	6,438	100.0			364,006	100.0	1,659,111
Food & Related Industries	2,767	43.0			142,471	39.1	685,721

*Source: Census of Manufacturing, Missouri, 1958

These figures do not include employment, payroll and sales from agriculture products produced in Missouri.

And, how do Missouri consumers benefit from agriculture research and education?

First, take a look at what Mrs. Missouri Consumer wants.

Would she be content to have only "locally-grown", unprocessed foods available only when local seasons permit? The answer is "no"!

Mrs. Consumer wants convenience and variety year-around

She demands fresh fruits and vegetables throughout the year. All products must be in the right size package, the right form and above all, convenient, time and labor saving (at least that's what she's buying). Because she sets an international table, she uses products from all over the world. In short, she wants convenience and variety in a year-around food supply, in the right form and size, attractively packaged and at the cheapest price possible.

Convenience -- As a result of consumer acceptance, "convenience" has become the most powerful and influential word in the food world.

8000 items are competing for super-market space

We saw the beginning of convenience foods following the First World War. The past ten years "convenience" has revolutionized the food industry. As a result, some 8,000 items are competing for shelf space in today's supermarkets.

61% of the women in labor force are married

Last year, 61 per cent of the women in the labor force were married. As married women increasingly join the labor force, the demand for convenience will increase.

Food industry spends \$100 M. Annually to improve convenience foods

The food industry is meeting this challenge. They are spending \$100,000,000 annually, just to improve present and develop new convenience foods. It is estimated that one-third of the food items we will find on grocery shelves 10 years from now have not yet been heard of.

Eating better, more nutritious, more variety, lower cost

Food Is Not Expensive -- In relation to other goods and services, food is a bargain. In fact, food is one of today's best buys. We are eating better, more nutritious, more varied meals at low REAL cost than ever before.

What Is The Real Cost of Food? Perhaps the best measure of cost is the number of hours we have to work to pay for our food needs.

Factory worker can buy groceries for month with:
 43 hrs. of work in 1962
 55 hrs. of work in 1952
 64 hrs. of work in 1947

The average factory worker in this country can buy a market basket of food for a whole month with earnings from only 43 hours of work. In 1952, he worked 55 hours and in 1947, he worked 64 hours to buy the same amount of food.

Homemakers may think they spend a lot of money on feeding their family, but they can buy more food, of higher quality and variety, for a smaller chunk of their income, than any other people on earth.

Table 7-U. S. FOODS MOST ECONOMICAL IN THE WORLD
 Minutes of Working Time Required for Purchase of Selected Consumer Items in 1957

Food	U. S.	Russia	Sweden	England	West			
					Germany	France	Italy	Japan
Flour, wheat (1-lb.)	3.2	26.8	5.9	6.8	9.5	15.5	17.7	18.6
Bread, white (1-lb.)	5.5	8.6	10.0	5.9	12.7	9.1	17.3	26.4
Beef, sirloin(1-lb.)	27.7	90.9	67.7	52.7	64.5	148.2	175.9	161.8
Pork, loin chops (1-lb.)	25.5	167.7	42.3	51.4	72.7	86.4	--	157.3
Butter (1-lb.)	21.8	193.2	42.3	40.0	89.5	128.6	155.5	261.8
Milk, pasteurized (1 qt.)	7.0	33.0	8.0	14.0	12.0	16.0	25.0	59.0
Eggs, fresh (one)	2.0	11.0	4.0	4.0	7.0	10.0	11.0	10.0
Apples, eating (1-lb.)	3.6	89.1	13.6	14.5	20.9	39.1	24.5	--
Cabbage (1-lb.)	2.3	36.8	2.7	4.5	4.5	6.8	--	8.2
Potatoes (1-lb.)	1.8	5.9	2.7	3.2	2.7	3.6	6.4	7.7
Oleomargarine (1-lb.)	8.6	151.8	20.0	20.9	25.9	44.1	--	111.4

Source: Washington Food Report, April 8, 1961.

There is considerable evidence that food prices are not as high as some people think. Food prices have gone up. There's no doubt about that, but prices of other things we buy have increased more than food in recent years. The consumer price index, reported by the Bureau of Labor Statistics, is our best measure of this. In June, 1962, retail food prices in the United States averaged 21 per cent higher than they were in the 1947-49 period. But, the price index of all items increased 27.5 per cent in the same period.

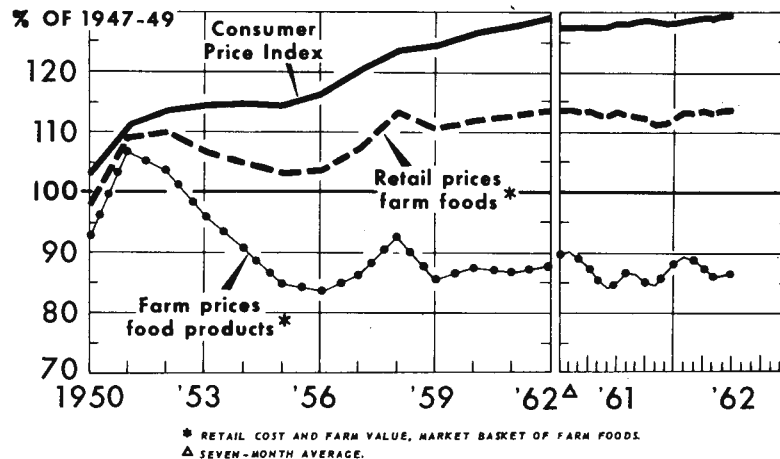
Food costs up but other costs up more. June, 1962, retail food prices 21% higher than 1947-49, all price index up 27.5%

FOOD PRICE CHANGE FROM 1947-49 TO JUNE, 1961

All Items	up 28 per cent
Medical Care	up 61 per cent
Transportation	up 48 per cent
Personal Care	up 34 per cent
Reading and Recreation	up 24 per cent
Food	up 22 per cent
Housing	up 32 per cent
Apparel	up 10 per cent

Table 9

**Food Prices Up Less Than
Other Consumer Prices**



U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 1274-62 (7) ECONOMIC RESEARCH SERVICE

American consumers spent an average of \$394 per person for food in 1960 compared with \$319 in 1947-49. But, the 1960 food cost was only 20 per cent of our disposable income, compared to nearly 26 per cent in the 1947-49 period. If we bought the same quantities and kinds of food as we did a few years back, we could eat for an even smaller proportion of our income.

Food cost per person:
\$394 in 1960 or
20% disposable income
\$319 in 1947-49 or
26% disposable income

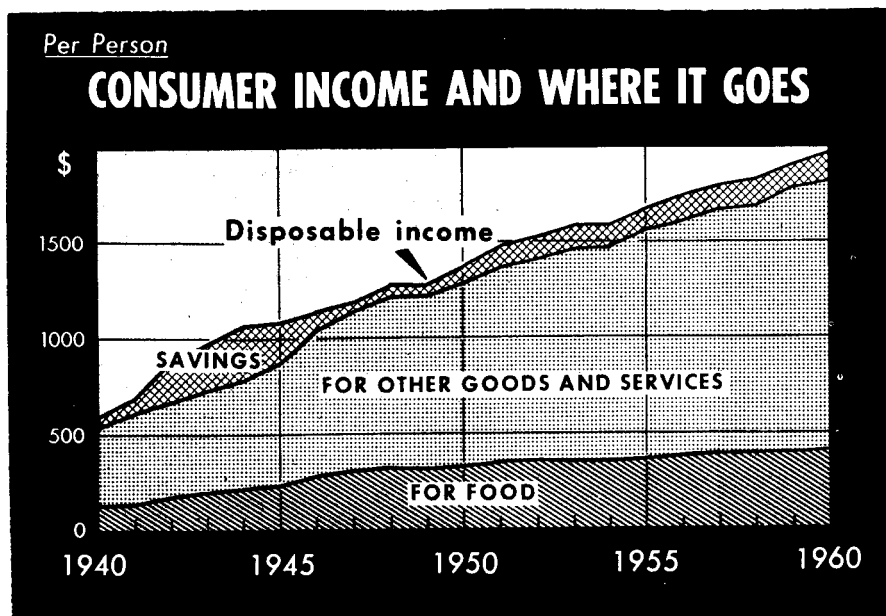
Table 8-AMOUNT OF CONSUMERS' DISPOSABLE INCOME
SPENT FOR FOOD, 1930-1961

Year	Consumers' food expenditures as a percentage of disposable income ^{a/} (Per Cent)	Farmers' share of retail cost for average amount of food purchased by urban family (Per Cent)
1930	24	39
35	23	39
40	22	40
45	23	53
50	23	47
51	24	49
52	23	47
53	22	44
54	22	43
55	22	41
56	21	40
57	21	40
58	21	40
59	20	38
60	20	39
61	20	38

a/ Disposable income is net income minus taxes.

Source: USDA, Marketing & Transportation Situation.

Figure 10

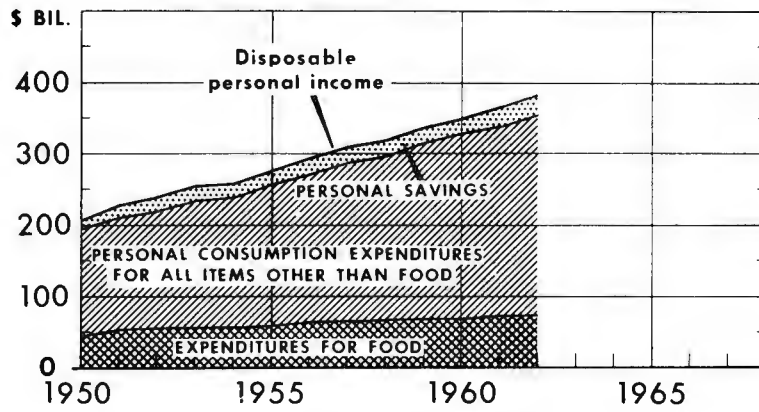


U. S. DEPARTMENT OF AGRICULTURE

NEG. 1968-60 (12) AGRICULTURAL MARKETING SERVICE

Figure 11

Expenditures for Food Not Keeping Pace with Disposable Personal Income



1961 PRELIMINARY.

1962 ESTIMATED.

U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 1371-62 (8) ECONOMIC RESEARCH SERVICE

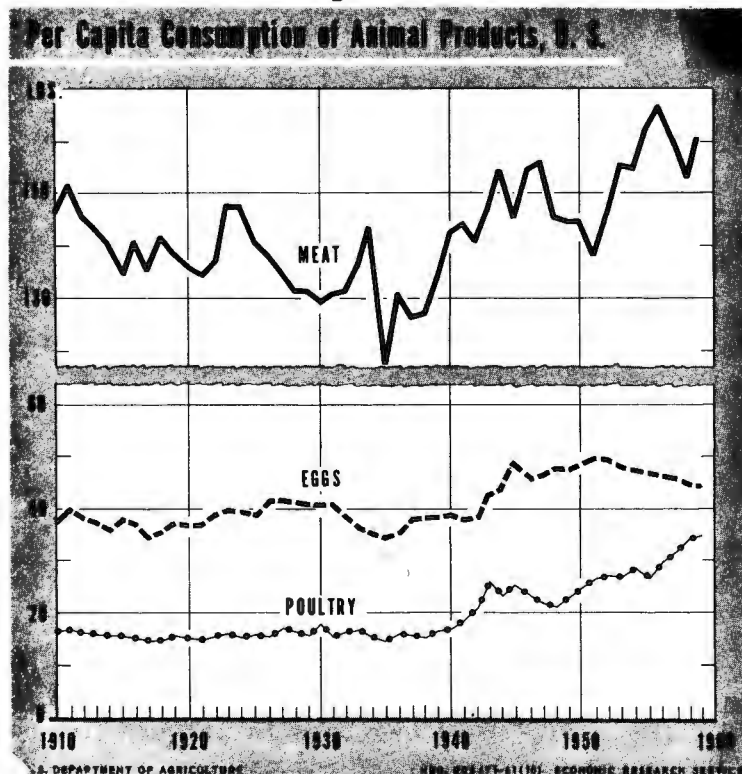
CONSUMERS EATING HABITS HAVE CHANGED

If we were content to eat the same as we did in 1939, we would spend only 15 per cent of our disposable income for food. In 1940 Americans ate equal amounts of meat and potatoes. By 1960 they were eating 15 pounds more meat and 28 pounds fewer potatoes. Broiler consumption increased 21 pounds in the same period.

1939 diet would cost 15% disposable income in 1960

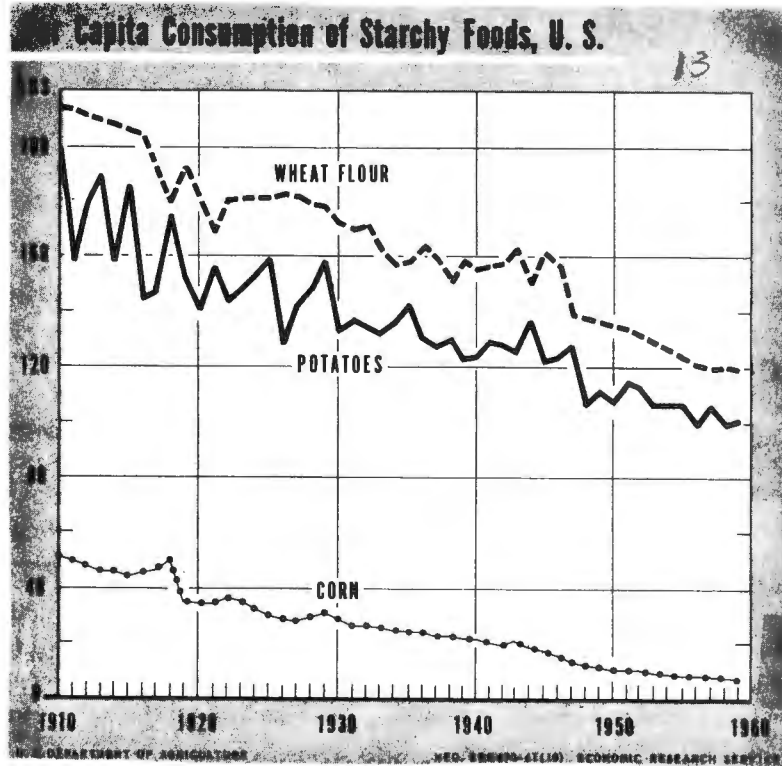
1940 to 1960 per capita consumption:
 Meat up 15 lb.
 Potatoes up 28 lbs.
 Broilers up 21%

Figure 12



The consumption of potatoes and sweet potatoes is only about one-half the per capital average of 1910. We are using more tomatoes and tomato products, also green, yellow and leafy vegetables. However, consumption of other vegetables is down.*

Figure 13



The consumption rate of flour is down almost 50 per cent from the 1939 rate. However, flour in the forms of purchased bread and other bakery products has increased.

Americans eat just about 100 pounds less food today than they did 50 years ago. The average was about 1600 pounds a year just before the First World War. In 1961, the average per capita consumption was 1,455.

Flour consumption down
Bakers bread and products up

*Refer to Table 800, Consumption and Family Living, 1959, Agricultural Statistics, 1959, p. 578.

Table 9-APPROXIMATE CONSUMPTION OF FOOD PER CAPITA IN
RETAIL-WEIGHT EQUIVALENT, UNITED STATES, 1909-61

Year	Pounds
1909	1,616
15	1,568
20	1,542
25	1,559
30	1,537
35	1,505
40	1,551
45	1,651
50	1,505
55	1,492
60	1,465
61	1,455

Source: USDA, Supplement for 1961 to Agr. Handbook No. 62, Aug. 1962

Why food consumption
changes?

- a. Changes wants food
- b. Changes wants and
ability to pay

Why these changes in food consumption? The answers lie in two sets of changes - changes in the kinds and amounts of foods available and changes in consumer's wants and ability to pay for food. All of these factors -- increased disposable income, concern over weight, employed homemakers, less physical work, shift in population from rural to urban and technological progress -- are changes which contribute to changes in consumption patterns. The current trends in food consumption will likely continue.

Present trends will
continue

Americans are one of the best fed nations in the world, surpassed only by Argentina in calorie consumption. Australia, New Zealand and Argentina average from three to six more pounds of protein consumption than the United States. (See Table 10)

Table 10-CALORIE AND PROTEIN DAILY CONSUMPTION PER CAPITA
IN SELECTED COUNTRIES, 1958

Country	Calories (Number)	Total Protein (Grams)
Argentina	3,360	100
United States	3,220	97
Australia & New Zealand	3,210	103
United Kingdom	3,200	85
Finland	3,110	84
Soviet Union	2,985	92
Rumania	2,790	72
Israel	2,715	79
Nigeria	2,680	60
Portugal	2,485	65
Japan	2,310	66
Mainland China	2,200	65
Tunisia	2,170	67
Iran	2,040	67
Pakistan	2,030	54
Haiti	1,875	42

Source: USDA, World Food Budget, 1962 and 1966.

CONSUMERS ASKED FOR QUALITY AND VARIETY

Never before in the history of the world have consumers enjoyed such wide variety and abundance of delicious and wholesome foods as Americans do today. Tasty high-quality cheese, ice cream and milk products attractively and conveniently packaged and merchandised are available. Better-quality fluid milk and dairy products were bought about by new methods of bulk handling, transporting, processing and storage. Research studies on feeds for dairy cows have shown that certain weeds, grasses and silages must be avoided to prevent off-flavors or odors in milk.

Even the crisp and delicately browned potato chips in today's supermarkets are the result of research. Through research, manufacturers learned the importance of low sugar content of the potato for making chips thus eliminating the limp, dark and unevenly browned chips of yesteryear.

Variety and abundance
of delicious and whole-
some foods at all time
high

WHAT IS THE PAY-OFF?

Mr. W. K. Kennedy, Director of Research, Cornell University, said "Had it not been for the tremendous developments of the past 50 years, we would be faced today with two choices:

Tremendous development
make it possible to--
a. Spend less for food
b. Have better diet

1. To use most of our income to buy a diet comparable with that we enjoy today, or
2. To subsist mainly on a diet of cereal grains, giving up a large share of the beef, pork, lamb, poultry, milk and eggs we enjoy. In fact, we would probably be limited to the second alternative in view of our other restrictions in production and distribution".

(Source: Agricultural Research Benefits Consumers, New York State College of Agriculture, Cornell University, Ithaca, N. Y., p. 15.)

In 1958, pork chops cost 87 cents per pound. Without scientific advances of the past 40 to 50 years, they would have cost \$1.77 per pound. Beef rib roast would have cost \$1.64 instead of 74 cents per pound. Butter \$3.26 instead of 74 cents per pound; eggs \$3.05 per dozen instead of 57 cents; and broiler chickens \$1.87 per pound instead of 47 cents. There is no doubt about it -- science has stretched your food dollars. (See Table 11)

Science has stretched
food dollar

~~Table 11~~ - SCIENCE STRETCHES YOUR FOOD DOLLAR

Commodity	What You Actually Pay Today For Some Foods At The Retail Store (1/63)	What You Would Pay Without Scientific Advances of Past Forty to Fifty Years (1/63)
Pork Chops	87¢ lb.	\$1.77 lb.
Beef Rib Roast	74¢ lb.	1.64 lb.
Milk (delivered)	25¢ qt.	.71 qt.
Butter	74¢ lb.	3.26 lb.
Eggs	57¢ doz.	3.05 doz.
Broiler Chickens	47¢ lb.	*1.87 lb.
Leg of Lamb	71¢ lb.	1.69 lb.

*Based on Roasting Chickens.

Source: ARS, USDA

Dr. T. J. Cunha of the University of Florida, and President of the American Society of Animal Science, says "With wages from an 8-hour day, a factory worker can now buy this much more of the following foods than he could in 1947-49:

4.8 lbs. more choice beef
11.2 lbs. more pork cuts
12.8 lbs. more milk
14.4 more dozens of eggs
4 1-pound loaves more bread
13.6 lbs. more apples
30.4 cans more peas, or
40.0 lbs. more of potatoes

This dividend in extra food is a tribute to the increased efficiency of American agriculture".

Dr. Cunha also states, "It has been shown that if today's farmers used 1940 production methods, it would cost an additional \$13 billion each year to produce the food and fiber for the Nation. This extra cost would be passed on to you, the consumers, and would amount to more than \$5.00 per week or over \$260.00 per year". (Quote from speech given by Dr. T. J. Cunha, University of Florida, at the 54th Annual Meeting of the American Society of Animal Science, Sherman Hotel, Chicago, November 23, 1962)

"Would cost \$13 B. more to produce food and fiber with 1940 methods and technology," or \$5 per week or \$260 per year to each consumer

For the households in Missouri, this would mean an extra expenditure of at least \$353,554,760 each year for the same food you are buying today!

Modern Agriculture has performed miracles! Through continued research and education from State and Federal Experiment Stations, relied agencies and businesses, modern agriculture will continue to perform miracles for the consumers of America.

Through education and research, modern agriculture has performed miracles

Yes, even when they number 400,000,000.