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**Living Expenditures of
A Group of
Illinois Farm Families
1930, 1931, 1932**

By RUTH CRAWFORD FREEMAN

UNIVERSITY OF ILLINOIS
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Bulletin 406

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Living Expenditures of a Group of Illinois Farm Families 1930, 1931, 1932

By RUTH CRAWFORD FREEMAN, Extension Specialist in Home Accounts¹

MONEY MANAGEMENT is a real problem for every homemaker and her family regardless of the size of the family income. The three years 1930, 1931, and 1932 studied and reported in this bulletin were all years of declining income for farm families and constitute a part of the so-called depression period of the business cycle. The reduced income has made a greater challenge for wise money management in the home than was made during years of larger and more stable incomes.

The purpose of the study was (1) to ascertain as accurately as possible how farm families use their income and thru this knowledge to judge something of the plane of living enjoyed by the farm families of Illinois, and (2) to compare one year's expenditures with another's in order to ascertain what adjustments have been made by these families to meet the changing economic conditions.

The author wishes to acknowledge the excellent cooperation of the farm families whose records are the basis for this study. Their interest in the project and the accuracy with which they kept their records have contributed greatly to the value of the study.

SOURCE OF DATA

Four hundred and twenty-nine farm family records are analyzed in this report, distributed over the three years 1930, 1931, and 1932 as follows: 111 in 1930, 159 in 1931, and 159 in 1932. This number includes all complete records sent in to the University of Illinois for summarization during these years. Fifty-six of these families have sent in records for this continuous three-year period. Each record is for a continuous 12-month period, the majority of the records beginning January 1 of each year. A few of the records do not conform to the calendar year but to the fiscal year beginning some time after May and ending in the same month of the following year.

¹For helpful criticism and advice in the presentation of this material, the author is indebted to Dr. Paulena Nickell, Assistant Professor of Home Management.

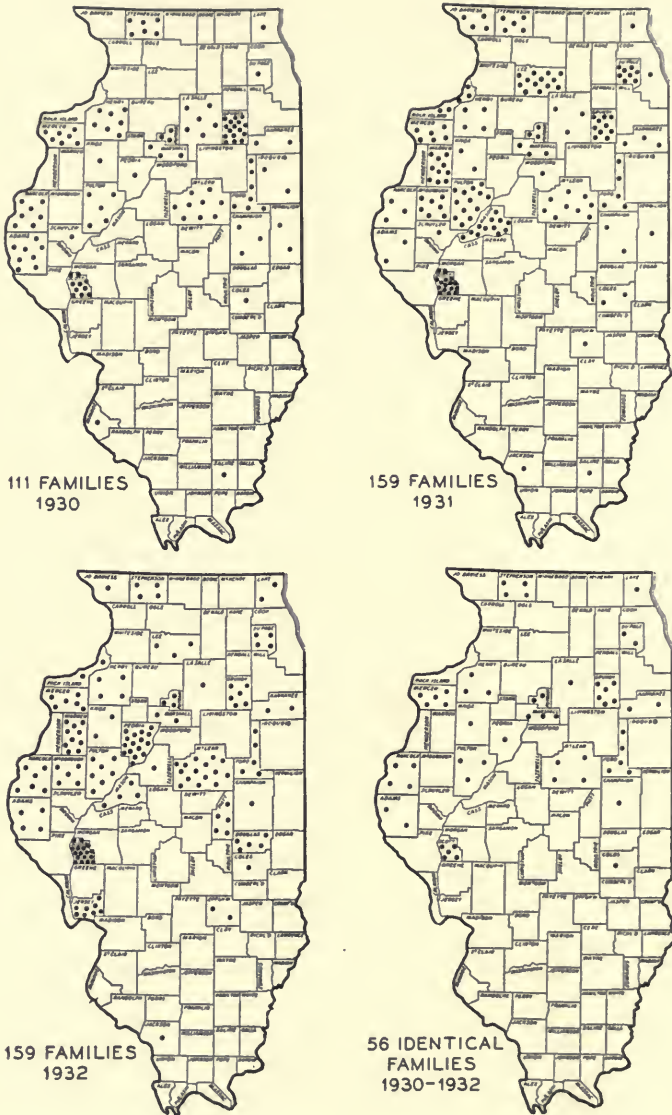


FIG. 1.—LOCATION OF FAMILIES FROM WHICH THE 429 HOME ACCOUNTS ANALYZED IN THIS STUDY WERE RECEIVED

The 429 farm home accounts analyzed in this study covered a twelve-month period and were distributed over three years as follows: 111 in 1930, 159 in 1931, and 159 in 1932. Fifty-six families sent in records for this continuous three-year period.

The location of the families from which home-account books were received was approximately the same for all three years (Fig. 1).

The same plan for conducting the study was followed as reported in Bulletin 372 (1929-30).¹ Each homemaker, in addition to her complete home-account record, filled out a questionnaire which supplemented the information in the record in regard to the family's general standard of living.

FAMILY CHARACTERISTICS AND SURROUNDINGS

The "family" consisted of parents and children totally or partially dependent for support on the family income, including children away at school. If a relative lived in the home and was totally dependent on the family, that person also was counted as part of the family. The "household" included all persons living in the home nine months or more of the year. Besides a record of the family meals, a record was kept of all meals served to hired help, both farm and house, and to guests.

Size of Family.—About one-third of the families each of the three years were composed of four members (Tables 1 and 2). The percentage of families with three members was greater in 1931 than in 1930,

TABLE 1.—AVERAGE NUMBER OF MEMBERS IN ILLINOIS ACCOUNT-KEEPING FARM FAMILIES

Year	Total number of families	Number per family	Number of families with—				
			2 members	3 members	4 members	5 members	6 or more members
1930.....	111	3.8	19	25	32	21	13
1931.....	159	3.9	28	41	50	19	21
1932.....	159	4.1	32	26	49	26	26

TABLE 2.—PERCENTAGE OF FAMILIES HAVING NUMBERS OF MEMBERS INDICATED

Year	Total number of families	Percent of families with—				
		2 members	3 members	4 members	5 members	6 or more members
1930.....	111	17	23	30	19	11
1931.....	159	17	26	31	12	14
1932.....	159	20	16	31	16	17

¹Ill. Agr. Exp. Sta. Bul. 372, September, 1931.

as was also the percentage of families with six members or more. In 1932 there were more families with two members and with six members or more, than there were in 1930 and 1931.

Ages of Members of Family.—Both husbands and wives in the 111 families whose records are included in the 1930 data were, on the average, younger than those in the 159 families included in the 1931 data and also younger than those in the 159 families in the 1932 data (Table 3). The husbands' ages ranged from 26 years to 65 years in 1930 on all income-levels, 27 to 60 in 1931, and 26 to 90 in 1932. The

TABLE 3.—AVERAGE AGES OF MEMBERS OF ACCOUNT-KEEPING FAMILIES

Realized income	Average age in year indicated								
	Husbands			Wives			Children at home ¹		
	1930	1931	1932	1930	1931	1932	1930	1931	1932
\$ 500- \$ 999.....	32	38	40	29	34	38	7	9	9
1 000- 1 499.....	34	37	41	30	35	39	6	10	10
1 500- 1 999.....	40	43	42	37	40	40	12	10	11
2 000- 2 499.....	42	34	39	38	38	37	10	12	11
2 500- 2 999.....	42	36	47	40	35	44	10	12	13
3 000 and over ²	41	43	..	38	38	..	13	11	..

¹Children dependent or partly dependent counted in family.

²In 1932 there were no records received from families with incomes higher than \$2,999.

wives' ages followed about the same range as the husbands' except that the wives were three years younger in each extreme of the range. For both husbands and wives the mode is found each year nearer the younger age limit.

The children, in all three years, were largely of preschool and grade-school ages. The average age in 1931 and 1932 was higher than in 1930 because of the greater number of older children (18 years and older) at home, 43 children of that age-group being at home in 1932. Thirteen of the older group were in school part of the year, 4 worked but stayed at home, and the remaining 26 helped at home. Seventeen of the 26 were sons helping to operate the farm; the other 9 were daughters helping in the home.

Education.—In 44 percent of the 1930 families at least one parent had attended college one year or more; in 24 percent of the families both parents had attended college (Table 4). In the 1931 group the parents had a slightly lower formal educational background; in only 40 percent of the families had one of the parents attended college

TABLE 4.—FORMAL EDUCATION POSSESSED BY HUSBANDS AND WIVES IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	1930 families										Total number of families
	Both 8th grade or less	One 8th grade or less, other 9th-12th grade	Both 9th-12th grade	One 8th grade or less, other college	One 9th-12th grade, other 1 year or more college	One 9th-12th grade, other college graduate	Both 1 year or more college	One 1 year or more college, other college graduate	Both college graduates	Total number of families	
\$ 500-\$ 999.....	0	0	0	0	1	0	0	0	0	0	1
1 000-1 499.....	3	2	2	1	1	1	0	0	0	0	10
1 500-1 999.....	0	9	3	0	3	1	0	0	0	1	17
2 000-2 499.....	3	6	0	1	2	1	4	1	2	2	20
2 500-2 999.....	0	1	0	1	1	1	1	1	2	1	10
3 000 and over....	1	5	1	0	0	0	1	2	1	1	11
Total.....	7	25	7	2	8	4	6	4	6	6	69 ¹
Percent.....	10	36	10	3	11	6	9	6	9	9	100
1931 families											
\$ 500-\$ 999.....	5	2	1	1	2	0	0	1	0	1	13
1 000-1 499.....	13	8	7	3	6	0	3	1	0	0	41
1 500-1 999.....	8	5	6	0	3	2	0	2	3	3	29
2 000-2 499.....	8	6	5	0	1	0	3	3	3	0	29
2 500-2 999.....	1	2	2	1	2	0	0	0	1	9	8
3 000 and over....	1	3	1	1	1	0	0	1	0	0	8
Total.....	36	26	22	6	15	2	6	8	8	6	129 ¹
Percent.....	28	20	17	5	11	2	5	6	6	6	100
1932 families											
\$ 500-\$ 999.....	8	7	4	4	4	0	2	1	2	2	32
1 000-1 499.....	10	7	15	3	7	1	6	1	3	6	53
1 500-1 999.....	4	6	7	0	0	1	0	4	3	0	25
2 000-2 499.....	1	0	5	1	1	0	0	0	1	0	9
2 500-2 999.....	0	2	0	0	0	0	0	2	0	0	4
Total.....	23	22	31	8	12	2	8	8	9	6	123 ¹
Percent.....	19	19	25	6	10	2	6	6	7	7	100

¹Number of families reporting.

a year or more, and in only 17 percent had both parents attended college. The proportion of families in which both parents had only eighth-grade education or less was much greater in the 1931 group than in the 1930 group, 10 percent of the 1930 group having been limited to eighth-grade education and 28 percent of the 1931 group. Among the 1932 families the number of parents who had attended college was about the same as in the 1931 group, but the number in which both parents had attended high school was greater—17 percent in 1931 and 25 percent in 1932. In the 1932 group there were fewer families in which the parents had had eighth-grade education or less—only 19 percent compared with 28 percent in 1931.

Tenancy.—There was a much higher percentage of owners and part-owners in the 1930 group of families than in the groups of the two later years (Table 5), the combined owners and part-owners con-

TABLE 5.—TYPES OF TENANCY IN ACCOUNT-KEEPING FAMILIES¹ AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Number of owners			Number of part-owners			Number of tenants		
	1930	1931	1932	1930	1931	1932	1930	1931	1932
\$ 500—\$ 999.....	0	5	11	1	4	10	0	6	26
1 000— 1 499.....	5	14	21	2	9	10	11	35	38
1 500— 1 999.....	14	6	10	4	9	7	14	22	13
2 000— 2 499.....	22	10	3	7	4	0	2	12	6
2 500— 2 999.....	3	4	2	0	3	1	11	4	1
3 000 and over.....	8	4	..	4	3	..	2	5	..
Total.....	52	43	47	18	32	28	40	84	84
Percent.....	47	27	30	16.5	20	17	36.5	53	53

¹In one of the 111 record-keeping families in 1930 the husband was a hired man, not classed as a tenant, so that no data on this family are given in this table.

stituting 63.5 percent of all families in 1930 and 47 percent in both 1931 and 1932.

Since among the 56 families that submitted records for all three years, only two changed their status with respect to tenancy, it may be assumed that one reason for the greater proportion of tenant-operated farms in 1931 and 1932 was a difference in the make-up of the 1931 and 1932 groups.

Number of Acres Farmed.—Both owners and tenants farmed about the same number of acres, on the average, in all three years, the yearly averages of owners being 212, 197, and 213 acres, and of tenants 202, 209, and 216 acres (Table 6).

The part-owner group farmed much larger tracts of land than

the others, averaging 301 acres in 1930, 453 acres in 1931, and 293 acres in 1932. In 1930 and 1932 these part-owners owned about half the total number of acres they farmed; in 1931 they owned only about one-third. Thus it would appear that one effort made by these part-owner families in 1931 to prevent their incomes from declining further was to farm more land. One year's experience with increased acreages

TABLE 6.—AVERAGE NUMBER OF ACRES FARMED BY OWNERS, PART-OWNERS, AND TENANTS IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Average number of acres farmed by owners			Average number of acres farmed by part-owners			Average number of acres farmed by tenants		
	1930	1931	1932	1930	1931	1932	1930	1931	1932
\$ 500—\$ 999.....	...	124	166	90	154	203	...	170	209
1 000—1 499.....	171	156	201	385	247	273	193	209	221
1 500—1 999.....	208	245	260	160	307	374	203	215	197
2 000—2 499.....	205	210	281	306	471	...	196	203	201
2 500—2 999.....	249	250	261	...	388	780	203	326	550
3 000 and over.....	248	272	...	439	606	...	240	214	...
Average.....	212	197	213	301	453	293	202	209	216

seemed sufficient, the average number of acres rented by part-owners declining markedly in 1932. Part of the decrease, however, can be attributed to the difference in the samples.

Living Conveniences of the Homes.—Eight rooms, including four bedrooms, was the average number in the homes of the 1930 families; seven rooms, including three bedrooms, was the average for the 1931 families; and eight rooms, including three bedrooms the average for the 1932 families. Altho there was sleeping space in these houses sufficient to supply $\frac{3}{8}$ bedroom per person, which previous studies show is the average necessary for adequate sleeping accommodations for a family,¹ the present data do not show whether these families used all rooms that were available. Since there is a tendency for farm families not to use all the space available for sleeping,² no statement can be made about the adequacy of the sleeping quarters actually used by these farm families.

¹The President's Conference on Home Building and Home Ownership. p. 8. Report of Committee on Farm and Village Housing. 1932. See also Standards of Living. Bul. 7, rev. ed., p. 15. Bur. Appl. Econ. U. S. Dept. Agr. 1920.

²Nickell, P. Rural Housing: A Study of the Housing of 316 Master Farm Homemakers With Special Reference to Adequacy. Unpublished thesis, University of Minnesota, 1932.

More than half the homes in these groups were supplied with a heating plant of a modern type. The heating system in 60 percent of the homes covered by the 1930 data was of the circulating warm-air type, hot water, or steam, with the remaining 40 percent of the homes heated by pipeless furnaces or stoves (Table 7). The percentage of families having a more modern type of heating system—warm air, hot water, or steam—was lower in 1931 (54 percent) than it was in 1930 (60 percent) or than it was in 1932 (57 percent). That the general plane of living of the 1930 group of families was slightly higher than that of the 1931 and 1932 groups may explain this difference in the heating system.

Electricity was used for lighting in slightly less than half the homes included in this study (Table 8). Of the 1930 families practically half used electricity for lighting. One out of six of the 44 families using electricity owned its lighting plant, and the remainder had public utility service. Over half the 1931 families used electricity for lighting, one out of four having its own lighting plant. Half the 1932 families used electricity for lighting, about one out of six having a home-owned plant.

These farm homes had somewhat better heating systems than lighting systems. The amount of income seems to limit the use of electricity, for there is a high cash operating cost for service both from the public utility companies and from home-owned plants. The better heating systems may be due to the greater economy of fuel and labor in heating a number of rooms with a central heating plant than with stoves. The high percentage of tenant-operated farms does not seem to explain satisfactorily the lack of either a modern heating or a lighting system, for married sons or daughters are often tenants on the family homestead.

Thirty-eight percent of the homes of the 1930 group were equipped with running water under pressure, 39 percent of the 1931 group were so equipped, and 42½ percent of the 1932 group. The increase in these figures may reflect some of the results of a campaign carried on in Illinois in which the goal was "running water in every rural home."

ANALYSIS OF INCOME AVAILABLE FOR FAMILY USE

The total cash income available for family use, plus the money value of the food furnished by the farm,¹ fuel, gifts, and the rental

¹Food furnished by the farm includes dairy and poultry products, butchered meat, cereals, and fruits and vegetables used fresh, canned, or stored.

value of the farm dwelling, constitutes the "realized income." The money value of the products used by the family was computed at the local retail market price. The rental value of the farm dwelling for each year was estimated at 10 percent of the total value of the dwelling minus all cash repairs, fire insurance, etc., for the year.

Decline in Realized Income.—The average realized income of the 111 families in 1930 was \$2,190; for the 159 families in 1931, \$1,791; for the 159 families in 1932, \$1,308 (Table 9).

Increase in Commodities and Services Furnished by Farm.—Of the realized income for the 1930 group 28½ percent was furnished by the farm in commodities and services, including all the home-produced food used by the family, such fuel as wood and cobs, and the rental value of the house. For the 1931 group, commodities and services constituted 36 percent, and for the 1932 group, 42 percent, of the total realized income. Because of the lowered price-level for food (page 387) a comparison of the money value of these commodities for the three years does not show completely the increased use of home-produced products in the two later years.

Decline in Cash Income.—The average cash income available for family use declined from \$1,555 in 1930 to \$748 in 1932, or 52 percent (Table 9). For the 56 families whose records extended over the three-year period there was also a decline of 52 percent in cash income—from \$1,794 in 1930 to \$863 in 1932.

The average cash income of 70 identical families included in both the 1930 and 1931 groups declined approximately \$450 between the two years, while that of all families declined \$409.

Sources of Cash Income.—The cash spent by the 429 families whose records are included in this three-year study represented net cash income from the farms on which they lived, together with cash from all other sources, such as work away from the farm, income from investments, borrowed money, and use of capital. Since this is primarily an expenditure study, detailed information of sources of cash income are given here only from the home-account records of 100 families from the 1931 group and of 100 families from the 1932 group (Table 10).

The amounts of capital (accumulated savings) and credit used by each of these groups of 100 families are shown in Table 11.

The average total capital and credit used by the families in each income-group is less significant than the number of families using the various kinds of capital and credit. Among the 1931 families there was a tendency for those in the lower income-groups to use savings

TABLE 9.—AVERAGE CASH AND NONCASH DISTRIBUTION OF REALIZED INCOME IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT INCOME-LEVELS

Realized income	Number of families	Total money value of living and savings per family	Total cash available per family ¹		Money value of raised products per family			Year's rental value of house ²
			Insurance and investments	Expenditures	Used			
					Food	Fuel	Gifts	
1930—111 families								
\$ 500-\$ 999.....	1	\$ 885	\$ 0	\$ 367	\$310	\$ 0	\$ 8	\$200
1 000-1 499.....	18	1 221	82	627	259	4	6	243
1 500-1 999.....	32	1 719	124	953	325	7	3	307
2 000-2 499.....	31	2 202	291	1 275	343	9	8	276
2 500-2 999.....	15	2 685	607	1 434	364	3	6	271
3 000 and over.....	14	4 047	941	2 325	345	12	3	421
Average.....		\$2 190	\$331	\$1 224	\$327	\$ 7	\$ 5	\$296
Percent.....		100	15	56.5	15	.3	.2	13
1931—159 families								
\$ 500-\$ 999.....	15	\$ 869	\$ 28	\$ 435	\$234	\$ 6	\$ 7	\$159
1 000-1 499.....	58	1 289	91	605	333	10	5	245
1 500-1 999.....	37	1 791	232	848	402	10	7	292
2 000-2 499.....	26	2 182	273	1 143	416	9	14	327
2 500-2 999.....	11	2 773	624	1 449	395	2	6	297
3 000 and over.....	12	3 612	1 268	1 676	382	10	12	264
Average.....		\$1 791	\$274	\$ 872	\$361	\$ 9	\$ 8	\$267
Percent.....		100	15	49	20	.5	.5	15
1932—159 families								
\$ 500-\$ 999.....	47	\$ 848	\$ 38	\$ 373	\$246	\$10	\$ 4	\$177
1 000-1 499.....	69	1 263	134	546	314	11	6	252
1 500-1 999.....	30	1 682	229	778	375	15	12	273
2 000-2 499.....	9	2 178	306	1 279	297	10	7	279
2 500-2 999.....	4	2 722	374	1 617	418	16	9	288
Average.....		\$1 308	\$139	\$ 609	\$307	\$11	\$ 6	\$236
Percent.....		100	11	46.6	23	1	.4	18

¹Not farm alone, but cash net income from all sources after business expenses are paid.

²Ten percent of the estimated total value of the house, with cash repairs, fire insurance, etc., subtracted for owner families.

and for those in the higher income-groups to sell investments, and a marked tendency for the higher income-groups to use credit in some form either to pay past obligations or to maintain a standard of living already set. There was an almost equal use of these two methods of raising cash, 24 using past savings and 26 making use of credit. Four showed a deficit in the farm business, but the other 96 remained solvent. By comparing the sources of income available for family use in

TABLE 10.—SOURCES OF CASH INCOME AVAILABLE FOR FAMILY USE IN TWO GROUPS OF ACCOUNT-KEEPING FAMILIES, 1931 AND 1932

Cash income available	Number of families	Average cash income per family—			
		Total	From farm	Work away from the farm ¹	Interest, dividends, and other sources ¹
1931—100 families					
Under \$500.....	8	\$ 408	\$ 310	\$ 55	\$ 43
\$ 500—\$ 999.....	35	612	522	31	59
1 000—1 499.....	21	1 019	805	106	108
1 500—1 999.....	15	1 539	1 259	92	188
2 000—2 499.....	13	1 882	1 535	141	206
2 500 and over.....	8	2 806	1 887	768	151
1932—100 families					
Under \$500.....	27	\$ 320	\$ 241	\$ 37	\$ 42
\$ 500—\$ 999.....	57	545	379	84	82
1 000—1 499.....	9	835	388	337	110
1 500—1 999.....	6	1 603	1 425	91	87
2 000—2 499 ²	1	2 344	1 636	661	47

¹The income earned away from the farm includes that received for personal services such as judging, clerking, jury duty, lecturing, selling of insurance, managing of farms, teaching, etc.; for services with equipment, such as trucking, grinding, wood sawing, shoveling, road work, driving a car, etc.; income from keeping boarders, selling home-produced food, flower bulbs, etc.; and income from gifts, prizes, interest, dividends, rents, and returns from estates.

²No records in this group received from families with incomes higher than \$2,499.

the 100 families in the 1932 group with those of the 100 families in the 1931 group, one observes a decline in income from investments and an increase from work away from the farm, as well as a lower net cash income from the farm business. The outstandingly low amount of cash income indicated as coming from the farm (Table 10) may not, however, give an entirely accurate picture, for no record was included of inventory values of commodities raised during the year and not sold.

Twenty-three families in 1932 used past savings and 32 made use of credit (Table 11). Only 6 families sold investments in 1932, in contrast to 11 in 1931. Thus it may be assumed that these families had already used the major part of their past savings, and that their debts were increasing.

TABLE 11.—SOURCES AND EXTENT OF CAPITAL AND CREDIT AVAILABLE FOR FAMILY USE IN TWO GROUPS OF ACCOUNT-KEEPING FAMILIES, 1931 AND 1932

Cash income available	Number of families	Average capital and credit used per family	Range and distribution of capital and credit used per family ¹					
			From savings	Sale of investments	Cancelled insurance	Borrowed on insurance	Borrowed from other sources	
1931—100 families								
Under \$500.....	8	dollars 3	dollars (1) ¹ 25	dollars 0	dollars 0	dollars 0	dollars 0	dollars 0
\$ 500-\$ 999.....	35	103	(4) 62-500	(1) 100	(2) 205-795	(2) 56-314	(2) 20- 680	(6) 20- 680
1 000-1 499.....	21	229	(1) 8	(3) 100- 775	(1) 166	(4) 102-835	(2) 91-1 471	(2) 91-1 471
1 500-1 999.....	15	156	(3) 53-761	(1) 102	0	(1) 856	(2) 40- 250	(2) 40- 250
2 000-2 499.....	13	366	0	(4) 14-1 573	0	(1) 259	(3) 100- 703	(3) 100- 703
2 500 and over.....	8	452	0	(2) 15- 247	(1) 423	(1) 1 000	(4) 57-1 200	(4) 57-1 200
1932-100 families								
Under \$500.....	27	83	(2) 10- 23	(2) 25- 200	(1) 265	(1) 27-324	(5) 18- 445	(5) 18- 445
\$ 500-\$ 999.....	57	169	(6) 25-500	(3) 50-1 100	(3) 117-1 096	(8) 39-772	(8) 35-1 200	(8) 35-1 200
1 000-1 499.....	9	399	(3) 50-840	(1) 150	0	(1) 230	(3) 160-1 500	(3) 160-1 500
1 500-1 999.....	6	148	(1) 160	0	0	.0	(2) 225- 500	(2) 225- 500
2 000-2 499.....	1	28	(1) 28	0	0	0	0	0

¹The figures in italics indicate the number of families using the kind of capital or credit designated.
²No records in this group received from families with cash incomes higher than \$2,499.

That these 100 families are fairly representative of the whole group of 159 families studied in 1932 is shown by the fact that their average cash income available for family use was \$756, while that for the whole group was \$748.

Marriage Ages and Income-Levels.—The relation of the ages of the husband and wife at marriage to the amount of their annual realized income is shown in Table 12. In the 1930 families in the higher

TABLE 12.—RELATION OF AGE OF HUSBAND AND WIFE AT MARRIAGE TO ANNUAL REALIZED INCOME IN ACCOUNT-KEEPING FAMILIES

Realized income	1930 families		1931 families		1932 families	
	Husband's age at marriage	Wife's age at marriage	Husband's age at marriage	Wife's age at marriage	Husband's age at marriage	Wife's age at marriage
\$ 500-\$ 999.....	24	21	26	23	26	24
1 000- 1 499.....	25	21.8	26	24	25	22
1 500- 1 999.....	25.8	20.8	25	23	26	23
2 000- 2 499.....	26	22.4	28	23	24	22
2 500- 2 999.....	25.5	22.6	23	22	27	24
3 000 and over.....	26	24	27	23	..	..

realized income-groups both the husbands and wives were older at marriage than those in the lower income-groups. In the 1931 and 1932 families the average age of the husband at marriage again appears to show the same relation to the income-level, but the average age of the wife at marriage shows no such relationship. Thus it would appear that, within certain ranges of ages, a man's age at marriage has some relationship to the amount of money he earns later in life. This relationship could be affirmed definitely, however, only if one were certain that all factors other than age had been held constant in the different groups being compared.

Education and Income-Level.—The amount of formal education possessed by the husbands and wives in this study is shown in Table 4 (page 371). In the 1930 group all but one of the 16 families in which both parents had attended college for one year or more had realized incomes of \$2,000 or more; while only half (26 out of 53) of the other families enjoyed this income. For 1931 and 1932, however, which were very abnormal years from an economic standpoint, there appeared to be no relation between amount of formal education and amount of income. It is obvious that it would be necessary to check such a relationship thru a complete business cycle to arrive at any valid conclusions concerning it.

CHANGES IN INCOME UTILIZATION

Use of Realized Incomes in 1930

The total savings and money value of the living of the 111 families in 1930 ranged from \$885 to \$6,561; the average was \$2,190, 17 percent or one-sixth of the families having less than \$1,500. The distribution of the realized income of these families is indicated in Table 13.

The savings and investments of these families for 1930 averaged \$331, or 15 percent of the total realized income. Money invested in the farm business, such as that used for limestone or new machinery, is not included here under family savings and investments.

Exclusive of savings, the money value of living averaged \$1,859 per family for the year. In the higher income-groups, up to the \$3,000+ income-level, the amount used for living constituted a declining percentage of the total realized income (Table 14). The two highest income-groups had the same percentage of savings (23 percent) and consequently the same percentage of expenditures for living. Both savings and general expenditures increased more rapidly in proportion to increase in income than did expenditures for operating, shelter, and clothing. The percentage of expenditures for food and shelter showed a very definite tendency to decline as income increased. Operating and clothing expenses have remained fairly constant on the percentage basis in all income-groups above \$999. At the \$2,000+ income-level, savings showed a much higher percentage increase with increase in income. Above \$1,500, general expenditures showed but a slight percentage increase but a marked increase in absolute amounts.

With increasing income-levels there was a very definite trend in the 1930 families for all general expenditures, such as those for personal items, automobile, health, recreation, education, church, and gifts, to increase both in actual amounts and on a percentage basis. The \$3,000+ income-group spent by far the highest percentage of realized income for education.

The number of members in the family seemed to influence the distribution of money at all income-levels. In the lower income-groups, food and clothing expenditures increased in proportion to the increase in the number of persons in the family; and general expenditures, shelter, and savings decreased in actual amounts and on a percentage basis, as one would expect.

At incomes of \$2,000 and above, expenditures for food and clothing likewise increased as the size of the family increased. Expendi-

TABLE 13.—AVERAGE DISTRIBUTION OF REALIZED INCOME IN ACCOUNT-KEEPING FAMILIES

Realized income	Number of families	Total money value of living and savings per family	Savings and investments	Food	Operating	Shelter	Clothing	General expenditures
1930—111 families								
\$ 500-\$ 999.....	1	\$ 885	\$.....	\$ 406	\$ 47	\$222	\$ 33	\$ 177
1 000-1 499.....	18	1 221	82	414	115	284	91	235
1 500-1 999.....	32	1 710	124	495	132	378	141	449
2 000-2 499.....	31	2 202	201	567	173	432	178	561
2 500-2 999.....	15	2 685	607	651	204	462	232	529
3 000 and over.....	14	4 047	941	688	390	618	301	1 109
Low.....		885	0	206	58	141	31	52
High.....		6 561	2 417	1 110	994	898	609	2 964
Average.....		\$2 190	\$ 331	\$ 547	\$182	\$418	\$175	\$537
Percent.....		100	15	25	8	19	8	25
1931—159 families								
\$ 500-\$ 999.....	15	\$ 869	\$ 28	\$ 354	\$ 95	\$194	\$ 66	\$ 132
1 000-1 499.....	58	1 289	91	488	99	281	84	246
1 500-1 999.....	37	1 791	232	595	144	342	118	360
2 000-2 499.....	26	2 182	273	657	179	433	160	480
2 500-2 999.....	11	2 773	624	644	280	463	198	564
3 000 and over.....	12	3 612	1 268	716	232	414	259	723
Low.....		621	0	203	30	81	16	61
High.....		5 199	3 231	1 008	456	807	536	1 236
Average.....		\$1 791	\$ 274	\$ 556	\$145	\$335	\$123	\$ 358
Percent.....		100	15	31	8	19	7	20
1932—159 families								
\$ 500-\$ 999.....	47	\$ 848	\$ 38	\$ 344	\$ 71	\$196	\$ 57	\$142
1 000-1 499.....	69	1 263	134	448	104	280	80	217
1 500-1 999.....	30	1 682	229	547	136	332	125	313
2 000-2 499.....	9	2 178	306	534	244	365	186	543
2 500-2 999.....	4	2 722	374	744	270	378	223	733
Low.....		644	0	175	31	72	15	38
High.....		2 984	817	1 154	395	574	311	992
Average.....		\$1 308	\$139	\$ 448	\$113	\$272	\$ 91	\$245
Percent.....		100	11	34	8	21	7	19

TABLE 14.—PERCENTAGE DISTRIBUTION OF REALIZED INCOME IN ACCOUNT-KEEPING FAMILIES

Realized income	Savings and investments	Food	Operating	Shelter	Clothing	General expenditures
1930—111 families						
\$ 500—\$ 999.....	0	46	5	25	4	20
1 000—1 499.....	7	34	9	23	8	19
1 500—1 999.....	7	29	8	22	8	26
2 000—2 499.....	13	26	8	19	8	26
2 500—2 999.....	23	24	7	17	9	20
3 000 and over.....	23	17	10	15	8	27
Average.....	15	25	8	19	8	25
1931—159 families						
\$ 500—\$ 999.....	3	41	11	22	8	15
1 000—1 499.....	7	38	8	22	6	19
1 500—1 999.....	13	33	8	19	7	20
2 000—2 499.....	13	30	8	20	7	22
2 500—2 999.....	23	23	10	17	7	20
3 000 and over.....	35	20	6	12	7	20
Average.....	15	31	8	19	7	20
1932—159 families						
\$ 500—\$ 999.....	4	41	8	23	7	17
1 000—1 499.....	11	36	8	22	6	17
1 500—1 999.....	14	33	8	19	7	19
2 000—2 499.....	14	24	11	17	9	25
2 500—2 999.....	14	27	10	14	8	27
Average.....	11	34	8	21	7	19

tures for shelter and savings decreased as the number of members increased, but general expenditures changed very little either in actual amount or proportion of the total realized income. The amount of money spent for education seemed more closely related to the ages of the children than to the number of children in the family. In the families with children of college age, educational expenditures increased markedly and savings declined. This would seem to indicate that some of the savings had been accumulated for educational purposes.

Use of Realized Incomes in 1931

The total money value of living and savings for the 159 families in 1931 ranged from \$621 to \$5,199, the average being \$1,791. The distribution of the realized income is indicated in Table 13.

Nearly half these families (46 percent) had a realized income of \$1,500 or less, in sharp contrast to only 17 percent with like incomes

in 1930. These figures are significant of the lowered income in 1931, since these data include 70 identical families in the two years.

In 1931 the percentage distribution of the realized income in the groups of families below the \$3,000 income-level corresponded quite closely to the distribution in 1930 (Table 14). In the \$3,000+ income-group, 65 percent of the total realized income was used for living expenditures in 1931, in contrast to 77 percent in the previous year. This percentage decrease was offset by a corresponding increase in savings and investments.

In the 1931 group of families, just as in the 1930 group, 8 percent of the realized income was used for operation, and 19 percent for shelter (Table 14). The distribution for clothing was practically the same, being 7 percent for the 1931 group and 8 percent for the 1930 group. Five percent less was spent by the 1931 families than by the 1930 families for general expenditures, the principal reductions being in the expenditures for automobile, health, and recreation. Thirty-one percent was used for food for the family in 1931 and 25 percent in 1930. Thus it would appear that with the lowered income of 1931, the 5 percent of the realized income utilized in 1930 for general expenditures was shifted to food in 1931.

Use of Realized Incomes in 1932

The total money value of living and savings for the 159 families in 1932 ranged from \$644 to \$2,984, the average being \$1,308. The distribution of this realized income is indicated in Table 13.

Nearly three-fourths (73 percent) of these families had, on the average, a realized income of \$1,500 or less, in contrast to 46 percent who had this amount in 1931 and 17 percent in 1930. Since the 56 identical families in the three-year period suffered a corresponding decline in income, the outstanding change in living and savings would appear not to be due wholly to the type of sample, but to actual changing economic conditions.

The percentage distribution of the lowered income of 1932 (Table 14) shows that the 1932 families shifted 4 percent from savings to such necessities as food and shelter.

Savings and Investments

The percentage of the total realized income laid aside in savings and investments by the 1930 families was the same as for the 1931 families (15 percent), but in absolute amount was less for the 1931 group because of a lowered income. The average amount saved per

family in 1930 was \$331, while in 1931 it was \$274. More than half (53 percent) the \$274 savings in 1931 was used for life insurance premiums (Table 15). The percentage of savings invested in life insurance declined markedly in the higher income-groups. Fifty-eight

TABLE 15.—AVERAGE DISTRIBUTION OF SAVINGS IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Number of families	Number per family	Savings per family				
			Total	Life insurance	Other investments		
1931—159 families							
\$ 500—\$ 999.....	15	2.8	\$ 28	\$ 18	<i>perct.</i> 64	\$ 10	<i>perct.</i> 36
1 000—1 499.....	58	3.5	91	88	97	3	3
1 500—1 999.....	37	4.1	232	202	87	30	13
2 000—2 499.....	26	4.4	273	169	62	104	38
2 500—2 999.....	11	4.4	624	318	51	306	49
3 000 and over.....	12	4.6	1 268	185	15	1 083	85
Average.....	..	3.9	\$ 274	\$145	53	\$ 129	47
1932—159 families							
\$ 500—\$ 999.....	47	3.3	\$ 38	\$ 35	92	\$ 3	8
1 000—1 499.....	69	4.0	134	117	87	17	13
1 500—1 999.....	30	5.0	229	175	76	54	24
2 000—2 499.....	9	4.3	306	175	57	131	43
2 500—2 999.....	4	5.2	374	238	64	136	36
Average.....	..	4.1	\$139	\$110	79	\$ 29	21

families with an income between \$1,000 and \$1,500 invested 97 percent of their savings in life insurance, while families with incomes of \$3,000 and over invested only 15 percent of their savings in life insurance. Since 60 percent of these 58 families were tenant farmers with a smaller amount of capital invested in farming than the \$3,000+ income-group, a greater protection was necessary for the family and could be carried with a smaller cost in life insurance than in any other type of investment.

The percentage of the total realized income saved by the 1932 families (11 percent) was less than that saved by the 1930 families (15 percent) or the 1931 families (15 percent). But the decline in the absolute amount saved per family in 1932 was even more significant because of the lowered income that year. On the average, over three-fourths (79 percent) of the \$139 saved was devoted to payment of life insurance premiums (Table 15). Even in the higher income-levels the percentage of savings used for life insurance was higher in 1932 than in 1931. The average amount used for insurance premiums in the

1932 families, however, was lower than in 1931, \$110 as compared with \$145.

Food

The total money value of food consumed, both purchased and home-produced, was one-fourth (25 percent) of the total realized income of the 111 families in 1930. In contrast, one-third (31 percent) of the total realized income of the 159 families in 1931 was used for food and 34 percent of the income of the 159 families in 1932 (Table 14). This higher percentage would be expected with a lowered income.

The money value of the food furnished by the farm in relation to the money value of all food used by these families is shown in Table 16. The average total money value of food consumed per family in 1930 was \$547, of which 40 percent was purchased food

TABLE 16.—RELATION OF HOME-PRODUCED FOOD TO PURCHASED FOOD IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Number per family	Average value of food per family				
		Total	Purchased		Raised	
			Amount	Percent	Amount	Percent
1930—111 families						
\$ 500—\$ 999.....	4.0	\$406	\$ 96	24	\$310	76
1 000—1 499.....	3.3	414	155	37	259	63
1 500—1 999.....	3.6	495	170	34	325	66
2 000—2 499.....	4.0	567	224	39	343	61
2 500—2 999.....	4.2	651	287	41	364	59
3 000 and over.....	4.3	688	343	50	345	50
Average.....	3.8	\$547	\$220	40	\$327	60
1931—159 families						
\$ 500—\$ 999.....	2.8	\$354	\$120	34	\$234	66
1 000—1 499.....	3.5	488	155	32	333	68
1 500—1 999.....	4.1	595	193	32	402	68
2 000—2 499.....	4.4	657	241	37	416	63
2 500—2 999.....	4.4	644	249	39	395	61
3 000 and over.....	4.6	716	334	47	382	53
Average.....	3.9	\$556	\$195	35	\$361	65
1932—159 families						
\$ 500—\$ 999.....	3.3	\$344	\$ 98	28	\$246	72
1 000—1 499.....	4.0	448	134	30	314	70
1 500—1 999.....	5.0	547	172	31	375	69
2 000—2 499.....	4.3	534	237	44	297	56
2 500—2 999.....	5.2	744	326	44	418	56
Average.....	4.1	\$448	\$141	31	\$307	69

and 60 percent was produced on the farm. In 1931 the amount was \$556, which is slightly higher even with a declining food cost. But the percentage of food purchased (35 percent) was lower and of home-produced food consequently higher (65 percent). In 1932 the total money value of food consumed (\$448) was much lower than that for 1930 and 1931, and the percentage of purchased food was also lower (31 percent). Thus it would appear that one adjustment which these families made to meet their lowered incomes was to produce a larger proportion of their food at home.

In order that valid comparisons may be made between years in the amounts of food used by these families, changes in food prices during those years should be taken into consideration.

The money value of the home-produced food used by these families in 1930, 1931, and 1932, at prices current during those years, is shown in the upper part of Fig. 2. The value when adjusted to the

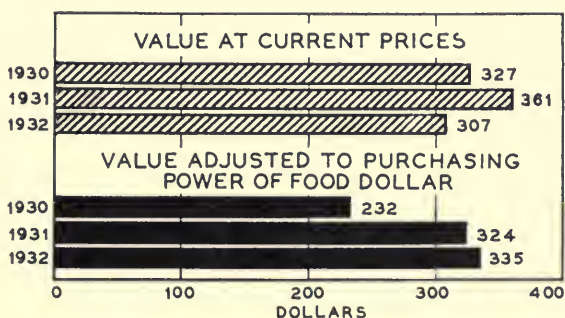


FIG. 2.—AVERAGE MONEY VALUE PER FAMILY OF FOOD FURNISHED BY THE FARM IN ACCOUNT-KEEPING FAMILIES, AND VALUE ADJUSTED TO CHANGED PURCHASING POWER OF THE FOOD DOLLAR

A great deal more home-produced food was used per family in 1931 and 1932 than in 1930, as shown by the solid bars in the lower part of the above graph.

changed purchasing power of the food dollar¹ is shown in the lower part of the figure. The same facts for the purchased food and for all food are shown in Figs. 3 and 4.

While the money value of the home-produced food used per family in 1931 increased as compared with 1930 when expressed in current

¹Based on index numbers of prices paid by farmers for commodities bought for family maintenance, compiled by the Bureau of Agricultural Economics, U. S. Department of Agriculture.

food prices, a much larger increase is shown when the money value of this food is adjusted to the changed purchasing power of the food dollar, indicating that the amount of home-produced food used by these families increased markedly during these years. In 1932, tho the

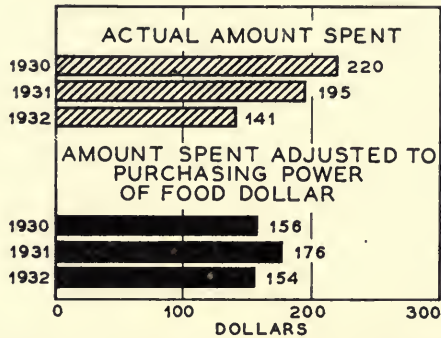


FIG. 3.—AVERAGE COST PER FAMILY OF FOOD PURCHASED BY ACCOUNT-KEEPING FAMILIES, AND COST ADJUSTED TO CHANGED PURCHASING POWER OF THE FOOD DOLLAR

These farm families bought more food in 1931 than in 1930, and as much in 1932 as in 1930, tho their actual expenditures for food were less each year.

value of the home-produced food expressed in current prices had dropped below that of 1931, the value expressed in terms of the adjusted dollar was still greater than in 1931, indicating that the amounts of home-produced food being used were still increasing.

The actual amounts spent for purchased food declined gradually from 1930 thru 1932 (Fig. 3). When the amounts are adjusted to the change in price-level, an increase occurs in 1931 instead of a decrease. In 1932 a decrease occurs, as compared with 1931, but the purchasing power remains practically the same as in 1930.

The money value of home-produced food and the cost of food purchased are combined in Fig. 4 to give the average total food cost per family in 1930, 1931, and 1932. A slight increase in food cost in 1931 over 1930 and a considerable decrease in 1932 compared with both previous years are shown to have occurred when amounts are expressed in current food prices. When the amounts are adjusted to the changed purchasing power of the food dollar, a decided increase is shown in 1931 over 1930, but only a slight decline in 1932 compared with 1931. Since even at the adjusted price-level the values of both purchased food and home-produced food had increased, it is fair to as-

sume that the total amounts of food used per family must have been greater in 1931 than in 1932 and considerably greater in 1931 than in 1930. This assumption is further borne out by the fact that the records show no change in the type of food used, such as out-of-season or luxury foods.

It would be reasonable to assume that the higher food cost per family in 1931 might have been due partly to the larger number of members in the household that year (page 369). In 1931, because of

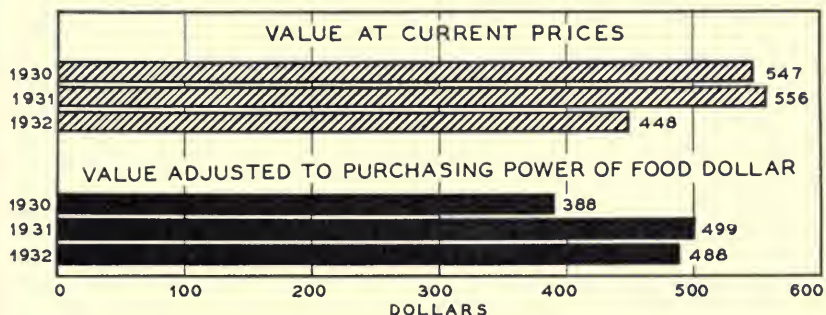


FIG. 4.—TOTAL VALUE PER FAMILY OF FOOD USED BY ACCOUNT-KEEPING FAMILIES, AND VALUE ADJUSTED TO THE CHANGED PURCHASING POWER OF THE FOOD DOLLAR

These farm families on the average consumed more food in 1931 and in 1932 than in 1930, as shown by a comparison of the total values per family of food consumed, both purchased and home-produced, adjusted to the changed purchasing power of the food dollar in 1930, 1931, and 1932.

the combining of households, 18 grandparents lived in the homes of the 159 families for nine months or more, while in 1930 only one grandparent and one aunt lived in the homes of the 111 families. Only 7 grandparents were included in the household of the 1932 families. The number of grown children dependent on the family for food and shelter was 4 in both 1930 and 1931, and 11 in 1932. The number of grown children in the household in 1932, however, did not offset the larger number of relatives in the home in 1931.

The increase in food cost per family in 1931 was not due to an increase in hired help. The hired help during these years was practically limited to farm help, only 18 percent of the families keeping a hired man for nine months or more in 1931 compared with 21 percent in 1930.

Since the data for the three years are not comparable as to age, sex, and number of members, it is necessary to ascertain the number

of adult male units per family in order to have a basis for comparison. Dr. Edith Hawley's scale of adult male units, which takes into consideration the energy requirements of all members of the family according to sex, age, and activity of each member, is used in this study.¹

The average number of adult male units for each income-level and the daily food cost per unit are indicated in Table 17. The average daily food cost per adult male unit was 43 cents in 1930, 40 cents in 1931, and 31 cents in 1932. When these figures are adjusted to the changed purchasing power of the food dollar, the average meal cost per day was 31 cents in 1930, 36 cents in 1931, and 34 cents in 1932.

Thus the higher food costs in 1931, on the basis of purchasing power (Fig. 4), were in reality not due to the larger household. The lower food cost in 1930 per adult unit must have been due partly to better management of this more selected group of families. The information on pages 372 to 374 leads one to believe that the 1931 families as a whole were the least selected group and probably were much less skilled in their food management.

Another explanation for the higher food cost in 1931 over 1932, when costs are adjusted to the change in price-level, may be found in the slow adjustment made by many homemakers during this period to the greater purchasing power of the dollar.

The daily food cost of the 56 identical families over the same three-year period will help check the above point. The daily adult food cost for the identical families was 43 cents in 1930, 38 cents in 1931, and 31 cents in 1932. When these figures are adjusted, for comparison, to the change in purchasing power of the food dollar for each of these years, the meal cost is 31 cents in 1930, 34 cents in 1931, and 34 cents in 1932. This would serve to show that this more selected group of families, which kept continuous records, was probably also slow to realize the changing price-level of foods.

The changes in the amounts of home-produced food used by these farm families have been directly affected by the "Live at Home" projects emphasized by the University in its agricultural and home economics extension work. The actual amounts spent for purchased food were reduced less from 1930 to 1931 than from 1931 to 1932, partly because of the larger use made of home-produced food in 1932. The reduction in the actual amounts spent for purchased food over the three-year period, however, was due largely to reduced incomes.

¹Dietary Scales and Standard for Measuring a Family's Nutritive Needs, U.S. Department of Agriculture, Technical Bulletin 8, p. 28.

TABLE 17.—AVERAGE DAILY FOOD COST PER ADULT MALE UNIT IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Number of families			Number per family			Number of adult male units per family			Daily food cost per adult male unit			
	1930		1931	1930		1931	1930		1931	1930		1931	1932
	1930	1931	1932	1930	1931	1932	1930	1931	1932	1930	1931	1932	
\$ 500- $\bar{1}$ 999.....	1	15	47	4.0	2.8	3.3	3.3	2.5	2.9	\$.34	\$.36	\$.30	
1 000-1 499.....	18	58	69	3.3	3.5	4.0	3.7	3.1	3.6	.39	.39	.30	
1 500-1 999.....	32	41	37	3.6	4.1	5.0	4.3	3.6	4.3	.41	.42	.32	
2 000-2 499.....	31	26	9	4.0	4.4	4.3	3.7	3.7	3.8	.45	.40	.34	
2 500-2 999.....	15	11	4	4.2	4.4	5.2	3.7	3.9	4.7	.46	.41	.36	
3 000 and over.....	14	12	..	4.3	4.6	..	4.1	4.1	..	.46	.43	..	
Total.....	111	159	159	3.8	3.9	4.1	3.6	3.4	3.6	\$.43	\$.40	\$.31	
Average.....	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 18.—DISTRIBUTION OF OPERATING EXPENDITURES IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Fuel			Light, power, and telephone			Purchased ice and water			Laundry and paid service			Small supplies			
	1930		1931	1930		1931	1930		1931	1930		1931	1930		1931	1932
	1930	1931	1932	1930	1931	1932	1930	1931	1932	1930	1931	1932	1930	1931	1932	
\$ 500- $\bar{1}$ 999.....	\$ 0	\$32	\$26	\$36	\$23	\$ 0	\$ 2	\$ 1	\$ 3	\$ 0	\$ 1	\$ 3	\$11	\$24	\$18	
1 000-1 499.....	46	31	44	35	40	3	4	2	4	2	6	4	23	23	24	
1 500-1 999.....	49	54	42	47	53	6	2	4	5	9	11	7	36	30	30	
2 000-2 499.....	62	49	65	53	76	3	7	12	21	31	57	39	39	38	34	
2 500-2 999.....	60	68	82	48	59	4	9	8	39	97	19	51	51	46	45	
3 000 and over.....	89	75	..	104	80	16	13	..	131	22	..	..	50	42	..
Average.....	\$58	\$45	\$36	\$46	\$41	\$ 6	\$ 5	\$ 3	\$30	\$18	\$ 8	\$ 8	\$39	\$31	\$25	
Percent of total money value of living and savings.....	2.5	2.5	2.5	2.2	2.6	.3	.3	0	1.3	1.0	1.0	1.0	1.7	1.7	1.5	

Operating Expenditures

The percentage of the total realized income used for operating expenditures was the same for all three years (8 percent), but there was a different distribution of the items that made up operating expenses (Table 18). Expenditures for light, power, telephone, and small supplies were reduced, on the average, very little during the three-year period. One explanation for this may be that the cost of utilities was not lowered to the same extent as the cost of other items.

Any considerable reduction in operating expenditures would mean a change in the family's mode of living. These families, by increasing their home production and reducing their paid services, were able to retain their home conveniences and avoid any very radical change in their mode of living (see pages 397 to 399).

Nearly a 50-percent reduction in purchased fuel, ice, and paid services occurred between 1930 and 1932. The reduction in purchased fuel was partly the result of using home-grown wood and cobs, and partly the result of heating fewer rooms. The ice and paid services were, on the average, low for all families (only \$6 a year in the higher income year of 1930), yet they were reduced by half in 1932.

Higher operating costs occurred at the higher income-levels, except in the highest income-group in 1931, which group of families made the greatest reductions in operating expenditures by lowering their paid services.

Shelter

Shelter charges include the yearly rental value of the house (estimated as 10 percent of its total value minus all cash expenditures for the upkeep of the house, such as repairs, replacements, and fire insurance premiums). Taxes are not taken into consideration, for they are charged against the farm business. For a tenant family the rental value without any deductions is ordinarily taken as the rental charge. But if the tenant family makes any outlay for repairs, etc., not refunded by the landlord, then deductions are made as explained above.

The rental value of the farm dwelling during the three-year period constituted a large proportion of the cost of shelter (Table 19). The average amount spent per family for repairs was \$39 in 1930, \$30 in 1931, and \$10 in 1932. This small amount was used for emergency expenditures, such as those for window panes and paint, and was borne by both tenants and owners.

Furnishings and furniture expenditures are considered as shelter costs (Table 19). A very decided reduction in these expenditures

TABLE 19.—AVERAGE DISTRIBUTION OF SHELTER EXPENDITURES IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Rental value of house ¹			Cash spent for repairs ²			Cash spent for furnishings		
	1930	1931	1932	1930	1931	1932	1930	1931	1932
\$ 500-\$ 999.....	\$200	\$158	\$177	\$ 0	\$ 20	\$ 5	\$ 22	\$16	\$14
1 000- 1 499.....	243	245	252	18	10	9	23	26	19
1 500- 1 999.....	307	292	273	20	10	12	51	40	47
2 000- 2 499.....	276	397	279	55	60	19	101	46	67
2 500- 2 999.....	271	297	288	57	103	42	134	63	48
3 000 and over.....	421	264	...	55	70	...	142	80	...
Average.....	\$296	\$267	\$236	\$39	\$30	\$10	\$83	\$38	\$26
Percent of total money value of living and savings.....	13	15	18	2	2	1	4	2	2

¹Ten percent of the estimated total value of the house minus all cash repairs, fire insurance, etc., is figured as a year's rental value.

²Including fire insurance premiums.

occurred during the three-year period, the 1930 families spending an average of \$83 a family, the 1931 families \$38, and the 1932 families only \$26.

A direct relationship apparently existed between size of income and the amount spent for each of the shelter items, for as the income-level increased, expenditures for each of these items increased. All cash items were markedly lower in 1932 than in 1930 and 1931, especially in the highest and lowest income-groups. This decrease was probably due to lack of funds in the lowest income-group and to cash obligations in the highest group.

Clothing

The proportion of the realized income spent for clothing changed little during the three-year period, being 8 percent for the 1930 and 1931 groups and 7 percent for the 1932 group, but since incomes were declining during this time this means that much smaller amounts were spent for clothing in 1931 and 1932.

The distribution of clothing money between husbands and wives is indicated for the three-year period in Table 20. A greater reduction occurred in the amounts of money spent by the wives for their clothing during the three years than by the husbands. In the 1930 group of families the husbands' average clothing cost was 20 percent of the \$175 total clothing money, in the 1931 group it was 20 percent of \$123, and in the 1932 group it was 22 percent of \$91. The wives' average clothing cost was 36 percent of the total clothing money in 1930, 35

percent in 1931, and 31 percent in 1932. With the lowered incomes of 1932 the range of expenditures by the wives narrowed greatly—from a range of \$8 to \$292 in 1930, to a range of \$3 to \$117 in 1932.

This marked decline in the clothing cost of the wives, compared with that of the husbands, is probably explained by the relative ease with which women's and children's clothing can be made over, thus

TABLE 20.—AVERAGE CLOTHING COSTS OF HUSBANDS AND WIVES IN ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	1930—111 families			1931—159 families			1932—159 families		
	Number of families	Average clothing cost		Number of families	Average clothing cost		Number of families	Average clothing cost	
		Husbands	Wives		Husbands	Wives		Husbands	Wives
\$ 500—\$ 999.....	1	\$10	\$10	15	\$17	\$24	47	\$17	\$22
1 000— 1 499.....	18	24	34	58	21	32	69	18	25
1 500— 1 999.....	32	27	52	37	25	43	30	22	33
2 000— 2 499.....	31	39	68	26	28	55	9	33	58
2 500— 2 999.....	15	51	77	11	29	69	4	47	54
3 000 and over.....	14	42	95	12	46	76	..	..	..
Average.....	..	\$35	\$63	..	\$25	\$43	..	\$20	\$28

avoiding expenditures for new materials.¹ (No time charge is made for the work remodeling entails.)

The clothing expenditures of children of all age-groups and of both sexes declined during the three-year period. The amount of money spent per capita for clothing was related to the number of children in the family, but the amount of income available and the ages of the children exerted a greater influence. The changing averages for children's clothing expenditures on different income-levels are given for the three-year period in Table 21. The income-level did not seem to influence children's clothing expenditures very materially until the realized income reached \$2,000 or above. This is true for all three years.

The average yearly clothing cost for boys of preschool age declined from \$20 in 1930 to \$10 in 1932. For girls of preschool age, the average was about the same as for the boys. For boys of grade-school age the average declined from \$28 in 1930 to \$15 in 1932. For girls of grade-school age clothing costs were a little higher than for

¹"Clothing clinics" organized by the Home Economics Extension Service have broadened the interest in this kind of economy.

the boys, the proportional decline over the three-year period being about the same for each group. For boys of high-school age the clothing costs averaged \$48 in 1930 and \$25 in 1932. For girls of high-school age the clothing expenditures were \$123 in 1930 (about 2½ times as great as those of the boys) and \$49 in 1932, or about twice as much as the boys' expenditures for that year.

The boys of high-school age spent more for clothing than their fathers. The disparity between the fathers' clothing expenses and those of the sons of high-school age, however, was much less than that between the mothers' clothing expenses and those of the daughters of high-school age. The needs of the high-school girl may be greater than those of her mother, but there would seem to be too great a disparity between their expenditures when the daughter spends about twice as much as her mother per year for clothing.

The average total expenditure per family for clothing between 1930 and 1932 declined more than the price-level change for clothing, indicating that less clothing was bought. The reduction per family in the actual amount spent for clothing between 1930 and 1932 amounted to 48 percent.

General Expenditures

General expenditures, including those for transportation, health, recreation, education, church, gifts, and personal items, declined more than any other class of expenditures between 1930 and 1932. Twenty-five percent of the total realized income, or \$537, was spent by the 1930 families for general expenditures in contrast to 19 percent, or \$245, spent by the 1932 families, a decline over the three-year period of 54 percent.

Apparently these families were, on the average, somewhat reluctant to reduce certain general expenditures, such as those for education, health, church, and personal needs (Fig. 5). The decline in these expenses over the three-year period was more gradual and less drastic than the decline in those for recreation, gifts, and automobile. The automobile and transportation expense per family was reduced 59 percent from 1930 to 1932; gifts, 65 percent; and recreation, 76 percent. Even tho the recreation cash expense was radically reduced, the families were having a good time participating in community parties, in combination picnics and dinners, and in getting acquainted with their neighbors, according to comments made by them in personal conferences with the writer. The largest proportion of the personal expense was for the husbands' smoking tobacco. The husbands who smoked spent an average of about \$18 a year for tobacco.

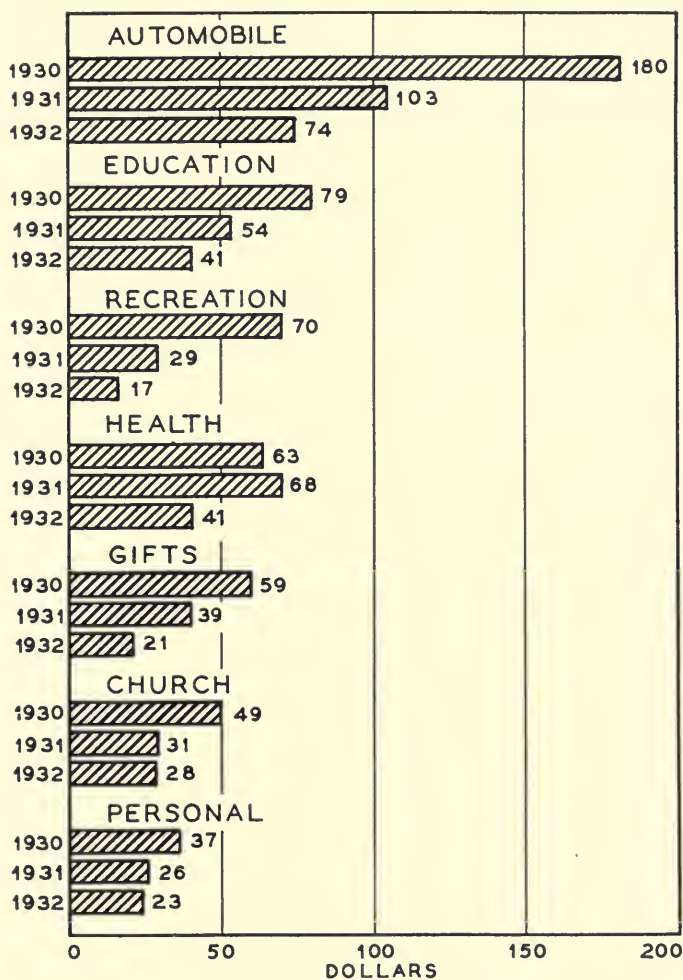


FIG. 5.—DISTRIBUTION OF GENERAL EXPENDITURES IN ACCOUNT-KEEPING FAMILIES

The decline in the amount of money spent for education, health, church, and personal items during the three years of this study was more gradual and less drastic than the decline in the amount spent for recreation, gifts, and automobile.

Home-Production Activities

During this period of lowered income homemakers increased their home-production activities.

Nearly half the homemakers in the 1931 and 1932 families made their own bread in the winter; about one-third of them made it in the

summer (Table 22). There are several explanations for homemakers' making bread in winter and not in summer. The fuel cost is less in the winter, for the kitchen range is being used for heating as well as for cooking. In cold weather it is often difficult for farm families to get to town to purchase commercial bread. Then, too, more bread

TABLE 22.—FOOD PRODUCED FOR HOME CONSUMPTION BY ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Number of families	Number of homemakers making the following for home use—					Percent of homemakers making the following for home use—				
		Bread		Rolls	Cake	Butter	Bread		Rolls	Cake	Butter
		All year	In winter				All year	In winter			
1931—132 families											
\$ 500—\$ 999....	14	8	11	11	14	11	57	78	78	100	78
1 000—1 499....	42	15	19	26	42	35	36	45	62	100	83
1 500—1 999....	29	11	15	26	29	24	38	52	89	100	83
2 000—2 499....	29	7	14	23	29	19	24	48	80	100	65
2 500—2 999....	9	2	3	9	9	8	22	33	100	100	88
3 000 and over...	9	3	3	5	9	7	33	33	55	100	77
Total.....	132	46	65	100	132	104					
Average.....	...	..	..	...	...	...	35	49	76	100	79
1932—129 families											
\$ 500—\$ 999....	36	19	24	25	36	29	53	67	69	100	81
1 000—1 499....	55	11	22	34	55	49	20	40	62	100	89
1 500—1 999....	25	8	12	18	25	17	32	48	72	100	68
2 000—2 499....	9	3	4	8	9	5	33	44	87	100	56
2 500—2 999....	4	2	2	3	4	2	50	50	75	100	50
Total.....	129	43	64	88	129	102					
Average.....	...	..	..	..	...	...	33	49	68	100	79

is needed in winter to help in supplying the family's energy requirement. The long baking process for bread in the summer increases the temperature of the kitchen and requires the homemaker to be in or near the kitchen. In the lowest income-group, however, more than half the homemakers (57 percent in 1931 and 53 percent in 1932) made their own bread thruout the year.

In 1931 and 1932 the homemakers made all the cakes consumed by the family.

It is interesting to note that the same number of homemakers in both groups of families (79 percent in 1931 and in 1932) made their butter for home consumption. In 1932 the income-level appeared to be a controlling factor, for in the lower income-groups a larger per-

centage of the homemakers made their own butter than in the higher income-groups. In 1931, however, the income-level seemed to have little effect on home-production activities.

Only three homemakers among the 1931 families did not have the laundry done at home, but all did their own ironing. Four homemakers in the 1932 group sent their laundry away to be done, but all did their ironing at home.

It is surprising that the lowered incomes in 1931 and 1932 did not seem to affect the sewing activities of the homemakers (Table 23).

TABLE 23.—AMOUNT OF SEWING DONE BY ACCOUNT-KEEPING FAMILIES AT DIFFERENT LEVELS OF REALIZED INCOME

Realized income	Number of families	Number of homemakers doing sewing—			Percent of sewing done by homemakers—		
		All	Part	None	All	Part	None
1931—132 families							
\$ 500—\$ 999...	14	4	10	0	28	72	0
1 000— 1 499...	42	12	29	1	29	69	2
1 500— 1 999...	29	6	22	1	21	76	3
2 000— 2 499...	29	7	22	0	24	76	0
2 500— 2 999...	9	1	7	1	11	78	11
3 000 and over.	9	1	8	0	11	89	0
Total.....	132	31	98	3			
Average.....	...	..	..	..	24	74	2
1932—129 families							
\$ 500—\$ 999...	36	9	25	2	25	69	6
1 000— 1 499...	55	10	44	1	18	80	2
1 500— 1 999...	25	5	20	0	20	80	0
2 000— 2 499...	9	2	6	1	22	67	1
2 500— 2 999...	4	0	4 ¹	0	0	100	0
Total.....	129	26	99	4			
Average.....	...	..	..	..	20	77	3

¹Only mending.

Fewer women did all their sewing, exclusive of overcoats, hats, etc., on the lowered income of 1932 than on that of 1931. Twenty percent did all their sewing and 77 percent part of it in 1932, while 24 percent did all and 74 percent part in 1931. Ill-fitting glasses, or the lack of glasses when they were needed, was one reason for some of these women doing little sewing. Individual entries in the account books indicate that the sewing largely concerned made-over clothing and mending, for very few yards of goods were purchased.

Many times the homemakers are confronted with the question of intelligent choices in the use of time to gain the greatest benefit. In

1931 and 1932 they probably turned their attention more and more to production and preparation of home-produced foods. It will be remembered that the food produced for home consumption during these years increased markedly, being on the average 70 percent of the total food consumed in 1932, and in extreme cases 90 percent (see pages 386 to 391).

EXPENDITURES OF 56 IDENTICAL FAMILIES OVER THREE-YEAR PERIOD

It has frequently been pointed out that the 1930, 1931, and 1932 groups of families are not completely comparable. For the purpose of comparison, the spending of 56 identical families in the above groups was analyzed for the same three-year period (Fig. 6).

The total realized income of these 56 families and the changes made in the distribution of their income are given in Table 24. The total realized income shows a 40 percent decline from 1930 to 1932. The decline in cash income available for family use was even greater, being 52 percent.

The average cash income of \$1,794 in 1930 was supplemented with \$663 worth of commodities furnished by the farm, while the average cash income of \$863 in 1932 was supplemented with \$602. On the lowered income of 1932, the \$602 worth of commodities furnished by the farm constituted 41 percent of the total realized income, but the \$663 in 1930 constituted only 27 percent of the total realized income. Thus commodities furnished by the farm in the form of home-produced food and shelter became of increasing importance to the family living as cash incomes declined.

Expenditures for furnishings, repairs, and recreation were reduced 72 percent from 1930 to 1932, for cash gifts 67 percent, education 60 percent, automobile 57 percent, and savings 56 percent. Expenditures for clothing were reduced 46 percent during the same period, operating expenditures 44 percent, personal items 43 percent, church 40 percent, purchased food 37 percent, and health 35 percent.

The changes made in distribution of the total realized income are given in Table 25 for the 111 families in 1930, the 159 families in 1931, and the 159 families in 1932. In these larger groups of families the percentage reduction from 1930 to 1932 in the total realized income and the decline in cash available for family living were exactly the same as in the group of identical families for the same period—40 percent and 52 percent respectively.

The percentage reduction from 1930 to 1932 in the average amounts of money spent by the larger groups of families for the different purposes indicated corresponds closely to the percentage re-

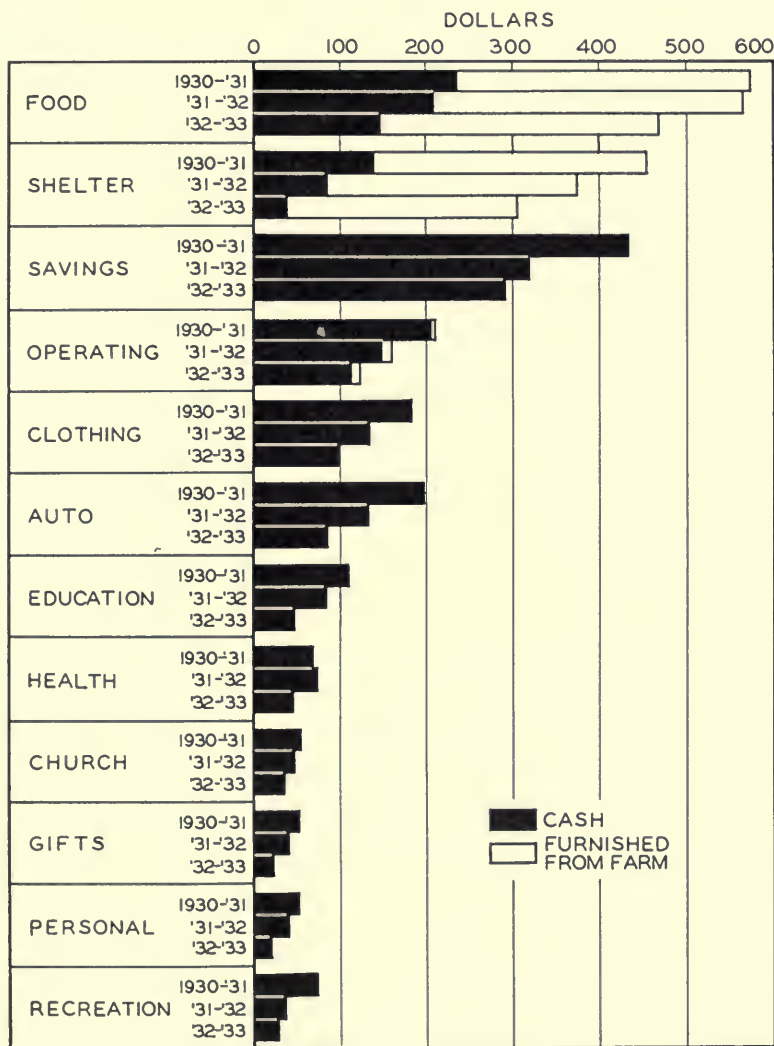


FIG. 6.—CHANGES MADE IN SPENDING BY 56 IDENTICAL FARM FAMILIES IN 1930, 1931, AND 1932

In both 1931 and 1932 savings and all divisions of expenditures except health showed a marked decline from the 1930 totals. The greatest decline for the three years was in cash spent for repairs and furnishings (shelter), recreation, gifts, education, automobile, and savings.

TABLE 24.—CHANGES MADE DURING A THREE-YEAR PERIOD IN DISTRIBUTION OF AVERAGE MONEY VALUE OF LIVING AND SAVINGS OF 56 IDENTICAL ILLINOIS ACCOUNT-KEEPING FARM FAMILIES

Item	1930	1931	1932	Percent reduction from 1930 to 1932
Number of farm families in group.....	56	56	56	
Number of adult male units per family.....	3.7	3.7	3.7	
Average money value of living and savings per family	\$2457	\$1998	\$1465	40
Average cash living and savings.....	1794	1332	863	52
Average money value of commodities and services furnished by farm.....	663	666	602	
Savings.....	431	317	191	56
Food—Purchased.....	233	205	146	37
Raised.....	340	359	322	
Operating—Cash.....	205	148	114	44
Fuel furnished.....	5	11	9	
Shelter—House furnished.....	314	290	266	
Repairs and furnishings.....	140	84	39	72
Clothing.....	183	135	99	46
General expenditures				
Auto.....	197	131	84	57
Health.....	69	73	45	35
Recreation.....	76	36	21	72
Education.....	109	85	47	60
Church.....	56	49	35	40
Gifts—Cash.....	49	35	16	67
Raised products.....	4	6	5	
Personal.....	46	34	26	43

duction in the same expenditures of the identical families. The greatest retrenchment in expenditures of both groups of families was in recreation, gifts, and repairs and furnishings. The reductions in expenditures for automobile, savings, clothing, and education also corresponded closely to the percentage reductions for the identical families. The lower percentage retrenchments for church, operating, personal items, purchased food, and health also occurred in the group of identical families.

It is encouraging that in the three larger groups of families and in the group of 56 identical families the divisions of expenditures least reduced were those for health preservation and for food. If *purchased* food consumed is interpreted on the basis of the purchasing power of the food dollar, its consumption is seen to have been not materially reduced, since the estimated price change of food was 34 percent and the percentage reduction in value of food consumed by the larger groups of families was 36 percent and by the identical families 37 percent. Greater retrenchment occurred in health expenditures than

TABLE 25.—CHANGES MADE BY ILLINOIS ACCOUNT-KEEPING FARM FAMILIES DURING A THREE-YEAR PERIOD IN THE DISTRIBUTION OF THEIR REALIZED INCOMES

Item	1930	1931	1932	Percent reduction from 1930 to 1932
Number of farm families in group.....	111	159	159	
Number of adult male units per family.....	3.6	3.4	3.6	
Average money value of living and savings per family	\$2190	\$1791	\$1308	40
Average cash living and savings.....	1555	1146	748	52
Average money value of commodities and services furnished by farm.....	635	645	560	
Savings.....	331	274	139	58
Food—Purchased.....	220	195	141	36
Raised.....	327	361	307	
Operating—Cash.....	175	136	102	42
Fuel furnished.....	7	9	11	
Shelter—House furnished.....	296	267	236	
Repairs and furnishings.....	122	68	36	71
Clothing.....	175	123	91	48
General expenditures				
Auto.....	180	103	74	59
Health.....	63	68	41	35
Recreation.....	70	29	17	76
Education.....	79	54	41	48
Church.....	49	39	28	43
Gifts—Cash.....	54	31	15	72
Raised products.....	5	8	6	
Personal.....	37	26	23	38

in food, for not only did actual dollar expenditures for health decline, but the purchasing power of the health dollar remained practically the same, physicians' fees, which were the principal item under health expenditures, remaining on the whole practically unchanged thruout the three years.

On the basis of the change in the purchasing power of the clothing dollar, which is estimated to have declined 25 percent between 1930 and 1932, the actual reduction in clothing expenditures was only about 21 percent in the group of identical families and 23 percent in the larger groups.

The expenditures for repairs and furnishings during this same period declined 72 percent in the group of identical families and 71 percent in the larger groups. On the basis of purchasing power these reductions would represent actual reductions of only 43 and 47 percent respectively.

For the three large groups of families and the group of identical families retrenchment in the various divisions of expenditures occurred in the same order. The greatest retrenchment was in recreation, then

in gifts, then in automobile, savings, education, repairs and furnishings, church, operating, personal items, health, and the least in clothing. The foregoing statements are based on consumption values as indicated by the changed purchasing power of the dollar. Food consumption not only was not reduced, but the figures indicate that it was increased when the changed purchasing power of the food dollar is taken into consideration. The increase in food consumption consisted entirely of home-produced food.

The similarity between the living expenditures of the 56 identical families from 1930 to 1932 and those of the larger groups of families during the same period indicates the degree of reliance that can be placed upon comparisons between the expenditures in the larger groups. Evidently what differences there were in the composition of the larger groups of families were not an important cause of the differences that occurred in the expenditures of these groups; changing economic conditions, or at least the processes of adjusting to changed economic conditions, it may be assumed are faithfully reflected in the histories of these three groups of farm families.

SUMMARY

Home-account records of 429 farm families covering the three years 1930, 1931, 1932 are analyzed in this report.

Family Characteristics and Surroundings.—The average number of members per family was 3.8 in 1930, 3.9 in 1931, and 4.1 in 1932. In at least 40 percent of the families one parent had attended college, while in 17 percent both parents had attended college.

Of the 1930 families 63.5 percent were owners of the farms on which they lived. Among the 1931 and 1932 families 47 percent were owners. The number of acres farmed by these three groups of families averaged 202, 209, and 216 acres per farm respectively.

The number of rooms in the houses occupied by the 1930 group of families was 8, the 1931 families 7, and the 1932 families 7.7. A heating plant of modern type was in use in more than half the homes each year. Electricity was used for lighting in slightly less than half the homes. Running water under pressure was used in 38 to 42½ percent of the homes.

Realized Income.—The average realized income of the 111 families in 1930 was \$2,190, of which \$635 was the money value of commodities and services furnished by the farm.

The 159 families in 1931 had an average realized income of \$1,791, of which \$645 was the money value of the home-produced food, fuel, and rental value of the farm dwelling.

The 159 families in 1932 had an average realized income of \$1,308, of which \$560 was the money value of the commodities and services furnished by the farm.

There was a tendency over the three-year period to use savings to offset a declining income and to supplement income by obtaining work away from the farm.

Utilization of Family Income.—The lower income-groups put a higher proportion of their savings into life insurance. The higher income-groups used other forms of investments to a greater extent than did the lower income-groups.

On the basis of purchasing power, the amount of *home-produced* food consumed by the families in 1931 increased considerably over that for 1930 but the increase between 1931 and 1932 was only slight.

The average *daily food cost per adult male unit* was 43 cents in 1930, 40 cents in 1931, and 31 cents in 1932.

The reduction in the amounts spent for *purchased food* from 1930 to 1932 was due largely to reduced income. The reduction from 1930 to 1931 was less than that from 1931 to 1932, partly because of the slow adjustment made by many homemakers during this period to the greater purchasing power of the dollar.

There has been a definite tendency to retain home conveniences and to make adjustments by producing at home a greater proportion of needed commodities. Eight percent of the total realized income was used each year for *operating expenditures*.

Cash expenditures for *shelter* decreased markedly in 1932 in comparison with those for the other two years, especially in the highest and lowest income-groups. The average amount spent per family for repairs for the home was \$39 in 1930 but only \$10 in 1932. Furnishings and furniture expenditures per family declined from \$83 in 1930 to \$26 in 1932.

The average amount spent per family for *clothing* declined 48 percent from 1930 to 1932, which was an even greater decline than occurred in the clothing price-level. The amount of money spent for the wives' clothing was reduced more than that spent for the husbands'.

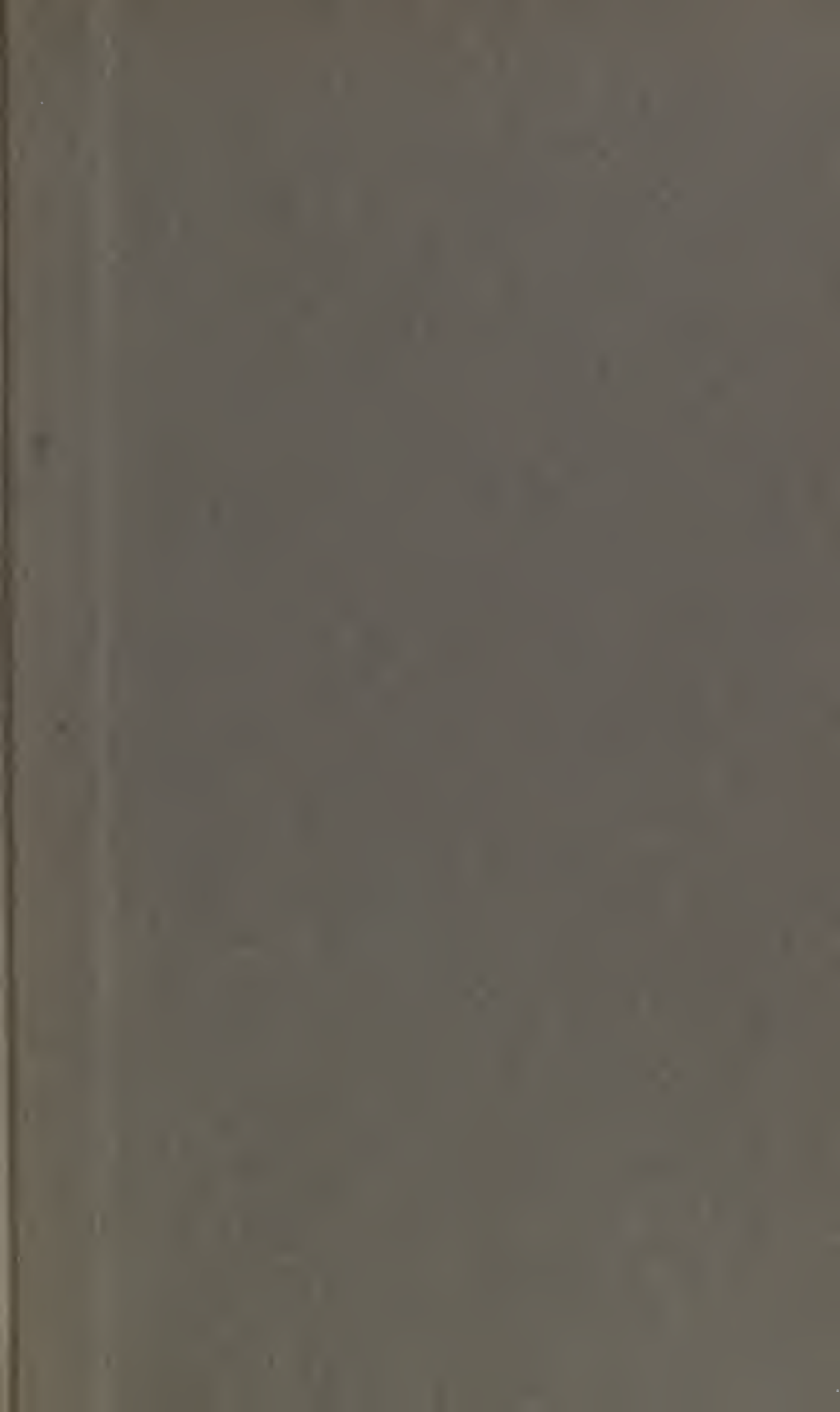
General expenditures—transportation, health, recreation, education, church, gifts, and personal items—declined more than any other class of expenditures between 1930 and 1932.

Comparison With Identical Families.—In the three large groups of families the percentage reduction from 1930 to 1932 in the total realized income and the decline in cash available for family living were exactly the same as in the group of 56 identical families for the same period—40 percent and 52 percent respectively.

The percentage reduction in the average amounts of money spent by the larger groups of families for the different purposes indicated corresponds closely to the percentage reduction in the same expenditures of the identical families.

The similarity between the living expenditures of the three large groups of families and those of the identical families would seem to indicate that the variations in the composition of the larger groups was not a significant factor in causing the variation in incomes and income distribution that occurred in the larger groups from year to year.

Comparative Retrenchment in Different Classes of Expenditures.—On the basis of purchasing power of the dollar, the percentage of retrenchment in expenditures from 1930 to 1932, on the average, for all families studied was greatest in recreation, next in gifts, then in automobile, savings, education, repairs and furnishings, church, operating, personal items, health, and the least in clothing. Food consumption increased, the increase consisting entirely of home-produced food.



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