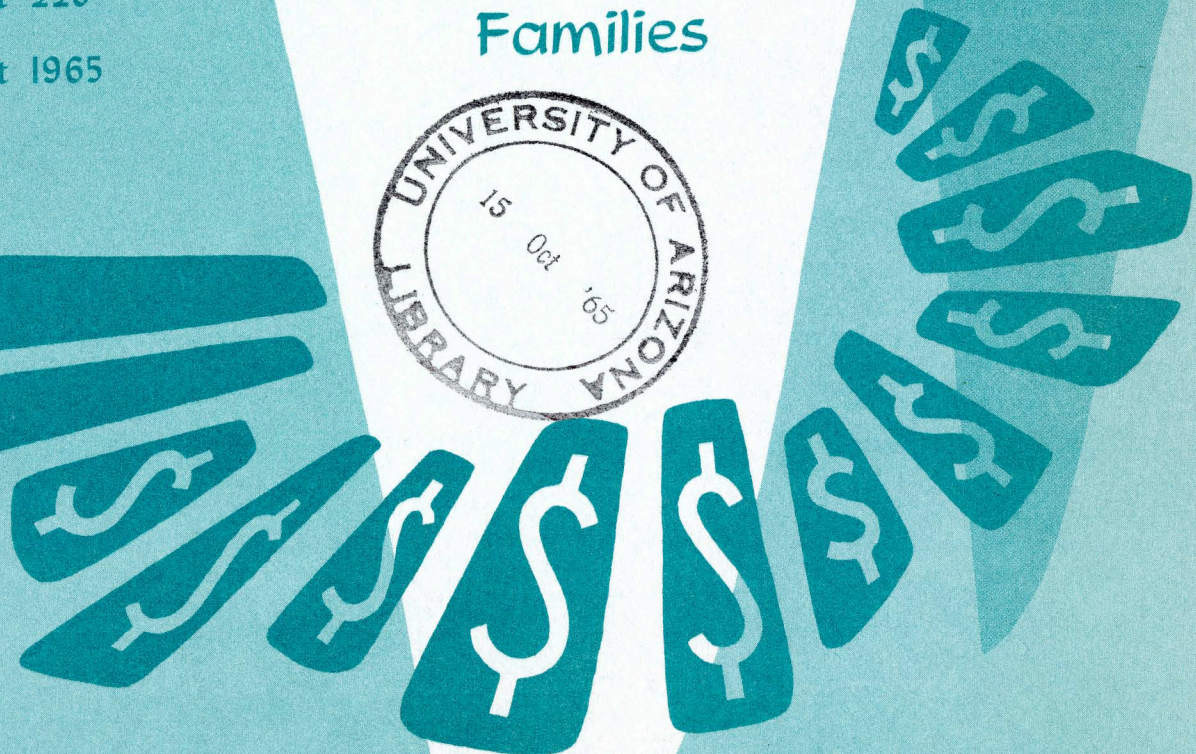
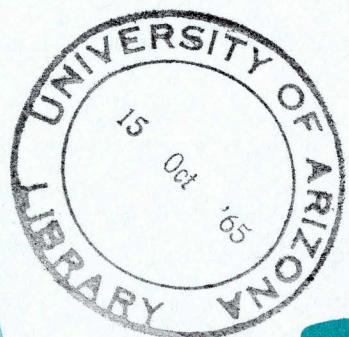


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Some Factors Influencing
Purchase Decision-Making and
Methods of Financing
Selected Major
Household Equipment

by
Arizona
Families

Report 228
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SOME FACTORS INFLUENCING
PURCHASE DECISION-MAKING AND
METHODS OF FINANCING SELECTED
MAJOR HOUSEHOLD EQUIPMENT
BY ARIZONA FAMILIES

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I. SUMMARY

This report is a supplement to Arizona Experiment Station Report No. 204 "Household Appliances Owned by Arizona Families" and discusses the results of further investigation into the ownership of major household equipment by Arizona families.

During the spring of 1962, 277 families returned 386 mail questionnaires regarding purchases of either a washer, a refrigerator, a freezer, or a range, or a combination of several of these items. More washers (144) were purchased than any of the other three major appliances. Following in the total number of purchases were refrigerators (89), ranges (79), and freezers (58). Although the total number of brands represented among the four appliances went as high as 23, 67 per cent of the washers and 58 per cent of the refrigerators were selected from four brands, 59 per cent of the ranges from six, and 43 per cent of the freezers from three brands.

Seventy per cent of the families purchased only one appliance. Those who bought more than one did not always make their selection within one particular brand. Possible factors which could have influenced the choice of brands for the individual appliances were not investigated in this study.

Not all appliances were purchased new. About 25 per cent of the refrigerators, ranges, and freezers were purchased second-hand, while 16 per cent of the washers were acquired by this method. In general, appliance dealers and electrical supply stores were the preferred retail outlets. Most homemakers (62 per cent) expressed satisfaction with the piece of equipment bought.

The percentage of families who paid cash for their appliances was high compared to the national averages for 1961. During 1961, in the United States,

48 per cent of all household appliances were purchased on credit while in this study only 29.5 per cent were acquired by this method of payment.¹ Buying on the installment plan accounted for 77 per cent, or 89 pieces of equipment, of all the credit purchases. Since most of the families who purchased on the installment plan did not give sufficient information in regard to credit terms, the true interest rate paid could be computed for only 18 out of the 89 cases. This true interest rate ranged from about 10 per cent to as high as 46 per cent.

¹

Survey Research Center, Institute for Social Research, the University of Michigan.
1962 Survey of Consumer Finances, p. 54.

II. PURPOSE AND METHOD OF STUDY

The purchase and use of household appliances plays an important role in the management of the home. To help families achieve maximum satisfaction in regard to the equipment they buy, a study was planned to determine what items of small and large household appliances are owned by Arizona families and to learn some of the practices followed in buying refrigerators, ranges, washers, and freezers. The first phase of the study has been reported in Arizona Experiment Station Report No. 204 "Household Appliances Owned by Arizona Families." The present report deals with some of the factors that influenced purchase decision-making and methods of financing of refrigerators, ranges, washers, and freezers.

The mail questionnaire used to obtain the data for the above mentioned Experiment Station report contained a question in regard to buying intentions. Four out of ten respondents expected to buy appliances within the next twelve months. Most often mentioned as expected to be bought were washers, refrigerators, ranges, and freezers, in that order.

During the spring of 1962, a second questionnaire was mailed to those families who purchased one or more of these large appliances during the previous two years. Its purpose was to gather information about the method of payment for that purchase. Of the 748 questionnaires sent to 529 families, a total of 386, or 52 per cent, were returned by 277 families.

The results of this investigation should be interpreted in the light of the sample from which the data were collected. Generalizations to the total population in the state should be made with the greatest degree of caution only.

Since the sample consisted of homemakers on the mailing list of the Home

Economics Extension Service, the results of this study are of great value to this group in providing information about its clientele, and also are indicating whether or not the Extension Service's efforts are directed toward all families in Arizona who need assistance in their management of the resources available to them.

III. FAMILY CHARACTERISTICS

Place of Residence

Of the families returning questionnaires, 133, or 48 per cent, were urban families while 144, or 52 per cent, were either farm or ranch families or rural non-farm families.

According to the 1960 U.S. Census figures, 77 per cent of the total population in Arizona lives in urban areas.²

Schooling of Homemaker

According to the 1960 U.S. Census for Arizona the median number of school years completed for women 25 years of age and older was 11.3. The following table points out the difference of schooling received by homemakers in the state in general and those participating in this project.

Table 1

Comparison of schooling received by women in state and in survey

Schooling	State - Women 25 years and older (per cent)	Survey - Women 21 years to 78 years (per cent)
8th grade or less	33	7
1-3 years of high school	20	19
4 years of high school	29	41
1-3 years of college	11	23
4 or more years of college	7	10

²

U. S. Department of Commerce. 1960 Census of Population.

While for the total population only 18 per cent had any schooling beyond high school, the percentage in the survey was 33 per cent.

Family Type

In the original study, the families were classified according to family type as follows:

- Type I - Couple, no children, wife under 35 years of age.
- Type II - All children under 8 years of age.
- Type III - Some children under 8 years and some 8 to 17 years.
- Type IV - All children 8 to 17 years.
- Type V - Some children under 18 years and some 18 years or over (or all 18 or over).
- Type VI - Couple, wife 35 years or over, no children living at home.
- Type VII - Single person, 35 years or over.

The 277 families who returned the questionnaires fall into these classes as follows:

- Type I - 6
- Type II - 36
- Type III - 59
- Type IV - 65
- Type V - 39
- Type VI - 59
- Type VII - 6
- Type not stated - 7

Age of Homemaker

Median age of the homemakers participating was 40.5 years, and mean age was 41.7 years. The median age for the total Arizona population was 25.7 years in 1960.³

Number in Household

The average number of persons per household in Arizona, according to the 1960 U.S. Census, was 3.45.⁴ Families participating in this study averaged 3.98 persons per household in 1960 when the original data were collected. In comparing the sample with the total United States, approximately half of the families in the study consisted of less than four persons per family while the percentage for the United States is 61 per cent. While about one-fifth of the families in the study consisted of six or more persons, only 10 per cent of all United States families fall into this group.

Outside Employment of Homemaker

No follow-up check was made of any possible change in regard to outside employment of the homemaker. It is, therefore, not valid to relate any of the factors affecting methods of financing to this characteristic.

³Arizona County Base Book, Bureau of Business and Public Research, The University of Arizona, 1962.

⁴U.S. Department of Commerce, 1960 Census of Population.

IV. FACTORS AFFECTING PURCHASE

The number of different brands represented among the four appliances, varied from 17 for refrigerators to 19 for washers, 20 for ranges and 23 for freezers. The distribution among the most popular brands was as follows:

<u>Appliance</u>	<u>Total Number</u>	<u>Number of Brands</u>	<u>Per Cent of Total Representing</u>
Washer	144	4	67
Refrigerator	89	4	58
Range	79	6	59
Freezer	58	3	43

Seventy per cent, or 193, of the 277 families bought only one of the four appliances while 22 per cent, or 61, bought 2; 7 per cent, or 21, bought 3; and 1 per cent, or 2, bought all four pieces of equipment. Those purchasing more than one did not always select the same brand.

Of the 61 families that bought 2 appliances, 13, or 21 per cent, stayed with one brand while 47, or 77 per cent, selected a different brand for each item.

Twenty-one families purchased 3 of the 4 pieces investigated. Of these families, 11, or 52 per cent, selected a different brand for each; the other 10 chose 2 pieces of one brand and selected a different brand for the 3rd piece.

Only 2 families acquired all 4 appliances; one family made its selection among 2 different brands, while the other chose each of the 4 pieces in a different brand. Table 2.

No attempt was made in this study to learn which factors affected the selection of brands. The number of those purchasing two or more appliances was too small to draw any valuable conclusions as to a possible relationship between the selection of specific brands and age of the homemaker, family type or place of residence.

Table 2

Distribution among brands in relation to number of appliances bought

Brands Chosen	Number of appliances purchased					
	Two		Three		Four	
	Per cent	Number	Per cent	Number	Per cent	Number
Same	21	13	0	0	0	0
One Different	77	47	48	10	0	0
Two Different	0	0	0	0	50	1
All Different	0	0	52	11	50	1
Not Stated	2	1	0	0	0	0

Purchased New or Second-hand

About 25 per cent of all refrigerators, ranges and freezers, were purchased second-hand as compared to 16 per cent of the washers. Table 3.

There seemed to be some relationship between dissatisfaction of appliance purchased and the fact that the equipment was bought second-hand. Reasons given expressed the desire for newer or more stepped-up models rather than dissatisfaction.

Table 3

Appliances purchased new or second-hand

	Refrigerator		Range		Freezer		Washer	
	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number
New	72	65	75	61	74	46	83	127
Second-hand	27	24	24	20	23	14	16	24
Not Stated	1	1	1	1	3	2	1	1
Total	100	90	100	82	100	62	100	152

Trade-ins

No attempt had been made to determine the effect taking trade-ins by stores had on the selection of particular brands or stores.

Trade-ins were accepted for 76 pieces, or about 20 per cent, of the equipment investigated. For 53 out of the total 386 pieces, no statement was made as to availability of trade-in. The amounts allowed for trading in used appliances varied from less than \$25 to over \$125.

The highest number of trade-ins was for appliances in the \$225 to \$299 price bracket. Twenty trade-ins were accepted, nine of them amounting to less than \$50. Table 4.

Table 4

Value of Trade-ins

Total price of appliance	Not Stated		No Trade-in		Less than 25		\$25-49		\$50-74		\$75-99		\$100-124		\$125 - over	
	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber
Not Stated	36	16	55	24	0	0	2	1	0	0	5	2	2	1	0	0
Less than \$75	26	5	69	13	5	1	0	0	0	0	0	0	0	0	0	0
\$75 to 149	8	3	83	30	3	1	3	1	3	1	0	0	0	0	0	0
\$150 to 224	14	12	73	61	1	1	8	7	1	1	3	2	0	0	0	0
\$225 to 299	10	9	68	63	1	1	9	8	7	6	3	3	2	2	0	0
\$300 to 374	6	3	68	34	4	2	2	1	10	5	4	2	6	3	0	0
\$375 to 449	11	3	46	12	0	0	4	1	19	5	4	1	8	2	8	2
\$450 and over	6	2	57	20	0	0	0	0	6	2	0	0	20	7	11	4
Total	14	53	67	257	1	6	5	19	5	20	3	10	4	15	1	6

V. TYPES OF RETAIL OUTLETS PATRONIZED

The majority of the appliances investigated were purchased from appliance dealers and electrical supply stores, 153 pieces or 40 per cent. Next in number were those bought from mail order houses, either thru catalog or their retail outlets, or department stores. Only three of the 62 freezers were acquired thru a freezer food plan. Table 5.

Seven ranges and one each refrigerator, freezer, and washer apparently were supplied by the building contractor who built the house.

Twenty-two items, or 6 per cent, were purchased from discount stores.

Table 5

Type Retail Outlet Patronized

Appliance	Not stated		Gas & Service		Appliance & Elec.		Furniture		Department		Contractor (Wholesale)		Discount Store		2nd Hand Store		Food Plan		Total	
	Per Num-	cent ber	Per Num-	cent ber	Per Num-	cent ber	Per Num-	cent ber	Per Num-	cent ber	Per Num-	cent ber	Per Num-	cent ber	Per Num-	cent ber	Per Num-	cent ber	Per Num-	cent ber
Freezer	3	2	0	0	18	11	16	10	31	19	1	1	5	3	21	13	5	3	100	62
Refrigerator	2	2	4	4	41	37	15	13	17	15	1	1	8	7	12	11	-	-	100	90
Range	7	6	11	9	29	24	15	12	11	9	9	7	5	4	13	11	-	-	100	82
Washer	3	4	3	4	53	81	10	16	19	29	1	1	5	8	6	9	-	-	100	152
Total	4	14	4	17	40	153	13	51	19	72	2	10	6	22	11	44	1	3	100	386

VI. CONSUMER SATISFACTION

The question "if you were going to buy this appliance now, after using the present one, would you buy exactly the same one as before," was answered relative to 329 pieces of equipment out of the total of 386. Of those answering "no," 3 did not state any reason. Of the remaining 326 answers, only one expressed dissatisfaction in regard to service. About one-third gave negative answers for refrigerators, freezers, and washers and about one-half would not buy the same range again. Table 6.

A variety of reasons was given when dissatisfaction with the piece of equipment was expressed. These reasons varied with the different appliances.

Dissatisfaction in connection with refrigerators was generally expressed in regard to the size and model purchased, such as: "too small," "like self-defrosting," "old model," "want larger freezing compartment," or "want refrigerator-freezer model." Only two out of 26 dissatisfied found faults with the performance or construction.

Seven out of the 36 homemakers who would not buy the same range again gave reasons in connection with performance and construction, "poor insulation," "heats unevenly," "no pilot in oven," "hard to clean," etc.. The main reasons, however, for not wanting the same range again were the desire for newer models or for changing from a conventional, free standing range to built-in top and oven.

Having bought a freezer that was too small, or wanting an up-right instead of a chest type model, were the reasons for 7 out of 19 homemakers who would not buy the same piece of equipment again.

More criticism was voiced of the performance and/or construction of the various washers purchased. One-half of the 44 dissatisfied homemakers gave such

reasons as: "clothes not washed clean," "tangles and twists in clothes," or "does not rinse well." Other reasons given were connected with the desire for newer models, for automatic washers to replace conventional types, and for top-loading instead of front-loading machines.

Table 6

Percentages of families stating they would buy same equipment as before

Appliance	Yes		No	
	Per cent	Number	Per cent	Number
Refrigerator	66	50	34	26
Range	54	42	46	36
Freezer	63	32	37	19
Washer	65	80	35	44
Total	62	204	38	125

VII. METHODS OF PAYMENT

Contrary to the national picture, the percentage of appliances bought for cash (from current income, past savings, and/or other sources) was very high. Seventy-nine per cent of the refrigerators purchased, 73 per cent of the ranges 62 per cent of the freezers and 68 per cent of the washers were acquired through cash payments. This averages 70.5 per cent cash purchases versus 29.5 per cent purchases on credit. In 1962 in the United States, 48 per cent of all household appliances were bought on credit.¹

The total number of appliances purchased were distributed among:

121, or 31 per cent, rural families,
 107, or 28 per cent, rural non-farm families and
 158, or 41 per cent, urban families.

Credit was more widely used among rural non-farm families. Forty-three per cent used some type of credit. Next in order were urban families with 30 per cent. Farm or ranch families used some form of credit in 19 per cent of the cases only. Table 7.

Seventy-seven per cent of all credit purchases were made on the installment plan, 18 out of 26 refrigerators, 12 out of 15 ranges, 18 out of 23 freezers, and 41 out of 52 washers were bought by this method. Table 8.

Twice as many rural non-farm families paid cash rather than used credit in the purchase of refrigerators and ranges. The number of credit buyers rose for freezers and washers. One half of these families buying a freezer or a washer used credit and one half paid cash. Table 9. The corresponding percentages of cash buyers for rural farm or ranch families and urban families was higher for all four pieces of equipment.

¹ Survey Research Center, Institute for Social Research, the University of Michigan, 1962 Survey of Consumer Finances, p. 54.

Table 7

Method of payment used in relation to residence

Method of Payment	Farm or Ranch		Rural Non-farm		Urban	
	Per cent	Number	Per cent	Number	Per cent	Number
Total (386)	31	121	28	107	41	158
Not Stated	1	1	0	0	0	0
Installment	16	19	36	38	20	32
Other Credit	3	4	7	8	10	15
Cash	80	97	57	61	70	111

Table 8

Method of payment in relation to type of appliance

Method of Payment	Refrigerator		Range		Freezer		Washer	
	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number
Total (386)	23	90	21	82	16	62	40	152
Not Stated	0	0	0	0	2	1	0	0
Cash	71	64	82	67	61	38	66	100
Credit:	29	26	18	15	37	23	34	52
Installment	(69)	(18)	(80)	(12)	(78)	(16)	(79)	(41)
Other Credit	(31)	(8)	(20)	(3)	(22)	(5)	(21)	(11)

Table 9

Method of payment for the different appliances in relation to residence

Method of Payment	Residence							
	Rural		Rural Non-farm		Urban		Total	
	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number
Refrigerator:								
Credit	2	3	8	9	9	14	7	26
Cash	16	20	14	15	18	29	17	64
Range:								
Credit	4	5	8	8	1	2	4	15
Cash	18	22	16	17	18	28	17	67
Freezer:								
Not Stated	1	1	0	0	0	0	0	1
Credit	6	7	6	7	6	9	6	23
Cash	16	19	6	7	7	12	10	38
Washer:								
Credit	7	8	21	22	14	22	13	52
Cash	30	36	21	22	27	42	26	100

Cash was paid for all pieces of equipment costing less than \$75. The percentage of cash purchases fluctuated as the price increased but did not drop below 63 per cent. Table 10.

Comparisons were made between the method of payment and such factors as number in household, age of homemakers and amount of school received by the homemaker. Table 11 shows that the highest percentage of credit purchases was made by families consisting of three members. When relating the method of payment to the age of the homemaker, the highest percentage of credit buyers is found in the group where the homemaker is under 30 years of age. This would indicate that young families are more inclined or forced to use credit in buying major household appliances. However, the age group 50-59 years also falls into the category of relatively high credit purchases. Table 12.

The influence of the amount of schooling the homemaker received on the method of payment used is shown in Table 13. The percentage of cash buyers was 67 per cent where the homemaker's schooling was 8th grade or less. It dropped to 62 per cent for the next group, 9th grade through 11th grade. Beyond that there was a steady increase in the percentage of cash buyers when method of payment was related to the amount of schooling the homemaker received.

Table 10

Method of payment used in relation to total cost of appliance

Method of Payment	Total Cost of Appliance															
	Not Stated		Less Than \$75		\$75 to 149		\$150 to 224		\$225 to 299		\$300 to 374		\$375 to 449		\$450 and up	
	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber	Per cent	Num-ber
Not Stated	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Installment	15	7	0	0	17	6	28	23	23	21	29	15	23	6	31	11
Other Credit	13	6	0	0	0	0	8	7	7	7	6	3	8	2	6	2
Cash	72	33	100	16	83	30	63	52	70	65	65	33	69	18	63	22
Total	12	46	4	16	9	36	22	83	24	93	13	51	7	26	9	35

Table 11

Method of payment used in relation to number in family

Method of Payment	Number in Family										
	Not Stated	1	2	3	4	5	6	7	8	9 or more	
	Per Num- cent ber	Per Num- cent ber	Per Num- cent ber	Per Num- cent ber	Per Num- cent ber	Per Num- cent ber	Per Num- cent ber	Per Num- cent ber	Per Num- cent ber	Per Num- cent ber	
Not Stated	0 0	0 0	0 0	1 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Installment	66 4	0 0	17 15	33 23	18 18	27 12	28 8	33 4	19 3	13 2	
Other:											
Credit	17 1	0 0	9 8	3 2	12 12	2 1	3 1	0 0	0 0	13 2	
Cash	17 1	100 5	74 67	63 44	70 69	71 31	69 20	67 8	81 13	74 11	
Total (386)	2 6	1 5	23 90	18 70	26 99	11 44	8 29	3 12	4 16	4 15	

Table 12

Method of payment used in relation to age of homemaker

Method of Payment	Age of Homemaker											
	Not Stated		Under 30		30 - 39		40 - 49		50 - 59		60 and over	
	Per cent Number		Per cent Number		Per cent Number		Per cent Number		Per cent Number		Per cent Number	
Not Stated	0	0	0	0	0	0	0	0	2	1	0	0
Installment	22	3	36	24	21	24	23	25	24	11	6	2
Other Credit	14	2	3	2	9	11	6	7	11	5	0	0
Cash	64	9	61	41	70	81	71	79	63	29	94	30
Total (386)	4	14	17	67	30	116	29	111	12	46	8	32

Table 13

Method of payment used in relation to schooling of homemaker

Method of Payment	Schooling of Homemaker													
	Not Stated		8th Grade and less		9th, 10th and 11th Grade		12th Grade		1 to 3 years of college		4 years and more of college		Post-high (business, Nursing, etc.)	
	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number
Not Stated	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Installment	15	4	25	3	31	20	22	31	28	18	19	10	13	3
Other Credit	0	0	8	1	6	4	10	15	3	2	6	3	9	2
Cash	85	22	67	8	62	40	68	97	69	45	75	39	78	18
Total (386)	7	26	3	12	17	65	37	143	17	65	13	52	6	23

Purchases Made on the Installment Plan

An attempt was made to determine the true interest rates for those pieces of equipment that had been purchased on the installment plan. Unfortunately, not all families gave the requested information. Therefore, the following numbers of schedules only were usable in computing the annual interest rate:

1. For refrigerators, 7 out of 18,
2. For ranges, 2 out of 12,
3. For freezers, 3 out of 18,
4. For washers, 6 out of 41,

or a total of 18 out of 89.

One family purchased both a freezer and a washer on the installment plan and is represented in both groups. All others are different families.

True interest rates ranged from a low of 10.2 per cent to a high of 45.9 per cent.

From Table 14 it appears that there is no striking pattern as far as relationship between amount of interest paid and age of the homemaker is concerned. The three highest rates were paid by those 40 years and older. However, the payee of the lowest rate fell into this group, also.

The highest rate was paid by a family where the schooling of the homemaker did not go beyond the 3rd year of high school. Those with schooling below 4 years of high school tended to have a somewhat higher interest rate.

In eight cases the homemaker had completed 4 years of high school. Five homemakers did not finish high school and one did not attend high school. The balance had at least some college education.

Six of the 18 homemakers were employed outside the home. No conclusions can be drawn when comparing outside employment with rate of interest.

In this sample of 18 families, eight consisted of 3 persons, three of 2 persons, and three families consisted of 6 persons or more. Two families had 4 members and two had 5 members in the family.

The age group 30-39 years is represented seven times with the groups 30 years or under and 50-59 years of age following with four cases each. Two homemakers were between 40 and 49 years of age and one was over 60 years old.

Table 14

Rate of interest paid

Interest Paid in Per cent	Age of Homemakers	Schooling of Homemakers	Outside Employment	Number in Household
45.9	50-59	1-3 yrs hi-school	no	3
28.7	50-59	1-3 hrs. hi-school	yes	3
24.4	60 and over	8th grade or less	no	4
24.1	30 or under	4 yrs. hi-school	no	3
20.0	30-39	1-3 yrs. college	no	5
19.8	30 or under	4 yrs. hi-school	no	3
19.8	50-59	1-3 yrs. hi-school	yes	2
19.4	30-39	1-3 yrs. hi-school	yes	over 6
17.3	30-39	1-3 yrs. hi-school	no	over 6
17.1	30-39	4 yrs. hi-school	no	4
16.7	30-39	4 yrs. hi-school	no	over 6
16.4	40-49	4 yrs. college	yes	2
14.9	30 or under	4 yrs. hi-school	no	3
14.2	30-39	1-3 yrs. college	yes	5
13.9	30-39	4 yrs. hi-school	yes	3
13.9	40-49	4 yrs. hi-school	no	3
12.9	30 or under	1-3 yrs. hi-school	no	2
10.2	50-59	4 yrs. hi-school	yes	3