

AN ANALYSIS OF THE FACTORS AFFECTING FARM
PEOPLE'S ATTITUDE AND USE OF CREDIT

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Master of Science

by
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The undersigned, appointed by the Dean of the Graduate Faculty, have
examined a thesis entitled

**AN ANALYSIS OF THE FACTORS AFFECTING FARM
PEOPLE'S ATTITUDE AND USE OF CREDIT**

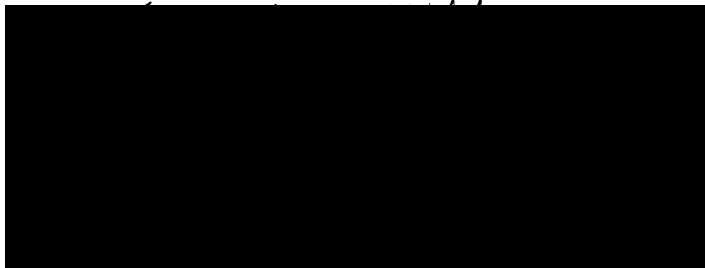
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and hereby certify that in their opinion it is worthy of acceptance.



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CHAPTER I

INTRODUCTION

Farm businesses have increased in size in recent years. Along with this increase has been a material advance in the amount of capital required. In order to meet these requirements, many farm operators have found it necessary and profitable to borrow money. The problem is to determine when an operator should or should not use credit in the farm business. This is an important management decision.

The use of credit can help farm operators achieve a better balance among the factors of production. Through use of borrowed funds, the size of the farm can be increased and enterprises added or enlarged to get near optimum combinations of land, labor and capital equipment. This will increase the net income on many farms. An adequate volume of business is an essential prerequisite of a successful farm business. The high fixed costs of our present highly competitive agriculture must be spread among an adequate number of units of output so that total per unit costs are low enough to give the operators a margin of profit. This means large capital investments in buildings, equipment, and other operating inputs. On most farms the task cannot be accomplished without using borrowed funds.

Consumer credit does not contribute directly to increased income, but can be used to help accomplish living goals. Families can enjoy consumption items while paying for them and thus lengthen the period of more comfortable living, if they expect income later to be adequate for loan repayment.

Credit may facilitate purchase of goods at an advantageous time. It can be used to level out the flow of purchases when farm income is variable. If properly used, it can advance family goals and raise levels of living, but unwise use can handicap a farm family by pledging too large a proportion of future income to consumption items, thus leaving the business short of production capital.

I. PURPOSE OF STUDY

Several studies have been made of the amounts borrowed by farm people and the purposes for which the funds were used. However, little research has been done to determine the attitude of farm families toward use of credit. Whether or not credit is used depends largely on their needs for additional funds, ability to borrow and willingness to assume debt. It appears that credit is looked upon as a means of taking care of emergencies and not as a convenient procedure for gaining control of needed resources or goods for both production and consumption.

The need for funds in agriculture has been well known for several decades. This need has been increasing rather than diminishing. Information is needed as to the more profitable uses of funds and the amounts that can be borrowed without danger of severe financial loss. This area of inquiry is outside the scope and purpose of this study.

The research reported here has attempted to discover the relationship between attitudes toward credit and the extent to which it is used. No attempt was made to determine profitability of credit. The information will be helpful to lending agencies, farmers, educators and research workers.

II. SUMMARY OF RELATED RESEARCH

Young investigated use of credit in Ralls County, Missouri in 1940.¹ She found that 73 percent of the families used production and real estate credit and 44 percent used consumption credit. Tenure was found to affect production credit use. The use of consumer credit was closely related to the level of cash income. The

¹Louise A. Young, "A Study of the Use of Consumer Credit by 188 Farm Families, Ralls County, Missouri," (Unpublished Master's thesis, The University of Missouri, Columbia, Missouri, 1941), pp. 82-89.

educational level of borrowers also affected the amount and frequency of use of consumption credit. She concluded that farm families needed more knowledge of available sources and cost of credit.

Korando made a similar study in Lawrence County, Missouri in 1941.² About 80 percent of the families from whom data were obtained used credit between August, 1940 and August, 1941. Fifty-nine percent of the loans were for purchase of production items and real estate, while 41 percent were for consumption purposes. The author concluded that traditional attitude, lack of information on sources, and cost of funds limited the use of consumption credit.

Swanson investigated credit attitudes in a study in Southern Iowa in 1951.³ He found that expansion of farm enterprises was prevented by limitations arising from (1) the fixed supply of items of production and (2) the increased risk from low equity when additional credit was used. Farm operators gave these reasons approximately

²Sidney Korando, "The Use of Credit by 154 Farm Families, Lawrence County, Missouri," (Unpublished Master's thesis, The University of Missouri, Columbia, Missouri, 1942), pp. 83-91.

³Earl R. Swanson, "Agriculture Resources Productivity and Attitudes Toward the Use of Credit in Southern Iowa," (Unpublished Ph.D. thesis, Iowa State College, Ames, Iowa, 1951), pp. 62-94.

equal weight as limitations on expansion of farm enterprises. The mores of a community seemed to be of no importance in directing the activities of young farmers. Members of this group were expected to borrow money, but some censure was directed at older farmers who were in debt.

Heady and others in a study of the interdependence of the farm business and the home in North Central Iowa investigated the attitudes of farmers toward credit.⁴ Young farmers borrowed largely for production purposes, but discontinued borrowing when equity became low because of risk aversion. Middle aged operators used large amounts of real estate credit. Older farmers who already had accumulated enough capital to operate businesses successfully continued to increase equity rather than make full use of their ability to borrow. The operator's attitude toward borrowing was more favorable during the early years of operatorship than later.

In 1957, Bivens found that farmers in Greene County, Iowa were of the conviction that borrowed money could be

⁴Earl O. Heady, William B. Black, and G. A. Peterson, Interdependence Between the Farm Business and the Farm Household with Implications on Economic Efficiency. Agricultural Experiment Station Bulletin 398. Iowa State College, June 1953, pp. 418-419, 424-425.

used for financial progress.⁵ He found reluctance to assume debt, but that families were more willing to use credit for production items or purchase of real estate than for consumption purposes. The younger operators seemed significantly more willing to borrow than older operators. The high socio-economic status group seemed more willing to borrow than those in low status. The education of the operator significantly affected positively the amount of credit used.

Venezian studied the attitudes of farm families in the use of production credit in Southern Iowa and Northern Missouri.⁶ He discovered that over one-half of the families gave priority to production credit over consumption credit. In general it appeared that families were reluctant to borrow money for either purpose. He found a significant positive relationship between willingness to assume debt and total amount of credit used. Farm operators with large assets borrowed more than those with small assets. The number of years farmed and the age of the

⁵Gordon E. Bivens, "Firm-Household Interdependence and Other Factors in Relation to Use of Credit by Farm Families in Greene County, Iowa," (Unpublished Ph.D. thesis Iowa State College, Ames, Iowa, 1957) pp. 95-103.

⁶Eduardo L. Venezian, "Use of Production Credit By Farm Families," (Unpublished Master's thesis, Iowa State College, Ames, Iowa, 1959) pp. 80-87.

operator were significant factors associated with the amounts borrowed. Younger operators used production credit more often and in greater amounts. These items were thought to be associated with the family cycle. Tenure also affected the use of credit. Renters borrowed money more often and in larger amounts than did owners and part owners. The level of education of the operator also affects the amount of production credit used in a positive manner.

Corliss conducted research on consumer credit by farm families in Southern Iowa and Northern Missouri.⁷ She discovered that its use was associated with farm tenure and net worth. Families who were renters used more consumption credit than did families who owned part or all of their land. Knowledge of source and costs was associated with use of consumption credit. Families possessing the greater knowledge made greater use of this type of credit.

⁷Mary J. Corliss, "Social and Economics Factors Related to Use of Consumer Credit by Farm Families," (Unpublished Master's thesis, Iowa State College, Ames, Iowa, 1958) pp. 54-57.

CHAPTER II

METHOD OF INVESTIGATION

I. SOURCE OF DATA

The data used in this study were collected by interviewing farm families, in Census Economic Sub-region 71. This sub-region contains 19 counties in Southern Iowa and 32 counties in Northern Missouri and is primarily a live-stock-pasture area. Families to be interviewed were selected at random by the Iowa State University Statistical Laboratory. The area chosen contained 445 dwellings, and it was expected that 300 eligible schedules would be obtained. However, only 203 schedules were usable. Many of the families were not eligible and 29 were not completed for various other reasons. Reasons for non eligibility and non completion were as follows:

No farm operation in the period covered in the study	27.0 percent
Less than one-half of cash income from the farm business	18.9 percent
Husband or wife did not reside on farm	16.2 percent
No farm operation last year	12.8 percent
Married less than a year	12.2 percent
No farm operation this year	5.4 percent
Less than 30 acres in farm	1.4 percent

Not living on farm operated	0.7 percent
Refused to cooperate and other reasons	5.4 percent
Total	100.0 percent

The interviews were made in May and June of 1957 in Iowa, and July and August of the same year in Missouri. The schedules were divided into two parts: (1) questions dealing with consumer credit and (2) questions dealing with production and real estate credit. The wife answered the questions on consumer credit, the section on family goals, and family census. The operator was asked to answer the questions about production and real estate credit and the farm balance sheet.

The conditions for eligibility for the study were that: (1) the husband and wife had been married for at least one year; (2) both husband and wife lived on the farm they operated; (3) the husband and wife were operating a farm the year of the interview and had operated one the previous year; (4) at least one-half of their cash income was from farming; and (5) the size of the farm was at least 30 acres.

The schedule contained separate sections for each type of credit, and for family goals, willingness to assume debt, knowledge of sources of credit, a balance sheet, parents' attitude toward debt, and personal information about the family.

II. TYPE OF ANALYSIS

The data on the schedules were edited and coded for punching on I.B.M. cards. As the analysis deals with relationships between attitudes and use of credit, measures of willingness to assume debt were developed by using the responses to eight statements. According to the nature of each statement a score from zero to four was assigned. Each statement from the goals section of the questionnaire, (i.e. reduce our indebtedness or get out of debt), was assigned a score of zero, two or four depending on whether or not it was selected as a primary goal, or as a secondary goal, or was not selected as a goal of the family. The scores for each of the eight statements were added to obtain a measure of willingness to assume debt for each family. The families were divided into the following groups on the basis of these scores: (1) low (0 to 14 total), (2) medium (15 to 19 total) and (3) high (20 or more total). These groups were used in the analysis of the data.

Non use of credit may not indicate an unwillingness to borrow. There may not be a felt need for additional funds. Another possible reason for non use is that a family may be restricted from borrowing by lending institutions because of low equity or other factors indicating a high risk to the lender.

Some families may borrow even though they are opposed to the use of credit. Lack of current income may make them feel that it is necessary. The effects of not borrowing may result in dissatisfaction that is greater than the dissatisfaction of being in debt.

There are definite limitations in using total credit as an indication of attitude toward borrowing money as it may be heavily weighted with real estate loans. To overcome this problem each type of credit was analyzed separately, but the remedy was not entirely satisfactory. Money that is borrowed goes into the same bank account as receipts from sale of farm products. Part of a real estate loan may be used to purchase feeder cattle, fertilizer or other farm supplies. In other words, this line of delineation between investments, production and consumption credit is by no means clear out.

Various factors were investigated to determine their relationship to the willingness of farm families to assume debt. These factors were also checked against total credit, each type of credit (consumption, production, and real estate), and combinations of the three types.

One type of credit can be substituted for another. The family can borrow for production and use the money for consumption and vice versa. They can postpone an extra payment on the real estate mortgage to use the funds for

CHAPTER III

DESCRIPTION OF THE SAMPLE AND THE SAMPLE AREA

The area used in the study was Census Economic Sub-region 71 which includes part of Northern Missouri and Southern Iowa. The agriculture in this sub-region is predominantly livestock raising and finishing, with a large dependence upon pasture operations. The survey data were comparable with census information on certain items, but not completely so. The census was taken in November, 1954 and the schedules for this study in the summer of 1957. Also there were certain screening questions which eliminated farms from the study that were included in the census.

According to census, there were 67,704 commercial farms in the study area in 1954. The number of usable schedules obtained was 203 which would give an expansion rate of approximately 334 times. The number of commercial farms in the 1950 census was 74,836. The average size of commercial farms was 219 acres in the 1954 census, and 198 acres in 1950. The average size of farm in the sample was 265 acres. Farms smaller than 30 acres and those on which less than one half of the cash income was from farming were eliminated when the interviews were made. This procedure obviously raised the average size of farms. The 1957 ? census reported \$96 per acre average for the value of farm

land and buildings. The value reported in 1950 was \$77 per acre.

The types of farms from which data were obtained are shown in Table I. In the survey respondents were asked to indicate the main source of income. Farms in the census were classified as to type on the basis of the sales items on the questionnaire. This procedure may account for the predominance of general farms in the credit survey sample.

As stated earlier, most of the farms in this area are livestock raising and finishing organizations. Pasture plays a vital role in these organizations. The grain that is grown is used primarily for livestock feed. The average per farm reporting of leading crops were 44 acres of corn, 21 acres of wheat and 36 acres of soybeans.

The tenure status of respondents is compared with census reports in Table II. Probably a large percentage of the farms under 30 acres in size that were eliminated from the study were owner operated. The census indicated that over 70 percent of the small farms in the area are owner operated.¹

The average age of the operators interviewed was 49 years. The average number of years married was 24. All

¹United States Bureau of the Census, United States Census of Agriculture: 1954, Volume 1, Counties and State Economic Areas, part 9 and 10, Government Printing Office, Washington, D.C., 1955, Tables 1-4 and 7.

TABLE I

TYPES OF FARMS IN NORTHERN MISSOURI AND SOUTHERN IOWA
FROM WHICH DATA ON USE OF CREDIT WERE OBTAINED IN 1957

Type of Farm	Credit Survey Sample (percent)	1954 (percent)	Census 1950 (percent)
Cash-grain	12.8	19.8	10.5
Dairy	5.4	6.5	6.5
Poultry	-	2.0	3.0
Livestock	36.5	59.3	66.4
General	42.4	12.4	13.6
Other	1.2	-	-
Total	100.0	100.0	100.0

TABLE II

TENURE STATUS OF FAMILIES FROM WHOM CREDIT DATA WERE OBTAINED
IN 1957 AND FROM CENSUS REPORTS (ECONOMIC SUB REGION 7A)

Tenure	Credit Survey		Census	
	Sample (percent)	1954 (percent)	1950 (percent)	1950 (percent)
Full owner	48.8	53.9	56.1	56.1
Part owner	32.5	25.0	21.4	21.4
Renter	18.7	21.1	22.5	22.5
Total	100.0	100.0	100.0	100.0

of the respondents had been married at least one year, because of the sample limitations. It was found that 12 percent of the residents of the sample segments had been married for less than one year. The average size of family was 3.5 persons. The operators had farmed an average of 23 years.

The average respondent had assets valued at \$35,390, and an average net worth of \$31,875. This gives a difference of \$3,515 average debt per farm in the study. Twenty-eight percent of the families who were interviewed reported not having any debts outstanding. The average debt for those reporting loans was \$5,072.

The average amount of consumption credit outstanding at the time of interview was \$608 per farm family reporting this type. The average for production credit was \$2,086 per farm reporting use of this type of credit. The amount of real estate credit was \$6,420 for the families using this kind of credit.

Fifty three families (26 percent of total) had off farm income in 1956 and 48 families (24 percent) expected or had received off farm income in 1957. Twenty-six percent of the operators had lived off the farm during a stage of earlier life. Thirty-eight percent of the wives had also lived off the farm at sometime in the past.

The education of the operators in this study and

their wives is presented in Table III. The data show that the wives tended to be better educated than the husbands. Nearly 52 percent of the wives attained at least 12 years of formal education, whereas 37.4 percent of the operators attained this level.

TABLE III

EDUCATIONAL LEVELS OF FARM OPERATORS AND WIVES IN ECONOMIC CENSUS
SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Education	Farm Operators			
	Husbands Number	Percent	Wives Number	Percent
Under 8 years	96	47.3	59	29.0
9 to 11 years	31	15.3	39	19.2
12 years	66	32.5	83	40.9
1 to 3 years college	8	3.9	17	8.4
College graduate	2	1.0	5	2.5
Total	203	100.0	203	100.0

CHAPTER IV

FINDINGS

I. ATTITUDES TOWARD CREDIT USE

The interviewed families were asked to respond to certain statements concerning use of credit. The results are shown in Table IV. The respondents also were asked to give reasons for their credit positions. The responses were divided into five general groups. (Table IV)

Use Cash for Consumption Items

Almost one-half (47.3 percent) of the respondents definitely agreed that families would do well to postpone purchase of household equipment until they could pay cash for it. Almost two-fifths (39 percent) of those definitely agreeing held this opinion because they were opposed to debt for consumption purposes. About one-fourth (24.6 percent) who agreed somewhat were classified as believing that it might be necessary to get the item at the time needed. Most of these responses were rather cautions, but if equipment was definitely needed credit purchases might be justified. Eighteen percent who agreed with the statement somewhat did so because they believed it necessary in order to obtain household items. They replied that it was too difficult to accumulate cash before the purchases were made. Seventy-eight percent of the ones agreeing somewhat gave

TABLE IV

ATTITUDES OF FARM PEOPLE IN NORTHERN MISSOURI AND SOUTHERN IOWA, ECONOMIC SUB REGION 71 TOWARD USE OF CREDIT, 1957 SURVEY

Statement on Credit Use	Reply to Statements					Total (percent)
	Definitely Agree (percent)	Agree Somewhat (percent)	Disagree Somewhat (percent)	Definitely Disagree (percent)	No Opinion (percent)	
1. Most farm families would do well to hold off buying modern equipment for their homes until they can pay cash for it.	47.3	24.6	18.2	9.4	.5	100.0
2. Every farm family must own its own farm in order to get ahead financially.	34.8	13.9	32.3	14.5	4.5	100.0
3. Most farm families profit by using promotion credit.	54.7	29.6	2.9	2.0	10.8	100.0
4. Young farm families should get out of debt as soon as possible.	70.9	16.3	10.3	1.0	1.5	100.0
5. The only way that some families will get major improvements in their houses is to borrow.	38.4	36.0	10.8	6.4	8.4	100.0

TABLE IV CONTINUED

ATTITUDES OF FARM PEOPLE IN NORTHERN MISSOURI AND SOUTHERN IOWA, ECONOMIC SUB REGION 71 TOWARD USE OF CREDIT, 1957 SURVEY

Statement on Credit Use	Reply to Statements				Total (percent)	
	Definitely Agree (percent)	Agree Somewhat (percent)	Disagree Somewhat (percent)	Definitely Disagree (percent)		
6. It is better for a family to borrow a sizable amount in order to buy a large farm than to buy a smaller farm and be less in debt.	40.9	19.2	16.3	12.3	11.3	100.0
7. Farm families would do well to wait until they have accumulated their own money rather than borrow money for farm production purposes.	3.4	5.9	33.0	53.8	3.9	100.0
8. Most farm families who have small livestock enterprises free of debt make more money than those who enlarge their enterprises by borrowing money.	13.8	18.7	20.7	22.7	24.1	100.0
9. It is better to rent a farm than to go in debt to buy land.	8.9	15.8	28.1	38.8	8.4	100.0

TABLE IV CONTINUED

ATTITUDES OF FARM PEOPLE IN NORTHWEST MISSOURI AND SOUTHWEST IOWA, ECONOMIC SUB REGION 71 TOWARD USE OF CREDIT, 1957 SURVEY

Statement on Credit Use	Definitely Agree (percent)	Agree Somewhat (percent)	Disagree Somewhat (percent)	Definitely Disagree (percent)	No Opinion (percent)	Total (percent)
10. A farm operator who is short of capital often would profit by borrowing more money before paying off the debts he already has.	35.0	35.5	6.9	10.3	12.3	100.0

this type of answer. Of the few who definitely agreed with the statement, 75 percent thought the family could enjoy the articles while paying for them. These people had a greater time preference than those who thought the purchase should be delayed, and were willing to pay the additional cost, interest, and service charges for immediate possession.

The respondents who had no opinions were not questioned further.

Farm Ownership Necessary

More than one-third (34.8 percent) of the people who were interviewed thought that a farm family should own land to get ahead. The principal reason for this belief was the fact that the income would not have to be divided with a landlord. The responses also indicated that the rent would pay for the farm. Other responses indicated an inherent feeling of security in ownership of a farm.

Of the respondents who disagreed somewhat, 88 percent believed it was possible to achieve adequate financial progress on a rented farm. Ninety-three percent of those definitely disagreeing with the absolute need for land ownership did so because they believed renters of farms were able to earn normal income.

Profit from Production Credit

The majority of the people who were interviewed (54.7 percent) thought most families profit by using production credit. Only five percent disagreed. However, 10.8

percent had no opinion. Sixty-nine percent of the respondents who definitely agreed and 55 percent of those who agreed somewhat did so because they believed it was profitable to borrow for production purposes. They felt that the items purchased with borrowed funds would add more to the total value of products than the cost of the credit. Both groups who agreed definitely and those who agreed somewhat indicated that they thought it was necessary to borrow to get started in farming or to survive occasional bad years.

Farm people have a pronounced aversion to debt almost three fourths of the respondents (70.9 percent) thought young farm families should get out of debt as soon as possible. Only 11.3 percent disagreed, and two percent had no opinion. Of those definitely agreeing, 35 percent and of those agreeing somewhat 28 percent were opposed to debt. Some of the responses emphasized the risks, but most people felt that debts are a worry, a burden, or that debts are bad.

Young Families Should Get Out of Debt

Nineteen percent of the people who definitely agreed that young families should get out of debt as soon as possible, indicated that greater financial progress could be made when free of debt. No interest to pay was the main reason for this feeling. Forty-eight percent of those who agreed somewhat gave as their reason that they believed

rapid repayment of all obligations to be a good idea, but not always possible. They also indicated that to become debt free too soon might cause unnecessary restrictions on necessary working capital.

Sixty-five percent of the people disagreeing with the statement did so because they believed it desirable to use credit. A few indicated that a reduction in size of business would be necessary to pay debt.

Borrow to Make Housing Improvements

Less than two-fifths of the people who were interviewed (38.4 percent) felt that the only way some families will get major improvements in their houses is to borrow! Those definitely agreeing and those agreeing somewhat indicated that the main reason for their attitude was difficulty in accumulating cash. Families in both of these groups indicated a high preference for consumer goods.

The respondents who disagreed with the statement indicated a preference for use of cash. Eighty-six percent of the people disagreeing somewhat and 69 percent of the ones definitely disagreeing gave this reason. They were adverse to use of credit for consumption purposes.

Borrow More for Larger Farm Units

Statement six says "It is better to borrow a large amount for a large farm than to buy a smaller farm and be less in debt." Of the 40.9 percent definitely agreeing

92 percent did so because they felt that the larger farm would more likely approach the optimum size. The responses (76 in number) indicated that the operator of a larger farm could lower costs per unit of product as compared to costs on a small unit. Other responses in this group were: "It is the trend and is necessary for a profit." Fifty-six percent of the group who agreed somewhat indicated the same reason for their response. Another 38 percent of this group replied in a similar manner but mentioned factors that might limit the size of farming operations. Among those disagreeing the more prevalent response was: "start with a smaller farm and expand later." Aversion to large debts was also mentioned. This was a factor in most of the negative responses.

Use Cash or Credit for Production Purposes

Only 9.3 percent agreed that farm families should wait and accumulate funds rather than borrow for production purposes. Sixty-one percent of those disagreeing somewhat and 76 percent of those definitely agreeing gave necessity as the reason for their answer. They indicated that it was especially necessary to borrow to start a farm business. Also the respondents mentioned the difficulty of accumulating funds while operating a small business. The second reason mentioned by a large percentage of those who disagreed was the productivity of borrowed funds. The respondents

mentioned a better balanced business and larger profits from large scale operations.

Small Debt Free Livestock Enterprises for Higher Profits

Statement number eight is "Most farm families who have small enterprises free of debt make more money than those who enlarge them by borrowing." About one-fourth of the people interviewed (24 percent) had no opinion on this statement. This is a higher proportion of indecision than on the other statements. The majority of answers of respondents who agreed was that this action reduces risk or avoids debt. Of the people disagreeing somewhat 24 percent remarked that it depends on the individual's ability and cost-price relationships. Thirty-eight percent replied that large enterprises are necessary in order to yield a satisfactory level of income.

Of the 22.7 percent definitely disagreeing, 94 percent stated that borrowed funds employed in the larger enterprises usually bring satisfactory returns.

Rent or Farm Mortgage

About two-thirds of the respondents thought ownership with debt was superior to renting land. Less than ten percent definitely thought that renting was better than heavily encumbered ownership. Another 15.8 percent would rather rent, but were not strongly in favor of this alternative. Some thought it cheaper to rent because it

avoids costs of land ownership, but the majority replied, renting was temporary until capital was accumulated to purchase land. Only eight percent thought it more profitable to rent or preferred renting.

The respondents disagreeing with this statement replied that the rent that was paid usually would be adequate to make the payments on the land. Fifty-four percent of the respondents definitely agreeing that renting was preferable to encumbered ownership, and 38 percent of those agreeing somewhat held this point of view. Of those, 26 percent of the respondents disagreeing somewhat and 27 percent of those definitely disagreeing mentioned pride of ownership and a permanent home as major reasons for purchasing land. Of the ones agreeing somewhat, 28 percent replied that they would favor purchase of land over renting if economic conditions were favorable. Apparently farm ownership has definite amenity value for many people.

Repay Before Additional Borrowing

More than seven-tenths (70.5 percent) of the respondents agreed that "A farmer who is short of capital often would profit by borrowing more money before paying off the debts he already has." Both the definitely agree and agree somewhat groups thought that additional funds would bring greater net income. Many of these mentioned that it might restrict operations if additional funds were not borrowed.

Many respondents indicated they thought the procedure would pay, if the borrower was careful of the extent of total debt. All of those disagreeing somewhat and 76 percent of those agreeing somewhat thought additional borrowing should be avoided because being in debt is not good.

Summary of Attitudes

These responses indicate that farm families are more disposed to borrowing for production purposes than for consumption. They seem to prefer to postpone purchase of consumption items until they have cash. However, a few families indicating a high time preference borrowed for consumption purposes. These people also mentioned the difficulty of accumulating cash to purchase the larger consumption items. If income was expected, the cost of borrowing was not great, and the family had difficulty accumulating cash, they were inclined to use consumption credit. Most of the families favored postponing purchase of consumption items until their debts were repaid or substantially reduced.

Sixty percent of the people who were interviewed thought production borrowing was profitable. Another 25 percent believed that use of production credit was necessary but not desirable. Fifty-four percent of those responding indicated that it was better to borrow for a large farm business than for a small one. Only 12 percent disagreed and stated it was better to start with a small operation and

a resource to be used continuously, but that any money that is borrowed should be paid back as soon as possible.

Bivens found similar results:

In a general fashion, these farm families (1) exhibited an awareness that borrowed funds may serve to further financial progress, (2) indicated a reluctance to assume debt in general, but (3) indicated somewhat greater willingness to use credit for purchase of real estate and/or production items than for consumption purposes.¹

II. WILLINGNESS TO BORROW AND CREDIT USE

As previously explained, the statements on use of credit were given a value and the scores combined to get a measure of willingness to assume debt. For purposes of analysis the respondents were divided into low, middle, and high willingness groups, and their attitudes related to certain factors, believed to be significant in successful use of credit.

Willingness to assume debt does not indicate that a family borrows considerable sums of money. The funds may not be needed either for production or consumption purposes. However, for the families interviewed there was a strong relationship between total credit outstanding and rank in

¹Gordon E. Bivens, "Firm Household Interdependence and Other Factors in Relation to Use of Credit by Farm Families in Greene County, Iowa," (Unpublished Ph.D. thesis, Iowa State College, Ames, Iowa), p. 62.

willingness to assume debt (Table V). More than one-third of the low willingness to assume debt group had no credit outstanding at the time of the interviews, and only 15.6 percent had debts of more than \$5,000. Only 17.4 percent of the families who were highly willing to assume debt had no obligations outstanding; 29.0 percent owed more than \$5,000 and 36.2 percent had debts between \$1 and \$1,300. Many of the families in this group had small amounts of production and consumption credit. Eight had consumption credit only, seven had production loans only, seven had both production and consumption loans, and three had real estate mortgages. These people were small owners, except for two who were renters.

There was a significant relationship (1 percent level) between willingness to assume debt and consumer credit outstanding. Data supporting this conclusion are presented in Table VI. The highest percentage of families with no consumer credit outstanding were in the middle willingness to assume debt group. This situation does not mean that these people used no consumption credit. Some of the money borrowed for other purposes may have been spent for consumer goods.

There was no indicated relationship between willingness to assume debt and use of production credit. It has already been pointed out that most farmers look upon production credit as being profitable and necessary. A high percentage of them borrow money to carry on their

TABLE V

RELATIONSHIP BETWEEN WILLINGNESS TO ASSUME DEBT AND THE AMOUNT OF CREDIT OUTSTANDING AT THE TIME FARM FAMILIES IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA WERE INTERVIEWED IN 1957

Willingness to assume debt	Total Credit Outstanding									
	None		\$1-\$1,300		\$1,301-\$5,000		over \$5,000		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Low (1-14)	21	36.2	14	24.1	14	24.1	9	15.6	58	100.0
Medium (15-19)	24	31.6	10	13.2	22	28.9	20	26.3	76	100.0
High (20 f)	12	17.4	25	36.2	12	17.4	20	29.0	69	100.0
Total	57	28.1	49	24.1	46	23.7	49	24.1	203	100.0

$\chi^2 = 17.0317$

Degrees of freedom = 6

Significant at 1 percent

TABLE VI

RELATIONSHIP BETWEEN WILLINGNESS TO ASSUME DEBT AND THE AMOUNT OF CONSUMER CREDIT OUT-
STANDING AT THE TIME FARM FAMILIES IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI
AND SOUTHERN IOWA WERE INTERVIEWED IN 1957

Consumer credit outstanding	Willingness to Assume Debt						Total Number	Total Percent
	Low		Medium		High			
	Number	Percent	Number	Percent	Number	Percent		
None	44	29.7	64	43.3	40	27.0	148	100.0
\$1-\$100	6	31.6	4	21.1	9	47.3	19	100.0
\$101-\$650	7	38.9	3	16.7	8	44.4	18	100.0
\$651 and over	1	5.6	5	27.2	12	66.7	18	100.0
Total	58	28.6	76	37.4	69	34.0	203	100.0

$\chi^2 = 18.5542$

Degrees of Freedom = 6

Significant at 1 percent

enterprises regardless of how they feel about debt.

The relationship between willingness to assume debt and real estate credit was not significant as shown by the chi square test of interdependence (Table VII). However, the percentage of farmers using real estate credit was highest among farmers with middle willingness to assume debt. Of the 25 families with real estate credit of \$8,000 or more, 10 were in the group who were most willing to assume debt and 10 in the group that were families moderately willing. Of families with \$3,001 to \$7,999 of real estate debt, 26.1 percent were in the low group, 34.8 percent in the medium group, and 39.1 percent the high willingness group. For families with \$1 to \$1,300 of real estate credit outstanding an equal percentage (42.3 percent) were in the medium and high willingness groups. Only 15.4 percent of the families with this amount of real estate debt were in the low willingness group. Families with no credit outstanding were approximately equally divided among the low, medium and high willingness groups. It is possible that these families had not yet accumulated enough equity in their businesses to permit them to have a real estate loan.

Willingness to borrow does not account for all of the variations in use of credit. The family must have need for the funds and an opportunity to obtain a loan, from a

TABLE VII

RELATIONSHIP BETWEEN WILLINGNESS TO ASSUME DEBT AND THE AMOUNT OF REAL ESTATE CREDIT
 OUTSTANDING AT THE FINE FARM FAMILIES IN CRISIS ECONOMIC SUB REGION 71 OF NORTHERN
 MISSOURI AND SOUTHERN IOWA WERE INTERVIEWED IN 1957

Amount of Real Estate Credit Outstanding	Willingness to Assume Debt							
	Low		Medium		High		Total	
	Number	Percent	Number	Percent	Number	Percent		
None	42	32.8	47	36.7	39	30.5	128	100.0
\$1-\$3,000	4	15.4	11	42.3	11	42.3	26	100.0
\$3,001-\$7,999	6	26.1	8	34.8	9	39.1	23	100.0
\$8,000 and over	5	20.0	10	40.0	10	40.0	25	100.0
Total	57	28.2	76	37.6	69	34.2	202	100.0

$\chi^2 = 4.6864$

Degrees of Freedom = 6

Not significant at 10 percent

willing lender. Some families who are willing to borrow money may be unable to get the funds. Most lenders require security or a substantial equity in the farm business. The farmer with very little equity in his business may be unable to obtain a loan regardless of his attitude toward use of credit.

III. CHARACTERISTICS OF CREDIT USE

The total amount of consumption, production, and real estate credit outstanding was divided into four size groups for the purpose of analysis. The number of families and the average amount of each type of credit used are shown in Tables VIII and IX.

Consumer credit usually is not outstanding in as large amounts or used as often as production or real estate credit. Twenty-two of the 55 who had consumer credit outstanding had amounts of less than \$1,300. The average amount of consumer credit of these 22 families was \$247. Forty-nine of the 146 who used one or more of the three types had credit outstanding of \$1,300 or less. However, some families had fairly large consumer loans. Fourteen of the 55 who used consumer credit had loans that averaged \$1,027. The percentage distribution of loans by types is shown in Table IX.

The data presented in Table X show the number and

TABLE VIII

NUMBER OF USES OF EACH TYPE OF CREDIT AND AVERAGE AMOUNTS OUTSTANDING BY SIZE OF LOANS IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Type of Credit	Total Credit Outstanding											
	\$1-\$1,500			\$1,501-\$5,000			over \$5,000			All sizes of loans		
	Number outstanding	average amount out-	standing	Number outstanding	average amount out-	standing	Number outstanding	average amount out-	standing	Number outstanding	average amount out-	standing
Consumer Credit	148	\$ 0	22	\$247	19	\$ 591	14	\$ 1,027	55	\$ 564		
Production Credit	96	0	32	634	33	1,821	42	3,365	107	2,066		
Real Estate Credit	129	0	7	587	24	2,652	43	9,472	74	6,420		
All types	57	0	49	496	46	2,780	49	11,653	146	4,991		

TABLE IX

NUMBER OF BORROWERS AND PERCENTAGE DISTRIBUTION OF LOANS BY TYPE AND AMOUNT IN CENSUS
ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Type of Credit	Amounts of Credit Outstanding						All sizes of Loans	
	\$2-\$1,300		\$1,300-\$5,000		over \$5,000		Number	Percent
Consumption	22	40.0	19	34.5	14	25.5	55	100.0
Production	32	29.9	33	30.8	42	39.3	107	100.0
Real estate	7	9.5	24	32.4	43	58.1	74	100.0
All types	49	33.6	48	32.8	49	33.6	146	100.0

TABLE X

NUMBER AND PERCENTAGE OF LOANS BY SIZE GROUPS REPORTED BY FARM FAMILIES IN CENSUS ECONOMIC
SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Type of Credit	Amount of Credit Outstanding *					
	\$1-\$1,300		\$1,301-\$5,000		over \$5,000	
	Number	Percent	Number	Percent	Number	Percent
Consumption	22	44.9	19	36.9	14	28.6
Production	32	65.3	33	68.8	42	85.7
Real Estate	7	14.3	24	50.0	43	87.7
All types	49	100.0	48	100.0	49	100.0

* Some amounts include combinations of credit.

percentage of families in each total credit group having loans of different types. Production loans were the most common and consumption loans the least. Consumption loans tended to be small and real estate loans large. Of the families having less than \$1,300 of credit outstanding, 65.3 percent had production loans. The average amount was \$614. This group was 29.9 percent of all families having production credit outstanding. Of the families with \$1,301 to \$5,000 worth of credit outstanding, 68 percent had production credit. The average amount was \$1,821. This group made up 30.8 percent of the total 107 families who were using production credit. More than four-fifths (85.7 percent) of the families who had credit outstanding in excess of \$5,000 had production loans. The average amount was \$3,365 for the 42 families reporting. This group comprised 39.3 percent of all families reporting use of production credit. Of the families reporting real estate credit, 58.1 percent had total credit outstanding in excess of \$5,000. Of families reporting credit outstanding of more than \$5,000, 87.8 percent had real estate credit outstanding. The average amount of real estate credit per family was \$9,472.

The greatest number reporting consumption loans was in the \$1 to \$1,300 group and the fewest in the over \$5,000 group. However, the average amount per family using

consumption credit is greatest for the high group and lowest for the low group. The average amount of consumption credit is less than real estate or production credit, but is associated with the amount of total credit.

Real estate credit is very important in the high total credit outstanding group. Both the average amount and the number using it increase as total credit outstanding increases. In the over \$5,000 group, 36 respondents, 74 percent, reported both real estate credit and production credit outstanding. Six of the 49 respondents had production and consumption credit in excess of \$5,000.

IV. SOCIAL AND ENVIRONMENTAL FACTORS INFLUENCING CREDIT USE

Education

Operators having several years of formal education used more credit than those having very little education. Of the operators who had completed 12 years of education, 31.9 percent had \$5,000 or more total credit outstanding. Twenty-five and nine tenths percent of those who had from 9 to 11 years of education had \$5,000 or more of credit, and only 17.7 percent of the operators who had less than eight years had \$5,000 or more total credit outstanding (Table XI). Thirty percent of the college group had more than \$5,000 outstanding. This group, however, was not large and therefore the data may not be reliable.

TABLE XI

RELATIONSHIP BETWEEN FORMAL EDUCATION OF FARM OPERATORS AND USE OF CREDIT IN ECONOMIC CENSUS SUB REGION 71 IN NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Education of Operator (Years)	None		\$1-\$1,300		\$1,301-\$5,000		over \$5,000		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 8	36	37.5	26	27.1	17	17.7	17	17.7	96	100.0
9 to 11	9	29.0	5	16.1	9	29.0	8	25.9	31	100.0
12	10	15.1	16	24.2	19	28.8	21	31.9	66	100.0
1 to 4	2	20.0	2	20.0	3	30.0	3	30.0	10	100.0
College	57	28.1	49	24.1	48	23.7	49	24.1	203	100.0

$\chi^2 = 14.6160$

Degrees of freedom = 9

Significant at 10 percent

The percentage of operators who had no credit outstanding decreased as the years of formal training increased. More than one-third (37.5 percent) of the operators with less than eight years of education had no credit outstanding, whereas only 15.1 percent of those with twelve years of training, and one-fifth of the college group were using no credit. For the group as a whole, the relationship between educational training and amount of credit used was significant at the ten percent level.

As shown in Table XII, farm operators having more education tended to have a greater willingness to assume debt. While the data were significant at the one percent level, the relationship does not appear to be consistent. Of the operators who had less than eight years of education, 38.5 percent had a low willingness to assume debt, 30.2 percent had medium willingness, and 31.3 percent a high willingness. For operators with 9 to 11 years of education, 16.1 percent had a low willingness to assume debt. Of this group, 61.3 percent had a medium willingness to assume debt and 22.6 percent a high willingness. Nearly 20 percent (19.7) of the operators with 12 full years of education were classified as having a low willingness to assume debt, 39.4 percent had medium and 40.9 percent a high willingness to assume debt. Only ten of the 203 operators in the sample had one or more years of college training. Five of these

TABLE XII

RELATIONSHIP BETWEEN LEVEL OF FORMAL EDUCATION OF FARM OPERATORS AND THEIR WILLINGNESS TO ASSUME DEBT, CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Education of Operator (years)	Willingness to Assume Debt							
	Low		Medium		High		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 8	37	38.5	29	30.2	30	31.3	96	100.0
8 to 11	5	16.1	19	61.3	7	22.6	31	100.0
12	13	19.7	26	39.4	27	40.9	66	100.0
1 to 4 college	3	30.0	2	20.0	5	50.0	10	100.0
All levels	58	28.6	76	37.4	69	34.0	203	100.0

$\chi^2 = 16.8693$ Degrees of Freedom = 6 Significant at 1 percent

were classified as having a high willingness to assume debt, two as having medium willingness, and three a low willingness to assume debt. The formal education of the wife also was closely associated with willingness to assume debt.

Vocational Training

Only 21 of the 203 operators had some vocational training, but these men used more credit than did those who had not had vocational training. It is difficult, however, to draw a strong conclusion that vocational training influences farmer's attitudes toward credit. The length of time spent and the type of vocational training varied widely. The types of vocational training of these operators included business training, pilot training, work in mechanical schools, and a few others. Men with vocational training tended to be younger than the average farm operator and young men generally have a greater willingness to assume debt.

Residential Experience

Attitudes toward use of credit was not affected appreciable by the residential background of farm families. The residential background of the husband or the wife or the combined background of both parties was not significantly related to their attitude toward credit. The relationship between residential experience of farm operators and the amount of credit outstanding is shown in Table XIII.

TABLE XIII

RELATIONSHIP BETWEEN FARM OPERATOR'S RESIDENTIAL EXPERIENCES AND USE OF CREDIT IN
CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Operator's Residential Experience	None		\$1-\$1,300		\$1,300-\$5,000		Over \$5,000		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All on farms	46	30.4	35	23.2	38	25.2	32	21.2	151	100.0
Some off	11	21.2	14	26.2	10	19.2	17	32.7	52	100.0
Both groups	57	28.1	49	24.1	48	23.7	49	24.1	203	100.0

$\chi^2 = 4.1006$

Degrees of Freedom = 3

Not Significant at 10 percent

Parent's Attitude

The respondents were questioned about their parents' attitude toward borrowing for production and consumption purposes. According to the responses parents tended mildly to favor the use of production credit, but they mildly opposed the use of consumption credit. The purpose here was to find out whether or not the attitudes of parents are transferred to their children, and therefore affect the children's use of credit. The data showed that the attitudes of parents had little or no effect on the willingness of the children to borrow money. However, the number of responses was not sufficient to state that the results are conclusive.

V. KNOWLEDGE OF CREDIT SOURCES AND RELATIONSHIP TO CREDIT USE

The amount of credit used by farm families was closely related to their knowledge of where loan funds were available. The users may have a greater knowledge of sources as a result of their borrowing activities. Many borrow from one source, but know of other sources and may use them when variations in interest rates or service charges reduce the cost of obtaining funds.

Knowledge of Sources and Willingness to Borrow

Data in Table XIV indicate a significant positive relationship between knowledge of sources of credit and willingness to assume debt. For the low willingness group,

TABLE XIV

RELATIONSHIP BETWEEN WILLINGNESS TO ASSUME DEBT AND KNOWLEDGE OF SOURCES OF CREDIT
 FARM OPERATORS IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN
 IOWA, 1957

Willingness to Assume Debt	2 or Less		2 to 4		Number of Sources Known more than 4		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Low	28	48.3	17	29.3	13	22.4	58	100.0
Medium	28	36.8	26	34.2	22	29.0	76	100.0
High	16	23.2	22	31.2	31	44.2	69	100.0
	72	35.5	65	32.0	66	32.5	203	100.0

$\chi^2 = 20.4421$

Degrees of Freedom = 6

Significant at 1 percent

48.3 percent knew of two or less sources of credit that might be available to them. Among the medium willingness group, 29.3 percent know of two to four sources of credit. Only 22.4 percent of the families with a low willingness had knowledge of over four sources. Of the medium willingness group, 36.8 percent knew two or less sources, 34.2 percent knew of two to four sources and 29.0 percent knew of over four sources. Nearly 45 percent (44.9) of the high willingness to borrow families knew of over four sources. Of the families in this group, 31.9 percent had knowledge of two to four sources and 23.2 percent knew of two or less sources. The data showed that the relationship between knowledge of sources and willingness to assume debt was significant at the one percent level.

Knowledge of Sources and Total Credit Used

There was a distinct positive association between knowledge of sources of credit and the amount of total credit outstanding (significant at the 5 percent level). This is shown by the data presented in Table XV. Families with the larger amounts of credit outstanding had the greater knowledge of sources of funds. Families who had low knowledge, that is knew of two or fewer sources, had less credit outstanding. Of this group, 45.8 percent had no credit outstanding, 20.8 percent had \$1,300 or less, 19.5 percent had between \$1,300 and \$5,000 and only 13.9

TABLE XV

RELATIONSHIP BETWEEN KNOWLEDGE OF SOURCES OF CREDIT AND COSTS AND THE AMOUNT OF DEBT OUTSTANDING IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Number of Sources	Amount of Total Credit Outstanding									
	None	\$1-\$1,300	\$1,301-\$5,000	Over \$5,000	Total	Total				
	Number	Percent	Number	Percent	Number	Percent				
Low (2 or less)	33	45.8	15	20.8	14	19.5	10	13.9	72	100.0
Medium (2 to 4)	15	23.2	17	26.1	16	24.6	17	26.1	65	100.0
High (4 or more)	2	13.6	17	25.8	18	27.3	22	33.3	66	100.0
Total	57	28.1	49	24.1	48	23.7	49	24.1	203	100.0

$\chi^2 = 11.2056$

Degrees of Freedom = 4

Significant at 5 percent

percent had more than \$5,000 credit. Of the families who had knowledge of two to four sources, 23.2 percent had no credit outstanding. The remainder of this group was somewhat equally divided as to the amount of credit outstanding. Nine families or 13.6 percent of those knowing over four sources had no credit outstanding. Seventeen families (25.8 percent) had credit outstanding of less than \$1,300, 18 families (27.3 percent) had credit outstanding between \$1,300 and \$5,000, and 22 families (33.3 percent) had credit outstanding in excess of \$5,000.

Knowledge of Sources and Consumer Credit

Knowledge of sources of credit seemed to be associated with use of consumer credit. Of the families with low knowledge of sources, 84.8 percent had no consumer credit outstanding. Of those who knew of two to four sources, 76.9 percent had no consumer credit. Only 56.1 percent of families with a high knowledge of sources had no consumer credit outstanding (Table XVI).

Knowledge of Sources and Size of Farm Business

Knowledge of credit sources was associated negatively with size of farm business as indicated by total assets and net worth (Table XVII). Families with a low knowledge of sources i.e. those knowing of two or fewer sources, had greater assets and net worth than those knowing about several sources. Families with a low knowledge had total assets of

TABLE XVI

RELATIONSHIP BETWEEN KNOWLEDGE OF SOURCES OF CREDIT AND AVERAGE AMOUNT OF CONSUMER CREDIT OUTSTANDING PER FAMILY IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Number of Sources	Amount of Consumer Credit Outstanding											
	None		\$1-\$100		\$101-\$650		over \$650		Total			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Low (2 or less)	61	84.8	3	4.2	4	5.5	4	5.5	72	100.0		
Medium (2 to 4)	50	76.9	8	12.3	4	6.2	3	4.6	65	100.0		
High (over 4)	37	56.1	8	12.1	10	15.1	11	16.7	66	100.0		
Total	148	72.9	19	9.3	18	8.9	18	8.9	209	100.0		

TABLE XVII

RELATIONSHIP BETWEEN TOTAL CAPITAL USED IN THE FARM BUSINESS, NET WORTH OF THE OPERATOR
 KNOWLEDGE OF SOURCES AND THE AVERAGE AMOUNT OF CREDIT USED IN GENESIS ECONOMIC SUB REGION
 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Item	Knowledge of sources of credit		
	Low (0 - 2)	Medium (2 - 4)	High (4 - 6)
Number of families	70	63	64
Total assets	\$38,649	\$36,562	\$30,676
Net Worth	\$36,474	\$32,983	\$26,148
Total Debt	\$ 2,175	\$ 3,979	\$ 4,528
Percent equity	94.4	89.0	85.2

\$38,649 and net worth of \$36,474. The average total debt for this group was \$2,175, giving them an average equity of 94.4 percent.

Families with medium knowledge of sources of credit, had average total assets of \$36,562 and net worth of \$32,583 (an average equity of 89.1 percent).

Families with the highest knowledge of sources of loans had the lowest total assets and the lowest equities in their businesses. The average total assets of this group were \$30,676 and their net worths \$26, 148. This gave them an average total debt for the group of \$4,528, and an average equity of 85.2 percent.

The data show that knowledge of credit sources was related to use. It increased with willingness to borrow money and with the amount of credit outstanding. From the factors available for the analysis it was not determined whether knowledge was a result of experience in the use of credit or whether knowledge tended to make farmers more willing to borrow. Farmers may be more willing to borrow after having had contact with credit institutions. Families who do not have this knowledge may avoid debt because of lack of understanding about use of credit. They may have had very little experience with credit or that which they had may have been unsatisfactory.

Knowledge of Sources and Credit Combination

Information in Table XVIII indicates that the use of more types of credit is positively associated with knowledge of credit sources. Of families with no credit outstanding, 57.9 percent had knowledge of two or fewer sources. Of families using only one type of credit, 37.7 percent had knowledge of two to four sources. The largest percentage (46.4 percent) of families with combinations of consumption, production, and real estate credit had knowledge of over four sources.

Information is not available as to whether the families with combinations of types of credit had a separate source for each type. It is not determinable from this information whether the knowledge is a result of use or vice versa.

VI. GOALS AFFECTING CREDIT

An effort was made to determine the effects of family goals upon attitude towards credit, and upon the amount of credit used. Each housewife was given 14 goals and instructed to select four which the family was working particularly hard to accomplish. She was also asked to select four additional goals to which the family was giving special attention. The goals selected were compared with the credit attitudes of the respondents and to determine

TABLE XVIII

RELATIONSHIP BETWEEN COMBINATIONS OF CREDIT AND KNOWLEDGE OF SOURCES OF CREDIT FOR FARM OPERATORS
IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Credit Combinations	Knowledge of source of credit							
	2 or less		2 to 4		more than 4		total	
	Number	Percent	Number	Percent	Number	Percent		Number
No credit used	33	57.9	15	26.3	9	15.8	57	100.0
One type only (production, consumption, real estate)	23	29.9	29	37.7	25	32.4	77	100.0
Combination of 2 or 3 types	16	23.2	21	30.4	32	46.4	69	100.0
Total	72	35.5	65	32.0	66	32.5	203	100.0

their relationship to the use of credit.

Preference for Production Goals

Goals were classified as to whether they were related to production or to consumption. Thirty-two percent of the families were rated as being low in the ratio of production to consumption goals. Their ratio was less than 0.9. Twelve and two tenths percent had a ratio between 0.9 and 1.09. These people emphasized production and consumption goals with approximately equal intensity. Fifty-five and eight tenths percent of the families had goals oriented clearly towards production considerations, with ratios above 1.10. The results may seem unrealistic as the final reason for production is consumption. However, many farm families may believe that a high level of production will make it possible for them to maintain consumption at a high level.

Goals Related to Credit Attitude

The data in Table XIX show the relationship of goals to credit attitudes and credit use. Only those goals which were found to have significant relationships will be discussed. The complete list is given in the appendix. There was a significant positive relationship between the goal to reduce indebtedness or get out of debt and willingness to assume debt. Families with a low willingness to assume debt gave this goal a high priority. Fifty-three and

TABLE XIX

RELATIONSHIP BETWEEN GOALS AND WILLINGNESS TO ASSUME DEBT, FARM FAMILIES, IN ECONOMIC CENSUS SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Goals selected by farm families	Willingness to assume debt			Total	
	Low	Medium	High		Number
Reduce our indebtedness or get out of debt.					
Percent selecting it in first group.	53.5	40.7	29.0	82	40.4
Percent selecting it in second group.	8.6	13.2	20.3	29	14.2
Percent not selecting it.	37.9	46.1	50.7	92	45.4
Total	100.0	100.0	100.0	203	100.0
Increase our savings account.					
Percent selecting it in first group.	53.4	39.5	39.1	88	43.3
Percent selecting it in second group.	34.5	40.8	26.1	69	34.0
Percent not selecting it.	12.1	19.7	34.8	46	22.7
Total	100.0	100.0	100.0	203	100.0
Provide for special education of our children, such as music lessons, business or nurses training, or college.					
Percent selecting it in first group.	19.0	26.3	31.9	53	26.1
Percent selecting it in second group.	15.5	21.1	17.4	37	18.2
Percent not selecting it.	65.5	52.6	50.7	113	55.7
Total	100.0	100.0	100.0	203	100.0
Promote recreational activities of family members, or as a family group.					
Percent selecting it in first group.	3.4	3.9	14.5	15	7.4
Percent selecting it in second group.	8.6	21.1	20.3	35	17.3
Percent not selecting it.	88.0	75.0	65.2	153	75.3
Total	100.0	100.0	100.0	203	100.0

five tenths percent of the low willingness families selected it as a goal they were working particularly hard to accomplish. Eight and six tenths percent included it in the second group of goals, and 37.9 percent did not select it as a goal. Families with a middle willingness to assume debt considered this goal less important. Only 40.7 percent selected it in the first group, 13.2 percent selected it in the second group. In the high willingness to assume debt group, only 29 percent of the families gave this goal a high priority. About 20.3 percent selected it in the second group, and 50.7 percent did not include it as a goal.

A goal that had a significant negative relationship with willingness to assume debt was the desire to increase savings. Of the families in the low willingness to assume debt group, 53.4 percent gave increased savings as a high priority goal. Of these families, 34.5 percent selected the goal in the second group, and 12.1 percent did not include it as a goal. Thirty-nine and five tenths percent of the families in the middle willingness to assume debt group selected this goal in the first group, whereas 40.8 percent selected it in the second four. Of the high willingness to assume debt families, 39.1 percent selected the goal in the first group, 26.1 percent included it as a secondary goal, and 34.8 percent did not select it as a goal.

The desire to provide for special education for

children such as music lessons, business or nurses training, or college training was another goal which was related to credit attitudes. Families in the high willingness to assume debt group gave this goal high priority. Almost one-third (31.9 percent) of the families selected it in the first group of goals, and 17.4 percent included it as a secondary goal. The remaining 50.7 percent did not select it as a goal. Of the families in the medium willingness to assume debt group, 26.3 percent gave this goal first priority and 21.1 percent placed it in the second group of goals. Nineteen percent of families with a low willingness to assume debt selected this goal in the first group; 15.5 percent included it in the second group; and 65.5 percent did not include it in either goal priority group.

The goal to provide recreational activities for each family member, or as a family group was not of major importance on the farms studied. Only 7.4 percent of the families included it in the first group and 17.3 percent selected it in the second group. Fourteen and five tenths percent of the families with a high willingness to assume debt selected this goal in the first group; 20.3 percent placed it in the second group, and 65.2 percent did not select the goal. Three and nine tenths percent of the families with a medium willingness to assume debt selected this as a goal in the first group; 21.1 percent included it

in the second group; and 75 percent did not choose it as one of their top eight goals. Within the group of families with a low willingness to assume debt, only 3.4 percent selected the goal in the first group, 8.6 percent in the second group, and 88 percent did not select it.

Goals Related to Credit Use

The goal of improving farm buildings and adding to fixed equipment was closely associated with the total credit outstanding (Table XX). Of the families with no credit outstanding, 52.6 percent selected this goal in the first group, 28.1 percent included it in the second group, and 19.3 percent did not select it as a goal. This goal was selected in the first group by 30.6 percent of the families with credit outstanding. It was included in the second goal group by 22.5 percent of these families. Approximately 48 percent (47.9) of the families with credit outstanding between \$1,301 and \$5,000, selected this goal as receiving special attention. Twenty-five percent selected it as being a goal receiving secondary attention, and 27.1 percent did not include it among the eight selected goals. Forty-nine of the families with credit outstanding in excess of \$5,000 selected this goal as having high priority; 38.8 percent gave it second priority and only 12.2 percent did not include it in the first eight.

The families with large amounts of credit outstanding,

TABLE XX

RELATIONSHIP BETWEEN TOTAL CREDIT OUTSTANDING AND PRINCIPAL GOALS OF FARM FAMILIES IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

	None		\$1-\$1,300		Total Credit Outstanding \$1,301-\$5,000 over \$5,000		All groups	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Goal selected by farm families								
Add to farm buildings and fix equipment								
Percent selecting it in first group.	52.6	30.6	47.9	92	49.5	92	45.3	
Percent selecting it in second group.	28.1	22.5	25.0	58	36.3	58	28.6	
Percent not selecting it	19.3	16.2	27.1	53	12.2	53	26.1	
Total	100.0	100.0	100.0	203	100.0	203	100.0	
$\chi^2 = 18.5339$			Degrees of Freedom = 6		Significant at .1 percent			
Reduce debt or get out of debt.								
Percent selecting it in first group.	7.0	32.7	54.2	82	73.5	82	40.4	
Percent selecting it in second group.	7.0	18.3	18.7	29	14.3	29	14.3	
Percent not selecting it.	86.0	49.0	27.1	92	12.2	92	45.3	
Total	100.0	100.0	100.0	203	100.0	203	100.0	
$\chi^2 = 71.4560$			Degrees of Freedom = 6		Significant at .1 percent			

and families with no credit outstanding of whom a high percentage wanted to add to farm buildings and fixed equipment, had high average net worths and total assets.

Families with large amounts of credit outstanding often selected the goal of paying their debts. Almost three-fourths (73.5 percent) of those with total debts of more than \$5,000 had as one of their principal objectives to reduce their obligations or get out of debt. An additional 14.3 percent of these families selected this goal in the second group objectives, whereas only 12.2 percent did not choose this goal. Among families with debts between \$1,301 and \$5,000, 54.2 percent selected freedom from or reduction of debt as one of their principal goals, 18.7 percent selected this goal in the second group, and 27.1 percent did not include it in the eight goals they selected. Forty-nine percent of families with \$1,300 or less of credit outstanding did not select this goal, but 32.7 percent gave it high priority, and 18.3 percent gave it secondary priority.

The fact that there was a high positive association between willingness to assume debt and total credit outstanding already has been mentioned. Families with large amounts of total credit outstanding were more concerned about reducing or paying off their debts than families with small amounts of credit outstanding. This fact indicates

that even though these families are willing to use large amounts of credit, they are concerned about repayment of their debts.

Families with a low willingness to assume debt were more concerned about repayment than those with a high willingness to assume debt. The data show that farm people do not look upon credit as a resource to be used in improving the combination of economic factors that make up a farm business. Instead, many consider credit as an emergency resource to be used sparingly to keep the business going.

VII. SIZE OF FARM AND CREDIT ATTITUDE

The amount of credit outstanding was related to the size of farms. The percentage of operators who used no credit declined as farms increased in total acreage (Table XXI). Likewise, the percentage of operators with \$5,000 or more of credit outstanding increased with the total acres in the farms. This may have been the result of additional borrowing to purchase land. A greater percentage of operators with fewer than one hundred sixty acres had no credit outstanding than did operators of medium sized and large farms.

For families with \$1,300 or less of total credit the average acreage was 213. For those with \$1,301 to \$5,000 outstanding the average size was 280 acres. Families with

TABLE XXI

RELATIONSHIP BETWEEN SIZE OF FARM BUSINESSES MEASURED IN ACRES AND AMOUNT OF CREDIT
OUTSTANDING IN CENSUS ECONOMIC SUB REGION 7A OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Acres Categorized	None		\$1-\$1,300		\$1,301-\$5,000		Total Credit Outstanding over \$5,000		All groups	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
30 - 160	29	32.9	25	35.7	12	17.1	10	14.3	70	100.0
161 - 299	16	25.4	12	19.0	20	31.8	15	23.8	63	100.0
300 or more	17	25.0	12	17.6	15	22.1	24	35.3	68	100.0

$\chi^2 = 15.8790$

Degrees of Freedom = 6 Significant at 5 percent

credit outstanding in excess of \$5,000 had an average of 338 acres (Table XXII).

The medium willingness to assume debt group had the largest average total assets, \$39,339 as compared to \$34,043 for the high group and \$31,476 for the low group (Table XXIII). The medium willingness to assume debt group likewise had the largest net worth. However, the average debt was greatest for the high willingness to assume debt group. Associated with this situation was a lower percent of equity. The high group had an average of 88.0 percent equity; whereas the medium group had a 90.5 percent average equity and the low group 92.4 percent average equity. All groups had collateral enough for additional credit, if the members had wanted to borrow more money.

The data in Table XXII show the relationship between credit outstanding and total assets by borrower groups. The group with more than \$5,000 worth of debts outstanding had the greatest average total assets and net worth; but they had the lowest percent of equity. Again the net worth was adequate to support additional debt for the average operator in the group.

The average farmer in the area is not using as much credit as the equity in his business would justify. No doubt returns are reduced by this failure. Farm records from Northern Missouri show that the average investment

TABLE XIII

RELATIONSHIP BETWEEN TOTAL ASSETS, NET WORTH AND AMOUNT OF CREDIT OUTSTANDING AMONG FARM FAMILIES IN CENSUS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

	Total Credit Outstanding		
	(\$1 - \$1,300)	(\$1,300 - \$5,000)	(over \$5,000)
None			ALL Groups
Number of Operators	57	49	48
Total Acres	235	213	280
Total Assets	\$35,786	\$21,397	\$31,825
Total Debt		\$ 1,667	\$ 2,692
Net Worth	\$35,786	\$20,670	\$29,133
Percent Equity	100.0	96.9	91.5
			79.0
			90.2
			\$ 3,446
			\$52,068
			\$25,292
			\$41,116
			\$31,846

TABLE XXIII

RELATIONSHIP BETWEEN WILLINGNESS TO ASSUME DEBT AND SEVERAL FACTORS THAT INFLUENCED THE AMOUNT OF MONEY FARM OPERATORS BORROWED IN GENUINE ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Item	Willingness to Assume Debt			Total Average
	Low Average	Medium Average	High Average	
Total Assets	\$31,476	\$39,339	\$34,003	\$35,369
Debt	\$ 2,398	\$ 3,724	\$ 4,084	\$ 3,815
Net Worth	\$29,078	\$35,614	\$29,919	\$31,554
Percent Equity	92.4	90.5	88.0	89.2

in farm businesses that brought in \$5,225 of net income in 1957 was \$53,576.² The average investment of farmers in this study was \$31,486 and of those who had no credit outstanding was \$35,786. Both amounts are below the optimum for full utilization of economic factors in a farm business.

VIII. CREDIT AND THE FAMILY CYCLE*

There seemed to be a relationship between the stage in the family cycle and credit use on the farms in this study. The family cycle was measured by the age of operator and wife, number of years married, and family composition.

Age

Age of the farm operator may be a factor in determining his willingness to assume debt. Younger operators had a greater willingness to borrow, as indicated by their responses to the attitude statements. This relationship is indicated by data in Table XXIV. Of the operators under forty, 42.9 percent were in the high willingness to assume debt group, whereas only 28.0 percent of those 55 and older

²Paul H. Bebermeyer, Missouri Farm Business Summary, 1957, Agricultural Extension Service, University of Missouri, 1958, pp. 13 and 15.

*Stage 1. Establishment of the family, Stage 2. Child-bearing and preschool, Stage 3. Elementary school period, Stage 4. High school period, Stage 5. College period, Stage 6. Recovery period, Stage 7. Retirement period. (For a more complete discussion of family cycle see the appendix).

TABLE XLIV

RELATIONSHIP BETWEEN WILLINGNESS TO ASSUME DEBT AND AGE OF FARM OPERATOR IN
GENESIS ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Age of Operator	Willingness to assume debt							
	Low		Medium		High		All groups	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 40 years	14	25.0	18	32.1	24	42.9	56	100.0
40 to 54	15	20.8	33	45.9	24	33.3	72	100.0
55 and older	22	38.7	25	33.3	21	28.0	75	100.0
All ages	58	28.6	76	27.4	69	34.0	203	100.0

$\chi^2 = 8.6072$

Degrees of Freedom = 4

Significant at 10 percent

were in this group. Only 25 percent of the young operators were in the low willingness category, whereas 38.7 percent of the oldest operators were reluctant to assume debt. The chi square test showed that the relationship was significant at the 10 percent level.

A similar analysis of the ages and attitudes of wives showed that the younger wives were more inclined to borrow money than those who were older. However, the relationship between the wife's attitude toward debt and her age was not as significant as for the farm operators.

Number Years Married

As the number of years farm couples had been married increased their willingness to assume debt decreased (Table XXV). For couples married fifteen years or less, 24.6 percent were unwilling to assume debt, while 37.7 percent were in the high willingness group. Of the couples married 15 to 29 years, 21.8 percent were in the low willingness group, and 33.4 percent in the high group. Couples married 30 or more years were even less willing to assume debt; 38.9 percent were in the low willingness group, and only 31.9 percent in the high group. No doubt this relationship reflects the increasing conservatism of people as they grow older. It may also indicate a decreasing need for credit as a family becomes more firmly established in a farm business.

TABLE XXV

RELATIONSHIP BETWEEN NUMBER OF YEARS FARMERS HAD BEEN MARRIED AND THEIR WILLINGNESS TO ASSUME DEBT IN CENSUS ECONOMIC SUB REGION 7I OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Years Married	Willingness to Assume Debt						Total	
	Low	Medium	High	Number	Percent	Number	Percent	
Under 15 years	13	24.6	37.7	20	37.7	53	100.0	
15 to 29	17	21.8	44.8	26	33.4	78	100.0	
30 years and over	28	38.2	29.2	23	31.2	72	100.0	
All groups	58	28.6	37.4	69	34.0	205	100.0	

$\chi^2 = 7.0298$

Degrees of Freedom = 4

Not Significant at 10 percent

A similar relationship was exhibited between number of years married and total credit outstanding as was evident between years married and attitude measured in terms of willingness to assume debt. Eighty-three percent of the couples married less than fifteen years had some credit outstanding. Of couples married from fifteen to twenty nine years, 79.5 percent had credit outstanding; and 55.6 percent of the couples married thirty years or more had loans outstanding (Table XXVI).

The data in Table XXVII further illustrate these relationships. In this table is presented the average number of years married, number years farmed and size of family for each size of credit outstanding group. The debt free group and low credit groups had been farming and married a greater number of years on the average than had those with larger amounts of debts.

Stubbs, in a study of Indiana farm families, found that "The percent of all families reporting debts over \$5,000 increased with each stage in the family cycle to the recovery stage then sharply declined." No family in the retirement stage reported debt as high as \$10,000. Eighty-eight percent of all families in the retirement stage reported indebtedness in the lowest group \$1,000 and under.³

³Alice Stubbs, "A Study of Factors Affecting Financial Security in a Group of Indiana Farm Families, No. 1 (Secure Families)." (Unpublished Ph.D. thesis, Purdue University, Lafayette, Indiana), p. 37.

TABLE XXVI
 RELATIONSHIP BETWEEN NUMBER OF YEARS MARRIED AND THE AMOUNT OF CREDIT FARM FAMILIES IN
 CENSUS ECONOMIC SUB REGION 71 HAD OUTSTANDING IN 1957

Years Married	Total Credit Outstanding											
	None		\$1-\$1,300		\$1,301-\$5,000		over \$5,000		All groups			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 15	9	17.0	13	24.5	16	30.2	15	28.3	53	100.0		
15 - 29	16	20.5	17	21.8	20	25.6	25	32.1	78	100.0		
30 or more	22	44.4	19	26.4	12	16.7	9	12.5	72	100.0		
All groups	57	28.1	49	24.1	48	23.7	49	24.1	203	100.0		

$\chi^2 = 20.1173$ Degrees of Freedom = 6 Significant at 1 percent

TABLE XXVII

RELATIONSHIP BETWEEN NUMBER OF YEARS MARRIED, NUMBER OF YEARS FARMED, SIZE OF FAMILY AND AMOUNT OF CREDIT FARM FAMILIES IN CENSUS ECONOMIC SUB REGION 71 HAD OUTSTANDING IN 1957

Item	Total Credit Outstanding			
	None	\$1-\$1,300	\$1,301-\$5,000	over \$5,000
No. Cases	57	49	48	49
No. Years Married	30.0	24.7	19.8	19.9
No. Years Farmed	30.5	22.7	20.7	18.2
Size of Family	2.9	3.4	3.9	4.0
				Total
				203
				23.9
				23.3
				3.6

Family Composition

The average size of family showed a positive relationship with credit outstanding as shown in Table XXVII. The average size of family with no credit outstanding was 2.9 as compared to 4.0 for those with debt of over \$5,000.

Families with no children at home had a lower willingness to assume debt than those having children under 13 years of age. In only two of seventy-two families with no children was the wife under thirty five years old. This group was made up of older couples with no children at home. As shown in Table XXVIII, families with children under fourteen years of age tended to have the greatest willingness to assume debt. Families with children fourteen years of age and older seem to be slightly less willing to assume debt than families which include no children. However, this difference does not seem to be significant.

Table XXIX shows the relationship between family composition and the amount of credit outstanding. The data indicate greater use of credit by families when the children are all under 13 years. Families with children 14 years and older seemed to use less credit and in smaller amounts, but used more than those families with no children.

The importance of family composition would seem to

TABLE XVIII

RELATIONSHIP BETWEEN FAMILY COMPOSITION AND WILLINGNESS TO ASSUME DEBT OF FARM FAMILIES
IN CENSUS ECONOMIC SUB REGION 7A OF SOUTHERN IOWA AND NORTHERN MISSOURI, 1957

Family Composition	Willingness to Assume Debt							
	Low		Medium		High		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No Children	27	36.5	26	35.1	21	28.4	74	100.0
Children up to 13 years	16	17.6	37	40.7	38	41.7	91	100.0
Children 14 and over	15	39.5	13	34.2	10	26.3	38	100.0

$\chi^2 = 10.3733$

Degrees of Freedom = 4

Significant at 5 percent

TABLE XIX

RELATIONSHIP BETWEEN FAMILY COMPOSITION AND AMOUNT OF CREDIT OUTSTANDING BY FARM FAMILIES IN CENSUS ECONOMIC SUB REGION 71, 1957

Family Composition	None		\$1-\$1,500		\$1,500-\$5,000		Total Debt Outstanding over \$5,000		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No children	31	42.9	17	23.0	15	20.3	11	14.8	74	100.0
Children up to 13 years	13	14.3	22	24.2	26	28.6	30	32.9	91	100.0
Children 14 and older	12	24.2	10	26.2	7	18.4	8	21.1	38	100.0
	57	28.1	49	24.1	48	23.7	49	24.1	203	100.0

$\chi^2 = 19.2647$

Degrees of Freedom = 6 Significant at 1 percent

be important as affecting the amount of credit outstanding. The importance is probably the stage of the family cycle in relation to progress of capital accumulation and debt repayment in the farm business. In the next section the relationship of the farm business cycle with credit attitudes and credit use will be discussed.

IX. EVIDENCE OF FARM CREDIT CYCLE

The amount and type of credit outstanding seemed to vary with the process of capital accumulation and establishment of the farm business. The following section is an analysis of credit use in this setting.

Number Years Farmed

Total credit. The total amount of credit outstanding was significantly related negatively to the number of years the operators had been farming. The data in Table XXX show that operators who had farmed less than fifteen years had more credit outstanding, than those who had farmed a greater number of years. No credit outstanding was reported by 43.1 percent of the operators who had farmed thirty years or more. Whereas, of the operators who had farmed less than fifteen years only 11.1 percent had no credit outstanding. More than one-fourth (28.4 percent) of the operators who had farmed from 15 to 29 years had no credit outstanding. The data show further, that 31.7 percent of

TABLE XXX

RELATIONSHIP BETWEEN NUMBER OF YEARS IN FARMING AND THE AMOUNT OF CREDIT FAMILIES IN ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA HAD OUTSTANDING IN 1957

Years Farmed	None		\$1-\$1,300		\$1,300-\$5,000		Total Credit Outstanding over \$5,000		All groups	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 15	7	11.1	16	25.5	20	31.7	20	31.7	63	100.0
15 to 29	21	28.4	17	23.0	15	20.2	21	28.4	74	100.0
30 or more	22	43.1	16	24.6	13	20.0	8	12.3	65	100.0
Total	56	27.7	49	24.3	48	23.7	49	24.3	202	100.0

$\chi^2 = 20.0082$

Degrees of Freedom = 6

Significant at 1 percent

the operators who had farmed less than 15 years had \$5,000 or more of credit outstanding. Only 12.3 percent of those who had farmed 30 years or more had this amount outstanding.

Consumer credit.* The amount of consumer credit outstanding was not closely related to the number of years the operator and his wife had been married (Table XXXI). The greatest amount was used by couples who had been married from 15 to 29 years. Over one-half of the families having over \$650 of consumer credit outstanding were in this group.

A reason for this attitude might be that young families are using production credit in the early years of their farming career and curtail expenditures for consumer goods, until production capital has been accumulated and credit for this purpose has been reduced.

Families who used only consumption credit had farmed an average of 24.9 years. Those who used production credit only had been farming an average of 17.9 years. Families who used both production and consumption credit had been farming an average of 19.9 years.

Production credit. The data in Table XXXII show that operators who had been farming the shortest time were using the most production credit. Twenty-seven percent of those who had been farming less than fifteen years had over \$2,600 of production credit outstanding; only 4.8 percent of the operators who had been farming over thirty years had

TABLE XXXI

RELATIONSHIP BETWEEN THE NUMBER OF YEARS FARM COUPLES HAD BEEN MARRIED AND THE AMOUNT OF CONSUMER CREDIT THEY HAD OUTSTANDING WHEN INTERVIEWED IN 1957, ECONOMIC SUB REGION 71 IN NORTHERN MISSOURI AND SOUTHERN IOWA

Years Married	Amount of Consumer Credit Outstanding						All groups			
	None	\$1-\$100	\$101-\$650	over \$650	Number	Percent	Number	Percent		
Less than 15	39	73.6	4	7.5	6	11.4	4	7.5	53	100.0
15 to 29	53	67.9	6	7.7	8	10.3	11	14.1	78	100.0
30 or more	56	77.8	2	12.5	4	5.5	2	4.2	72	100.0
ALL groups	148	72.9	19	9.3	18	8.9	18	8.9	203	100.0

$\chi^2 = 7.2471$

Degrees of Freedom = 6

Not Significant at 10 percent

TABLE XXXII

RELATIONSHIP BETWEEN NUMBER OF YEARS OPERATORS HAD BEEN FARMING AND THE AMOUNT OF PRODUCTION CREDIT THEY WERE USING, ECONOMIC SUB REGION 72 IN NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Years Farmed	Amount of Production Credit Outstanding													
	None			\$1-\$900			\$901-\$2,600			over \$2,600			All groups	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 15	21	33.3	9	14.3	16	25.4	17	27.0	63	100.0				
15 to 29	31	41.9	16	21.6	11	14.9	16	21.6	74	100.0				
30 or more	41	65.1	12	19.0	7	11.1	3	4.8	63	100.0				
All groups	93	46.5	37	18.5	34	17.0	36	18.0	200	100.0				

$\chi^2 = 21.8200$

Degrees of Freedom = 6

Significant at 1 percent

this amount. Of the operators who had farmed less than fifteen years, 25.4 percent had production loans between \$901 and \$2,600. Two-thirds of the men who had farmed less than fifteen years had some production credit outstanding. About 58.1 percent of those 15 to 29 years were using production credit, and only 36.9 percent of those who had farmed 30 or more years used production credit.

Real estate credit. An analysis of the use of real estate credit revealed that 36.8 percent of the farmers interviewed had mortgages on their farms. There was a tendency for the men who had been farming the shortest time to have larger mortgages than those who had been farming 30 or more years, but the results were not conclusive. The chi square test was not significant at the 10 percent level.

Tenure

Operators who rented their farms tended to be less willing to assume debt than owners or part owners, but the difference was not significant at the 10 percent level. Approximately one third of the number in each tenure group were classed as high in their willingness to assume debt.

Total credit. The most significant fact in comparing total credit and the tenure of farm operators was the fact that more tenants had debts outstanding of between \$1 and \$1,300 (Table XXXIII), than did owners or part owners. Forty-two and one tenths percent of tenant operators had

TABLE XXXIII

RELATIONSHIP BETWEEN TENURE OF FARM OPERATORS AND THE AMOUNT OF CREDIT OUTSTANDING
 WHEN FAMILIES IN ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA WERE
 INTERVIEWED IN 1957

Tenure	Total Credit Outstanding									
	\$1-\$1,300		\$1,301-\$5,000		over \$5,000		All groups			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Rent all land	8	21.1	16	42.1	10	26.3	4	10.5	38	100.0
Rent part, own part	15	22.7	11	16.7	16	24.2	24	36.4	66	100.0
Own all	24	24.4	22	22.2	22	22.2	21	21.2	92	100.0
	57	28.1	49	24.1	48	23.7	49	24.1	203	100.0

$\chi^2 = 16.9505$

Degrees of Freedom = 6 Significant at 1 percent

this amount of credit outstanding compared to 16.7 percent of part owners and 22.2 percent of full owners. About one-fifth (21.1 percent) of the tenant operators had no credit outstanding, whereas 22.7 percent of the part owners and 34.4 percent of the full owners had no debts. More than one-third (36.4 percent) of the part owners had \$5,000 or more of credit outstanding (Table XXXIII).

Rupel in a study of farm financial security of a group of Indiana farm families found a definite relationship between tenure and total indebtedness. She found that only two percent of the renters had \$10,000 or more total indebtedness. Of all renters, 87 percent had \$5,000 or less total indebtedness.⁴

Production credit. Less than one-third of the renters had production credit outstanding in amounts between \$900 and \$2,600. More than one-fourth of the part owners were using more than \$2,600 for production purposes. Full owners did not use very much production credit (Table XXXIV).

Number of years farmed. Of the operators who had farmed less than fifteen years, 41.2 percent were renters (Table XXXV). Only 4.4 percent of the men who had farmed from 15 to 30 years were renters, and 12.7 percent of those

⁴Annabel J. Rupel, "A Study of Factors Related to the Financial Security of a Group of Indiana Farm Families, No. 1 (Secure Families)." (Unpublished Master's thesis, Purdue University, Lafayette, Indiana), page 112.

TABLE XXXIV

RELATIONSHIP BETWEEN TENURE OF FARM OPERATORS AND THE AMOUNT OF PRODUCTION CREDIT
 OUTSTANDING WHEN FAMILIES IN ECONOMIC SUB SECTION 71 OF NORTHERN MISSOURI AND SOUTHERN
 IOWA WERE INTERVIEWED IN 1957

Tenure	None		\$1-\$900		\$901-\$2,600		over \$2,600		All groups	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Rent all land	12	31.6	7	18.4	12	31.6	7	18.4	38	100.0
Rent part, own part	26	39.4	14	21.2	7	10.6	19	28.8	66	100.0
Own all	56	57.7	16	16.5	15	15.5	10	10.3	97	100.0
ALL groups	94	46.8	37	18.4	34	16.9	36	17.9	201	100.0

TABLE XXIV

RELATIONSHIP BETWEEN NUMBER OF YEARS OPERATORS HAD FARMED AND TENURE STATUS IN ECONOMIC
SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Years Farmed	Tenure							
	Rent all		Rent part, Own part		Own all		All groups	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than 15	26	41.2	19	30.2	16	26.6	63	100.0
15 to 29	3	4.4	33	48.5	32	47.1	68	100.0
30 or more	2	12.7	12	18.3	42	69.0	71	100.0
All groups	38	18.8	65	32.2	99	49.0	202	100.0

who had farmed thirty years or more were tenants. Of the operators who had farmed less than 15 years only 28.6 percent were owners; 47.1 percent of those who had farmed 15 to 30 years were owners, while 69 percent of the men who had farmed 30 years or more were owner operators. Apparently it is still possible to climb the agricultural ladder but the ascent may be slow.

Number acres. The operators who rented part or all of their land had larger acreages than those who owned their land (Table XXXVI). More than one-third of the renters (36.1 percent) and more than one-half (56.0 percent) of the part owners were on farms of three hundred or more acres. Only 18.2 percent of the full owners were operating farms of this size. A large percentage of renters (41.7 percent) operated farms between 161 and 299 acres in size. More than one-half of the owners (52.5 percent) were on farms of fewer than 160 acres.

Net worth. The data in Table XXXVII show that tenure was closely related to the net worth of farm operators. Almost three fourths (72.2 percent) of the renters had net worths of less than \$15,000. No operator in this group had net worths in excess of \$30,000. Approximately one-fourth (24.2 percent) of the part owners had net worths of less than \$15,000, whereas 36.4 percent were in the \$30,000 or more group. Among full owners 44.2 percent had net

TABLE XXVII

RELATIONSHIP BETWEEN TENURE AND NUMBER OF ACRES OPERATED BY FARM FAMILIES IN ECONOMIC
SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Tenure	30 - 160		161 - 299		Acres Operated		300 or more		All groups	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Rent all	8	22.2	15	41.7	19	36.1	36	100.0		
Rent part, own part	10	15.2	19	28.8	37	56.0	66	100.0		
Own all	52	52.5	22	29.3	18	18.2	92	100.0		
All groups	70	34.8	63	31.4	68	33.8	201	100.0		

TABLE XXVII

RELATIONSHIP BETWEEN TENURE AND NET WORTH OF FARM OPERATORS IN ECONOMIC SUB REGION
71 OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Tenure	Less than \$15,000		\$15,000-\$30,000		Net Worth \$30,000 or over		All groups	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Rent all	26	72.2	10	27.8	0	0	68	100.0
Rent part, own part	16	24.2	26	39.4	24	36.4	67	100.0
Own all	22	23.2	31	32.6	42	44.2	62	100.0
All groups	64	32.5	67	34.0	66	33.5	197	100.0

worths in excess of \$30,000, and only 23.2 percent had net assets of less than \$15,000. No doubt the financial conditions of members of these groups influenced their attitudes and the amount of credit used. Most lenders want substantial collateral for loans. People who have a small net worth may develop a negative attitude toward credit because of their inability to obtain loans. Similarly if the funds that are available do not permit the farmer to organize his enterprises efficiently the income above operating costs will be low and his credit experience unsatisfactory. Thus a borrower develops a negative attitude toward the use of credit.

Summary

The data tend to indicate that credit use is associated with the family cycle. The results cannot be considered conclusive because this study was done at a particular time. It may be that the families in the sample were not representative of the various stages in the cycle or the indication of the changes in the field of credit. In order to study this problem effectively it would be necessary to examine data covering a period of years. It would also be necessary to study a particular group of farm families and follow their changing environment over a period of years.

The data also indicate that the farmers who had been

operators for 15 to 29 years had larger businesses in terms of acreage and net worth than those who had been operators for either longer or shorter periods. This may be an indication that the older operators tend to taper off or else they are just maintaining the smaller size unit which was appropriate at the time they built up their farm businesses.

Most of the younger operators rented their farms and were using production credit as a means of gaining possession of working capital. They were also trying to build up equity in order to purchase farm land with a real estate mortgage. The tendency was for the older operators to have a rather low level of credit outstanding. This low debt level may have been a result of having accumulated their own funds already or perhaps less need for funds because of reduced farming activity. They also have been trying to avoid the risk of debt in their later years.

X. CREDIT COMBINATIONS

The data in Table XXVIII show that nearly three-fourths (71.9 percent) of all families who were interviewed used some kind of credit. About one-half (52.7 percent) had production credit outstanding, 27.1 percent were using consumer credit, and 36.4 percent had real estate credit. The most commonly used combinations were types of production and real estate credit. This combination was used by 14.8

TABLE XXXVIII

TYPES AND COMBINATIONS OF CREDIT USED BY 203 FARM FAMILIES
IN ECONOMIC SUB REGION 71 OF NORTHERN MISSOURI AND SOUTHERN
IOWA IN 1957

	Number	Percent of Families
None	57	28.1
One or more of three types	146	71.9
Consumption	55	27.1
Production	107	52.7
Real Estate	74	36.4
Consumption only	13	6.4
Production only	36	18.7
Real Estate only	22	10.8
Consumption and Production	20	9.8
Consumption and Real Estate	3	1.5
Production and Real Estate	30	14.8
Consumption, Production and Real Estate	19	9.4

percent of the families. Only three families or 1.5 percent of those interviewed had both consumption and real estate credit.

Less than one-tenth (9.8 percent) of the families who had consumption credit also had production loans, and 9.4 percent were using it in combination with production and real estate loans. Six and four tenths percent of the families who were using consumption credit had no other type of loan.

Production credit was used by itself most frequently rather than in a combination.

An effort was made to determine the relationship between the number of years in farming, total acres operated, net worth of the operator, and the amount of each type of credit used. The data are presented in Tables XXXIX and XL.

Families using production credit only had been farming an average of 17.9 years. Families with both real estate and production credit outstanding had farmed an average of 19.3 years. Those families using both production and consumption credit had farmed an average of 19.9 years. Families who were using consumption credit only had farmed an average of 24.9 years. The families with no credit outstanding had been farming the longest (30.1 years).

Those families with real estate credit outstanding

TABLE XXXIX

AVERAGE ACREAGE, ASSETS AND NET WORTH OF FARM OPERATORS IN ECONOMIC SUB REGION 71
OF NORTHERN MISSOURI AND SOUTHERN IOWA WHO WERE USING DIFFERENT TYPES AND COMBINATIONS
OF CREDIT IN 1957

Type of Credit	Number of Years Farmed	Total Acres	Net Worth	Total Assets
Consumption only	24.9	215	\$18,680	\$19,118
Production only	17.9	276	24,148	25,844
Real Estate only	22.5	289	42,463	48,659
Consumption and Production	19.9	296	21,886	24,564
Consumption and Real Estate *				
Real Estate and Production	19.3	312	37,446	51,703
Consumption and Production and Real Estate	20.8	247	26,628	34,261
No credit	30.1	235	35,785	35,785

* Factors not calculated because of small sample. Only three families with this combination.

TABLE XL

AVERAGE AMOUNTS OF CREDIT AND CREDIT COMBINATIONS USED BY FARM OPERATORS IN ECONOMIC
SUB REGION 7I OF NORTHERN MISSOURI AND SOUTHERN IOWA, 1957

Type of Credit	Number of Farmers	Amount of Credit Outstanding		
		Consumption	Production	Real Estate
Consumption only	13	432	-	-
Production only	40	-	1,556	-
Real Estate only	24	-	-	5,088
Consumption and Production	20	600	2,005	-
Consumption and Real Estate *				
Real Estate and Production	26	-	3,896	9,393
Consumption and Production and Real Estate	20	764	1,871	4,788
No credit	57	-	-	-
Total				13,289

* Factors not calculated because of small sample. Only three families with this combination.

only had an average of 289 total acres, whereas those with both real estate and production credit had an average acreage of 312. The smallest average acreage was on farms using only consumption credit.

Families using both real estate and production credit had the higher average total assets, \$51,703 as compared to \$48,659 for those with real estate credit only. However, those with real estate credit only had a higher average net worth. The families with no credit outstanding operated fewer acres and had lower net worths than did the families using real estate credit or a combination of production and real estate credit. However, they had larger net worths and total assets than the farms in all other groups. Families who used consumption credit, production credit, and real estate credit in this combination operated an average of 247 acres, had total assets of \$34,261, and net worths of \$26,627.

The families who used consumption and production credit in combination may have been oriented toward use of income for consumption purposes which had reduced their rate of capital accumulation. Families using production credit had lower net worths and total assets than did other groups. These families had low net worths and were renters.

Data in Table XL show the average amount of credit

outstanding in various combinations. The greatest amount was used by families who had both production and real estate credit outstanding. They had an average of \$13,269 credit. A large proportion of this amount was real estate credit, but the amount of production credit outstanding exceeded that used by other groups. Families who used real estate credit only had an average of \$5,088 outstanding. Those who used all three types had \$7,423 of credit outstanding. The largest part of this was real estate (\$4,788), whereas production loans made up \$1,871, and consumption credit \$764.

Among owners, real estate credit was the largest item. However, large amounts were used for production purposes. Rather small amounts were used for consumption purposes. Production credit was the most often used single type. Thirty-six percent of all families and 56.2 percent of those with loans outstanding used two or more types in combination rather than a single type.

CHAPTER V

SUMMARY AND CONCLUSIONS

I. SUMMARY

This study was made to determine the attitudes of farm families toward the use of different types of credit, the reasons for these attitudes, and their effect upon the amount of credit outstanding at the time the families were interviewed. The data were obtained by interviewing 203 farm families in Economic Sub-region 71 of Northern Missouri and Southern Iowa. The information obtained included family goals, attitudes toward use of credit, amounts of different types of credit used, farm balance sheet, purposes for which credit was used, sources of income, residential experience, and choice of alternative uses of funds and census information.

The responses to questions on attitudes toward credit use were combined into scores to indicate the families willingness to assume debt. These were ranked and divided into three groups for the purpose of analysis. The relationships between willingness to assume debt and various credit used factors were then explored.

In general the families favored use of earnings rather than credit for consumption items. Most of them believed it wise to postpone consumption until debts were reduced, or paid off. A few indicated a high time

preference and favored purchase of consumer items on credit. These mentioned enjoying the articles while paying for them and the difficulty of accumulating enough capital to make the cash purchase as the major reasons for using consumption credit.

Most families were willing to borrow money for production purposes. Of the families interviewed, 60.3 percent believed that production borrowing was productive and profitable. An additional 25.1 percent thought it was necessary. Most families believed that it was better to borrow than trying to accumulate cash to use credit for production purposes. Of the total sample 86.8 percent responded positively to statements concerning use of production credit.

Most farm families feel that owning their own farm is an important goal. Very few preferred permanent renting. They believed rent payment would pay for the farm.

Some families indicated an aversion to debt. Most families believed it wise to reduce debt as soon as possible because of risks involved.

The families seemed willing to borrow for larger enterprises. Of families responding, 59.8 percent believed it better to buy a larger farm rather than start small and expand.

There was a strong association between willingness

to assume debt and amount of total credit outstanding. The families with greater willingness in general had the larger amounts of total credit. Greater willingness was also significantly related to use of larger amounts of consumption credit.

Production credit was used most often of the three types. One hundred seven families or 52.7 percent used this type of credit. Only 27.1 percent used consumption credit, and 37 percent had real estate credit outstanding. The average debt per farm operator reporting use of credit was \$5,072. The average difference between net worth and total assets of all farmers who were interviewed was \$3,515. The average amount of consumption credit was \$608 for those reporting. Production credit averaged \$2,086 for those farmers using it. The average was \$6,420 for those using real estate credit. Twenty-six families used production and real estate loans together, and had average total credit outstanding of \$13,269. Of this amount, \$3,896 was production credit and \$9,393 was real estate credit. The second largest amount of credit was on farms where a combination of the three types was used. The average total amount for the 20 families using all three types was \$7,422, of which \$4,788 was real estate credit, \$1,871 was production credit, and \$764 was consumption credit.

The following factors were tested and found to be

statistically significant on the farms studied:

One percent level positive relationships:

1. Willingness to assume debt and amount of credit outstanding.
2. Willingness to assume debt and amount of consumer credit outstanding.
3. Willingness to assume debt and education of operator.
4. Amount of total credit outstanding and education of the operator.
5. Willingness to assume debt and knowledge of sources of credit.
6. Amount of total credit outstanding and knowledge of sources of credit.
7. Amount of consumer credit outstanding and knowledge of sources of credit.
8. Amount of total credit outstanding and the goals:
 - (1) Add to farm buildings and fixed equipment.
 - (2) Reduce our indebtedness or get out of debt.
9. Amount of total credit outstanding and ages of children.
10. Amount of production credit and number of years farmed.
11. Amount of total credit outstanding and tenure

One percent level negative relationships:

1. Amount of total credit outstanding and number of years married.
2. Amount of total credit outstanding and number of years of farm operation.

Five percent level positive relationships:

1. Amount of total credit outstanding and number of acres operated.
2. Willingness to assume debt and ages of children.

Ten percent level positive relationships:

1. Amount of total credit outstanding and education of the operator.

Ten percent level negative relationship:

1. Willingness to assume debt and age of operator.

Relationships found not to be significant at 10 percent level:

1. Willingness to assume debt and amount of production credit outstanding.
2. Willingness to assume debt and amount of real estate credit outstanding.
3. Amount of total credit outstanding and operators residential experience.
4. Willingness to assume debt and number years married.
5. Amount of consumer credit outstanding and number of years married.

Items not tested statistically but relationships were indicated by the data:

1. Knowledge of sources and average net worth, amount of debts outstanding, and percent of equity of the farm operator.
2. Willingness to assume debt and the following goals:
 - (1) To reduce indebtedness or get out of debt.
 - (2) To increase the family savings.
 - (3) To provide special educational opportunities for children.
 - (4) To promote recreational opportunities for the family.

II. CONCLUSIONS

Farm families seemed to believe that borrowing money is necessary and profitable for production purposes. This attitude was indicated by the amount of production credit used and the responses of interviewees to the attitude presented in the interviews. A high percentage of the families indicated that they believed it better to operate larger enterprises with borrowed funds than to operate small debt free businesses. They believed that the larger enterprises were more profitable.

There seemed to be an aversion to debt on the part of many families. They indicated that their principal goals

were to pay off or reduce their debts. Farm families feel that debts increase the risk of financial failure.

The credit cycle is closely related to the family cycle, young operators who are tenants use relatively large amounts of production credit. After accumulation of working capital, they strive to achieve ownership using both real estate and production credit. As the operator and wife look forward to retirement, they repay their debts or reduce them to low levels. As the children leave home, less income is needed for family living, a smaller farm operation is adequate to provide a satisfactory level of income and the amount of credit used declines.

There is need for a research program that will reveal the productivity of capital when optimum use is made of it in setting up and operating well balanced farm businesses. This information would help farm families to make more productive use of credit. It might induce them to use credit as a continuing resource rather than looking upon the practice of borrowing money as an emergency or necessary measure to keep the farm business going.

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APPENDIX

FAMILY CYCLE¹

Stage 1. Establishment of the family. Less money is needed for food and clothes for just the young couple. Savings and investment and purchase of the more expensive household goods are possible during the first few years of married life.

Stage 2. Childbearing and preschool. General expenses increase a little, especially hospital and medical bills, although these can be cut by purchase of group insurance. Household help may be required at times.

Stage 3. Elementary school period. Current expenses continue to increase. Food costs increase some, but clothing expenses increase considerably. The children begin to demand more because they see what others have.

Stage 4. High school period. This period brings the largest demand on family income up to this time. Educational expenses, in a broad sense, usually consume the greatest part of the increase in expenditures. Financial pressure, such as use of the family car, parties, clothes, travel, and personal allowances, increases greatly. There is much social pressure.

Stage 5. College period. If the family sends the

¹Arch W. Troelstrup, Consumer Problems and Personal Finance. (New York: McGraw-Hill Book Company, Inc., 1957), pp. 58 and 59.

children to college, this period is more expensive than the previous one. This is usually true even if the college is situated in the home town and the children earn money during vacations and during the college year. Most families should establish a college education fund because current income may not cover the demands of this stage.

Stage 6. Recovery period. After the children are on their own economic power, family expenses drop considerably. The furniture is worn out or in need of repair. The house may be paid for by now, but it needs major repairs, or it may be larger than is necessary at this time. The "twilight" period is falling, and much more of the family income needs to be put into a retirement plan.

Stage 7. Retirement period. Current expenses are usually moderate unless medical bills increase considerably. Generally, food and clothing needs are low. Travel, however, is in the air, and winters in the warmer climates are desirable. Perhaps the big old house is sold for the comforts of apartment life.

FAMILY GOALS

A. Here are some of the goals which farm families often work toward or want to accomplish. (Lay out randomized cards before respondent, reading each item aloud as it is laid down).

First --tell me what special goals, if any, your family is working toward that are not here: _____

Second --select four (4) goals to which your family is working especially hard to accomplish at the present time.

Third --select four (4) goals to which your family is also giving special attention at the present time.

- a. Improve farm land.
- b. Increase total production of farm.
- c. Own our own farm, or add to the amount of land or other real estate we own.
- d. Expand the size of the farm enterprise. (Including further capital investment, possibly).
- e. Add to or improve farm buildings (other than the house) and/or such fixed equipment as fence, feeding floors, water system for livestock.
- f. Reduce our indebtedness or get out of debt.

- g. Increase our saving account.
- h. Add to moveable home furnishings or household equipment.
- i. Improve the house itself or improve or add such things as home water system, furnace, kitchen cabinets.
- j. Improve the yard and exterior appearance of the house.
- k. Provide for special education of our children, such as music lessons, business or nurses training, or college.
- l. Promote recreational activities by each family member, or as a family group.
- m. Gain and/or maintain the respect of my neighbors and other community members.
- n. Take part in community affairs and organizations.

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