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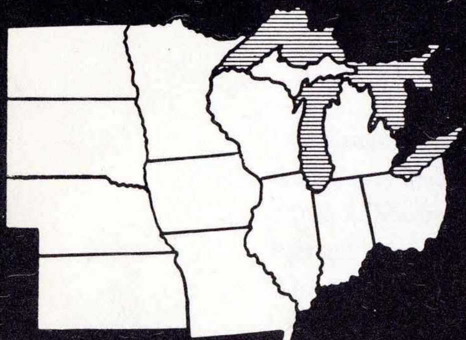
no.36
1964

NORTH CENTRAL
REGIONAL RESEARCH
PUBLICATION NO. 131

FAMILY FINANCIAL SECURITY

Agricultural Experiment Stations of
Illinois
Indiana
Iowa
Kansas
Michigan
Missouri
Nebraska
Ohio
Wisconsin
and United States Department of
Agriculture cooperating



SPECIAL REPORT 36
March 1964

AGRICULTURAL AND HOME ECONOMICS EXPERIMENT STATION
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FACTORS AFFECTING THE FINANCIAL SECURITY OF RURAL FAMILIES

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FOREWORD

Historically, the American farm families were thought to be and, in fact, were more secure than their counterparts in urban areas who have been more directly affected by fluctuations in economic status of the industrial society. The changes in the *modus operandi* of rural America have added many of the characteristically urban uncertainties to those peculiar to a rural economy. The security of the farm family is a matter of public as well as individual concern, being interwoven in the concept of the efficient use of productive resources and the orderly adjustments of agriculture to new technology.

This regional project grew out of a conviction that farm families could be helped toward greater financial security if more were known about the resources controlled by farm families and the use they were making of these resources, as well as about the financial needs that they were likely to encounter in the future. It is recognized that the goals and aspirations of individuals or families, either in the rural or the urban setting, are intangible and difficult to quantify numerically in any stepwise fashion. It is further recognized that the motivating forces of a society depend basically on the direction and strength of those forces of the human mind and social judgement that shape up the so-called "American Farm Family." Because of the wide variability and complexity of the many interrelated factors which ultimately exert a deciding influence on family decisions and their underlying sense of accomplishment and security, definitive research data are scarce. One aspect of "sense of security" for the American farm family has to do with financial status and the outlook for financial security. It is this aspect of family security that was investigated by the NC-32 Technical Committee.

It is most difficult to draw generalizations from the research results, but it is readily apparent from the research done by this technical committee that families need more information if they are to plan realistically. In many cases, farm families were found to have no plans for the support of the family in case of death or disability of the husband or for the older farm couple after retirement. Many other farm families undoubtedly had plans that were based on guesses or hopes rather than on objective information. The status of family finances must be thought of as a "dynamic concept." Confidence in the ability of a family to meet financial needs is referred to in this report as "the dependence of many needs on *both* financial and nonfinancial resources."

The regional study reveals much about the kinds of information that are available about both the needs and resources of farm families, about areas in which more information is needed and especially about the importance of persuading farm families to use the information that is available. Further, it is hoped that the availability of a publication on farm family financial security will be helpful to those in a position to lead educational programs of assistance to rural families.

One series of interviews with farm families was summarized as follows: "The greatest influences on the financial accomplishments since marriage were determination, patience or ambition, family cooperation, knowledge and hard work." Educational programs should be strengthened, but the foundation for improvement will be the philosophy held by these farm families.

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FAMILY FINANCIAL SECURITY

SUMMARY

About 2,000 rural families in nine North Central states furnished the information presented in this report. Almost all the families operated farms at the time of interview. Both objective data about assets and expenditures and subjective data about attitudes and expectations were obtained and analyzed.

Financial security is defined here as the assurance that resources will be available to meet future financial needs. Different aspects of security are important at different stages of the family life cycle as needs and resources change. Financial security is not an end in itself but a means of assuring that families will be able to satisfy their financial needs. Satisfaction will be increased by recognition of (1) the importance of nonfinancial as well as financial needs, (2) the relationship among competing or incompatible objectives (for instance, ownership of land and freedom from debt) and (3) the potential contributions of all available resources.

Families need to know, not only how to have more financial security, but also how to fit financial security into their over-all plans for family living. How much certainty of financial provision for specified needs in the future is worth the sacrifice of present enjoyments?

Provisions for unusual or emergency expenditures involving large amounts of money is an important aspect of financial security in all stages of the family cycle. The most popular single measure of ability to meet financial needs of all kinds, including such "major expenditures," is net worth. In addition to this general resource, certain specialized resources can increase families' abilities to meet such emergencies:

1. *Credit* can be used to increase productive resources and also to protect them from unnecessary depletion in times of emergency. Many families are not familiar with the kinds of credit that are suitable in specified circumstances or the sources from which credit can be obtained.
2. *Insurance,* as protection against financial loss from many specified risks, is an important element in financial security. Families need to know more than they do about types of policies available and to be able to evaluate the suitability of various types of insurance to specified situations.
3. *Management* plays an important part in advancing financial security. Awareness of the principles of management and their adaptability to different family situations could increase the degree of security achieved with given resources.

Both objective and subjective data play important parts in research relating to family financial security. Differences between the two kinds of data should be recognized, and types of analysis should be kept appropriate to the data obtained. Estimates of financial security based on subjective data should be distinguished from those based on objective data, and the significance and limitations of each kind of estimate recognized.

Farm families today face changes in the economy and society in which they live—changes in the opportunities open to them as well as in the risks that threaten their security. In this dynamic situation, adaptability—the capacity to take advantage of unexpected opportunities as well as to cope with unfamiliar hazards—may be the quality that can contribute most to security.

INTRODUCTION

"Security" is a much used word these days, and it has great appeal. Groups as well as individuals are seeking security: nations, families and labor, for example. They seek different combinations of the various kinds of security: military, financial and emotional. Considered by itself, "security"— meaning the state of being secure— is a neutral, even a negative word. "Secure" means protected or not exposed to danger, or free from fear, anxiety or care. The color and impact is in the adjective that accompanies "security" and tells what kinds of danger the person or group is protected against.

Financial Well-Being and Security

A family's financial security may be thought of as its assurance that it will be protected against threats to its financial well-being— that it will have resources available to meet future financial needs.

There are several reasons for the increasing interest in family financial security. First of all, financial needs— needs that can be met only through the use of money— play a more important part in the well-being of more families today than they ever did before. When families are self-sufficient, obtaining the food, shelter and clothing they need directly through their own efforts, they have no "financial problems." But, as soon as families produce more of some things than they need and depend on other families for other things that they need, their material well-being depends on the proportions in which they can exchange their surpluses. As money becomes generally used in such exchanges, prices become important in determining how much of the goods and services in the market a family can obtain. Individual qualities of family members— like physical strength, health, intelligence, determination and resourcefulness— still help to determine the level of living the family enjoys. But economic forces beyond the control of any one family set the wages and salaries that individuals can earn and the prices they can get for the goods they sell, as well as what they have to pay for the goods and services they want to buy. That is, financial considerations play an important part in determining how "well-off" an individual or a family— or a group, such as teachers or farmers— will be.

But financial security involves more than just being well-off financially or having an adequate, or even a satisfactory, level of living in the present. To be financially secure means to be free from or protected against financial threats and to have assurance that financial well-being will continue into the future.

Specialization and interdependence have made possible higher levels of financial well-being for many families. But these factors also have increased the number and variety of threats to that well-being and the number and effectiveness of possible safeguards against those threats. Thus, the relationship between financial well-being and financial security is complex.

Changes in the Financial Security of Farm Families

Public interest in the financial security of farm families has increased greatly in recent years. Until recently, farm families were thought of as having a kind of "built-in security" for, except when major natural catastrophes struck, the operators of family farms could be sure of food, clothing and shelter. They could maintain their accustomed level of living with little regard for the convulsions of the price system. The typically large farm family was a dependable source of labor and also a guarantee of support for parents in their old age (13,p.5).

Economic forces over which farmers have no control gradually have come to play a more important part in determining the economic well-being of rural families. People generally, including many farmers, were slow to recognize the changes that were taking place. The continuing belief that farmers were better able than wage-earners to protect themselves against threats to their financial security was, in part, responsible for the specific exclusion of farmers from the provisions of the Social Security Act of 1935 that related to old age and survivors' insurance. Reinforcing this attitude was the feeling of many farmers that they had more to gain from direct farm programs than from the general provisions of the Social Security Act. Besides, many farmers foresaw serious, if not insurmountable, difficulties in the administration of social security (13, pp. 5,6).

Since 1935 the vulnerability of farm families has become clear. No longer do most farm families obtain the major part of the goods they consume directly from the farm. Even larger and larger proportions of their food are purchased. In 1923, farm families raised more than 70 percent of their food (in money value terms, at retail prices); in 1941, this percentage was nearly 60 percent; in 1955, it had fallen to about 40 percent (17, p. 7).

The farm family's entire level of consumption has been affected in the same way by the increasing importance of money and prices. With an adequate and steady cash income, today's farm family can enjoy all the comforts and conveniences made possible by electricity and many other goods and services that add up to a higher level of living than the self-sufficient farmer could possible furnish for his family. But an interruption in cash income brings drastic changes in that level of living.

The dependence of the farm business upon a steady cash income is even more vital than is that of the farm family as a consumer. The size of farms and the amount of investment in land and capital goods that are necessary for efficient production have increased enormously with recent technological advances. Today's farmer purchases equipment and materials undreamt of in quantity or variety a generation ago— mechanized planting, cultivating and harvesting devices, new fertilizers, pesticides and feed additives. The proportion of producers' goods that farmers purchased from off-farm sources increased from about one-third in 1940 to more than half in 1958 (1, p. 8; 2, p. 5). A drop in the price of farm products or an increase in the price of the equipment and supplies essential to efficient farm operation threatens the entire farm business and, thus, the financial security of the farm family.

Thus, long-range financial planning is vital for farm families; but two of the characteristics that make this planning essential also make it unusually difficult. First, the incomes of farm families are likely to be highly seasonal and also to fluctuate markedly from one year to another. Second, these incomes must be allocated, not only among the many needs and desires of farm families as consuming units, but also between these consumption uses and the needs of the farm business.

Public Programs
Related to Financial Security of Farm Families

While farmers themselves have been conscious of and had concern for their financial security since frontier days and have been assisted in various ways through such things as the sale of public lands, price supports and other government programs, their eligibility for social security illustrated the continued public concern for the welfare of the farmer. The series of amendments to the Social Security Act between 1950 and 1956 brought about 6 million farm operators and "regularly employed" farm workers under the old age and survivor's insurance provisions (3, p. 3; 4, p. 5). The disability insurance provisions of the 1956 amendment applied to farmers as well as to industrial workers (15, p. 3).

The acceptance of public responsibility for helping farm families solve the problem of unstable income was further confirmed by the emphasis on the Farm and Home Development program of the Federal Extension Service in the late fifties. This program was made up of procedures to help individual farm families get as much real and imputed income from their resources as possible. The interdependence of the home and the farm business was emphasized, and much stress was placed on the importance of over-all planning, based on adequate information about resources and a sound formulation of family objectives and goals (7, p. 497).

Research Related to Financial Security of Farm Families

During this same period, research workers in family economics and home management in a number of north central states were studying several aspects of farm family finance. At Illinois, staff workers analyzed the home and farm account records of cooperating families back in 1925 and made annual reports. Workers in Indiana conducted a pilot study of factors affecting family goals. Workers in Kansas studied the financial management experiences of farm families and the relationship of these experiences to security.

From 1956 to 1962, studies of certain aspects of family security that already were in progress in several north central states were continued, and new studies were undertaken in other states under the North Central Regional Project in Family Economics, NC-32.[1] Although the title of the project was "Factors affecting financial security of *rural* families," most of the studies were concerned with farm families. (About half of the families included in a Kansas survey in 1960 were rural nonfarm. About one-third of those interviewed in Iowa and Missouri in 1960 lived in the open country but did not operate farms; most of the remainder were farm operators.)

In total, 12 projects carried on by the experiment station workers in nine states were accepted as contributing to the regional effort. Project leaders were identified with schools or colleges of home economics (in one state with the Department of Agricultural Economics) in the state agricultural experiment stations. In the project outline, the research called for the efforts of personnel representing a wide variety of training and specialization. In most states, project leaders drew some of their personnel and consultants from among agricultural economists, economists and sociologists, statisticians and extension service specialists.

The publications that report the findings of the state projects are listed in the Appendix, together with the theses of graduate students who were associated with the regional project. These reports should be consulted for detailed information about types of data assembled and the methods of analysis used.

This regional report is designed to interpret the methods and findings of the state studies in their relation to each other and to the regional project without duplicating the state publications that already are available. It is hoped that the publication will be useful to both resident and extension teachers and to others concerned with helping families plan for financial security, as well as to persons interested in carrying on further research on the subject.

THE CONCEPT OF FINANCIAL SECURITY

Although the term "financial security" was not defined by the regional committee for NC-32, several explicit discussions in manuscripts and reports do indicate considerable agreement as to its meaning. From these sources, the following definition has been derived for this report: *A family's financial security is its assurance that it will have resources available to meet future financial needs.*

It is not suggested that this is the only "correct" definition of family financial security or that it is the "best" one. This definition, however, is consistent with the discussions of financial security both in meetings of the North Central Technical Committee and in the reports of the several studies. Moreover, it is well adapted to the purpose for which it is proposed: to serve as the basis for organizing and interpreting the major findings of the state projects.

[1] In both Indiana and Wisconsin two projects were carried on. Data from these projects are identified in this bulletin by project numbers following the name of the state. Two surveys were made in Kansas under a single project; findings reported are identified by the date of the survey in which they were obtained. Two projects were carried on in Ohio, but the only data from Hatch 163 ("A study of the income and money disbursements of beginning farm families in terms of inter-farm-household operation and management, family satisfactions and future plans") that were available for inclusion in this report were those relating to the selection of families for interview. All other Ohio data referred to here are from Hatch 195 ("Farm family financial situations and procedures in relation to economic progress since marriage"). Surveys made in Iowa and Missouri in 1960, under the original project numbers, furnished data that were being analyzed when this bulletin was prepared.

Interpretation of Financial Security by Technical Committee for NC-32

The closest approach to an official definition of financial security appeared in a report of the annual meeting of the Technical Committee in November 1958. The Executive Committee suggested that financial security might be thought of as *confidence* in: (1) the ability of a family to maintain an acceptable level of consumption; (2) the ability of a family to meet financial emergencies (or unusual expenses); (3) the ability of a family to build up or accumulate net worth; and (4) the adequacy of means to care for retirement, disability or loss of income.

Discussion of these points resulted in agreement that: (1) financial security is a dynamic concept; (2) both objective and subjective evidences of it are important; and (3) it is useful to regard financial security as a "continuum."

Dynamic aspects of financial security

It was pointed out that the significant elements in financial security will change as the family passes through stages in its life cycle. What are thought of as useful measures of financial security at one stage may have little relevance at another stage. This dynamic concept is entirely consistent with the proposed definition and makes it more specific. The differences related to stages in the family cycle are primarily differences in the resources normally available and in the financial needs encountered. Young families may anticipate years in which net worth will be increasing; families approaching retirement may expect to draw on net worth instead of building it up. In the early stages, financial needs may be expected to increase; at later stages, shrinking family size may mean lower expenses. Heavy expenditures related to educating children and launching them in their life work may be replaced by those incurred in providing for aging parents or other elderly relatives.

This recognition of the changes that occur in a family's needs and resources as it moves through the stages of the life cycle is one way of stressing the dynamic quality of the concept. In a more fundamental sense perhaps, this dynamic quality may be thought of as depending on the fact that financial security is concerned with *future* resources and *future* needs, about which there is bound to be uncertainty.

Time is a vital element in any discussion of financial security. The role played by time distinguishes financial *security* from financial well-being or wealth or solvency. It is possible, though it may not be easy, to obtain a useful measure of a family's solvency *at a given moment of time* by calculating its net worth. The task may be difficult, but it is possible to agree on the principles that will be used in assigning values to all the family's assets and liabilities and to arrive at an objective estimate of net worth.

However, the assurance that a family will have the resources to meet *future* financial needs must be thought of in terms of time. "How far into the future?" is the vital question. If the future is thought of as only minutes away, then the facts about current assets and liabilities lead to the conclusion that financial security is closely related to solvency. This is essentially a static concept.

Members of a family have earning power. The present financial status of the group does not furnish an adequate measure of its (future) financial security. The longer the period of time, the more chance there is for change to occur in both needs and resources and the more uncertainty there is about the kind of change that will occur.

Members of the Technical Committee emphasized in their discussions the needs and resources that were associated with different stages in the family life cycle and sought to obtain information about this relationship. It may be possible, on the basis of such objective information, to predict with considerable accuracy what changes will take place *on the average* in the resources and financial needs of a group of families who are at a given stage in the family cycle as of a particular date. Such predictions, however, do little to reduce the uncertainty with which any one family faces the next 10 or 20 years.

Objective and subjective aspects of financial security

Because of this uncertainty about the relationship between future needs and resources—an uncertainty that increases as the period of time is extended—estimates of financial security may take account of subjective as well as objective evidence. Although it may be possible, theoretically, to distinguish between objective and subjective "assurance," both elements are combined in almost any practical instance, and the extent and significance of the differences between the two will depend to a large extent on the length of time involved.

Assurance that a family has resources to meet its financial needs *in the immediate future* is closely related to the current relationship between its assets and liabilities. Indeed, these facts may be thought of as objective "assurances." They are measurable data that afford a basis for confidence. If two competent observers used the same methods in independent appraisals, they would arrive at similar estimates of a family's assurance in this objective sense.

The feelings of the family with regard to security also are important. Thus, subjective assurance may differ markedly from objective assurance. For this reason, *feelings* of confidence, as well as the objective bases for those feelings, are taken into account in the suggested definition of financial security.

Estimates of a family's financial security by two or more family members may be different even though only the immediate future is considered. These different estimates reflect variations in knowledge, desires and personal qualities that distinguish one person from another. The differences will be greatly increased if comparisons are made, not between members of the same family, but between members of different families whose present assets and liabilities are rated as similar according to objective estimates by competent, independent appraisers. These investigators may find that half a dozen families all have

assets and liabilities of about the same value. From the short-run point of view, they are equally secure financially, in an objective sense. But the heads of these families may differ widely in the subjective assurance they feel that their families can meet financial obligations, even of tomorrow morning.

If a dynamic concept of financial security is adopted and attention is focused on a family's assurance that it will have resources to meet its financial needs 5 years—or 10 or 20 years—in the future, then the subjective estimates are likely to differ even more from the objective ones. Members of the same family or members of families in essentially the same *objective* financial situation may have very different subjective evaluations of their financial situations.

As longer and longer periods of time are taken into account, more and more opportunity is allowed for changes to occur in both family resources and family needs. All the objective information that can be obtained about the present situation and about the probabilities of specified future changes in resources or needs still leaves a great gap of uncertainty. The assurance a husband or wife feels in the family's financial security may be based in part on such objective elements as the financial achievements of the family in the past, the possession of insurance policies and the establishment of legal arrangements looking to the future. But the assurance of financial security is bound to involve also a large subjective element composed of intelligent estimates, informed guesses, foolish hopes and baseless fears.

Financial security as a "continuum"

The concept of financial security as a "continuum" suggests that the essence of financial security is "discernible amid a series of insensible or indefinite variations" and ranges from no security to complete security (18).

It is possible to conceive of extremes of insecurity and security, between which an infinite number of variations occur without any clearly defined lines of demarcation. At the one extreme, would be families with no financial resources in the present and no assurance, either objective or subjective, of resources in the future. At the other extreme, would be families possessing such large resources that they will be able to meet any conceivable financial needs so long as political and economic systems are essentially unchanged. Even this level may not represent complete security, but surely these families are at the opposite end of the "continuum" of financial security from those described as extremely insecure.

Research workers in the north central states were not concerned with these extremes. Rather, they were investigating various aspects of the financial security of families who were removed from either theoretical extreme. In the studies, it was recognized that a family's financial security would be increased by any developments that (a) increased family resources more than they increased financial needs or (b) decreased needs more than they decreased resources. Conversely, a family's financial security would be decreased by any developments that (a) decreased family resources more than they decreased financial needs or (b) increased financial needs more than they increased resources. Thus, it may be possible to judge whether a family is moving (along the "continuum") toward greater financial security or toward less, even though no basis is furnished for classifying the family as financially secure or insecure.

Interpretations of Financial Security in Reports of Projects

In most of the state projects contributing to NC-32, attention was focused on one or more of the factors thought to affect the financial security of rural families. The definitions of financial security were implicitly assumed rather than explicitly stated. Even so, they help to interpret the definition that is proposed for the purposes of this report.

There is no definition of financial security in Illinois' study of the goals of two families and the decisions made and practices followed in the pursuit of those goals over a period of 23 years. It is assumed, however, that financial security was a major objective—perhaps the dominant "family goal"—of the families studied. The use of the terms "security" and "financial security" in the Illinois report suggests that the meaning attributed to these terms is consistent with the proposed definition.

1. Financial security clearly is thought of as provision for *future* needs. Indeed, the long-range aspects of financial security are emphasized especially in the Illinois report, which ends with the statement that "financial security for these two families was found to be related to the situation of their children, which requires planning for more than one generation" (11, p. 452).

2. The "goals" related to financial security had to do with providing for "future financial needs" (current expenses for family living and the major expenditures for college education and a start in life for the children), by acquiring "resources" (productive farms, life insurance) that could be counted on even if the usual important resource (the husband's earning capacity) should be destroyed (by disability or death).

3. The special value each family placed on a particular kind of resource (outright ownership of the farm for one family; large amounts of life insurance for the other) illustrates the importance of subjective estimates of needs and resources and the differences among families in such estimates. Reference is made also, in the Illinois study, to the influence of economic and social conditions on both the objectives sought by the families and the kinds of resources used.

Seventy families were interviewed in Indiana's study of the extent to which goals were recognized and could be expressed and the relationship of selected family characteristics to the nature of family goals (project 792). Nearly one-third of the families named "security (emergencies, retirement)" as one of the purposes for which they wanted to save (9, p. 5). This suggests a concept of financial security that is consistent with the proposed definition. The desired savings would be a *resource* on which families could depend to replace the accustomed

resource of income that would decrease or disappear with retirement and to meet the unpredictable future financial needs resulting from emergencies.

Kansas workers interviewed members of 527 farm operator families in 1955 to obtain information about their economic status and plans for future security. In this study, more than in any of the others contributing to NC-32, the risks that families encounter were emphasized. Security was thought of as depending on the ways in which families provided for specific contingencies or on the "absence of forces that create insecurity."[2] These contingencies or risks fall under the general heading of "future financial needs" in the proposed definition; the provisions for coping with them, under "resources."

In explaining the interpretation of financial security underlying the Kansas study, the project leader cited Kyrk's distinction between (1) economic risks, which include changes in prices, employment, interest rates and so on, that result from fluctuations in the economy as a whole and affect large segments of the population and (2) personal risks, which include the occurrences that affect individual families rather than the economy as a whole (12, pp. 166-167).

Both economic and personal risks fall within the framework of the proposed definition as causes of the unpredictable changes that occur in either family resources or family needs. However, only personal risks fall within the scope of family economics; the study of economic risks and of measures to reduce them is in the realm of economic policy or economics of the firm, market or industry.

The Kansas study was explicitly, and most of the other NC-32 projects were implicitly, concerned with personal rather than economic risks, although the latter were recognized as affecting family finances. (For instance, the Illinois study took explicit account of the relationship between social and economic conditions and the financial history of the two families; and, in other studies, the importance of such conditions was implicitly recognized.)

This focusing of attention on personal, rather than economic risks, was appropriate in projects developed in the area of family economics rather than economic policy. Equally appropriate in family economic projects was the concentration of attention on the use of income and other resources for the advancement of family financial security, rather than on the techniques of farm operation and means of increasing farm income for this purpose. However, emphasizing the concern that specialists in family economics and home management have for the family economics approach to financial security should not result in ignoring the importance of both farm management and economic policy in advancing family financial security. The producing and consuming aspects of farm family living are so interdependent that they can be treated separately only in theory. One of the virtues of the proposed definition is that its broad concepts of "needs" and "resources" include the appropriate subject matter from farm management and economic policy as well as family economics.

Husbands and wives in 103 farm families in central Ohio were interviewed in a study of the relation of selected farm situations, procedures and goals to economic progress since marriage, as indicated by the average change in net worth. The expression "be financially secure; be able to meet emergency expenses or reduced income" was one of the 11 statements of attitudes that it was thought might have influenced financial management through the years. The second qualifying phrase was added to "be financially secure" with the idea that to be financially secure should mean *at least* this ability. Wives in 89 cooperating families ranked this statement second in importance only to "safeguard family's health" and ahead of "help children get ahead" and "build up the farm business" (6, p. 44).

Definitions of Financial Security Used in Classification of Families

Three different bases of classification were used in the three studies in which the families interviewed were grouped as secure or insecure. In 1960, 200 Kansas rural families were interviewed about their opinions on insurance and education. The families were classified on the basis of their answers to the question "Do you feel financially secure?" (Seventy percent said that they did, 14, p. 713.) Leaders of Indiana's and Wisconsin's projects used similar, but not identical, definitions of financial security as bases for classifying families as secure or insecure and for determining the personal or farm characteristics associated with this classification. Both definitions included confidence in ability to meet unusual expenses; in Wisconsin, adequacy of income to meet ordinary current expenses also was included in the definition.

Both of these definitions may be thought of as special cases under the proposed general definition of financial security. Some such narrowing of that general definition is necessary if families are to be classified as secure or insecure. For this purpose, the continuum of financial security must be divided into two distinct parts. In one part, the relation between resources and needs must be such that families in this group are financially secure; in the other, the relation between resources and needs must spell insecurity.

It would be impractical, if not impossible, to devise a classifying formula that would take into account all the information that could be obtained about future resources and needs. Some arbitrary limits must be set, some assumptions specified. If family resources remain unchanged, will the family be able to meet such and such expenditures 5 years from now? If the family achieves the financial objectives it has adopted for 5 years from now, will it be able to meet unpredictable or emergency expenses?

Such classifications of families may serve useful purposes even though they are based on only part of the information that is relevant to the broad concept of financial security. It is important that the limitations of the in-

[2] For a discussion of this interpretation of the concept, see: R. L. D. Morse. Family financial security—survey of Kansas rural families. Jour. Home Econ. 54:711-713. 1962.

formation and the assumptions made in the adoption of criteria be recognized in interpreting results. The formulas used by workers in Indiana and Wisconsin in their grouping of families as secure or insecure are of this limited but useful type.

Workers on Indiana's study of factors related to financial security (project 907) used a definition of financial security in which they chose one component—the family's belief in its ability to meet emergency expenses—as an indicator of presence or absence of financial security. In the first classification of families on this basis, analysis was limited to 198 families whose financial security was clearly indicated by their expressed confidence in their ability to meet emergency expenses and by general attitudes expressed by such statements as "We have nothing to worry about." Also, the general appearance of the home and farm in some instances was helpful to the interviewer in making subjective evaluations of financial security. On the basis of this information, 132 families were classified as financially secure and 66, insecure (16, pp. 184, 185, 188).

In later analyses, 401 Indiana families were classified on the basis of attitude. If the person interviewed believed that emergency expenses could be met, the family was judged to be secure; if he said that emergency expenses could not be paid or he did not know how they would be paid, the family was judged to be insecure; if the person interviewed was merely uncertain as to how such expenses would be met, the family was put in an uncertain group. On this basis, 221 families were called secure; 91 families, insecure; and 89 families, uncertain (10, p. 292).

The definition used in this Indiana study is like the proposed definition in representing security as dynamic—as concerned with ability to meet *future* needs—but is narrower than the proposed definition in concentrating attention on one kind of future financial needs and emergency expenses.

Indiana workers recognized that emergency expenses were one of several kinds of future needs that might confront families. They decided to concentrate attention on this particular kind of need, because families in all stages of the life cycle are likely to be faced with emergencies of one kind or another, whereas some of the other needs are of little concern to many families. Thus, providing for retirement probably plays little part in the financial plans of the young couple just starting out, and furnishing college educations for the children no longer concerns the couple approaching retirement.

Interviewers did not suggest what kinds of emergencies the family might have to meet. It was believed that, if the person interviewed were shown a list of possible emergencies (all of which *might* occur), some respondents might believe that they should consider all that were listed and would be certain to identify their families as insecure. Instead of running this risk, interviewers permitted each respondent to envision what the emergencies for his family might be and asked him: "Do you think that you would have the money to cover the costs (of needs you had not expected)? Do you feel sure of this? Why do you feel this way? Are there other reasons?"

The Indiana definition differs from the proposed definition also, in relying entirely on subjective evidence of a family's ability to meet future needs—on the belief (or "feeling") of the person interviewed that the family could meet such expenses. This belief may be thought of as the subjective meaning of the more general term "assurance" that appears in the proposed definition. No account was taken, in Indiana's classifying definition, of assurance in the objective sense in which it means the family's actual resources, either current or future. In the original identification of the families whose security or insecurity was clearly indicated, account was taken of the appearance of the home and farm as well as the respondent's belief. However, evaluation based on an interviewer's judgement of such appearances is still essentially subjective.

The purpose of classifying the Indiana families as secure or insecure was to determine which of more than 20 characteristics were associated with the family's confidence that it could meet emergency expenditures and to develop a mathematical formula that could be used to indicate the financial security of these farm families. The limitations of the definition used in the study are revealed in the results of the analyses.

The so-called "objective factors" were identified as possibly related to the subjective criterion adopted for financial security. Among these "factors" are a few that correspond to the "resources" or "financial needs" of the proposed definition. Such factors as size of farm, size of income and net worth clearly are resources (present indebtedness must be subtracted from total assets in the calculation of net worth). Factors such as education of husband, education of wife and number of years of farm experience may be related to the skill with which these material resources are managed.

Clearly identified with a family's future financial needs are current consumption costs and amount paid annually in insurance premiums. Certain characteristics of the family—such as family size, stage in the family life cycle and age of husband—may be associated with either resources or needs.

Less easily classifiable was the information obtained about tenure, other sources of income, the percentage of income from farming, uses of credit, type of investments and types of insurance held. Finally, information was obtained about opinions regarding ways of meeting emergency expenses, ability to meet current expenses, provisions made for old age, family goals, ability to attain goals and satisfaction with current economic conditions.

Relationships among these "factors" and between each of them and "financial security" were investigated in several ways for families classified by farm tenure and for all families combined.

The characteristics for which the closest associations with financial security were found and which were used in the development of a multiple regression equation for indicating the financial security position of these farm families were: (1) ways of meeting emergency expenses, (2) belief in ability to attain goals, (3) satisfaction with current economic conditions, (4) family size and (5) belief in ability to meet current expense.

The only one of these "factors" that is objective is family size. The fact that it was negatively correlated with financial security indicates that fewer of the respondents with large families than of those with small families felt confident that they could meet emergency expenses. This relationship is consistent with the proposed general definition, in terms of which it would mean that both the amount and the unpredictableness of future financial needs are likely to increase with increases in the number of family members. Other things being equal, this increase would tend to decrease financial security.

The other four "factors" are related to "assurance" in the subjective sense, rather than to any objective information about resources or needs. Their association with financial security in this subjective sense indicates that all of these attitudes are interrelated. That is, families who are satisfied with economic conditions, who believe they can meet current expenses and achieve family goals and who think they would meet emergency expenses with cash, insurance or other assets are also likely to have confidence in their ability to meet emergency or unusual expenses.

No report was made of the association between ways of meeting emergency expenses and income or net worth. It is impossible, therefore, to determine whether reports that a family would use cash to meet emergency expenses indicated that it had cash— or simply that it hoped it would have some when and if emergencies should arise.

The results of the elaborate analysis in the Indiana study illustrate the essential difference between objective and subjective data and make it clear that subjective estimates may have little relation to the objective data on which they presumably are based. For instance, a respondent's belief that his family could meet current expenses might be expected to depend closely on the relationship between current expenses and current income and thus to determine his confidence in his future ability to cope with unusual expenses. Yet, 7 percent of the "secure" families said that they felt unable to meet *current* consumption costs (8, p. 113). It is possible that these families recognized, realistically, that they were likely to have larger resources or smaller needs in the future than they had at present; or it may be that their confidence in ability to meet unexpected expenses in the future had little foundation in present objective realities.

The discovery of no close relationship between any one type of resource and financial security (even in this narrow sense) is consistent with the emphasis in the proposed definition on the relation *between* resources and needs and the complications that are likely in that relationship. This is another way of emphasizing the dynamic nature of financial security— of pointing out that a given objective situation (in terms of net worth or income, for instance) may represent very different degrees of security at different stages of the family cycle.

The limitations of this subjective approach to financial security were recognized in the statement of the project leader that "a more complete statistical analysis should be made in connection with further study of the problem of financial security in which objective factors are stressed" (10, p. 297).

A definition of financial security was used in Wisconsin for classifying farm families as secure or insecure (project 1014). Information was obtained from rural farm households, which included men and women 65 years of age or older, about a number of elements in the family's situation that were thought to be important in determining "ability to 'get along' financially in old age" (5, p. 101). Some of these factors were resources: income, provision for emergencies by insurance or savings and provision for equitable and secure disposal of property. Others were financial needs: outstanding debts, heavy family expenditures and losses.

The family's own evaluation of its situation was used in the classification of families as financially secure and insecure. Although the data were essentially subjective, an effort was made to relate them to objective facts. Respondents were first asked "if they were able to meet ordinary expenses at the present." The 30 families who said they were not able were classified as the most insecure. The remaining 113 who gave an opinion were asked if their incomes were adequate to meet "unusual expenses." The 55 families who considered their incomes adequate were judged to be the most financially secure (5, p. 101).

Comparisions indicated that secure families had somewhat larger resources (in terms of average total income, size of farm and value of farm and buildings) than the insecure. There was, however, no difference between the the two groups in the amounts of specified heavy expenses encountered since retirement.

The definitions of financial security used in these two projects had obvious limitations. At the same time, they call attention to a limitation of the proposed general definition of financial security— its failure to provide any benchmark for identifying families as secure or insecure. However, the idea that a line can be drawn dividing secure families from insecure families may distort the true meaning of financial security.

The proposal to define financial security as "a family's assurance that it will have resources to meet future financial needs" suggests ways in which measures of certain aspects of financial security can be obtained. It may be more useful, as well as more nearly possible, to say, "These families, who are now at a specified stage in the family life cycle, have resources in amounts and kinds that give them reasonable assurance that they will be able to meet the financial objectives they have set for themselves for the next 15 years and the unpredictable needs that may confront them," than to say, "These families are financially secure."

Indexes for Measuring Certain Aspects of Financial Security

In studies still in progress in two north central states, attention is concentrated on specified aspects of financial security. A second project in Wisconsin (1132) is concerned with measuring the degrees of financial security

that were indicated by 209 farm families whose heads were within 20 years of possible retirement. Farmers in the group under consideration are past 40 years of age; they or their wives (or both husband and wife) were interviewed in their homes in southern and central Wisconsin in 1960 and 1961.

One technique developed to compare degrees of financial protection among the families was to give each family a composite score based on a 5-point scale which considered (1) readily available funds, (2) plans for continuing income should the farmer become sick or temporarily disabled, (3) plans for continuing income in the event of the farmer's death, (4) plans for sources of income for the farmer's old age and (5) the family's present equity in the farm. After the families were scored, they were ranked from highest to lowest and divided into three equal groups. Chi-square tests were used to determine whether there were associations between 20 family characteristics and placement in the top, middle or low thirds or placement in the top and low thirds.

The families also are being rated in several ways that will measure their degree of protection for certain financial hazards, including in particular: (1) unexpected family or household expenses, (2) stoppage of income because of the farmer's sickness or disability, (3) the farmer's death and (4) old age. Both financial and nonfinancial means of providing for the future are emphasized. For example, some families that were relatively unprotected with respect to savings and insurance nevertheless had a strong sense of security because a son was thought able to take over the father's work or because the wife could manage the farm operation with the help of children or other helpers if the need should arise. Certain differences appeared with respect to the resources and future plans of farmers in the age groups 40 to 49, 50 to 59 and past 60 years of age— these differences are being evaluated.

Workers in Missouri and Iowa investigated a second phase of financial security after completing the joint study of factors related to the use of credit by rural families and the relation between the use of credit and family financial security. The study, still in progress, deals with families' abilities to provide for short-term and long-term emergencies arising from interruptions in the flow of family income. Objective data are relied on as much as possible. Information is obtained about the current level of family living expenditures and about the amount by which this could be lowered if income should be interrupted for 6 months or indefinitely. Estimates also are obtained about the income families could provide under such circumstances.

The "problematic gap" between the level of living expenditures deemed necessary and the level of provision made by the family to meet family needs in case of such an emergency can be measured in dollars and is used as an index of this particular aspect of financial security. Families whose necessary expenditures would be met out of income that would be available in such an emergency are secure, according to this definition; those whose needs exceed the income that could be obtained in such circumstances are insecure. The association of financial security thus measured with economic and situational factors is being studied.

The methods being used in Wisconsin, Iowa and Missouri to measure financial security are consistent with the general definition proposed for use here. Whatever indexes of financial security are developed as a result of these studies will be based on the relationship between needs and resources in specified family situations.

ELEMENTS OF FINANCIAL SECURITY

Most of the state projects contributing to NC-32 dealt with certain of the "factors affecting the financial security of rural families" without explicitly discussing the meaning of the concept. The findings can be organized within the framework of the proposed definition, for all of them were related either to future financial needs or to the resources available for meeting those needs.

Details can be studied in reports from the individual states. Here will be presented the composite picture of family needs and resources suggested by those findings, with emphasis on the classifications that best bring out the relationships between each of these elements and the concept of financial security.

Even a superficial review of the topics covered in the state projects makes clear the interrelationships, not only among different kinds of resources and different kinds of needs, but also between needs and resources. The same items may be studied first in one connection, then in another. In which order should they be studied to emphasize their relations to financial security? Family financial planning presumably begins with a formulation of objectives and moves on to a study of the resources available for achieving them. It seems reasonable then, first to summarize the information obtained as it contributed to an understanding of family needs and then to summarize the same and some additional information as it related to family resources.

Future Financial Needs

Certain general characteristics of family needs emerge from the state projects: Financial needs are related to nonfinancial requirements and to environment and are dynamic.

Financial versus nonfinancial needs

Studies of "family goals" in several states made it clear that the needs a family recognizes range from those that depend almost entirely on financial resources to those that can be achieved almost independently of financial means. It is relatively easy to identify the needs at either extreme of this "continuum," but it is more important, perhaps, to recognize the dependence of many needs on *both* financial and nonfinancial resources.

For instance, spokesmen for some Indiana families said they wanted to continue their church activities, seek political office or hold office in community organizations. Among the "goals" suggested in Iowa and Missouri were: to "gain and/or maintain the respect of my neigh-

bors and other community members," "take part in community affairs and organizations" and "promote recreational activities by each family member or as a family group." Project leaders for Ohio's study of economic progress since marriage suggested 11 statements that might have had an effect on what the family had done financially. Among them were: "enjoy life by doing things that give pleasure and relaxation—sports, socializing, hobbies, etc.," "have good standing in the community," "do and have the things that count" and "give support to community programs and help to others when needed."

Although achieving any of these family objectives depends to some extent on financial resources, these objectives are not primarily "financial needs." Moreover, many of the other objectives listed (such as improving the yard and exterior appearance of the house, providing children with college education or other special training beyond high school and safeguarding the family's health—which involve considerable expenditures of money) still cannot be achieved by financial means alone.

It is important that the existence and significance of nonfinancial requirements and the interrelatedness of financial and nonfinancial needs be recognized. This recognition leads to the observation that financial security should not be regarded as an end in itself. However, there may be considerable satisfaction in a *feeling* of being secure. But the eventual outcome depends on the soundness with which families have envisaged their future needs and on the kinds of objectives and ultimate goals they have chosen.

Undoubtedly there are families (or family members) who, consciously or not, value lack of present concern over money matters above any possible degree of financial security. Contemplation of future needs is distasteful to them. The absence of any consciously-held plan or course of action may be a primary objective. Any realistic discussion of financial security must recognize the existence of such people and the relationship between their attitudes and the financial security of their relatives. In other words, society has a stake in the individual's attitude toward financial security and toward the future needs with which security is concerned.

Dynamic nature of financial needs

Financial security is a dynamic concept. The chief elements in it bear within themselves the seeds of change. A family's financial needs 10 years hence will be different from its needs today, yet will be related to them—will have grown out of them, in part.

What indications are there in the regional study of the kinds of change that may occur in the needs of a family over time? The most definite statement is the proposal of the Executive Committee of the North Central project that one aspect of financial security is a family's confidence in its ability to maintain an "acceptable level of consumption." It would appear that what constitutes an acceptable level must be thought of as keeping pace with normal changes in the family cycle and with generally adopted technological changes. A young couple should include in its concept of security the ability to meet the increasing expenses that accompany the bearing and rearing of children. Also, the couple whose children are launched in life should take account of the probable decrease in financial needs—or at least of the probable change in their nature.

The "acceptable level of consumption" that a family should be able to maintain as a part of being financially secure will vary with changes in the goods and services available. If a family's peers generally are replacing wood or coal ranges with gas ranges, or if "everyone" is getting television sets, it seems reasonable to consider the ability to obtain a gas range or a television set as part of being financially secure. However, the installing of central air conditioning at a time when neighbors are making do with room conditioners or none at all represents a change in the level of living rather than in the needs that are associated with a given level.

Financial needs related to environment

The locality, as well as the era, in which a family lives will determine to some extent the financial needs that must be met. Concentration of attention on rural people suggests that differences between the needs and resources of rural and urban families need to be recognized. The citing of "similarities among states in the region" and consequent "common problems of rural family financial security" (in the project outline for NC-32) suggests that farm people in the north central states had needs or resources that differed from those of families in other parts of the country. Examples of such needs are easy to find: Insulated, centrally heated houses and warm clothing are among the needs of families in this part of the country that are not felt (to the same extent, at least) by families in the southern states.

Information about financial needs from state projects

These general characteristics of the needs that families must be able to meet if they are to be regarded as financially secure were recognized in several state projects. The amount and variety of information about financial needs collected in the nine states testify to the importance attributed to this element in the concept of financial security.

Past expenditures

In most of the projects, information was obtained about the expenses that farm families had incurred in the past. These data can be used as the basis for estimates of future needs. In some cases open-end questions were asked; in others, categories were suggested. Answers to the open-end questions were summarized in groups similar to these categories. Information about the *amounts* of expenditures was obtained in Illinois, Indiana (project 907), Iowa, Missouri, Ohio and Wisconsin, but not in the other states.

Illinois' detailed study of the financial history of two farm families included a comparison of average annual cash outlay by these families during four periods of time (varying in length from 3 to 9 years) with average outlays of groups of farm families whose financial

accounts covered the same periods. In addition to savings, interest and income tax, the average cash outlays included the category "family living expenditures" under which the items were: food, household operation, housing, furnishings and equipment, clothing, personal transportation, medical care, recreation, education, church and gifts.

The schedule for Indiana's study contained questions about what respondents had spent "last week," "last month" and "last year" for such items as food, clothing, automobile (including gas and oil), recreation, education, fuel and telephone. Mean amounts of these consumption costs were calculated for families classified by many personal and financial characteristics; the amounts were not significantly related to any of the characteristics, including stage in family cycle and age of head of family.

Farm operators and their wives who were interviewed in the Kansas studies (1955, 1960) were asked whether they had experienced, since marriage, specified risks involving "considerable expenditures." These risks included injury to family members or damage to the home, household possessions, farm buildings and equipment, or loss of livestock or crops from fire, theft, tornado or wind, hail, drouth, insects, flood or disease. Also included in the suggested crises were auto and personal accidents, medical and hospital care for major surgery or specified diseases and liability to lawsuit from injury on farm property or to farm hand.

Kansas respondents (1955) were asked also whether they had been faced, since marriage, with "unusually heavy expenditures" for college or special education, large improvements on home, purchase of home appliances, purchase of farm, purchase of farm equipment, care of relatives, funeral expenses, major medical care, cost of childbirth and purchase of automobile or other.

Michigan's report on the factors that affected financial decision-making included the answers of 100 farm families to open-end questions about their past accomplishments. Named most frequently were: buying farm machinery and equipment, increasing livestock and poultry, buying additional land, improving or building new farm buildings (including the farm house) and improving land and facilities.

Families cooperating in Nebraska's study of the use of possessed resources to advance rural family financial security were asked to name the most expensive "financial problem or problems concerned with farm or home" encountered in specified years of their marriages. No one problem was named for any period by as many as half of the families. The differences among the periods were the ones that would be expected—larger percentages of the families mentioned farm machinery and livestock as problems in the first year of marriage, and in the second to fifteenth years, than listed them in later periods. Furniture also was called a "problem" by a larger percentage for the first year than in later periods; the birth of a baby and medical expenses, in the second period (second through fifteenth years). No tests were made of the significance of these relationships.

Ohio families furnished information about the total cost of specified "large expenses or financial emergencies" under the following headings: loss or damage to property (including crops or livestock), major building improvements, illness, accidents, funeral expenses and "other expenses." These families also were asked about gifts or support contributed to children or others and special opportunities provided for themselves and their children. The total amounts spent for special advantages to the family and others were significantly correlated (1-percent level) with the number of years of marriage. The partial correlation of outlays for housing improvements with years of marriage was significant at the 5-percent level.

In addition, the respondents in Ohio reported their payments during 1958 (the year before they were interviewed) on (1) debts, (2) life insurance and (3) other fixed obligations, chiefly property taxes and insurance protection other than life. These payments on fixed commitments were not significantly related to years of marriage.

The families including at least one person 65 years of age or older in Wisconsin's study (project 1014) were asked about the timing and the cost of "heavy farm expenditures or financial emergencies" and "heavy family expenditure or financial emergencies" encountered since marriage. The suggested categories were:

Farm	*Family*
buying farm equipment;	damage to house;
livestock;	house improvement or building new;
damage to crops or crop failure;	severe illnesses, accidents or operations;
damage to farm buildings or other property;	care of relatives;
farm buildings, improvement or new buildings;	funeral expenses;
depression difficulties.	education of children;
	other.

Interviewers in several states obtained information about past expenditures in answers to questions about the purposes for which credit had been used. In Indiana (project 792), open-end questions were asked about such purposes. In the joint Iowa-Missouri study, separate lists were obtained of consumption, production and real estate credit expenditures.

Project leaders in Indiana (project 907) and Kansas (1955) included nearly identical items in their schedules and asked respondents to indicate the kind and source of credit they had used in connection with them. The items listed were:

a. groceries
b. clothing
c. equipment and home furnishings
d. family car
e. farm equipment
f. seed, feed, fertilizer, other
g. truck, gas and oil
h. farm livestock
i. building materials
j. real estate
k. medical and hospital expense
l. other

Present expenditures

Answers to questions about day-to-day living ex-

penditures in Indiana's schedule (project 907) came closest to furnishing information about the amounts families were spending at the time these studies were being made.

Additional information about current expenses came from several other sources: (1) Nebraska's interviewers asked respondents if they followed certain practices that might reduce family expenditures for food, household operations, furnishings, clothing, medical care, recreation and transportation, costs of insurance, taxes and loans and interest. (2) Respondents in both Indiana (project 907) and Wisconsin (project 1014) were asked about their ability to meet ordinary current expenses. (3) Indiana respondents were asked to estimate the amount "needed to live as you would like your family to live."

Future expenditures

Estimates of future expenditures differ from those of past and present expenditures because future expenditures are to a large extent subjective. The reasonableness of subjective estimates of future needs may be tested by comparisons with past experience and current practice. This approach was used in some of the state studies. Even against this background, it is important to recognize the essential difference between past expenditures and future financial needs.

In only one of the states were respondents asked to estimate their total living costs for some time in the future: farm operators in Kansas (1955) were asked about how much cash they thought they and their wives would need per month and per year "to live fairly comfortably after retirement" if prices of items purchased for family living stayed about the same. The rural Kansas families in the 1960 survey were asked a similar question. Most of the questions about future financial needs dealt with expected major expenditures for specified items rather than with total expenses.

In Indiana (project 792), respondents answered open-end questions about what they hoped to achieve. Among the objectives named were many that would involve large expenditures, such as expanding the farm and farm enterprise, providing education and medical care for family members and improving family housing. Michigan respondents, asked what things they wanted to do "to become better fixed financially," mentioned: improving or building new farm buildings, buying farm machinery, improving or buying additional land and paying debts. Respondents in Nebraska named the "financial problem concerned with farm or home" that they felt would be most costly within the next year and within the next 5 years. Their replies were similar to those obtained in Indiana and Michigan.

Indiana (project 907) and Kansas (1955) listed the same items that were identified as "unusually heavy expenditures" in Kansas's questions about past spending. Respondents were asked if they expected to encounter any of the items in the next year or two (Indiana) or in the next 5 or 10 years (Kansas) and, if so, how they expected to pay for these items. In addition, Kansas respondents were asked whether or not they intended to purchase any of eight major items of furniture or farm equipment before June 1957.

Persons interviewed in the Iowa-Missouri credit study were asked to indicate which of 14 suggested "goals" that their families were "working especially hard to accomplish" or were "giving special attention to" at present and to name any goals the family was working toward that were not included in the suggested list. The achievement of most of these "goals" would involve major expenditures:

a. Improve farm land.
b. Increase total production of farm.
c. Own our own farm or add to the amount of land and 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 savings account.
h. Add to movable 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.

Suggested classification of financial needs

All information about past, present or future expenditures can be related to "future needs" that are important in financial security. The information was obtained in so many different ways that it is impossible to combine the findings or even to compare them. This diversity makes obvious certain basic distinctions among these expenditure data that increase their usefulness in the study of financial security. These distinctions are interrelated in complicated ways— each of the suggested distinctions is represented better as a continuous series than as a simple division into two classes.

Production versus consumption expenditures

One useful and obvious distinction is that between (1) expenditures for goods and services that satisfy the wants of the farm family directly— that is, for consumers' goods— and (2) expenditures necessary or desirable for maintaining and expanding the farm enterprise— that is, expenditures for producers' goods. All families, whether farm or nonfarm, must meet expenditures in the first group. The latter expenditures tend to be peculiar to farm families and to nonfarm families who operate their own businesses. The findings in the states bring out clearly the double relationship between the farm and the home. The farm enterprise, which competes with the family and home for the resources available, produces the income from which the needs of the family and farm alike are satisfied.

The significance of this distinction between expenditures for producers' goods and those for consumers' goods lies, then, in the ways in which the two kinds of expenditures are related to resources. Expenditures for farm land and its improvement, for new farm buildings or major changes in old ones, for farm machinery and equipment (including trucks and cars for farm use) and for increases or improvement in livestock or poultry, normally will be made because it is expected that they will increase income. Such expenditures would be expected to result in a net increase in financial security.

These outlays for producers' goods are not ends in themselves. The purpose is to build up resources so that the direct needs or wants of the family—for food, clothing, housing, education, medical care—can be met. The efficiency with which producers' goods are used, and the relationship between this efficiency and financial security, is the concern of farm management rather than of family economics. However, the decision to spend family funds on producers' or consumers' goods will determine the kinds as well as the amount of resources the family will have for its future needs. Thus, it is not surprising that many of the expenditures about which family economists obtained information in projects under NC-32 were for producers' rather than consumers' goods.

This suggested classification applies to the goods and services for which farm families need resources. Its usefulness is not reduced because some of the expenditures reported by families may be classified as either producers' or consumers' goods, depending on the reason for purchase and the way in which the item is used.

Some items of expenditure cannot be fitted easily into these categories because the payments made by the family are far removed from the receipt of any goods or services. Among expenses of this kind are savings, interest, income tax (included in Illinois' report) and repayment of debts, insurance and property taxes (in report from Ohio). Still, all these payments can be related to past or future receipts of benefits of one kind or another, although there may be no direct relationship (in the case of taxes, for instance) between the amounts paid and identifiable benefits received.

The heavy financial burden that may result from liability for damages suffered by others on farm property or for injury to a farm worker seems to be a special case. The benefits would appear to accrue entirely to the person to whom damages were awarded and not at all to the family that was liable.

Current expenses versus major expenditures

In some of the states, information was obtained about current expenses of farm families. In this category were: the average annual outlays for family living reported from Illinois; the estimates of amounts spent "last week," "last month" and "last year" for "day-to-day living" and of amounts needed "to live as you would like your family to live" obtained from Indiana families (project 907); and estimates by Kansas farmers (1955) and rural families (1960) of how much cash would be needed per month and per year to provide a comfortable living for a retired couple.

These reports and estimates had to do with family living costs; no such reports were obtained in the studies about the operating expenses of the farm enterprise. These operating expenses are of greater concern to farm management than to family economics. Still, the importance of those expenses and the competition between them and family living expenses for the income furnished by the farm should be recognized in a study of financial security.

For the most part, project leaders were concerned with "emergency or unusual expenses," "unusually heavy expenditures," "most expensive financial problems," "major financial situations" and "heavy farm or family expenditures or financial emergencies."

Dozens of different words and phrases were used to describe these "major expenditures." The answers to open-end questions were classified differently in the different projects, and, for the most part, the schedules that suggested categories of expenditures did not use the same groupings. The various classifications can be reduced to a few general groups, as follows:

1. Goods and services related to the farm home and family.
   a. New farm homes
   b. Major improvements in present farm homes
   c. Furniture, home furnishings, major home appliances
   d. Education or other special advantages for children (and in some instances, adults)
   e. A start in farming or some other occupation for children
   f. Medical and hospital care, surgery, treatment, medicines, supplies, appliances
   g. Funerals
   h. Major contributions to care of relatives (other than children)
2. Goods and services related to the farm enterprise.
   a. Land and improvement of the land
   b. New farm buildings or major improvements in old ones
   c. Farm machinery and equipment, including trucks or cars for farm use
   d. Increases or improvements in stocks of livestock or poultry

The distinction between these major outlays and current expenses is not clear-cut. "Family living expenditures" and amounts spent yearly for "day-to-day living" will include, for some families in some years, major and emergency items as well as the expenses incurred in relatively small amounts at fairly regular intervals that are thought of as typical current expenses. The findings of Nebraska's study illustrate this overlapping of the two types. In answer to questions about "most expensive financial problems," 16 of the 89 families interviewed named items that were classified as "farm or home operating expenses" among their past "problems" and, 12, among their future ones.

There are obvious reasons for preoccupation with major rather than current expenses. One is the relatively

large amount of money involved and, hence, the need for more and perhaps different resources than are relied on for meeting current expenses. There is no generally accepted point at which an expense is thought of as "major" or "unusually heavy." Some "home appliances," for instance, may cost not much more than some items of clothing that are included in current expense. The cost of automobiles, farm equipment, funerals, major building improvements, college educations and farms may range from a few hundred to many thousands of dollars.

More important, perhaps, than the size of "major expenditures" is their irregularity. Families spend hundreds of dollars a year for food, clothing and household operation. Yet, these are not thought of as major expenditures because the cost is spread over the year and can be met out of current income. They change over the years, but the changes are fairly gradual. "Major expenditures," on the other hand, are "unusual." Some of them occur once in a lifetime, others (major medical expenses) may occur again and again, unpredictably. This irregularity complicates the problem of having resources available to meet these types of financial needs.

Desired versus undesired major expenditures

Closely associated with this irregularity of major expenditures, and more vital in its relation to financial security, is the distinction between expenditures that represent the achievement of objectives and those made necessary by undesired happenings of one sort or another. Here again, the distinction is not simple and clear-cut. To be sure, certain expenditures nearly always belong to the first group. Acquisition of a farm large enough to provide income for the family, the providing of education and other special advantages for children and helping them get established in farming or some other occupation are likely to be included in the long-range plans of young couples. At the other extreme are payments resulting from liability for damages to others— payments that cannot be regarded as either planned or desired.

Most of the other items listed as "major" or "emergency" expenditures may fall in either category, depending on circumstances. The building of a new farm house to replace the former one may be an accomplishment toward which the family has worked for years, or it may be forced because fire destroyed the former building. Ambitious improvements in the house, major furnishings or household appliances, new buildings, machinery and livestock all may be part of a family's plan for increasing the productivity of the farm enterprise and embodying that increased productivity in more comfortable, convenient family living. Or these same major expenditures may have to be made to replace farm or family goods that have been stolen or destroyed or damaged by fire, flood, tornado, wind, hail or (in the case of livestock) disease.

Even major medical expenses may represent the achieving of family objectives rather than coping with calamity. The cost of having children's teeth straightened, for instance, is considerable, but many families choose to assume it. The decision to straighten teeth can be made over a period of months, if not years. For this reason, the expenditure is different from the costs of surgery and hospitalization or treatment and appliances precipitated by crippling accidents. Actually, most major medical expenses fall somewhere between these two extremes or may belong in either one, depending on the circumstances.

Similarly, making large contributions to elderly parents— or for that matter, to unfortunate or improvident younger relatives— may be made necessary by unforeseen disaster (the burning of a home or sudden, major illness) or it may represent the fulfillment of a long-cherished dream.

So far as a family's financial security is concerned, the significance of this distinction between desired and undesired major expenditures lies in their relation to family resources. Presumably, the expenditures that represent the accomplishment of long-held family objectives will be paid for from resources that have been built up for this purpose. Major improvements in the farm house or the purchase of furniture or appliances involve the exchange of one kind of resource for another, which the family prefers, so there is a net increase in utility. If such major expenditures are forced upon a family by fire, flood, tornado or other such disaster, the situation is different. Major expenditures are made necessary (or become highly desirable) because resources have been destroyed. The family that is able to make such expenditures is clearly more secure, financially, than one that must get along without such expenditures.

Insurable versus uninsurable risks

Yet another distinction is significant here: the predictability of various catastrophes. However undesirable an expenditure is, if it is predictable, it may be possible for a family to provide resources to meet it. Insurance could be carried for all the risks involving "considerable expenditures" listed in the Kansas schedules. Although a family could not know whether its members would have personal accidents or major surgery, or whether fire, tornado or hail would damage farm buildings or crops, resources could be guaranteed to meet the expenditures made necessary by these disasters. Relatively small expenditures at regular intervals (insurance premiums) could be substituted for uncertain but possibly very large outlays of funds at some unknown time in the future. Thus, this distinction between different kinds of major expenditures hinges on whether or not special resources are available to provide for them.

Throughout this discussion, resources have been mentioned frequently. This reference is inevitable since family expenditures involve the exchange of resources for goods and services. The items for which a family chooses to spend will determine the family's resources in the future, just as the amount and kind of resources a family has will determine how many of its "future financial needs" it can meet.

Factors Affecting Financial Security

Resources

All projects contributing to NC-32 were concerned

with resources of one kind or another. A review of the findings suggests that a family's resources share certain characteristics with its needs. For instance, families have some resources, just as they have some needs, that cannot be measured in terms of money. The family members themselves and their abilities and attitudes are of first importance. A wife who can take over the management of the farm or sons who are able to help with the farm work add much to a family's security. Some abilities result from training on which it may be possible to put a price tag (vocational courses, perhaps), but the vigor, intelligence and common sense of a farm couple— even the way in which their skills and temperaments complement each other— may be the most vital element in their financial progress, although these qualities cannot be valued in monetary terms.

The husbands and wives interviewed in Ohio were asked what item or event had had the greatest influence on their financial accomplishments since marriage. More than half of the answers mentioned family or individual characteristics as most important. Of these, determination— also expressed as incentive, patience or ambition— was named most often, followed by family cooperation, common interests of husband and wife and hard work. Other answers named successful management procedures (including careful planning and spending), carrying through on planned activities, controlling debts and keeping useful financial records. The relation of such practices to financial security was recognized in other studies also.

Resources, no less than needs, are dynamic. A family's assets today depend on the items it controlled 10 years ago and on every step in its financial progress since then. Today's assets, in turn, will help to determine what resources the family will have at any time in the future.

The resources a family has, as well as its needs, are influenced by the environment. The effects of climate, location and fertility on the productivity of the soil will doubtless be reflected in prices paid for land and need not be thought of as separate resources. Political and economic climates may have more distinct financial effects. Old Age and Survivors' Insurance and the disability insurance provisions of the Social Security Act have an easily identified bearing on family security. Less obvious may be the effect of state and local educational systems and programs of vocational training and rehabilitation. The variety of institutions for savings and investment that the economy provides may influence the amount as well as the kinds of resources a farm family has. Opportunities for off-farm employment of one or more members may tide a family over a season of poor crops or low prices. Finally, the availability of insurance to meet a wide variety of needs may play a significant role in a family's financial security.

Individual farm operators and their wives have no direct control over these environmental resources, though they may, as citizens, have some voice in determining policies. Any plan for family financial security should take account of these resources, however, recognizing that people and families will differ in ability to recognize, compare and select among them.

Income

The first aspect of financial security that was suggested by the Executive Committee of NC-32, "confidence in the ability of the family to maintain an acceptable level of consumption," emphasizes the relation between income and expenditures for family living. The adequacy of a family's income to meet ordinary current expenses was the first test of the financial security of families interviewed in Wisconsin (project 1014). Income was one of the ways of meeting unusual or emergency expenses that were named by respondents in Nebraska. Information about family income, variously classified and defined, was obtained in several of the states.

Amount of income

Estimates of net income were obtained from families in Indiana (projects 792 and 907), Kansas (1955 and 1960), Nebraska and Wisconsin (project 1014). Estimates of both gross and net income were obtained in Ohio. Mean and median incomes were found for families grouped by many different characteristics, and income classifications were used in the analysis of other characteristics of the farm family. A chi-square test indicated that the association between net income (average of estimates for the last 3 years) and confidence in the family's ability to meet unusual expenses was significant at the 1-percent level (Indiana, project 907). The correlation between both net and gross income for 1958 and average change in net worth since marriage was significant at the 1-percent level (Ohio).

Sources of income

One of the "emergencies" with which farm families must cope if they are to be regarded as financially secure is interruption of income because of the death or disability of the farm operator. For this reason, the variety of sources from which income is obtained, as well as the amount, is important. Information on this point was obtained in several states. Income from farming was identified in Ohio and Kansas (1955) as well as returns from all sources. Not all the 145 families interviewed in Wisconsin (project 1014) reported the income that they received from all sources, but, for those who did, average total income was $2,403. This included returns of (1) $1,566 from the farm, (2) $454 from social security and other social aid and (3) $383 from nonfarm employment and such other sources as annuities, interest or dividends. One of the two Illinois families whose financial records were studied for many years received a significant amount of off-farm income from the husband's work with the farm organizations with which he was associated.

The number and percentage of families in which some income was received from employment of husband or wife off the farm were found in Indiana (project 907), Kansas (1955), Nebraska and Ohio. Mean and median income from such employment was found in Kansas (median income of wives who were employed) and Ohio (mean income of wives and of husbands from off-farm employment and other sources). Some family members who were

not employed when they were interviewed possessed skills or experience that might make it possible for them to add to the family income if special needs arose. Respondents in Ohio reported the number of years of work other than farming for both husband and wife since marriage. Nebraska respondents reported the possession, by husband, wife or children, of skills or abilities (other than farming) that could be used "for earning power." Fifty-one husbands and 37 wives (among the 89 couples who were interviewed) reported such skills— some of them more than one skill— although only five husbands and five wives were employed in nonfarm occupations at the time of the study.

Sources of income suggested in the Ohio schedule, in addition to farming and off-farm employment of husband, wife and children, were: agricultural payments and refunds, veterans' allowances, rent from property, interest and dividends, gifts or inheritances, pensions, insurance benefits, social security and other. The schedules used in Kansas listed all these possible sources and also included oil and gas leases and royalties, boarders and roomers and disaster relief.

Net worth

Net worth is widely used in studies of family financial management as the best single measure of financial security. It was emphasized in most of the studies contributing to NC-32. The Executive Committee suggested "confidence in the ability of a family to build up or accumulate net worth" as one aspect of financial security. Information was obtained about the important items in the net worth of farm families in all of the states, and net worth was the basis of many of the groupings used in studies of relationships. In Ohio, the average annual change in net worth since marriage was used as the indicator of "ability to get ahead."

Influence of income on net worth

The most important contributor to increase in net worth is income. In addition to meeting the day-to-day living expenses of the family, income is used to purchase more land, build new buildings or improve old ones, buy more equipment and acquire other assets. The relation between available income and need for current living expenses will determine the rate at which resources can be increased. Data from Ohio indicated that, if 1958 had been a typical year for the families interviewed, about half of the net money income (defined as gross money income less current farm business expenses) would have been used to increase net worth.

Influence of gifts and inheritances on net worth

Gifts and inheritances play a part in the financial histories of some families. These sources of net worth may be in cash or other property, in small or sizable amounts, and are likely to be received at irregular and unpredictable intervals. Families in Illinois, Indiana (project 907), Kansas (1955) and Ohio furnished information about gifts and inheritances that they had received.

One of the two Illinois families whose financial records were analyzed inherited 20 acres of land in 1935 and 60 acres and $15,000 in bonds in 1953; the other had inherited 88 acres in 1929 (before the financial records were analyzed). Some member of nearly half (46 percent) of the families interviewed in Kansas (1955) said that they had received gifts or inheritances. The median value for the families who had received either was $3,800 (median net worth for all families was estimated at $28,000). The value of gifts and inheritances received since marriage by 103 Ohio families was significantly associated (at the 1-percent level) with both the annual change in net worth since marriage and years of marriage, in both simple and partial correlations.

Influence of total value of assets on net worth

Fully as important as the sources from which families acquire net worth are the total amount and the kinds of assets they control. The 23-year records of two Illinois families furnished a detailed picture of changes in net worth throughout the period. Families interviewed in Michigan and Ohio furnished information from which their net worth at the time of marriage and when they were interviewed could be computed. Ohio's workers calculated the annual change in net worth for each family and used this figure as the basis for many analyses. In the other states, only information on net worth was obtained at the time of the interview.

Credit

Credit plays a part in the financial security of most farm families. It is related to financial security in many ways. The family that uses credit must pay interest charges and repay principal. Failure to meet these charges has meant financial ruin for many farm families. Because of this fact, "freedom from debt" often is a major objective and is closely associated with financial security. This attitude was found among the 70 families interviewed in Indiana (project 792). Thirty percent of the families said they had no debts and wanted to stay out of debt; another 30 percent had outstanding debts, but wanted to pay them off and then keep out of debt. The remaining families would keep their current debts and continue to borrow.

One of the Illinois families whose financial records were studied thought of freedom from all debt, both farm and home, as a major element in financial security and sought outright ownership of the farm as a primary objective. The only credit this family used during the 23 years studied was for the purchase of land in 1935, when $750 was borrowed on a life insurance policy. This was repaid in a few years.

Kansas families interviewed in 1955 revealed varying attitudes toward the use of credit. They were shown 11 statements and asked to check those with which they agreed. Although 85 percent said that they preferred to pay cash, 90 percent said that credit was "OK" for buying real estate and, 89 percent, for buying farm equipment or expanding the farm business. Seventy-

eight percent considered that credit was needed to establish and maintain good credit ratings. Smaller percentages thought credit was "OK" for house repair (70 percent), buying household equipment (54 percent), house remodeling (43 percent) or monthly charge accounts (31 percent). In contrast to the 7 percent who said that they always paid cash, 10 percent said it was "OK" to use credit for anything. Younger families were more generally inclined to use the credit than the older families.

The use of credit is reflected in a family's resources as well as in its needs. From one point of view, credit use reduces the value of those resources. Estimates of the amount of credit a family was using— of total debt outstanding— had to be obtained, and these amounts had to be subtracted from value of assets to arrive at the net worth. These estimates were obtained in Indiana (project 907), Iowa, Missouri, Kansas (1955) and Ohio. The numbers and percentages of families having some debts and of those having specified amounts were calculated, as well as the mean and median amounts for all families or for those reporting some debts. The mean value of debts, as a percentage of the mean value of assets, was found for Kansas families (1955) classified by family size, age of wife, net worth and family life cycle.

This relationship of liabilities, arising from the use of credit, to assets in determing net worth is an important one and must be recognized. It is, however, equally important to recognize that the use of credit can increase a family's resources and, thus, its financial security. Several states obtained information about this relationship. Some of the findings dealt with the use of credit as part of a family's program for building up net worth and indicated the extent to which farm families had used credit to acquire land and other producers' goods. As part of a long-run plan, credit can enable a family to acquire land and other producers' goods too expensive to be paid for directly out of income. If the resources thus acquired add more to the total farm income than the cost of the money borrowed, then credit reasonably may be considered one of the contributors to net worth. In the long run, it is the farm income that pays for the productive resources that are making possible the increase in farm income. Credit is a device for letting future income pay for resources obtained and used now.

One of the Illinois families studied made considerable use of credit for this purpose during the years covered by its financial accounts. Almost $6,000 was paid out in interest on a farm mortgage and intermediate credit used in operating the farm business. In Kansas (1955) the percentages of total debt incurred in connection with the farm business, with nonfarm real estate, auto and "other" items varied among families classified by net worth, age of wife and family life cycle stage.

In the Iowa-Missouri study, separate determinations were made of production and real estate credit. The percentages of families using each were related to specific characteristics. Chi-square tests indicated that significantly higher percentages of farm operators— under 40 years of age, who had 12 years or more of schooling, and who were acquainted with four or more sources of credit or rented all the land they farmed— than of other operators, used *some* production credit. The *amount* of production credit used was significantly associated with total assets and (negatively) with the number of years farmed. The percentage of farm families using *some* real estate credit was significantly associated (negatively) with the age of the farm operator and (negatively) with the number of years farmed. The *amounts* of real estate credit used were associated (positively) with the size of the farm.

In both the Iowa-Missouri and the Kansas (1955) studies, questions were asked about the sources from which credit had been obtained for specified purposes. Respondents in Iowa and Missouri reported on their knowledge of sources of credit for specified uses, regardless of whether or not they had made use of them.

In Kansas, attention was concentrated on the percentages of respondents who said that they planned to use credit for specified purposes in the future in comparison with the percentages who had used it for similar purposes in the past. The comparison suggests that respondents were unrealistic in their expectations of large expenditures. For instance, only 29 percent said that they expected major expenses for medical care in the next 10 years, although 58 percent had had such expenses since marriage. Reports of respondents' anticipated use of credit for such expenditures reflects this same lack of realism as well as the reluctance to rely on credit that was revealed in the study of their attitudes toward credit. Only 9 percent of the 148 families who expected major medical expenses in the next 5 years said that they would use credit to meet these expenses, whereas 13 percent of the 307 families who had had such expenses in the past said they had used credit for major medical expenses. For each of the large expenditure items except "care of relatives" the percentage of families expecting to use credit in the future was lower (in many cases, much lower) than the percentage who had used it for these purposes in the past.

In the Iowa-Missouri credit study, the number of families reporting the use of consumer credit for the payment of doctors' bills was second only to that of families using such credit for the purchase of automobiles.

Indiana's and Nebraska's summaries of information about resources that would be used to meet emergencies show the alternatives to credit that respondents in those states recognized. Replies in Indiana were interpreted and arranged as follows to indicate decreasing ability to meet emergencies: use cash, sell assets and pay from income or use insurance, use insurance only, borrow and do not know. The resources used and to be used by respondents in Nebraska in meeting most costly financial problems fell into groups that roughly paralleled Indiana's categories: savings, sell house in town, insurance, credit, inheritance, help from parents and government assistance.

The percentage of Nebraska families who had used credit for their most costly financial problems was higher for the first year of marriage (in which 63 percent of the 89 families relied on credit) than in any later period. The percentage expecting to use credit for problem situa-

tions in the next year or 5 years was lower than the percentage that had used it in any one of the preceding periods. The nature of the problems encountered and anticipated were no doubt partly responsible for these differences.

Some Nebraska respondents apparently thought of financial problems that could be met out of income rather than in one lump sum; that is, farm income was named by many families as the resource that had been used or would be used. Other respondents named increased farm operations, off-farm employment and reduced living costs as ways that had been or would be used.

Somewhat different results were obtained when Nebraska respondents were asked how they would meet "current problems" involving specified expenditures up to $100, $100-$250, $250-$500, $500-$1,000 and $1,000 and over. Replies to these questions were classified as: use ready cash, use savings, borrow from bank, credit union, personal loan company, relatives, farm credit association, sell livestock or grain and government bonds.

These groupings indicate the vital role played in financial security by savings and investments and also suggest the circumstances in which credit may serve as a protector of net worth. The alternative to borrowing may be the sale of assets. If the only assets available are producers' goods on which farm income depends, the cost of credit may be less than the reduction in income that would follow the sale of such assets. A family may have an investment program that makes the use of credit to meet an emergency less costly than the sale of securities. By using credit, families can rely on future income instead of on the sale of assets. The amount and kinds of assets families own will, of course, influence the credit they can obtain and its cost.

Assets

The regularly recurring needs that ordinarily can be met out of income were not the ones that claimed most attention in the regional study of financial security. The crucial tests of a family's security were thought of as the major expenditures, occurring irregularly and, in many cases, unpredictably. On what kind of resources do farm families normally rely to meet these unusual expenses?

The general term "resources" is used in this report to refer to all the means with which a family can meet its financial needs. If this broad interpretation is used, the non-material assets a family possesses are "resources." Frequently, however, "resources" is interpreted as meaning "computable wealth" in money and goods of all kinds or, more narrowly still, as sources of revenue. These latter definitions are more useful than the general one, perhaps, in a study of the resources farm families depend on in emergencies.

Some information about resources in this narrower sense of "computable wealth" can be deduced from past, present and future expenditures of farm families reported in some states. In addition, much information was obtained directly in answer to questions about assets, net worth, "facilities" and ways of meeting emergency expenditures.

Classification of assets

The items of wealth or claims to wealth that make up a family's assets can be classified in many ways. The state projects in which information was obtained about such items did not use identical groupings, but their general headings suggest three major classes. The first two groups, paralleling those used in the classification of expenditures, include: (1) producers' goods (satisfying family wants indirectly) and (2) consumers' goods (satisfying family wants directly).

Not all expenditures result in additions to a family's assets. But the durable goods for which past, present or contemplated spending was reported were essentially the same as those included in lists of assets about which information was obtained in all of the states (not all states individually obtained the same kinds of information about all the classes of assets). Producers' goods identified and valued among family assets included: farm land (including improvements) and buildings, machinery and equipment (variously classified, but including trucks and autos used on the farm), livestock, poultry and crops, feed, seed and supplies. Consumers' goods most commonly identified were household furnishings and equipment. In some projects, values were obtained for "personal items" and clothing. In a number of projects, respondents were asked which of many listed "facilities" the family owned. The suggested items ranged from central heating, plumbing and electricity (which might be thought of as reflected in the value of the farm house) to major appliances such as home freezers, power washers, automatic dryers, ironers and vacuum cleaners. Information about the possession of such items was used (1) in Indiana (project 907) in scoring families on socio-economic scales and (2) in Iowa and Missouri in deriving a consumer-possessions score used as an indicator of socio-economic status.

The relative importance of such facilities and major appliances among the assets of farm families was associated with the availability of consumer credit to finance the purchase of them. Ohio families, reporting which of nine appliances they had acquired since marriage, indicated whether they had received them as gifts or in exchange for cash or credit. Respondents in Kansas were asked whether they had used charge accounts or installment purchases or had borrowed from specified sources to obtain home furnishings or equipment or a family car. In the Iowa-Missouri study, information was obtained about the number of families who had used credit for specified appliances and facilities and about the sources of the credit used.

The leaders of the Iowa-Missouri project pointed out two situations in which the use of consumer credit, like that of production and real estate credit, might increase a family's assets: (1) if consumer credit made it possible for a family to take advantage of special sales and to get equipment at savings great enough to cover the costs

of borrowing and (2) if, in the purchase of consumption items, consumer credit were substituted for the family's funds or for production credit which thus would be freed to use in the farm business.

The third group of assets about which families in several states furnished information was identified as "savings and investments" and "liquid assets and investments." Under these or similar headings, interviewers in all of the states obtained estimates of the amounts of one or more of the following items among family assets: "cash reserves," checking accounts, savings accounts in banks and in savings and loan associations, shares in co-ops and in credit unions, postal savings, government bonds, other bonds and stocks, insurance, retirement annuities and accounts receivable. The financial records used in the Illinois project furnished similar information about the two families studied.

Assets in relation to aspects of financial security

This three-fold grouping of farm families' assets is based on the different roles played by assets in the four "aspects" of financial security suggested by the Executive Committee of NC-32. In one of these aspects— the building up of net worth— all three groups of assets are related to financial security: the value of diamond rings, silos and government bonds all are added together in estimates of total assets.

The consumers' goods listed in family assets, together with non-durable goods and services that are used up and so do not accumulate to be counted as part of net worth, satisfy family wants directly. They are an indication of the level of consumption the family maintains. Insofar as financial security is thought of as a family's ability to maintain an acceptable level of consumption, information about this group of assets is relevant.

Producers' goods, savings and investments are sources of income from which a family obtains the goods and services that satisfy its wants directly and also obtains additional productive assets of one or the other kind. The adequacy of "facilities to care for retirement, disability or loss of income," suggested as an aspect of financial security, depends on the amounts and kinds of such income-producing assets a family possesses, as well as on its claims on socially provided goods and services.

The other suggested aspect of financial security was the ability to meet financial emergencies or unusual expenses. This aspect was selected for special study in Kansas and Nebraska. Information about it was used by workers in Indiana (project 907) and Wisconsin (project 1014) as the basis for grouping families as secure and insecure. It was pointed out that emergencies and unusual expenditures were encountered in all stages of the family cycle, whereas building up net worth might concern chiefly the younger families and, providing for retirement, the older ones.

Information about unusual or emergency expenditures was obtained in all of the states and was reported in the discussion of family needs. A somewhat different organization of this information relates it to the ways in which the different groups of family resources are associated with financial security.

The first distinction is that between emergencies (or financial "problems" or "situations") that (1) call for large sums of money at a particular time and those that (2) can be met out of income. The data obtained suggest that financial problems involving large sums of money at a given time can be broken down further into:

(a) Those that are planned for or desired. This group corresponds to the "desired major expenditures" that included the purchase of farm land and equipment of all kinds and expensive consumer goods. Such purchases were identified with the achievement of family "goals" or objectives in many projects and ordinarily will be planned for. If a family has a sudden, unexpected opportunity to make such a major purchase, this opportunity may be thought of as an emergency— but a benign one.

(b) Those that are necessary because of undesired happenings. Findings in some studies suggest that these may result from (1) the destruction of specified resources or (2) other disasters, such as accidents or illnesses, involving large medical expenses and liability for damages. The necessity of giving major financial help to relatives (in a lump sum) probably belongs here.

The second distinction concerns continuing "financial problems" that are met out of income rather than by a large sum at any one time. These problems were suggested in several projects as resulting from:

(a) The death or disability of the farm operator or, to a lesser extent, other family members whose work or earnings contributed to the family income.

(b) The need to support aged parents or other relatives. A long illness or crippling accident for the farm operator was suggested as the most serious financial problem that families were likely to encounter, since it might involve both major medical expenditures (lump sums, perhaps, for surgery, as well as continuing expenses for hospitalization or treatment) and the loss of the family's main source of income.

Information about the resources farm families had used or planned to use in connection with unusual or emergency expenditures was obtained in Indiana (project 907), Kansas (1955, 1960) and Nebraska. Schedules used in Indiana and Kansas included almost identical lists of "emergency or unusual expenses," or "unusually heavy expenditures." Respondents in Indiana were asked only how they would pay for any of the expenditures expected in the next year or two. Those in Kansas (1955) were asked which of the expenditures their families had encountered since marriage and how they had met them, and which ones they were likely to meet in the next 5 or 10 years and how they planned to meet them. Nebraska families were not shown a list of possible heavy expenditures but were asked to name the financial problems that had been most expensive in specified periods of their married lives and to tell what resource was used to meet the problem. Then they were asked what resources they would use to meet the "most costly problem" they expected in the next year and next 5 years. In

addition, they were asked how they would meet a current financial problem involving specified amounts of expense.

Information from these three groups suggests the usefulness of credit as a protector of productive resources as well as the important part played by savings and investments in a family's ability to meet financial emergencies.

Insurance

Insurance, more than any of the other assets grouped as "savings and investments" is specifically intended to help families cope with financial emergencies. Most of the state studies produced information about the life insurance families had, and many studies produced information about insurance against a wide variety of disasters. The different information obtained and the ways in which it was analyzed reveal several ways in which life insurance was related to family plans for financial security.

The most important of these ways was the provision of an emergency fund and a source of future income for the farm family in case of death of the farm operator. One of the Illinois families whose financial records were analyzed carried large amounts of life insurance for this purpose. The protection this family obtained was a major part of their plan for achieving financial security. It complemented their objective of acquiring a farm large enough to furnish an adequate income. Life insurance seemed to play the part in their plans that freedom from debt played in the plans of the other Illinois family. This suggestion that being free from debt and carrying large amounts of life insurance are alternative means of achieving financial security receives support in Ohio's analysis of associations between the considerations that had influenced family financial decisions and certain family characteristics. Both the face value of insurance carried on the husband's life and the total payments on life insurance in 1958 were negatively correlated (at the 5-percent level of significance) with the rating of "get out and stay out of debt" as a consideration affecting financial decisions.

Interviewers in other states obtained information about the number of families that had any or specified amounts of life insurance, either on any member of the family or on specified members. The average face value of life insurance carried on husbands, wives and children was also found. The frequency with which the lives of wives and children were insured and the average amounts of their policies suggest that insurance was thought of as a means of covering medical and funeral expenses rather than as provision for income.

The amounts paid annually as premiums were found in several states. In Ohio's analysis, these amounts were used in calculations of the average life insurance protection per dollar of premiums paid by families. Differences in these averages reflected both differences in the ages at which the insured persons took out their policies and also the different ratios between the savings and protection that different kinds of policies furnished. Nebraska families provided additional information about the relative importance of savings and protection in their insurance programs. They specified the kind of life insurance policies they carried (term, whole life, limited payment, endowment). In Wisconsin, as well as in Nebraska, the use of permanent life insurance policies as a source of credit or way of building up liquid assets was studied.

Many financial emergencies result from the destruction or loss of resources because of theft, fire or sundry natural calamities. The ability of families to protect themselves has been greatly increased by development of institutions that provide a wide variety of insurance against loss of or damage to many kinds of assets from many different causes. How much use farm families were making of the protection thus available to them was studied, in more or less detail, in Indiana (project 907), Kansas, Michigan and Wisconsin. Respondents in all these states were asked if they had health insurance, variously described.

Kansas families (1955, 1960) were asked for detailed information about other kinds of insurance. The information requested covered 28 types of risks (automobile accidents involving damage to property or another car, hail damage to home and buildings, etc.). Then the families were asked if they had experienced losses from any of these risks since marriage. Their replies show that the prevalance of risk does not determine the number of families that carry insurance. The crops of 95 percent of the families had been damaged by drouth, and insects damaged crops of 72 percent of the families. Yet only 12 percent of the 527 families carried insurance against such losses. The reasons given most frequently for not carrying insurance were the high cost and the possibility of absorbing the costs of damage.

Families that had had losses from certain other risks were more likely than those without such experience to carry insurance against losses. This relationship was found among Kansas families in connection with automobile accidents involving damage to property or another car and fire damage to the farm home, farm buildings, household goods and crops.

Management

The intangible asset of management can make important contirbutions to many aspects of financial security. Several states obtained data on the extent to which families had developed plans to meet emergencies and for anticipated retirement. Forty-three percent of the Kansas families interviewed in 1955 said that they had made plans about what to do for financial support in the event of death of the husband; 41 percent, in the event of the death of the wife. Of the Kansas families interviewed in 1960, 54 percent said that they had made fairly definite plans to provide income in the event of the husband's death; 28 percent, in the event of the wife's death; 43 percent, in the event of permanent disability of the husband; and 20 percent, in the event of permanent disability of the wife.

Nebraska families also were asked how they planned to cope with the total disability of husband or wife. Their decisions to stay on the farm or sell or rent it were

related to the sources from which income could be obtained. Twenty-three of the 89 families interviewed named the wife's working in town as a source of income if the husband were completely disabled. The wife's qualifications for such work and the availability of jobs may contribute significantly to family security. Many families did not recognize the benefits available from social security; only five families named social security as one of their "solutions." In the case of disability of the wife, help with the work rather than income, appeared to be the center of concern.

The adequacy of facilities to care for retirement, together with provisions for disability or loss of income, is one of the aspects of financial security. The problem of retirement was recognized in several projects as involving the end or reduction of income from farm operations. Financial security after retirement would depend on other sources of income and would be influenced by the type of prior plans made by the family.

Indiana families (project 907) were asked which of six suggested sources of retirement income they planned to rely on for "old age security." Their replies were classified and arranged so as to reflect increasing security: (1) none, (2) social security only, (3) social security and ownership of land, (4) social security, ownership of land and other and (5) other investments. A significant association between this aspect of financial security and confidence in the family's ability to meet emergency expenses was indicated by a chi-square test. However, this indicator of provision for old age was not one of the factors that added significantly to the score in the multiple linear regression equation for indicating family financial security.

Families interviewed in Kansas in 1955 were asked about their plans for retirement. Only 17 percent had fairly definite plans, but the proportion increased with the age of the farm operator (5 percent of families whose heads were between 30 and 39 years of age; 55 percent of those whose heads were 70 years old or older). Twenty-two percent of all the respondents said that they would give up farm operation upon retirement. Estimates of monthly cash incomes needed after retirement averaged $220 and were lower for family heads who were over 60 than for younger ones. The 200 Kansas families interviewed in 1960 were asked what provision was made for retirement: 75 percent named social security; 32 percent, investment and savings; 18 percent, insurance; 18 percent, pension and retirement plans; 10 percent, none. They estimated needed retirement income to be $200 per month.

Interviewers in Wisconsin obtained information about plans for disposition of property and for support after retirement. About one-third of the families interviewed had made no plans for future ownership of the farm; about one-sixth had made no will. Provisions for their own support included insurance of various types, savings, subsistence agreements with children, etc. About two-fifths of the families said they had savings or income-yielding investments other than farms.

The leaders in all projects recognized the part played by management in programs for financial security, in day-by-day planning and evaluating as well as in coping with emergencies. In Illinois, the basic principles of financial planning were stated. The purpose of the analysis, however, was to see how family goals influenced financial management. The report emphasized the different kinds of management that had enabled families to achieve their goals.

Michigan investigated the factors related to making satisfactory financial decisions. The assumption was that, since everyone is faced with decisions regarding the use of resources, information about factors that contribute to financial decision-making would help families achieve financial goals.

Interviewers obtained information about (1) why decisions had to be made, (2) the persons and other sources of information families consulted, (3) which source was most influential, (4) the adequacy of facts before decisions were made, (5) the consideration given to risks associated with the decisions, (6) alternatives open, (7) the amounts of discussion and (8) the time involved in reaching the decision. Some of these aspects of decision-making were associated with one or more of the characteristics by which families were classified, which included: age of husband, education of husband and wife, size of family, tenure status, net worth and community participation. Because only 18 families furnished information about financial decisions that they regarded as unsatisfactory, it was not possible to make conclusive comparisons between the ways in which the decisions were reached.

"Keeping useful financial records" was one of the management procedures named by Ohio respondents as influencing their financial accomplishments. Information about this practice also was obtained from respondents in Kansas (1955). Household accounts were kept by 51 percent of the 527 families. Wives kept the books in two-thirds of the account-keeping families; husbands, in one-third; and sons or daughters, in five families (in four of these the husband was over 60 years of age). Farm accounts were more common and were kept by 87 percent of the families. Husbands kept the records for 53 percent; wives, for 45 percent; and children or professional accountants, for 2 percent.

In Nebraska, "knowledge and practice of money management principles to reduce living costs" was one of the six "possessed resources" investigated. The practices included canning food, planning shopping list, buying foods in season, altering clothes, buying pre-shrunk colorfast clothes, using public health services (chest X-ray, polio shots, small pox vaccinations, etc.), attending public concerts and community classes and making use of libraries.

There was wide variation among families in attitudes toward the practices and in following them. There was no consistent relationship between either beliefs or practices and age of head, net income or farm tenure. For most practices, the number of families believing in them (as reducers of costs) was higher than the number following them. For instance, 66 percent of the respondents thought

making curtains was a way to reduce costs of home furnishings, but only 16 percent said they always made them, and 38 percent said they sometimes made curtains. However, there were exceptions. Apparently, some families followed some of the practices (like avoiding frequent or prolonged opening of refrigerators) even though they did not think the practices would reduce costs. A few respondents believed that most of these allegedly cost-reducing practices increased costs.

Questions about beliefs in and use of money-management principles to reduce costs of insurance, taxes and credit also revealed wide variations among families. Most striking, perhaps, was the failure of many respondents to answer some of the questions about insurance practices. More families practiced than believed in some of the principles commonly thought to reduce insurance costs.

The last management area studied was general money management or "better buymanship." The relationships between belief in and practice of these principles were roughly similar to those between belief in and practice of cost-reducing principles. Most families practiced the better buymanship principles in the manner commonly believed to contribute to good money management, but there were differences among the principles in the number of families by whom they were accepted and practiced and in the ratio between practice and acceptance.

METHODS USED

Anyone interested in details of the research methods used in these studies of financial security should consult publications and project leaders from the individual agricultural experiment stations. This section summarizes the methods in general terms, with emphasis on the alternative procedures that were open to project leaders and the considerations that influenced the leaders' choices.

Interstate Cooperation

In only one of the studies under the regional plan did more than one state take part. Workers in Iowa and Missouri cooperated in their investigation of the use of credit resources by farm families in the two states. A probability sample was drawn from both states. Leaders prepared a common schedule, used the same interviewers, had schedules edited by one person to insure uniform interpretation of the data and prepared a single report of the findings. The cooperative work was appropriate and feasible because:

1. Workers in both states were interested in investigating the use of credit by farm families and agreed on the general method of investigation.
2. Counties in south-central Iowa and north-central Missouri have similar social, economic and demographic characteristics.
3. The relatively short distance between the two experiment stations meant that conferences of project leaders were not excessively costly in terms of time or money.

Iowa and Missouri leaders were satisfied that they had achieved better results through the cooperative use of personnel and funds available than they could have obtained independently.

Obtaining Information

All the investigations had one common characteristic: They involved the analysis and interpretation of information—some of it, at least, concerned with financial matters—obtained from families that included both husband and wife and that lived on and operated farms.[3] In many other respects the studies varied widely.

Case study of farm and family accounts

Differing from other projects most markedly was the "Longitudinal study of how farm families obtain financial security" that the Illinois Agricultural Experiment Station contributed to the regional project. This was the only state project in which the chief sources of information were not interviews. Workers in Illinois had a special resource—a collection of farm and household accounts kept by Illinois farm families for considerable numbers of years. The project leaders believed that they could make their greatest contribution to the regional investigation by analyzing and interpreting these accounts to obtain insights into the interrelated decisions concerning the farm and family and to discover the real security problems.

To take full advantage of the wealth of information furnished by each family, Illinois workers concentrated on two families who were in similar situations in 1933, kept records from then until 1956 without interruption and believed in 1956 that they had achieved their chief family objectives. It was believed that such a detailed case study, supplemented by comparisons with group averages from farm and family accounts covering the same 23 years, would point up variations in family financial procedures that might be obscured by the use of averages.

Surveys

This intensive study of records extending into the past was peculiar to Illinois. In other states, the information was obtained specifically for the current project by interviews with farm families; respondents were asked questions from a prepared schedule, and answers were recorded by the interviewer. The number of families interviewed and the way in which families were selected varied widely.

Selecting families

Certain projects were essentially pilot or exploratory studies directed toward testing different methods of obtaining and analyzing data, discovering relationships and laying foundations for later studies. It seemed appropriate to the leaders of several such projects to interview relatively small numbers of families known to possess characteristics that were thought related to the purposes of the investigation.

Thus, the directors of the Indiana study of factors affecting farm family goals believed that the stage in the family life cycle was one of the most important characteristics. Seventy farm families were selected for interview —

[3] Some nonfarm households were interviewed in the 1960 surveys in Kansas, Iowa and Missouri.

20 families with at least one child in the "preschool or accumulative" stage, 25 with at least one child in grade school and 25 with at least one child in high school. The investigation was described as "essentially a case study of a group of selected farm families," and listed among its purposes were the development of methods by which relationships between family characteristics and family goals could be measured. The investigators recognized that the findings applied only to the group from which the data were obtained and suggested that "further studies, using representative groups of farm families" would yield information with wider application and that would "be more dependable for predicting the goals of groups of families similar to those studied" (9, p.2).

In four other projects, the families to be interviewed were selected in much the same way as was used in Indiana. In each case, the families were chosen so that they all possessed characteristics thought to have special significance for the study. The eight criteria used in selecting families in Michigan were expected to insure that the people interviewed would be well established and at a stage in the family cycle when expenses would be heavy. To obtain a total of 100 families who met these criteria, workers investigated all families in more than 400 sections of two counties in central Michigan. Information about eligibility was obtained from community leaders, county home demonstration agents or by house-to-house canvassing.

In Nebraska, farm families in a low-income area of the state were studied. To investigate the relationship of age to various financial practices, families were included in which the husbands were in one of three age groups. This stratification was accomplished economically by the use of data from a 25-percent random sample of rural families in Sherman County, drawn for a study by the College of Agriculture of the University of Nebraska, aided by a grant from Resources for the Future, Inc. Using data obtained from the 201 families included in the 25-percent sample, project leaders identified 120 families in which the husbands were in the desired age groups (40 husbands between 30 and 39 years of age; 40 between 40 and 49; and 40 between 50 and 59 years of age). Of these 120 families, 89 met the other criteria of eligibility and were willing to participate in the study.

The studies contributed by the Ohio Agricultural Experiment Station involved the use of information drawn from groups of families selected in somewhat similar ways. Hillman, in her "Study of income and money disbursements of beginning farm families in terms of inter-farm-household operation and management, family satisfactions and future plans" (Hatch 163), selected seven townships at random from each of three counties that had been selected at random from Economic Area 3 of Ohio.[4] The names of all farm families within each of the selected townships were obtained from county assessors' records, Soil Conservation Service maps, census enumerators, the Extension Service, Farmers Home Administration records, and from other local and private agency records. From the total farm families residing in these townships, those who qualified by age (neither spouse more than 35 years old), length of marriage and type of farming operation (farms of sufficient size and productivity to afford returns above those recorded as average farm income for the state as a whole) were selected. From this group, 150 young farm families were selected at random. Interviews were held with both husbands and wives in 106 of these 150 families during 1956 and early in 1957.

In the second contributing project from Ohio, which emphasized the relation of family and financial characteristics to economic progress since marriage, information was obtained from families with comparable agricultural situations. On the advice of agricultural economists and extension agents, an area in Union, Marion and Delaware counties was selected. Local rural directories furnished some information about the farm families in this area, and door-to-door contacts with local residents furnished the rest. A total of 206 couples were identified who were eligible for the study because their current marriages had been in effect for 10 to 39 years inclusive and because, for the year 1958, the husbands operated farms of 120 to 500 acres, owned at least 80 acres and were not employed in off-farm work for more than 99 days.

Exactly half of these eligible families cooperated in the project. The wives in 89 families in which there were children voluntarily took part in an additional interview about family goals. It was recognized that the eligible families were not typical of all farm families in the area, but limited resources for research meant that the group interviewed had to be rather small, and a selected group of the sort chosen seemed preferable to any other that could have been obtained with the funds available.

In the six studies just reviewed, the groups of farm families interviewed were selected so that all families possessed certain characteristics pertinent to the purpose of the investigation. It was recognized that those interviewed were not necessarily representative of any larger group. Information obtained, however, could furnish insights into the problems being investigated; it could indicate relationships and suggest possibilities for further study. It was not a reliable basis for generalizations about farm families and their financial practices and problems.

In the other four studies, the families interviewed were selected by various types of "random procedure" to represent a larger group. Despite this basic similarity, there was considerable variation among the four projects.

The Wisconsin study (project 1014) of financial security of the aged rural farm population was concerned with farm families in a particular age group. In this respect it was similar to the studies of selected groups just considered. However, it was intended that the households chosen for interview should be representative of all households containing persons 65 years of age or older in parts of three counties. These counties were selected because they represented contrasting economic characteristics. Sample areas calculated to yield a 25-percent sample of aged rural farm people, were laid out in 26 of the 56 townships within these three counties.

[4] The findings from this study were not available for summary in the regional bulletin.

All the rural farm persons within the specified age group in the sample areas were interviewed if possible. Usable schedules were obtained from 145 families containing 208 men and women 65 years of age and older.

The farm families who furnished information for the other three projects did not have to conform to any specifications as to age, stage of family cycle or size of farm operated. Leaders of these projects specified only that the families interviewed include husband and wife and be farm operators. Two of the projects added precision to the definition of farm operator by requiring that the families interviewed must have obtained from farming a major portion of their income (Indiana) or at least half of their cash income (Iowa-Missouri). The Iowa-Missouri plan required further that the couple must have been married at least 1 year and must have operated a farm of more than 30 acres the previous year. These conditions were specified because information about credit transactions during the previous year was an important part of the data to be obtained.

The Kansas 1955 study used a stratified random sample of the farm-operator families in the state. Three rural counties were chosen at random from each of the 10 economic areas in Kansas recognized by the agricultural census. Within each county, three rural townships were chosen at random. Approximately 10 farm families from each of the 90 townships were chosen. In this way 850 farm families were identified, of whom 527 were interviewed. An analysis of available data about the families not interviewed revealed no serious bias. A random sample of Kansas rural families was used for the 1960 interviews. Approximately half of the 200 families interviewed were rural-farm.

In the Indiana study of advancement of rural family security through use of family resources, methods somewhat similar to those employed in Kansas were used to identify 1,044 farm families from eight of the nine counties in central Indiana that were largely in "type of farming area 5a" (the ninth county, Tipton, was used for the earlier pilot study). A total of 401 schedules were completed.

The 19 counties in south-central Iowa and the 40 counties in north-central Missouri from which data were obtained for the cooperative study of the use of credit by farm families constitute "Economic Subregion 71." (This area coincides with Agricultural Census areas 3a and 3b in Iowa and, 2a and 2b, in Missouri.) Interviews were held in 89 clusters of five households each, drawn at random from this area by the Statistical Laboratory at Iowa State University. More than half of the households were ineligible, and it was impossible to complete schedules for another 29 of the indicated households. Usable schedules were obtained for 203 households.

Thus, in the 12 projects, more than 6,000 families were identified, and about one-third of them met the eligibility requirements of the state projects and consented to furnish information.

Collecting data

Once they had identified the families to be interviewed, workers in the 11 projects (all except Illinois' longitudinal study) used roughly similar methods to obtain information. They relied primarily on the recorded answers of respondents to questions put to them from carefully planned interview schedules. This information was supplemented in most surveys by direct observation by the interviewers.

Interviews

Interviewers in all states questioned both husbands and wives. Some saw husbands and wives simultaneously, asking them to furnish information jointly about the same topics. Others saw husbands and wives separately; in some instances, asking them different questions; in others, asking the same questions to which, however, they wished to obtain independent answers. In some projects, couples were interviewed together for some of the questions and separately for the others.

A preliminary contact was made before the interview to insure the family's cooperation. Thus, families selected for interview in Kansas received personal letters giving the purpose of the study, the name of the interviewer and the approximate dates they might expect her to call. In states where such letters were not sent, project leaders recognized the importance of having interviewers introduce themselves, explain the purpose of the interview and the reasons that the particular family, and not a neighbor, was chosen, and assure the persons interviewed that none of the information furnished would be turned over to other interested parties— such as tax authorities!

Kinds of information obtained

Two types of questions were asked in the interviews. One dealt with matters of fact and, the other, with attitudes. In the first group, some questions produced exact information, and others yielded only estimates.

Resulting in precise answers were such questions as: How old are you? How many acres do you farm? Have you always lived on this farm? A comparison of the information obtained in response to this kind of question in the several states makes it clear that interviewers must present even such apparently straightforward questions with care if the information is to be comparable and thus combinable. For instance, it is necessary to specify whether questions about children in the family refer to (1) the number now living at home (and that phrase needs to be defined, also), (2) the total number of living children, regardless of where they live and (3) the number of children ever born to the couple being interviewed— or to either spouse in any marriage. Examples of possible ambiguity could be given almost without limit.

The purpose of the inquiry will influence the choice of definitions, but recognition of the possible alternatives and of the desirability of comparisons of findings with those from other investigations will contribute to the soundness of the choice.

Other questions in the first group, to which there was only one correct reply, were such that the usual respondents could answer only with a more or less accurate

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estimate. Many of these questions related to past happenings. For example, how much did you spend last week, last month and last year for food, clothing and an automobile? How much did you owe for consumers' goods a year ago? What incomes did you have the year you were married and in 1958?

Among the questions to which there was, theoretically, one correct answer were some involving so much judgment and interpretation that it was practically impossible to estimate the correctness of the replies and consequently dangerous to compare or combine information from different families. For instance, "Has your family seriously considered changing to an occupation other than farming?" (How did the respondent interpret "family" or "seriously"?) "Does the breadwinner have other abilities or skills that could be used for earning power?" With questions of this kind, the skill of an interviewer can contribute much to the comparability (if not the "accuracy") of information obtained from many different respondents.

The second broad category of questions included those concerned with attitudes, beliefs, opinions and expectations. For instance: "Do you believe planned shopping saves money?" "How do you feel about the cost of things you buy?" "About what monthly income would you need to live as you would like your family to live?" Information obtained in reply to questions of this sort is fundamentally different from that obtained in answer to questions of fact. It is essentially subjective rather than objective. There is no external measure of the "accuracy" of answers.

Many of the subjective questions asked in connection with these studies had to do with family plans, objectives and goals. Schedules of seven of the projects had sections devoted to this general subject. The different methods used to obtain this information reflect the ways in which project leaders wanted to use the information and also illustrate the range of possible methods.

Interviewers working on two of the projects (Indiana project 792 and Michigan) asked for open-end answers, to be recorded on the schedule verbatim, together with comments. Families were asked, "What are some of the things you still want to do? . . . Which of these is most important? . . . What are some of the family's goals?"

In contrast, the schedule for Indiana's later study (907) offered respondents some guidance. Respondents were told that the interviewers would like to know about the plans and ambitions for the families and their farms. Then groups of "goals" for family and farm were listed: education for children (grade school, high school, college, special training), other ambitions for children, farm goals, retirement or old age. Respondents were asked which of these plans or ambitions they had (or what others, not suggested) and how they felt about their ability to meet the costs involved.

Still more guidance was furnished in schedules used in other states. Interviewers for the Iowa-Missouri survey had cards on which were typed 14 "goals." These were laid out in random order before the respondent, with each item read aloud as put down. Then, respondents were asked (1) to describe any special goals of their families that were not included in the 14 suggested, (2) to select four of the 14 that the family was working especially hard to accomplish and (3) to select another four to which the family was also giving special attention.

The Kansas schedule listed 11 "heavy expenditures," and respondents were asked which it was likely that the families would need to meet in the next 5 or 10 years and how they planned to meet such expenses. Several of these "heavy expenditures" were items listed as "ambitions" or "goals" in other schedules.

One of the objectives in Ohio's study was the correlation of the "goals" that had influenced financial management over the years with many family and financial characteristics. Thus, it was necessary to assign numerical values to the "goals." Eleven statements of consideration that might have influenced families' financial management were developed. Each statement was paired with all others, and the wives who cooperated in this part of the interview were asked to indicate which statement in each of the resulting 55 pairs had had the greater effect on what the family had done financially during the years since marriage. A numerical value for each "goal," which could vary between zero and 10, was thus obtained and was used in the correlation analysis.

The answers to these questions reveal the expectations, objectives or goals of farm families. Any comparison of findings must take account of the different ways in which the information was obtained.

Analyzing the Data

The reports of findings from the several states reveal a variety of methods of summarizing and analyzing the information obtained. Variations in methods of analysis make combinations of the data impossible, misleading or meaningless. These differences resulted from a wide diversity of purposes behind the state projects, but the attendant disadvantages as well as the advantages should be recognized.

Certain basic ways of handling the data were used in most, if not all, states.

Description

In many of the studies, a first step in summarizing the data was description of the families interviewed, the farms operated and certain financial characteristics of the household. Workers used mean, median and modal value, range and distribution of such basic characterisitcs as age of the husband or wife, number of years married, years of schooling completed, number of children (or size of family), stage in the family cycle, number of acres owned (or operated), tenure arrangements under which the farm was held, current net worth and gross or net income.

Measurement of associations

A second step in the analysis of data was the discovery and measurement of associations between variables. There were differences among the projects in the characteristics between which investigators chose to explore relationships

and in the ways in which they were measured and reported.

The associations studied

The three characteristics of the family or farm that were most often used in simple descriptions of the groups interviewed were: the age of the husband, the stage reached in the family cycle and the system of tenure under which the farm was operated. These characteristics were used in all projects as bases for classifying the families and studying relationships with a wide variety of other features. In addition, eight other characteristics were commonly used for description and were also used in many of the cross-classifications. These were: (1) net income, (2) net worth, (3) number of years of marriage, (4) age of wife, (5) education of husband, (6) education of wife, (7) gross income and (8) size of farm. These eight, plus the three basic characteristics, were used in more than 500 cross-classifications. Nearly 90 additional traits were involved in the hundreds of other cross-classifications presented in reports from the several projects.

In several of the states, just a few basic characteristics were used as independent variables, and their association with many independent variables was investigated. For the most part, these independent variables were among the 11 basic characteristics just listed. However, a few projects used others. Thus, in Ohio's report of the economic progress of farm families, the annual change in net worth since marriage was one of the independent variables used in nearly all tables (number of years since marriage was the other). The report of the Kansas project (1955) added the economic area in which the family lived to five of the commonly used general characteristics and used a unique life-cycle classification. The Michigan study of the decision-making process included participation in community activities among the seven bases for classifying other data, and Indiana's study of financial security used nine "financial management factors" and four "sociological factors," as well as several attitudes and beliefs, in addition to five of the basic characteristics.

Ways in which associations were measured

The associations between the many different attributes about which information was obtained and the dozen or so independent variables were analyzed and presented in several different ways. Mean or median values were found for many "quantifiable factors" when families were classified by one of the basic characteristics. Thus, the mean age of husband or wife, the mean number of years of schooling for one or both spouses, the mean amount of debt, the mean size of checking accounts and the mean values of many kinds of assets were found for families classified by tenure, age of husband or one or another of the other independent variables. The greatest reliance on median values was in reports of the Kansas study, in which medians were presented for the age of husband, age of wife, size of family, net worth, number of years of farming in Kansas, net income, income from farming and many other items for families classified by one of the six basic characteristics used in most of the Kansas tables.

Distribution, in terms of numbers, percentages, or both, also were used widely in reports of relationships. Thus, Michigan's report of the study of decision-making includes many tables in which the numbers and percentages of families following certain practices in connection with their decisions are shown for families classified by age of head, education of head, number of children in the family and so on. Every state report includes tables of this general kind.

A number of tables show the numbers or percentages of families in specified classes that had certain characteristics (the percentage of families grouped by age of head who owned certain kinds of assets) and also the mean or median value for that characteristic. Care must be taken in interpreting these tables. In some of them, the mean or median value is calculated for all families in the broad class; in others, for only those families in the class who possessed the specified characteristic. Thus, if a table shows that one-third of the families in which husbands were between 40 and 49 years of age had checking accounts, it is important to know whether the mean value reported for those checking accounts is the total value of all the accounts divided (a) by the total number of families with heads in that age group or (b) by the number of those families (only one-third of the total in the suggested instance) that actually had checking accounts. Either piece of information may be useful if it is clearly identified.

Correlations were used in two of the projects in the measurement of relationships between many pairs of attributes. Stubbs, working on Indiana's study of financial security, first divided the families interviewed into tenants and owners and selected 99 from each group whose answers to questions about their ability to meet emergency expenses appeared to identify them as clearly "financially secure" or "insecure." The 132 "secure" families were given a rank of *one* and, the 66 "insecure" families, a rank of *zero*. Correlation coefficients were found between financial security thus defined and each of 17 variables, for owners and tenants separately.

At a later stage in the analysis of the Indiana data, values of r were found for relationships between each of 11 variables and the "financial security" of the families interviewed. As in Stubbs' earlier analysis, the family's attitude toward its ability to meet emergency expenses was taken as the index of its financial security, but in this stage, all 401 families were identified as "secure," "insecure" or "uncertain."

Coefficients of partial and simple correlation were found between each of 23 "financial factors" and: (1) annual change in net worth since marriage and (2) number of years of marriage of Ohio families. Coefficients of correlation also were used to measure the relationships between these same factors, plus another nine (a total of 32 "financial factors"), and the ratings given to each of 11 family goals when wives were asked to

choose the more important goal in each of the 55 different pairs in which they could be combined.

Regression analysis was used in the Iowa-Missouri study to measure relationships between the amount of production credit used by each farm family (the dependent variable) and (1) the value of total assets in 1957 dollars, (2) the number of years the family had farmed and (3) the number of acres farmed.

Thus, mean and median values, distributions, coefficients or correlation and regression analyses all were used in one or another of the studies to measure and display relationships among variables. In some instances it was obvious that there was no important relationship between the variables studied. For instance, when the 527 families interviewed in the Kansas study were classified into five groups on the basis of net worth, the percentages of families having electricity were 97, 97, 97, 99 and 100, with an over-all percentage of 98. Other tables, however, suggested relationships between the variables being analyzed. Thus, in the Michigan study of decision-making, the percentage of families who said that they consulted "other sources" (in addition to persons) in arriving at their decisions, increased from 35 percent of families having heads who had only grade school training to 62 percent of those whose heads had high school training, to 87 percent of those whose heads had college training.

Tests of significance

Workers in several states used a variety of tests to determine whether such observed differences indicated statistically significant relationships. Stubbs, working with the Indiana data (project 907), used the t-test in estimates of the significance of differences between mean values found for some nine "financial management practices" when families were classified by "four basic factors" (stage in family life cycle, age of family head, net worth and income).

Chi-square analyses were used in several studies to test the significance of relationships suggested by differences in percentage distributions (like those in the Michigan study). Kundak in Indiana (project 907) and workers on the Iowa-Missouri and the Michigan projects discovered by this method which of many observed differences were greater than would be expected to occur by chance between groups selected at random from a single population. Either the 5-percent or the 10-percent level of significance was chosen as the basis for determining whether or not the null hypothesis should be abandoned.

Coefficients of correlation may be used, of course, as a basis, not only for showing the relationship between different variables, but also for determining at what level of probability any one of the relationships thus measured is significant. Stubbs (Indiana, project 907), recognizing the subjectiveness of the data and the difficulty of controlling all phases of the situation, suggested that coefficients above 0.70 might be thought of as indicating high correlation and a marked relationship and, those between 0.40 and 0.69, a moderate correlation and a substantial relationship.

Deacon (Ohio), in interpreting the results of two correlation analyses, calculated how large the coefficients of correlation had to be to indicate relationships that were significant at the 1-percent and the 5-percent level for data obtained from questions answered by all 103 families and for those from questions answered by at least 87 families (but not by 103). Iowa workers used Student's t-distribution to test the significance of coefficients of the partial regressions of three characteristics of the farm enterprise on the amount of production credit used.

The ways of handling data that have been described up to this point were common to several, if not all, state projects. There remain a few methods that were peculiar to some one of the studies.

Rating scale for goals

One of the purposes of Indiana's investigation of factors affecting farm family goals (project 792) was to develop a rating scale. With the help of the Statistical Department at Purdue University a 5-point scale was developed and used in an effort to quantify family goals and so to indicate their importance to the family. The rating scale made it possible to assign scores to groups of related goals and to study the relationships between these scores and specified family characteristics.

Multiple linear regression equations

The data obtained by Stubbs (Indiana, project 907) from 401 farm families were analyzed by more workers for more different (but related) purposes than those in any other project. Stubbs' interviews furnished the data for her doctoral dissertation. These same data later were used as the foundation for another doctoral dissertation (Kundak's) and for five master's theses (McHale's, Mottley's, Rupel's, Tzschoppe's and Young's).

Kundak calculated the correlations between "financial security" (defined in terms of a family's confidence that it could meet emergency expenses) and 11 family characteristics. Then she developed a multiple linear regression equation using the Wherry-Doolittle variable selection method. The family characteristic showing the highest correlation with "financial security" was taken first. Others were added to the regression equation as long as what they added to the combined r was a significant amount. Five variables were found to add significantly to the composite score and were used in the equation. The values of these five variables for each of the families studied were substituted in the resulting equation. Family scores for "fianancial security" were calculated in this way and compared with the ratings based on each family's confidence in its ability to meet emergency expenses.

Kundak's analysis is interesting as a demonstration of the method she chose for developing the equation. However, the nature of the data with which she had to work must be borne in mind in any evaluation of her results. It is possible that the appearance of precision that results from the use of this analysis may be inappropriate and even misleading because of the lack of precision in the original data.

Confidence intervals

The findings of many of the projects under NC-32 can be thought of as describing only the particular families who were interviewed. However, efforts were made in some of the states to select families for interview so that they would be representative of the "population" from which they were drawn. Methods used in drawing the area-probability sample from north-central Missouri and south-central Iowa achieved this result. This characteristic made it possible and appropriate to calculate confidence intervals for certain data, to find the limits within which values for the entire population (from which the sample was drawn) would be expected to fall for given levels of probability. Such confidence intervals were found for the percentages of the farm population that had credit outstanding at three points in time and for the mean amounts of debt.

Handling longitudinal data

In analyzing data about financial transactions that took place over many years, research workers must take account of changes in the general level of prices that occurred during the period involved. Comparisons of family assets at the time of marriage and 20 years later, for instance, may be misleading if values are reported in terms of the prices obtained in the 2 years and if the general price level has risen by 50 percent during the interval.

Although workers on two of the projects contributing to NC-32 used longitudinal data, only those responsible for Ohio's study of farm families' economic progress since marriage took account of changes in the general price level. In Illinois's study of how two farm families had worked toward financial security, emphasis was on comparisons between two families at given times, rather than on those between situations of the same family at different times. Comparisons were made between the cash outlays for savings and family living expenditures and the average savings and family living expenditures of a considerable number of other families who had kept accounts. However, the 22 years covered by the family records were divided into four periods (of from 3 to 9 years) on the basis of prevailing economic conditions, and, again, comparisons between families rather than between periods were stressed.

In contrast to the Illinois study, the Ohio project was concerned primarily with changes over periods of time. Project leaders wanted to analyze relationships between changes, since marriage, in the actual values of assets and various family and financial characteristics rather than relationships between changes in the *prices* of assets and those characteristics. To accomplish this, the totals for assets, debts and resulting net worth for the year of marriage were adjusted to 1958 dollar values by use of the index of wholesale prices of the Bureau of Labor Statistics. This index was used as the one most representative of the general movement of prices. It was recognized that the index did not represent with equal accuracy the changes in prices of all kinds of assets, but it was thought that the additional precision that might be obtained by the use of more complicated adjustments would not be great enough to balance the costs involved.

The Reporting of Findings

No research project can be thought of as successfully completed until its findings, appropriately analyzed and interpreted, have been made available to interested persons. Several different methods were used to publicize the results of projects contributing to NC-32. The major publications are listed in the Appendix, together with theses of graduate students associated with NC-32.

Technical or semitechnical bulletins summarized the projects carried on in Indiana (both 792 and 907), Michigan and Ohio (both 163 and 195) and the project carried on jointly by Iowa and Missouri. The Nebraska findings are available in a library manuscript. Popular bulletins reported one aspect of Indiana's study of financial security (project 907) and the information about clothing expenditures obtained in Ohio's project 163.

Journal articles were used rather frequently. The *Journal of Home Economics* was a commonly used medium. In its issues are reports of Illinois's, Kansas's and Wisconsin's studies. There also were published accounts of analyses of the data obtained in Indiana's project 907 by Kundak and Eifler and abstracts of several theses. The most complete account, to date, of Indiana's project 907 appeared in *Rural Sociology* in September 1961. Popular accounts of some of the findings have appeared in such state publications as *Iowa Farm Science, Kansas Agricultural Situation* and *Ohio Farm and Home Research.*

Project findings have been drawn on for presentation at conferences, workshops and hearings before congressional committees.

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APPENDIX

PUBLICATIONS AND THESES FROM STATE PROJECTS CONTRIBUTING TO NC-32

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