EQUITABILITY OF FARM LEASING SYSTEMS IN MICHIGAN

Thesis for the Degree of M. S.

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Loren Douglas Black

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This is to certify that the

thesis entitled

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Loren D. Black

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E. B. Hill
Major professor

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EQUITABILITY OF FARM LEASING SYSTEMS IN MICHIGAN

A THESIS

By

Loren Douglas Black

Submitted to the School of Graduate Studies of Michigan
State College of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Department of Agricultural Economics

1951

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The author, of course, assumes full responsibility for any errors that may be present in this manuscript.

Loren Douglas Black

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AN ABSTRACT

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AN ABSTRACT

Loren Douglas Black

Farm tenancy has become a permanent part of the agricultural economy of the United States. Because farm tenancy is important to American agriculture it is imperative that we have equitable lease agreements between landlords and tenants.

Due to custom, landlord and tenant divisions of expense contributions and income tends to remain fixed year after year despite the fact that price and cost relationships, and production varies from year to year and over a period of years. This results in many lease agreements that are not equitable.

It is the purpose of this study to test the equitability of farm leases for a one year period, and to test the equitability of the most common type of lease over a period of years.

It is reasoned that an equitable farm lease is one in which the expense contributions are divided in the same proportion as the gross income.

A "balance sheet" listing the division of investments, expense contributions and gross income was used to test the equitability of the lease agreement.

The 50-50 Crop and Livestock Share Lease was found to be the most important type of farm lease used in Michigan. Although adjustments in expense contributions need to be made on several farms with this type of lease, this lease is still the most satisfactory for

Michigan farming conditions. On the average the tenants were providing more than their proportionate share of the expense contributions. Gross income was divided approximately on a 50-50 basis.

The 50-50 Crop and Livestock Share Lease was found to be more equitable a decade ago than it is today. The major reason for this situation is that the tenant's machinery and labor costs have increased more rapidly than the costs of the landlords.

The Cash Farm Lease is second in importance in Michigan. The farms in this study with this type of lease were smaller and less productive than the average for all rented farms. Neither the landlord nor the tenant fared too well under this type of lease. Most of the farms were too small to have an adequate size of business to pay the landlord a fair return on his investment and give the tenant a satisfactory standard of living.

The Crop-Share Cash Farm Lease is of lesser importance in Michigan. It is adapted better to the cash crop areas where only a few livestock are kept. Only 8 percent of the farms in this study operated under this type of farm lease.

The Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Lease is not used very widely in Michigan. The landlords on farms with this type of lease were in a more favorable position than with some of the other type of leases. However, the landlord assumes a larger risk under this type of lease, therefore, it can be reasoned that the landlord should receive a larger proportion of the gross income.

In general, a large number of farm lease agreements in Michigan are not equitable. Some lease agreements are unfair to the landlord, and others are unfair to the tenant. Many of these leases need to be appraised and adjustments made in the expense contributions. Changing economic conditions and changing values requires adjustments from time to time in our farm leases to make them fair to both parties.

By the use of a "balance sheet" similar to the one used in the study, the approximate equitability of a farm lease can be determined.

A more detailed analysis of this study is provided in the thesis.

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EQUITABILITY OF FARM LEASING SYSTEMS IN MICHIGAN

By LOREN D. BLACK

CHAPTER I

INTRODUCTION

Farm tenancy plays an important part in the economy of American agriculture. It provides a means whereby a young farmer with insufficient capital can get started in farming. It allows a farmer to expand his size of business so as to operate more efficiently. It provides an effective means of helping to keep the farm within the family. It allows older farmers to retire and to pass their experiences and wisdom to younger farmers. To have a healthy situation in our agricultural economy probably as high as one-fourth of the farms in the United States can be tenant operated, if the so-called "agricultural ladder" is to operate efficiently.

Amount of and Trends in Farm Tenancy

In the past, the percentage of farms that was tenant operated has fluctuated to some extent with changes in economic conditions. For example, during the depression of the 1930's farm tenancy in the United States reached an all time high of 42 percent. When the business cycle swung upward during World War II, farm tenancy decreased and in 1945 averaged only 32 percent. The percentage of farm tenancy in the United States from 1890 to 1945 is shown in Figure I. The trend of farm tenancy in the United States has been upward until about 1935. Since this period the trend has been downward.

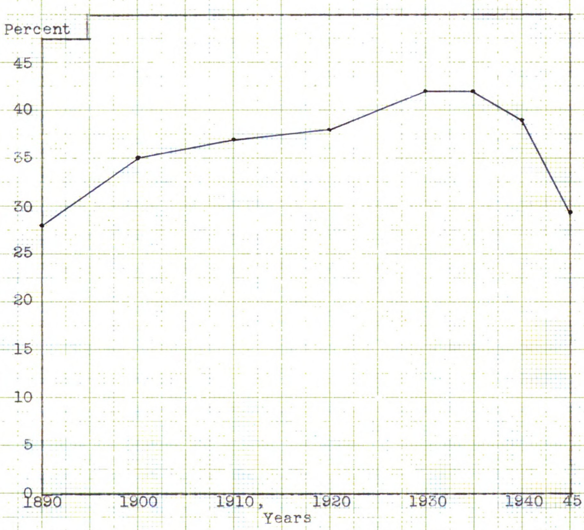


Figure 1 -- Farm tenancy in the United States from
1890 to 1945. (U.S. Census).

The proportion of farm tenancy varies widely between the different farming areas in the United States as shown in Figure 2. The southern states with their share-cropper system had the highest percentage of farm tenancy in 1945. The cash crop areas of the corn and wheat belts also show a relatively high rate of farm tenancy.

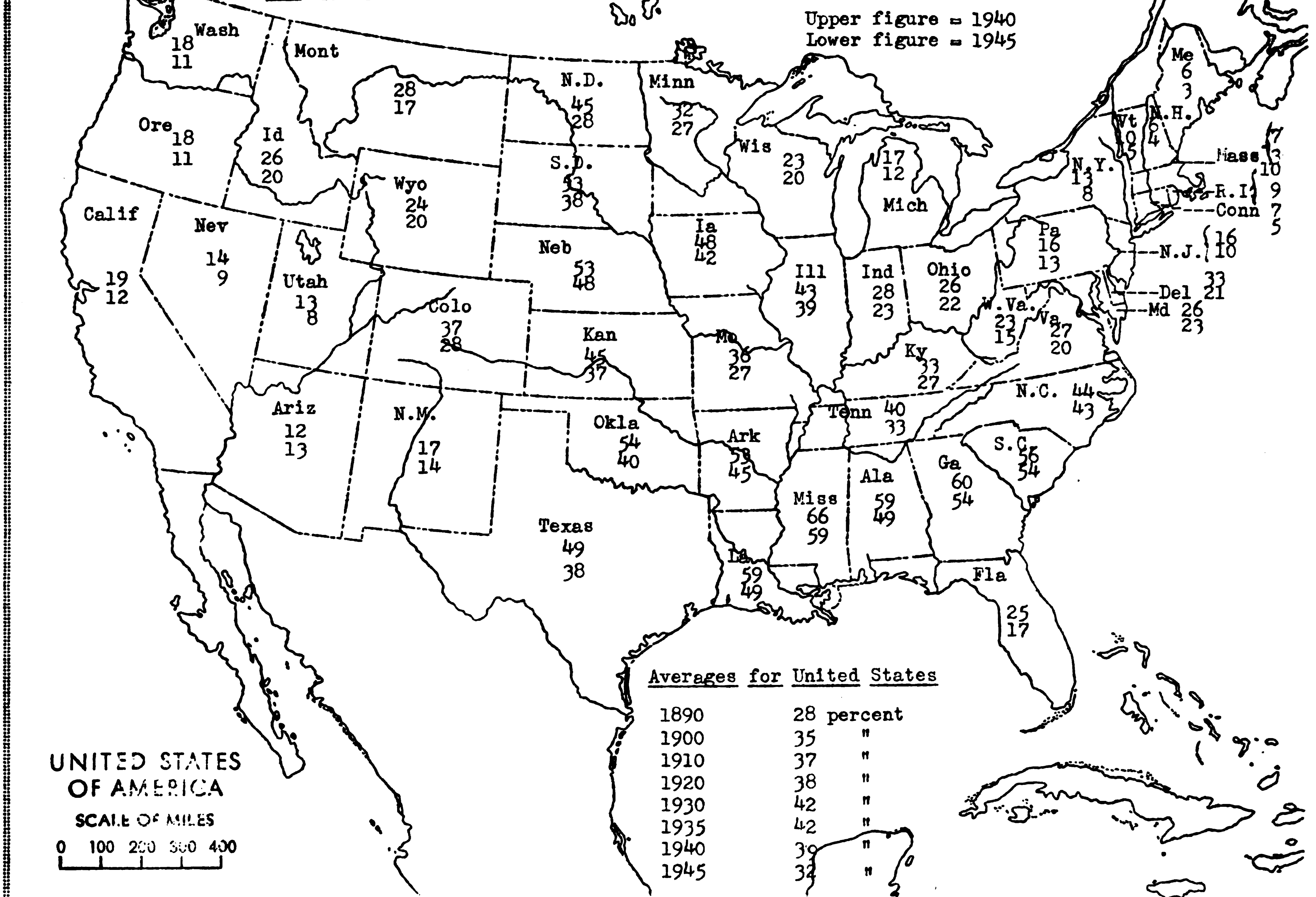
Farm tenancy in Michigan followed a similar trend as for the United States. The percentage of farms operated by tenants in Michigan has decreased from 19 percent in 1935 to 12 percent in 1945, as shown in Figure 3. However, in 1945 about 26 percent, or one acre in four, of all Michigan farm land was operated by "non-owners" (i. e. tenants and part owners).

The proportion of farm tenancy also varies with the type of farming areas in Michigan, as shown in Figure 4. Farm tenancy is highest in the more productive corn and livestock areas of southern Michigan.

Importance of Study

It seems reasonable to assume that farm tenancy is a permanent system in our agricultural economy, and for this reason it is important that we have equitable lease agreements. Farming is a business and no business can prosper unless everyone concerned makes a fair profit. A good lease must provide the landlord with a fair return on his investment plus the maintenance of the soil fertility and improvements. It must also provide the tenant an opportunity to put his labor and knowledge to good advantage so they will return him a satisfactory standard of living.

Fig. 2. TENANCY — PERCENT OF FARMS OPERATED BY TENANTS, 1940 and 1945



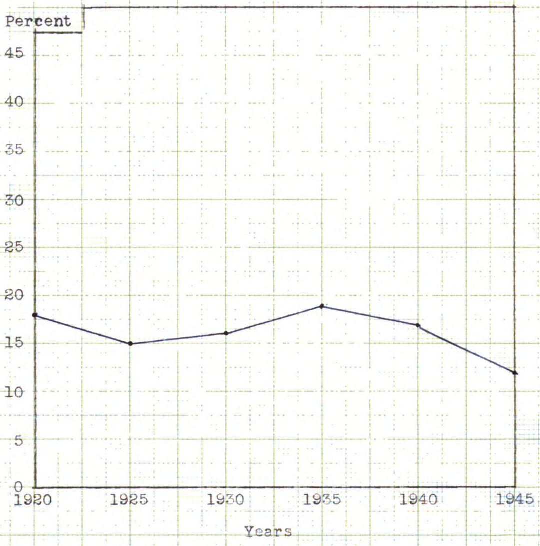
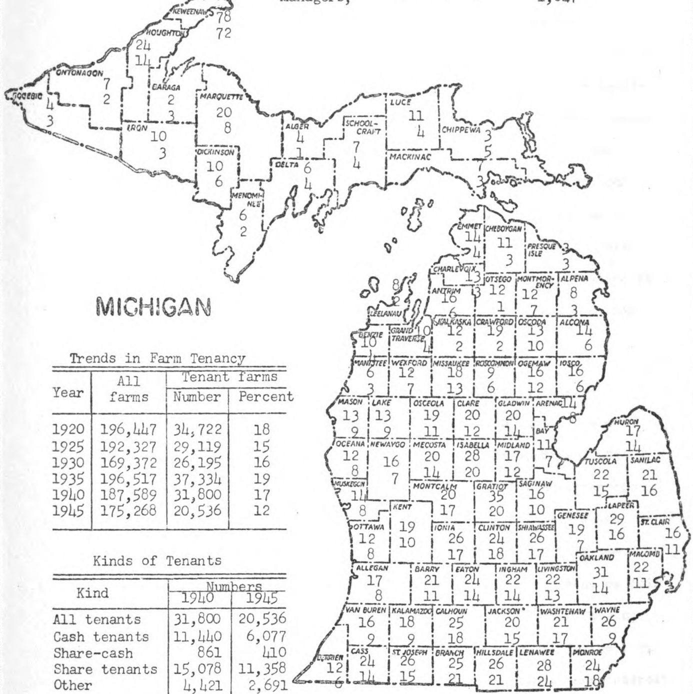


Figure 3 -- Farm tenancy in Michigan from 1920 to 1945. (U.S. Census).

Fig. 4 FARM TENANCY IN MICHIGAN

Full owners,	number in 1945	126,589
Part owners,	" " "	27,096
Tenants,	" " "	20,536
Managers,	" " "	1,047



Trends in Farm Tenancy

Year	All farms	Tenant farms	
		Number	Percent
1920	196,447	34,722	18
1925	192,327	29,119	15
1930	169,372	26,195	16
1935	196,517	37,334	19
1940	187,589	31,800	17
1945	175,268	20,536	12

Kinds of Tenants

Kind	Numbers	
	1940	1945
All tenants	31,800	20,536
Cash tenants	11,440	6,077
Share-cash	861	410
Share tenants	15,078	11,358
Other	4,421	2,691

Percentage of farms operated by tenants 1935, upper figure
Percentage of farms operated by tenants 1945, lower figure

Unsatisfactory Farm Leases

Landlord and tenant divisions of expense contributions and income tends to remain fixed year after year despite the fact that prices, costs and production vary from year to year and over a period of years. This results in lease arrangements that may not be equitable. Many dissatisfactions in farm tenancy has been a direct result of poorly planned and inequitable farm leases. Many of the farm leases are inadequate because they are based on custom and do not adjust to changes in economic conditions. Hence, we cannot expect desirable landlord-tenant relationships merely by using a standard farm lease without consideration of the value of the contributions of each party and of all other factors involved. Each farm represents a different situation and must be considered individually.

Technological Developments and Equitable Leases

Continually changing developments around which landlord and tenant relations are founded requires an up-to-date appraisal of these changes. Innovations in agriculture such as the adoption of mechanical power, combines, corn pickers, portable hay balers and field choppers require a substantially larger investment than was true in the past. The increased importance that is now placed on soil conservation, use of commercial fertilizer, liming, contour farming and other soil management practices presents new problems in the farm lease. Changing relationships with respect to labor costs and interest rates require adjustments from time to time.

Other factors such as increasing livestock numbers which require more buildings, equipment and labor saving devices; changes in farm real estate value, taxes, and the increasing costs of farm improvements and maintenance on a rented farm; higher standard of living on the farm such as better housing, electricity and bathrooms; changes in farming practices; and changes in the relative bargaining power of landlords and tenants are a few of the factors that must be considered in the appraisal of our lease agreements. Because the lease agreement is so important in our landlord and tenant relations it is important that we give careful study and consideration to the principles and factors that make the lease equitable to both landlord and tenant.

The Problem: To Determine Equitability in Farm Leases

In light of the situation as described in the introduction of this report an attempt will be made to (1) determine what constitutes a fair farm lease and (2) to test the equitability of the present farm leases now used in Michigan. Farm lease agreements will be tested on several farms during the same year and on a few farms over a period of years.

It is assumed in this study that the equitability of farm leases depends largely on (1) the managerial skill and efficiency of the tenant operator; (2) the productiveness of the soil; and (3) the adequacy of the farm and facilities provided by the landlord. A "balance sheet" showing a listing of both the landlord's and tenant's investments, expenses and income distribution will be used as a basis for testing the equitability of the farm lease agreements.

CHAPTER II

THEORY OF AN EQUITABLE FARM LEASE

A farm lease is a business agreement between landlord and tenant which serves as a memorandum of understanding between the two parties. It should contain the standard provisions of such legal agreements and state any special understanding between the landlord and tenant in regards to the operation of the farm. The landlord is the owner of a relatively large amount of capital in the form of land, buildings, fences, etc., while the tenant is a person with a more limited amount of capital but supposedly capable of providing the labor and "know-how" to efficiently operate the farm. The drawing up of the lease is essentially a bargaining process between the landlord and tenant in an attempt to arrive at an equitable division of farm income and contributions.

The landlord-tenant relationship is usually beneficial to both parties. The landlord possesses a relatively large amount of capital, which along with the tenant's labor, management and limited capital constitutes a producing unit.

Determining Equitability in Farm Leases

One of the objectives of a farm lease is to provide for an equitable division of the farm income and expense contributions between the landlord and tenant. An equitable division of income and expense contributions may be considered to mean a division in which the expenses are shared in the same proportion as the receipts.

There are two ways of securing equitability in a farm share lease. One is to assume a fixed division of income between landlord and tenant, and to adjust the division of expenses so they will be in the same proportion as the division of the income. For example, in a 50-50 Crop and Livestock Share Lease the income would be divided on a 50-50 basis and the expense contributions shared in the same proportion. The other method involves the division of the income in the same proportion as the expense contributions provided by each party. For example, in a 50-50 Crop and Livestock Share Lease if the expense contributions were divided 55 percent for the tenant and 45 percent for the landlord, the income would be divided on the same basis.

In either case, the assumption used in this study is that an equitable farm lease is one in which the landlord and tenant contribute to the farm operations in the same proportion as they share in the income. It seems that the most satisfactory method would be to hold the division of the income constant and to vary the proportion of expense contributions provided by the landlord and tenant, in the same proportion as the income received.

What is an equitable division of capital investments, expense contributions and income in a 50-50 Crop and Livestock Share Lease? The answer depends largely upon each individual case, because equitability will depend upon the terms of the agreement as a whole and the value of the contributions of both parties. It has been the custom in the past in leasing farms that the landlord furnishes the farm and all fixed improvements, while the tenant furnishes the major portion of the machinery, equipment, and labor to operate the farm. The tendency for this custom to carry over to present day conditions requires an appraisal of the contributions by landlord and tenant, to determine if the system of sharing expenses and income is an equitable arrangement to both parties.

On the same size of farm the landlord whose farm is worth $300 per acre, gives more when he contributes his farm than does the landlord whose farm is worth only $100 per acre. The type of farming must also be considered, because the tenant who operates a dairy farm usually contributes more in the way of labor than does the tenant on a corn or wheat farm. A dairy farm also requires a larger investment in building and equipment by the landlord. It is for this reason that rental agreements vary from one area to another where they have been influenced by the productivity of the land and the cost of operating the farm. These variations in income from farm to farm, even in the same community, makes custom an inadequate guide in developing a lease for an individual farm.

Method of Testing Equitability of the Farm Lease

The equitability of a particular farm lease can be tested by the use of a "balance sheet" on which is listed the division of expense contributions and income of both parties. Many of the expense contributions will be estimated items. Certain items such as the value of the farm, the operator's labor charge, the landlord's charge for management, the value of the personal property, and the interest rate are items upon which an estimated value must be placed. It is important that the value placed on these items be on a comparable basis, in so far as present values and prices are concerned, so as to be fair to both landlord and tenant.

If farm account records are available, certain cash expense items are already available. However, if farm account records are not available the estimates of cash expense contributions may not be accurate, but they still can serve to give some idea as to whether a proposed lease is equitable to both parties.

Major Contributions

The major contribution of the landlord is the land and fixed improvements. The valuation placed on the farm and the rate of interest to be used will be important factors in determining contributions of the landlord.

The tenant furnishes his own labor, plus that of his family upon which a value must be placed. In placing such an estimate on the operator's labor the question will arise as to whether the use of the house and products used from the farm should be included as income to the tenant. If the above are considered as income to the tenant, the tenant's wage allowance would have to be included at a corresponding higher rate. However, in most instances the wage rate for the tenant is based on the assumption that in addition he will receive his house rent, garden and other privileges without cost to him.

The interest rate on short term loans such as for purchase of livestock, machinery, feed and other operating capital is usually valued at about one percent more than the rate on long term loans such as for real estate.

By the use of the above method it is possible to quite accurately determine the total contributions of both the landlord and tenant. If the contributions are not equitable, adjustments can be made in certain of the expense items. For example, the landlord might pay more than his usual share of the cost of the commercial fertilizer, grass seed, and also make other contributions so as to make the contributions of each party more equitable. As was suggested earlier it seems more satisfactory to make the adjustments on the expense items and to hold the division of the income constant, rather than to divide the income on the basis of contributions by the landlord and tenant.

The above method of testing the equitability of farm leases is no better than the judgment of the people who make the estimates, however, it does provide one means of testing the approximate equitability of the farm lease. The real test of a farm lease however, is how it works out in actual practice after a year's trial. Does it divide expense contributions and income equitably? Does it provide for efficient and harmonious operation of the farm? Does it really work out to the satisfaction of both parties?

Agreements on Division of Expense Contributions

The landlord and tenant must reach an agreement on the division of some expense items. If the farm is run down and badly depleted when the tenant moves onto the farm, the landlord usually assumes the cost of lime to bring the farm up to a higher level of production. However, if a farm is highly productive it might be reasonable to assume that the tenant should contribute his share toward maintaining the soil productivity.

Usually the costs of most commercial fertilizer is shared by the landlord and tenant in proportion to the sharing of the crops. However, in certain instances the landlord may pay more than his proportionate share in order to make the sharing of expenses more equitable.

The sharing of the cost of tractor fuel between landlord and tenant presents certain problems. When the power was furnished by horses they were usually fed from undivided feed from the farm. The landlord furnished half of the feed even though the horses were owned by the tenant. It may now be reasonable to expect the landlord to contribute toward part of the expense of the tractor fuel to offset the saving on feed normally fed to horses. Most landlords under a 50-50 Crop and Livestock Lease do contribute half of the tractor fuel. A few landlords allow the tenants to keep maybe 100 hens to be fed from undivided feed from the farm, and the tenant then pays all the tractor fuel expense.

In some cases the tenant might make certain improvements on the farm. It might be reasoned that the costs of these improvements should be borne principally by the tenant when he is the one who gains from the improvement. For example, the tenant may build a brooder house, range shelters, hog houses, fences, etc. However, arrangements should be made so if the lease is terminated, the tenant will be compensated for unexhausted improvements furnished by the tenant.

With most of the farm leases the cash expense of improvements, such as repair and maintenance on building, fences, and drains, are borne largely by the landlord. However, in most situations the landlord provides the actual cost of the improvement while the tenant provides the labor to make such an improvement. For example, the landlord may provide the fencing material and the tenant would provide the labor to put it up.

Whatever agreements are made regarding the division of expense items should be clearly defined in the lease, and agreed upon by both landlord and tenant. The lease should always be in writing. It is easy to forget promises, and forgotten promises by either party may mean the termination of an otherwise mutually pleasant and profitable farm lease agreement.

Goal of Farm Lease

The goal of any farm rental agreement should be a successful and profitable farm operation, and a fair division of the income depending on the amount of contribution by each party. This often requires a certain amount of tolerance and "give and take" by both parties. Each party should be willing, at times at least, to go more than half way to make the farm operation a success.

CHAPTER III

PROCEDURE AND METHODS

Selection of Sample

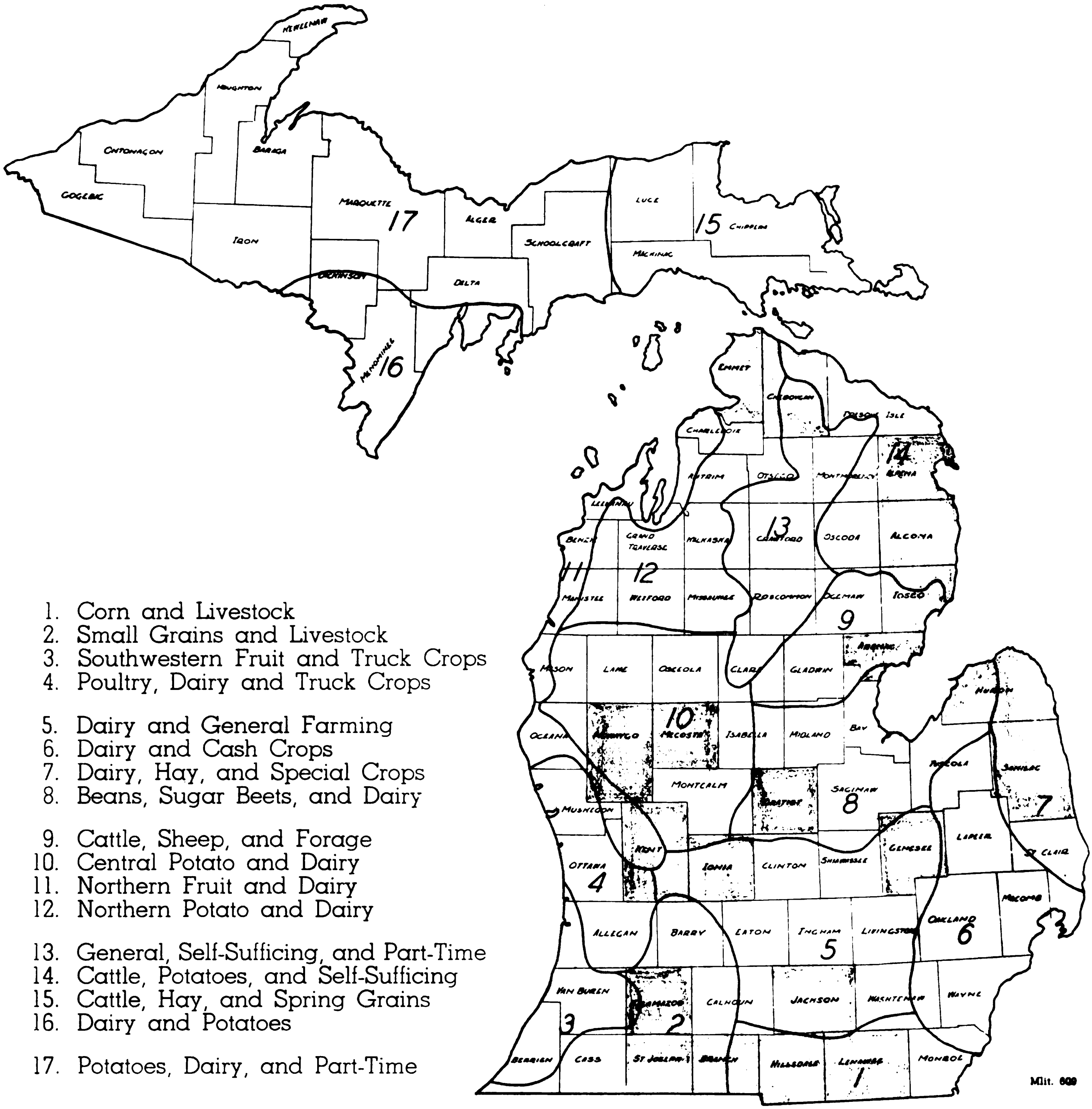
The sample used in this study was a combination of both random and judgment. The sample was random in so far as it was taken from the farm account records kept at Michigan State College with no particular effort to get a sample from any one type of farming area in Michigan. Forty eight farm accounts on rented farms were taken from the 1950 files. Through a process of elimination and judgment, records that were not complete or records on farms that were not fully rented were removed from the sample. For example, some farms were father and son arrangements in which the son was just getting started in farming and the father was furnishing a larger proportion of the expense contributions than would normally be done. It was assumed that these records were exceptions and not representative, so they were eliminated from the sample.

The final sample was composed of 37 fully rented farms located in 20 counties in Michigan. Approximately 50 percent of the cases in the sample were from the grain and livestock regions of the lower counties in Michigan where the percentage of farm tenancy is highest. The distribution of the sample can be seen on the map of Michigan in Figure 5.

Limitations of Sample

The limitations of the sample used in this study are fully realized. In the first place, the sample is small and may not be representative

Figure 5 Type of Farming Areas in Michigan



of all rented farms in Michigan. Usually the larger the sample the more representative it will be. Another limitation is that the material used was taken from farm account records. The general criticism of a sample taken from farm account records is that the sample tends to be made up of larger and more successful farms than the average for the universe. It is reasoned that only the better-than-average farmers are willing to keep farm account records. This means that we are not likely to include a representative portion of low-income farms.

However, for the purposes of this study the assumption is made that the sample will be representative enough to show whether or not farm leasing systems in Michigan are equitable. If the larger and more successful farmers do not have equitable lease agreements, it is not beyond the scope of reason to expect that similar inequities exist with the smaller and less successful farmers. This study could well be followed and supplemented by additional data to check the validity of the sample and the information taken from the farm account records.

Method of Testing Equitability of Farm Lease

The method of testing the equitability of farm lease agreements in this sample was by the use of a "balance sheet" showing the total contributions of capital, labor, cash expenses, and the division of farm income of both landlord and tenant. Records of investments, receipts and expenses were taken from the farm account records. Several estimated items appear on the balance sheet and every effort was made to place a fair and impartial value on the items estimated. Any estimate of this kind is always subject to the judgment of those that make the estimates.

The method of evaluating the equitability of a farm lease is illustrated by the balance sheet on Page 20 which is an actual record of a rented farm in a general farming area.

In the illustration, the value placed on the farm is $24,397. This value is based on the current farm real estate price index, which for 1950 was 199. All the real estate values in this sample were adjusted to current real estate price index values. The reason for this adjustment was that farms on which farm account records have been kept over a period of years, have not adjusted the real estate values to the current price level. In other words, in the farm account project a farm on which records have been kept since 1938 is still using the 1938 farm real estate value, plus or minus depreciation and improvements. Labor and other expense items have been adjusted upward with the inflationary spiral, so it only seems logical that the landlord's major contribution, which is his farm, should be adjusted to current real estate values.

Adjusting Real Estate Values

The method that was used to determine the current real estate values was as follows: First we determinedin what year farm account records were first kept on the farm. The next step was to get the ratio of the current farm real estate index and the farm real estate index for the year when the valuation was first placed on the farm. For example, if the valuation was first placed on the farm in 1938, the present valuation on the farm will vary only in the amount of the depreciation subtracted from, or improvement added to the farm. The farm account records may show the farm in 1950 valued at $12,000. The farm real estate index for 1938 was 92, while in 1950 the farm real estate index had in-

CHECKING ON INVESTMENTS, EXPENSES AND INCOME DISTRIBUTION IN FARM LEASES

Name John Doe   Year 1950

Type of Lease 50-50 Crop and Livestock Share Lease   Acres 220

INVESTMENTS	Values			Interest Rate	Int.chgs.for the yr.	
	Total	Tenant's	Landlord's		Tenant's	Landlord
Farm (inc. dwelling) . .	$ 24,397	$ --	$ 24,397	4½%	$ --	$ 1,098
Machinery and equipment.	3,050	3,050	--	5½	168	--
Livestock: Cows and bull	6,060	3,030	3,030	5½	167	167
Young cattle.						
Hogs	896	448	448	5½	25	25
Sheep						
Poultry . . .	39	19	19	5½	1	1
Feed	6,678	3,339	3,339	5½	184	184
Totals	41,120	9,886	31,233		545	1,475

OPERATING EXPENSES		Operating expenses for the year		
		Total	Tenant's	Landlord's
1. Management and labor:	Operator . 12 months . . .	$ 1,560	$ 1,560	
	Unpaid family labor . . .			
	Hired labor	566	566	$ - -
	Cash cost board, hired labor			
2. Management and services provided by the landlord.		240		240
3. Power and machinery:	Depreciation and maintenance	1,102	942	160
	Fuel and oil			
	Machine work hired	437	181	256
4. Improvements: Depreciation, repairs and upkeep and maintenance. Include dwelling and all other buildings; also fences, water supply and drains		699	--	699
5. Feed: Purchase and grinding and pasture rent . .		2,434	1,217	1,217
6. Crop expenses: Purchased seed, fertilizer, etc.		1,186	593	593
7. Livestock exp. (vet. bills, D.H.I.A., breed fees) .		226	113	113
8. Taxes: On real estate and farm personal property		266	18	248
9. Miscellaneous; telephone, electricity, dues, etc.		168	84	84
10. Totals:	Operating expenses, lines 1 to 9	$ 8,884	$ 5,274	$ 3,610
11.	Interest charges from invest. section .	$ 2,020	$ 545	$ 1,475
12. Total Contributions, lines 10 and 11.		$ 10,904	$ 5,819	$ 5,085

Name John Doe Year 1950

Type of Lease 50-50 Crop and Livestock Share Lease

INCOME ITEMS*	Income for the year				
	Total	Tenant's share		Landlord's share	
		Percent	Dollars	Percent	Dollars
1. Crops	$ 2,862	50 %	$ 1,431	50 %	$ 1,431
2.					
3.					
4. Dairy product sales	6,958	50	3,479	50	3,479
5. Cattle, net increase**	3,058	50	1,529	50	1,529
6. Hogs, net increase**	2,004	50	1,002	50	1,002
7. Sheep and wool net incr**					
8. Poultry, net increase**	14	50	7	50	7
9. Egg sales	22	50	11	50	11
10. Custom work	75	100	75	—	—
11. Labor off farm					
12. Woodlot products					
13. Others					
14. PMA payment	128	50	64	50	64
15. Total Income	$ 15,121	xxx	$ 7,598	xxx	$ 7,523
16. Income, percent. to each.	xxx	50	xxx	50	xxx

*Value of use of the farm dwelling and other perquisites received by the tenant were not added as a part of tenant's labor charge and thus are not entered as income to the tenant in this section.

**Net increase: To determine the net increase in cattle (1) add the cattle inventory value at the beginning of the year to the purchases of cattle during the year. Then, (2) add the cattle inventory value at the end of the year to the sales of cattle during the year. If the sum resulting from (2) exceeds the sum resulting from (1) the result is called a "net increase". It is really the gross income from cattle. Net increases for hogs, sheep and poultry are determined in the same manner.

creased to 199. 199 ÷ 92 = 2.16 x 100 = 216. In other words, the corrected farm real estate index for 1950 would be 216. The valuation on the farm has increased to 216 percent since 1938, or \$12,000 x 2.16 = \$25,920, the new adjusted valuation placed on the farm.

Interest Rate Used

The interest rate on the real estate is estimated at $4\frac{1}{2}$ percent, which is the contribution made by the landlord each year. This rate is based on the prevailing rate of interest for good farm mortgages.

An interest rate of $5\frac{1}{2}$ percent was used for the personal property. This rate was used because the rate of interest on money borrowed for operating capital usually costs about one percent more than long term capital.

Operator's Labor Charge

The operator's labor charge was estimated at a total of \$1,560. This is equivalent to \$130 per month for his labor and management. The tenant also receives his house rent, plus such produce which he uses from the farm free, along with other privileges as might be provided in the lease. It is reasoned that if a higher operator's labor charge were to be allowed we should then consider the value of the home grown farm produce used by the tenant's family and the house rent as income to the tenant. It does not make much difference which method is used.

Charge for Landlord's Services

It is also assumed that the landlord either hires a manager to look after his interest in the farm, or that he makes frequent visits to the farm to make settlements, maintain the real estate and to perform other functions necessary for efficient farm operation and maintenance. It is estimated that a charge of $20 per month, or $240 for the year would be reasonable for the management and services on the part of the landlord.

Division of Other Expenses

The other expenses were taken directly from the farm account books. In this particular illustration, the landlord paid for 50 percent of expense for tractor fuel and oil. He also paid the tenant for one-half the cost of combining, inasmuch as the tenants owns the combine. This then becomes income to the tenant and expense to the landlord. Other custom work hired was divided fifty-fifty between landlord and tenant. The landlord also paid for one-half the farm share for electricity and telephone.

Equitability of Farm Lease

In the example used, it is shown that the tenant's total expense contributions were about 53 percent of the farm total, while the landlord's total expense contributions were about 47 percent. When the total contributions of both landlord and tenant are as close to being equitable as in this illustration, only a minor adjustment would be required to make a 50-50 division of expenses. The landlord might pay more than 50 percent of the crop expense, if needed in order to attain an equal division of the total expenses. However, in some cases the proportion of expenses contributed by the tenant will be higher than they were in this illustration. Under such circumstances other adjustments must be made in the division of expense contributions to make the lease fair to both parties.

Limitations of Method Used

It is realized that this method of testing equitability of farm lease agreements and the attempt to balance the expense contributions, or to change the division of income between landlord and tenant, is not without error. The method is of no more value than the judgment of the people evaluating the contributions of the landlord and tenant. However, it does serve as an effective means of testing out leases to see if they are approximately equitable in the division of income and expenses.

CHAPTER IV

TYPES OF FARM LEASES USED IN MICHIGAN

The principle farm rental agreements used in Michigan are the share leases and the cash leases or a combination of the two. The share rental agreements includes the various crop and livestock share leases which are the most important and the most widely used in Michigan. The crop and livestock share leases are of three types as follows: (1) 50-50 Crop and Livestock Share Lease; (2) The Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Lease; (3) The Landlord's 1/3 - Tenant's 2/3 Crop and Livestock Share Lease. The usual provisions for these types of leases are found in Table 1A.

Another type of rental agreement is the Crop-Share Cash Farm Lease, which is a combination of the cash and share rental agreements. It is not as important and as widely used in Michigan as some of the other type of leases. The other rental agreement mentioned was the Cash Lease which is used on about 30 percent of the rented farms in Michigan. Each type of rental agreement will be discussed on the following pages.

TABLE 1 — Types of Leases on the 37 rented farms in Michigan, 1950 which were included in the study.

Type of Lease	Number of Farms	Percentage of Total
Cash	8	22
Crop-share cash	3	8
50-50 crop and livestock	22	59
Landlord's 2/3 crop and livestock	3	8
Landlord's 1/3 crop and livestock	1	3
Totals	37	100

Table 1A -- The following table shows the usual provisions of the most common crop and livestock share farm leases.

ITEMS	50-50 Lease		Landlord's 2/3		Landlord's 1/3	
	Landlord	Tenant	Landlord	Tenant	Landlord	Tenant
Investments						
Farm	All	0	All	0	All	0
Machinery	0	All	All	0	0	All
Milk house equipment*	Bargain	Bargain	All	0	Bargain	Bargain
Cattle, hogs & sheep	1/2	1/2	All	0	0	All
Poultry*	Bargain	Bargain	Bargain	Bargain	Bargain	Bargain
Feed	1/2	1/2	2/3	1/3	1/3	2/3
Expenses						
Labor	0	All	0	All	0	All
Tractor fuel and oil	Bargain†	Bargain†	All	0	0	All
Machinery expense and repairs	0	All	All	0	0	All
Electricity, farm share	1/2	1/2	All	0	0	All
Combining, baling, silo filling	1/2	1/2	All	0	0	All
Corn Picking	Bargain	Bargain	All	0	0	All
Crop expenses such as seed, fertilizer, etc.	1/2	1/2	2/3	1/3	1/3	2/3
Livestock expenses	1/2	1/2	All	0‡	0‡	All
Feed, feed grinding, pasture rent	1/2	1/2	2/3	1/3	1/3	2/3
Buildings, fences, tile drains Minor repairs	Material	Labor	Material	Labor	Material	Labor
Major repairs	All	0	All	0	All	0
Income						
Crops:						
Usual field crops	1/2	1/2	2/3	1/3	1/3	2/3
Cattle:						
Increase	1/2	1/2	2/3	1/3	1/3	2/3
Products	1/2	1/2	2/3	1/3	1/3	2/3
Poultry:						
If owned in common	1/2	1/2	2/3	1/3	1/3	2/3
If owned by tenant	0	All	0	All	0	All
Hog increase	1/2	1/2	2/3	1/3	1/3	2/3
Sheep increase and wool	1/2	1/2	2/3	1/3	1/3	2/3

*Such as milk cooler, water heater, washing tanks and can rack. In some instances the tenant is permitted to keep a specified number of hens and receive all the income from them.

†In most cases, however, tractor fuel and oil expense is paid one-half by each party.

‡Except that each party would pay for their share of breeding fees, and also for veterinary and medicine for young stock.

50-50 Crop and Livestock Share Lease

Importance of Lease: The 50-50 Crop and Livestock Share Lease is probably the most important and the most widely used of all the different leasing agreements in Michigan. Approximately 50 percent of all the rented farms in Michigan are operated under this type of lease. In this study, 59 percent of the farms were operated under this type of lease (Table 1).

Usual Provisions: With the usual provisions of the 50-50 Crop and Livestock Share Lease the landlord furnishes the farm plus one-half the livestock and possibly some equipment such as a mechanical milk cooler. He also pays all the taxes and insurance on the real estate. The tenant provides the labor, one-half the livestock, the machinery and most of the equipment needed to efficiently operate the farm. Management decisions are often shared equally. The lease also states the duties of the tenant as to weed control; labor for minor repairs to buildings, fences, and drains; etc. The operating expenses such as for custom work, and for feed, crop, livestock and miscellaneous expenses are usually divided on a 50-50 basis. The machinery expenses and repairs are paid by the tenant. However, the bargaining between landlord and tenant may make modifications in the contract, such as ownership of poultry, division of gas and oil expense, miscellaneous expense and others.

Modifications of Leases in this Study: In this study however, the actual averages showed that the tenants owned 61 percent of the poultry and received a similar share of the poultry income. The tenants also contributed 73 percent of the miscellaneous expense. However, the landlord provided 52 percent of the crop expense and 57 percent of the livestock expenses.

In some instances when the tenant owns all the poultry, and receives all the poultry income, he also provides all the tractor fuel and oil expense. For instance, in this study the tenants owned 61 percent of the poultry, and contributed 60 percent of the gas and oil expense.

Other modifications of the lease agreement can also be found depending on each individual situation and the bargaining between landlord and tenant. However, the income is usually divided on a 50-50 basis, with certain exceptions such as poultry income. Custom work and labor off farm income, if it is permitted in the lease, is usually retained by the tenant.

<u>Advantages of the 50-50 Lease</u>: The 50-50 Crop and Livestock Share Lease has many advantages to both landlord and tenant. To the landlord it provides an opportunity to share in the management and to help in deciding what enterprises shall be kept on the farm. He can often help to develop a system of farming which leads to greater income and maintenance of the soil fertility. The tenant has the advantage of assuming less risk than he would be required to do under some other lease arrangement, for the chances of a poor crop year and poor prices are shared equally with the landlord.

<u>Equitability of Lease</u>: The 50-50 Crop and Livestock Share Lease is probably the most workable and desirable type of lease. In most instances it is equitable and involves a closer working arrangement between the landlord and tenant. However, it should not be considered as a full partnership, and this provision should be clearly stated in the lease agreement.

Cash Farm Lease

Importance of Lease: The Cash Farm Lease is second in importance in Michigan farm rental agreements. Approximately 30 percent of the rented farms are rented on a cash basis. This percentage tends to be highest in the northern parts of the state, 50 to 100 percent, and lowest in most of the southern counties with 10 to 35 percent. In Wayne, Macomb, and Oakland counties, however, 60 to 80 percent of the tenants rent farms on a cash basis.1/

Farms in this Study: In general, in this study the farms that were rented on a cash lease basis were farms that were too small or where the landlord lacked sufficient capital to rent on a 50-50 basis. The average tillable acres on cash rent farms was 84 as compared to 141 for farms rented on a 50-50 basis. The farm capital resources of the landlord were also much smaller for cash rented farms than for farm rental on a 50-50 basis.

Effect on Soil Conservation: The cash lease is probably an important factor in soil conservation. In renting on a cash basis, the tenant pays a certain sum of money for the use of the farm and improvements. This type of lease contains more risk for the tenant, who guarantees the landlord a definite sum of money for the use of the farm, regardless of whether the profits from the farm will be sufficient to cover his operating expenses.

Under this system, the tenant assumes complete management and responsibility for the farm, and has the opportunity of working it as he

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1/ E. B. Hill, Farm and Field Rental Agreements. Michigan State College Cooperative Extension Service Folder F-156. 1951.

sees fit, unless certain rights are reserved by the landlord and written into the lease. Often what happens on many farms is that the tenant, faced with the problem of paying a lump sum rental payment feels that he must get everything he can off the farm in cash crops, and feeling his tenure is only temporary he is not interested in building up the fertility of the soil for the man who will follow him.

Advantages of Cash Lease: In some cases the cash rental agreement is advantageous. A landlord may prefer a cash lease because the amount he will receive is definite, and the farm does not require as close supervision as under other type of leases. The lease is also simple, and there is little chance for controversy. The tenant may prefer a cash lease because he is more independent in the operation of the farm. He also receives more of the benefit from superior management.

Adjustments in rental charges can also be made more easily under a cash lease. However, many times the provisions of the cash lease do not provide for the maintenance of the soil fertility. The result is the gradual depreciation of the landlord's investments. Since cash rents are based on the productiveness of the farm, the landlord's income gradually decreases. In many ways, it is a short sighted lease.

Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Lease

Importance of Lease: The Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Lease is of lesser importance on Michigan rented farms. In this study only 8 percent of the rented farms were rented on this basis.

Usual Provisions of Lease: Under the usual provisions, the landlord furnishes the farm, all the machinery and equipment and all the livestock.

The landlord places this large investment in the farm and personal property in the hands of the tenant who is to provide the labor to operate the farm. Some variations occasionally exist in the provisions such as ownership of brood sows on 2/3 - 1/3 basis to make division of hog income easier. Operating expenses such as fuel and oil, crop, feed and livestock expenses are usually paid on a 2/3 - 1/3 basis. All other expenses are paid by the landlord.

Risk Involved: Usually such a leasing arrangement involves a much higher risk than most landlords are willing to take. Often the tenant, who does not own the machinery and livestock does not take as much interest as he would if he were owner and the result may be high losses to the landlord. Such a system might be satisfactory for a tenant who lacks capital and is just starting in farming, but in most cases a 50-50 basis would be more desirable. Under this type of lease the landlord must also assume an active role in supervising and managing the farm in order to protect his high investment.

Landlord's 1/3 - Tenant's 2/3
Crop and Livestock Share Lease

Importance of Lease: The Landlord's 1/3 - Tenant's 2/3 Crop and Livestock Share Lease is not very important in Michigan. It is usually used when the landlord chooses to contribute less capital, management and risk in the business. The tenant usually has a larger investment in machinery and livestock.

Usual Provisions of Lease: Under this type of lease agreement the landlord furnishes the land and improvements. The tenant usually provides all the machinery, equipment, livestock and labor. Ownership of poultry and brood sows is often on a 1/3 - 2/3 basis.

Operating expenses such as crop and feed expense, breeding fees, insurance, veterinary fees for joint owned stock are divided on a 1/3 - 2/3 basis. All other expenses except taxes and insurance on the real estate are paid by the tenant. The farm income including livestock increases is divided 1/3 to the landlord and 2/3 to the tenant.

Adaptability of Lease: In general, this is not a very satisfactory type of lease where the landlord is able or wishes to contribute an adequate amount of capital and management. If the landlord has the necessary capital it would probably be to his advantage to rent the farm on a 50-50 basis, and hire a farm management service to look after his interest. However, under certain circumstances where the landlord lacks sufficient capital, or does not wish to assume the risk and management responsibility, this type of lease may best fit his particular needs. A father and son arrangement or where the tenant is related to the landlord may work out satisfactory under this type of lease.

Crop-Share Cash Farm Lease

Importance of Lease: The Crop-Share Cash Farm Lease is not very important in Michigan. It is used primarily in the lower two or three tiers of counties in the southwestern part of the State. It usually provides that the tenant give the landlord a share of all the cash crops and in addition pay cash rent for the hay and pasture land, and for the use of the buildings. The amount of this cash rent will vary according to the productivity of the soil, and the condition and value of the buildings.

Usual Provisions of Lease: The tenant owns all the machinery, equipment and livestock and receives all the income from the livestock.

The share of the crop which the landlord and tenant will receive is determined by the productivity of the soil, the risk involved, and by the contributions of both parties. Usually the landlord's share of more intensive crops, which requires more labor, is less than on less intensive crops. However, the usual division of crops is on a 50-50 basis.

The purchases of commercial fertilizers and grass and clover seed are usually shared equally between landlord and tenant. The tenant harvests and delivers the landlord's share of corn and grain to the market designated by the landlord. The landlord's share of hay and silage are purchased by the tenant after harvest at the current farm price.

Adaptability of Lease: This type of lease is usually adapted to cases where the landlord chooses to provide little or no management, and sufficient capital to operate on a 50-50 basis. It has not been too popular with landlords and tenants in Michigan. Landlords receiving only a share in the crops and having no interest in the livestock are not interested in maintaining or adding improvements such as fences and buildings which are necessary for a good livestock program. The result usually is that the soil productivity decreases and the farm becomes "run down" and depleted.

This type of lease might be satisfactory in areas where corn and other cash crops are raised and where only a few livestock are kept, but is not very satisfactory for most of the types of farming in Michigan.

Risk Involved: This Crop-Share Cash Lease places less risk on the tenant than does a straight cash lease. The landlord, by accepting a part of the rent in the form of a share of the crops, assumes part of the risk due to weather, prices and other causes. Probably, for this reason, to be equitable, the landlord should receive a larger share of the farm income for the average year than he would under a cash lease. However, under most circumstances the Crop-Share Cash Farm Lease is not adapted to most of the typesof farming carried on in Michigan.

Other Farm Leases

Two other types of farm leases are in use in Michigan. They include (1) Field leasing on the crop-share basis and (2) Father and son farm-operating agreement. These two types of leases were not included in this study and will not be discussed in this paper.

CHAPTER V

EQUITABILITY OF FARM LEASES, MICHIGAN, 1950

50-50 CROP AND LIVESTOCK SHARE LEASE

Organization and Efficiency Factors

The 22 farms in this study that were rented under a 50-50 Crop and Livestock Share Lease contained an average of 206 acres with 141 acres tillable. These farms also had an average of 33 productive animal units, which was considerably higher than the average for all rented farms. The average crop yield index* on these farms was 99. This was just slightly below the average of all farm account co-operators.

These farms had an average of 495 productive man work units per farm. Their average number of men was 1.3.

Labor efficiency was quite high, averaging 435 productive man work units per man, and 3.8 productive man work units per tillable acre. This high labor efficiency seems to correspond to the large number of productive animal units kept on these farms.

It is desirable on rented farms to maintain a large volume of business and high labor efficiency. The rental agreement cannot be successful unless the farm is productive enough and the size of business is large enough to provide a fair return to both landlord and tenant.

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* Crop yield index is the method of measuring crop yields on a farm. It represents the percentage the crop yields on an individual farm are of the average yields of all farms in that type of farming area.

Investments

The farms in this study with this type of lease had an average total investment of $31,453 for 1950 (Table 2).

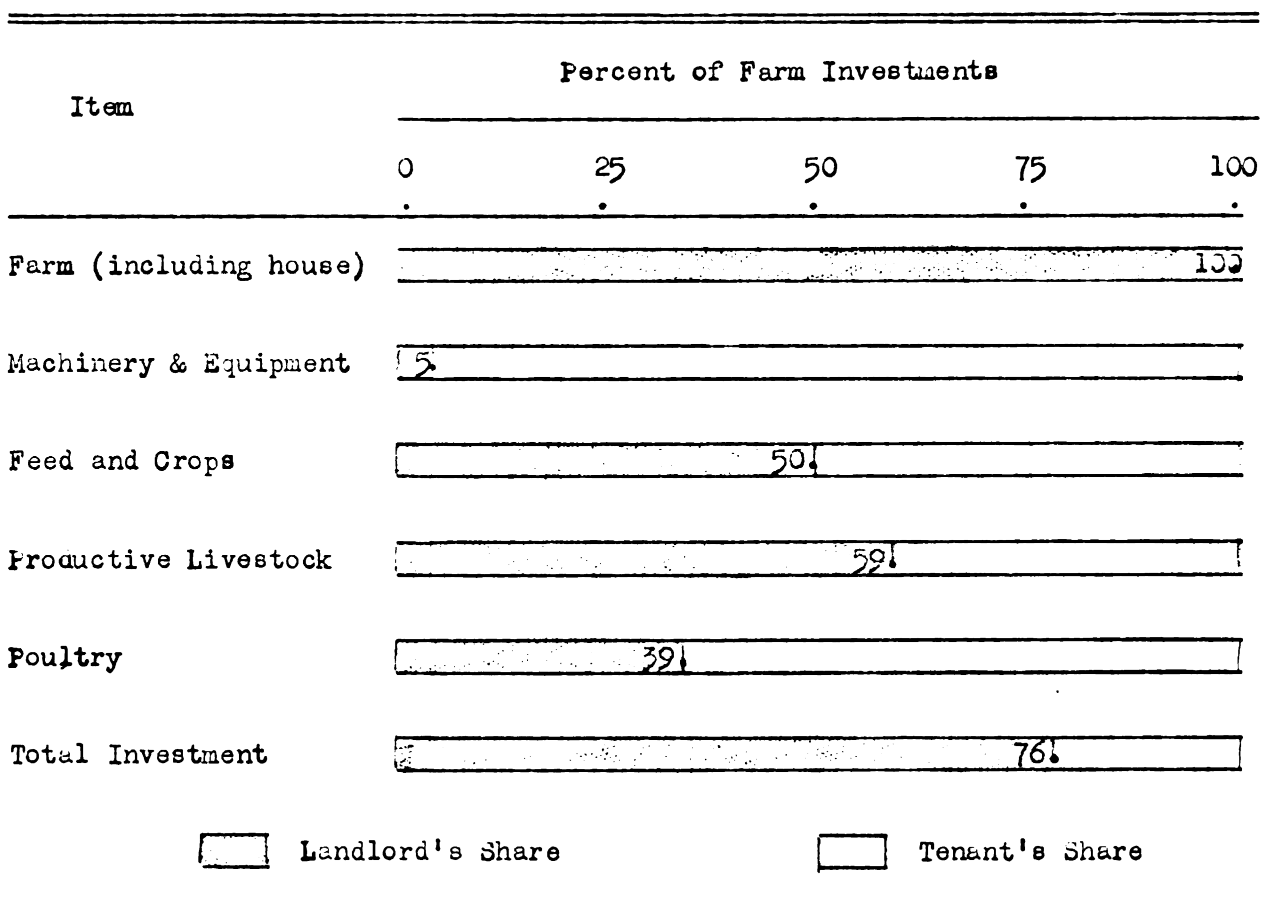
Table 2 -- Average investments of landlords and tenants on 22 rented farms with 50-50 Crop and Livestock Share Leases, Michigan, 1950.

ITEM	Farm Investment: Total Farm dollars	Tenant's Share dollars	Tenant's Share percent	Landlord's Share dollars	Landlord's Share percent
Farm, (including dwelling	19,519	--	—	19,519	100
Machinery and equipment	4,373	4,157	95	216	5
Feed and crops	3,002	1,501	50	1,501	50
Productive Livestock	4,429	1,818	41	2,611	59
Poultry	130	72	61	58	39
Totals	31,453	7,548	24	23,905	76

The tenant's investment was $7,548 or 24 percent of the total; the landlord's investment was $23,905, or 76 percent of the total. The tenants furnished 95 percent of the machinery and equipment, and 41 percent of the livestock. They also owned 61 percent of the poultry. The investment in feed and crops was shared on a 50-50 basis. The major investment of the landlords was the farm which was valued at an average of $19,519 (dwelling included). The farm real estate values were adjusted to the 1950 farm real estate price index. The tenant's investment was made up entirely of farm personal property.

Some variations exist in investments of landlords and tenants with 50-50 Crop and Livestock Share Leases. The usual provisions of this type of lease is that the tenant will own all the machinery and most of the equipment; 50 percent of the productive livestock usually excluding poultry; and one-half of the investment in feed. However, on some of the farms in the study, the machinery and equipment is owned on a 50-50 basis. It can also be seen from Figure 6 that the landlord owns more than one-half of the productive livestock.

Figure 6 -- Investments: Percentage contributed by landlords and tenants under 50-50 Crop and Livestock Share Leases on 22 rented farms, Michigan, 1950.



Wide variations also exists in the ownership of poultry. Some landlords allow the tenant to keep a small flock of hens with all the poultry income accruing to the tenant. On other farms, the tenant keeps a flock of hens and feeds them from undivided grains from the farm. In return the tenant pays all the fuel and oil expense on the farm. There is no set pattern in ownership of poultry. Each farm is an individual case with variation from farm to farm. However, on farms where poultry was a major enterprise, the ownership was on a 50-50 basis.

Expense Contributions

Division of Total Expense Contributions: Total expense contributions for farms with 50-50 Crop and Livestock Share Leases averaged $7,717 for 1950 (Table 3). Of this amount the tenants provided $4,474 or 58 percent, while the landlords contributed $3,243 or 42 percent (Figure 7).

Labor Charges: The operator's labor charge varied with type of farming areas with some tenants, where labor is cheaper, receiving a lower labor charge than others. The average operator's labor charge was $1,475. Unpaid family labor averaged $165 per farm.

Landlord's Services: Management and services provided by the landlord were estimated at $20 per month, or a total of $240 per year. It was reasoned that the landlord would probably spend one or two days per month at the farm making settlements, improvement repairs and other management functions. If the landlord did not provide these services himself, he would probably hire a farm management service to look after his interest.

Machinery Expense: Depreciation and repairs on machinery and equipment were paid primarily by the tenant. In most cases the fuel and oil expense for the tractor was divided on a 50-50 basis. Of the fuel and oil expense, 60 percent was contributed by the tenants and 40 percent by the landlords.

Figure 7 -- Expense Contributions: Percentage contributed by landlords and tenants under 50-50 Crop and Livestock Share Leases on 22 rented farms, Michigan, 1950.

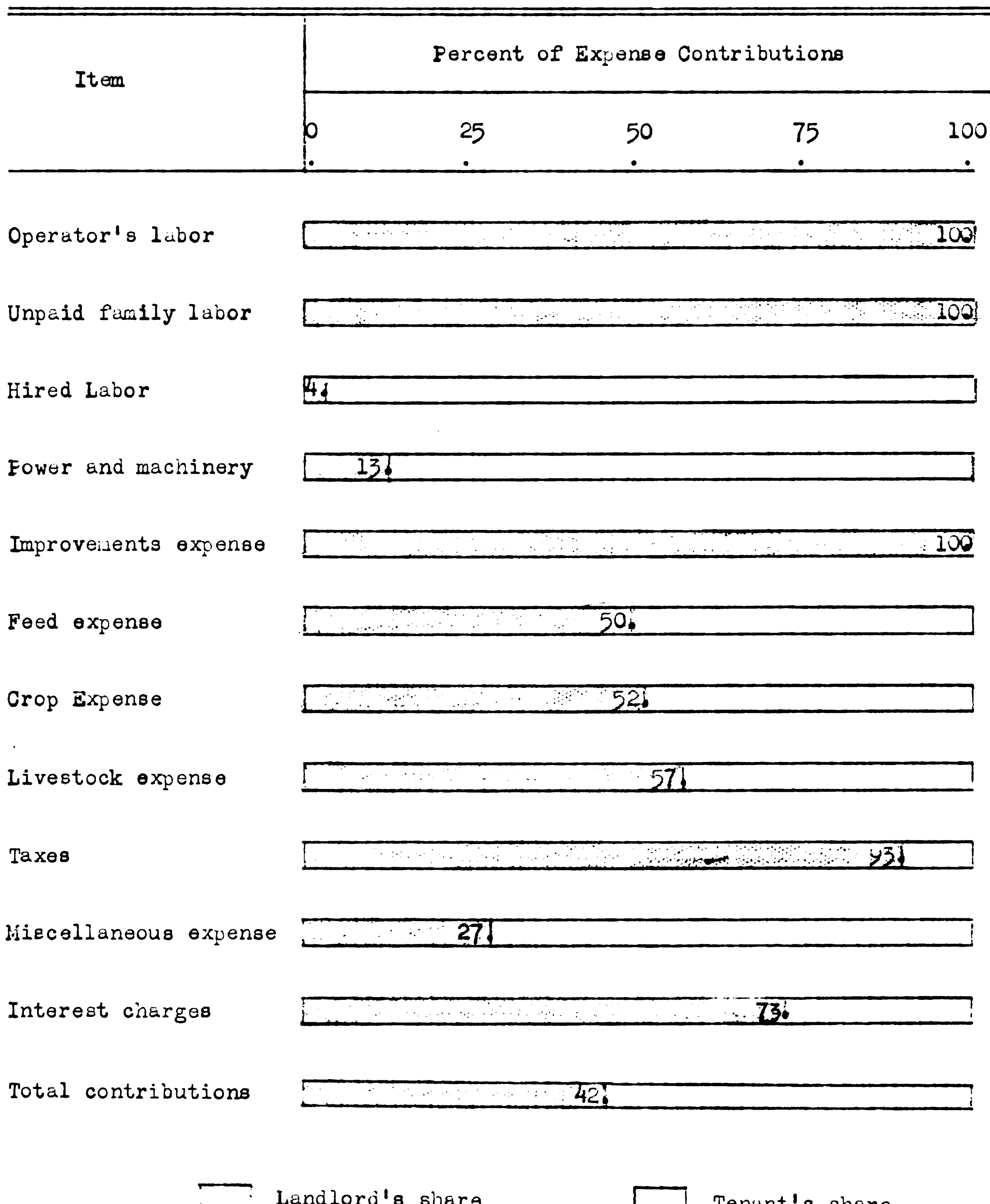


Table 3 — Average expense contributions of landlords and tenants on 22 rented farms with 50-50 Crop and Livestock Share Lease, Michigan, 1950.

Item	Expense contributions				
	Total Farm	Tenant's Share		Landlord's Share	
	dollars	dollars	percent	dollars	percent
Operator's labor	1,475	1,475	100	--	--
Unpaid family labor	165	165	100	--	--
Hired labor	265	254	96	11	4
Services of landlord	240	--	--	240	100
Power & machinery	1,352	1,178	87	174	13
Machine work hired	245	120	49	125	51
Improvements	529	--	--	529	100
Feed expenses	780	389	50	391	50
Crop expenses	633	301	48	332	52
Livestock expenses	154	66	43	88	57
Taxes	190	14	7	176	93
Miscellaneous expense	132	97	73	35	27
Total operating Exp.	6,160	4,059	--	2,101	--
Interest charges	1,557	415	26	1,142	74
Total contributions	7,717	4,474	--	3,243	--
Percent contributed by each	--	--	58	--	42

Machine Work Hired: The expense of machine work hired was contributed 49 percent by the tenants and 51 percent by the landlords. On some farms where the tenant owned the special machines, the landlord paid the tenant for one-half the commercial rate of the custom work. This then becomes income to the tenant and expense to the landlord. This seems like afair practice and should be encouraged on more farms with this type of rental agreement.

Other Expenses: The improvement cash expenses on the farm real estate were contributed entirely by the landlord. Feed expenses were shared on a 50-50 basis.

Crop expenses were not always shared entirely on a 50-50 basis. On some farms the landlords contributed more than 50 percent of the crop expense. For example, in this study the landlords contributed 57 percent of the grass seed, and 52 percent of the commercial fertilizer. However, the landlord contributed over 50 percent of the crop expense only on a few farms. It seems reasonable that on a large number of the farms where the division of expenses are not equitable, the landlord might furnish all the grass seed and a larger proportion of the commercial fertilizer.

The livestock expenses were contributed 43 percent by the tenants and 57 percent by the landlords. This expense is shared in about the same proportion as the ownership of productive livestock.

Taxes on the real estate were paid by the landlord, while taxes on personal property were contributed on the basis of ownership. However, only a few tenants paid any taxes at all on personal property.

It is generally recommended that the miscellaneous expense, which includes the farm share of telephone and electricity, be shared equally by landlord and tenant. In this study the landlords contributed only 27 percent of this expense, while the tenants contributed 73 percent.

The interest rate on the real estate was estimated at 4½ percent which is the approximate rate on long term capital. The interest rate on the personal property was placed at 5½ percent. The total average interest charges were $1,557 with $1,142, or 74 percent being contributed by the landlords, and $415, or 26 percent, by the tenants. The interest charge on investments was the major expense contributions of the landlords.

Gross Income

Division of Total Income: The average total gross income on farms in this study was $8,930. This was divided $4,516 or 51 percent to the tenants, and $4,416 or 49 percent to the landlords (Table 4).

The largest single income item was dairy product sales which were divided on a 50-50 basis. Crop income was the second largest income item and was also divided on a 50-50 basis.

Table 4 -- Division of average gross income between landlords and tenants with 50-50 Crop and Livestock Share Leases on 22 rented farms, Michigan, 1950.

Item	Gross Income				
	Total Farm	Tenant's Share		Landlord's Share	
	dollars	dollars	percent	dollars	percent
Crops	1,745	873	50	872	50
Dairy product sales	3,728	1,864	50	1,864	50
Cattle, net increases	1,412	648	46	764	54
Hogs, net increases	1,356	678	50	678	50
Sheep and Wool, net increases	132	66	50	66	50
Poultry, net increases	31	20	65	11	35
Egg sales	282	163	58	120	42
Custom work	113	113	100	--	--
Labor off farm	54	54	100	--	--
Woodland products	--	--	--	--	--
Other	23	14	58	10	42
PMA payment	54	23	42	31	58
Total income	8,930	4,516	--	4,416	--
Percent to each	--	--	51	--	49

Net Increases: Cattle, hog, sheep and wool, and poultry "net increases" were considered as income. A "net increase" is really the gross income from that particular enterprise. For example, to determine the net increase in cattle (1) add the value of the cattle inventory at the beginning of the year to the purchases of cattle during the year. Then, (2) add the value of the cattle inventory at the end of the year to the sales of cattle during the year. If the sum resulting from (2) exceeds the sum resulting from (1) the result is called a "net increase". If the sum resulting from (2) is less than the sum resulting from (1) the result is called a "net decrease" and would be considered as an expense item.

Cattle net increases were divided 46 percent to the tenant and 54 percent to the landlord. Usually under this type of lease a 50-50 division would be recommended. However, in this study, the landlords owned more than a 50 percent interest in the cattle, so as a result they received more than 50 percent of the net increases in cattle.

Net increases from hogs and sheep were both divided on a 50-50 basis. Poultry net increases were divided with a larger proportion to the tenant due to his greater investment in the poultry enterprise. Egg sales were also divided with a larger proportion going to the tenant due to this same reason.

Custom Work and Labor Off Farm: Custom work and labor off farms all accrued to the tenant. There is some question as to whether the tenant should be allowed to do custom work, or labor off the farm without the landlord's consent. However, if the tenant is doing a satisfactory job in operating the farm he may well be allowed to do the custom work and labor off farm.

PMA Payments: Production and Marketing Administration payments were usually divided on a 50-50 basis between landlord and tenant. On most farms the payment was divided on the basis of the contributions of both parties. If the landlord provided all the fertilizer, lime, or grass seed for which the payment was made, he usually received the full amount of the payment. The average PMA payment on the farms studied was $54 per farm with the tenants receiving 42 percent of the total, and the landlords receiving 58 percent.

Figure 8 -- Gross income; percentage distributed to landlords and tenants under 50-50 Crop and Livestock Leases on 22 rented farms, Michigan, 1950.

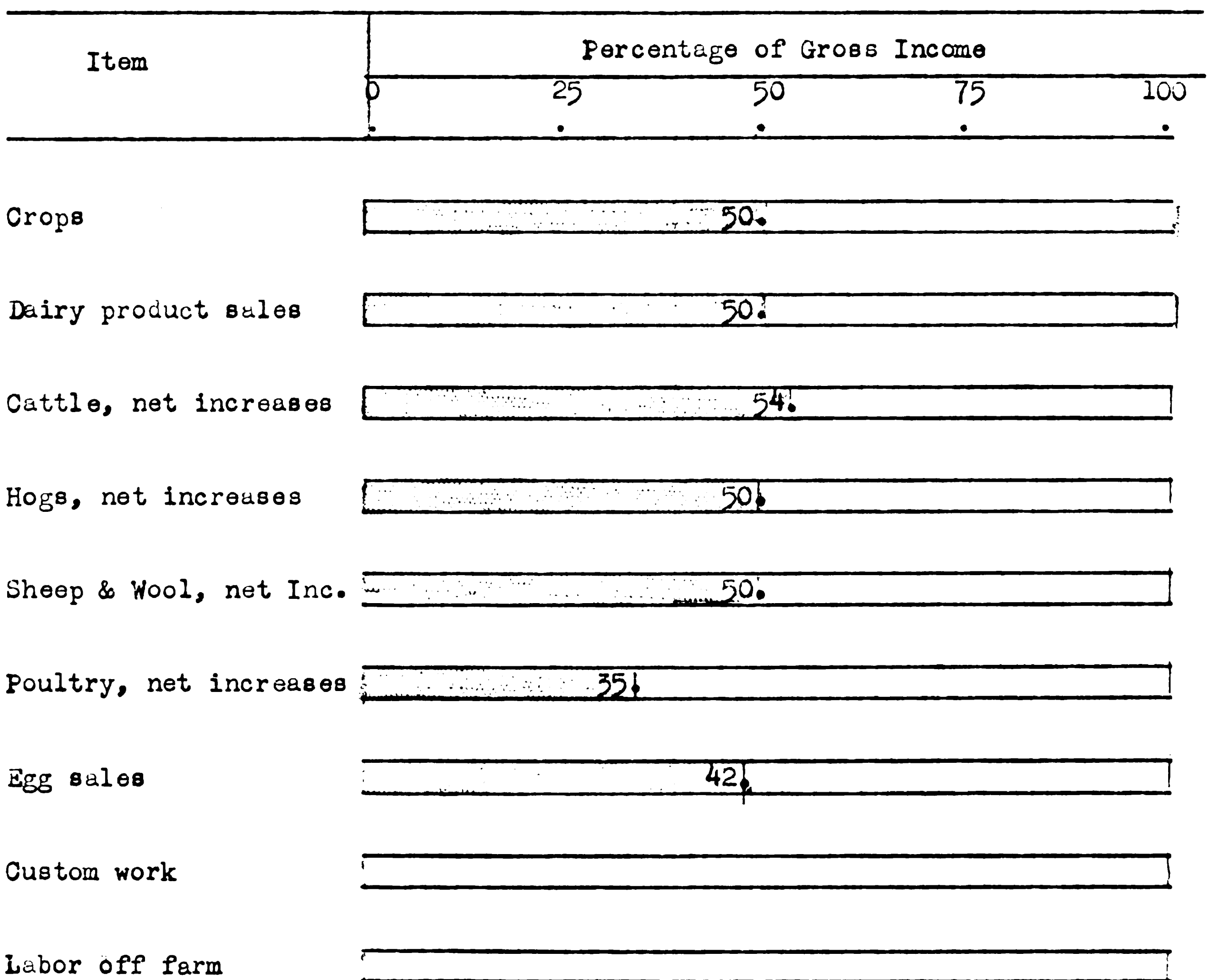


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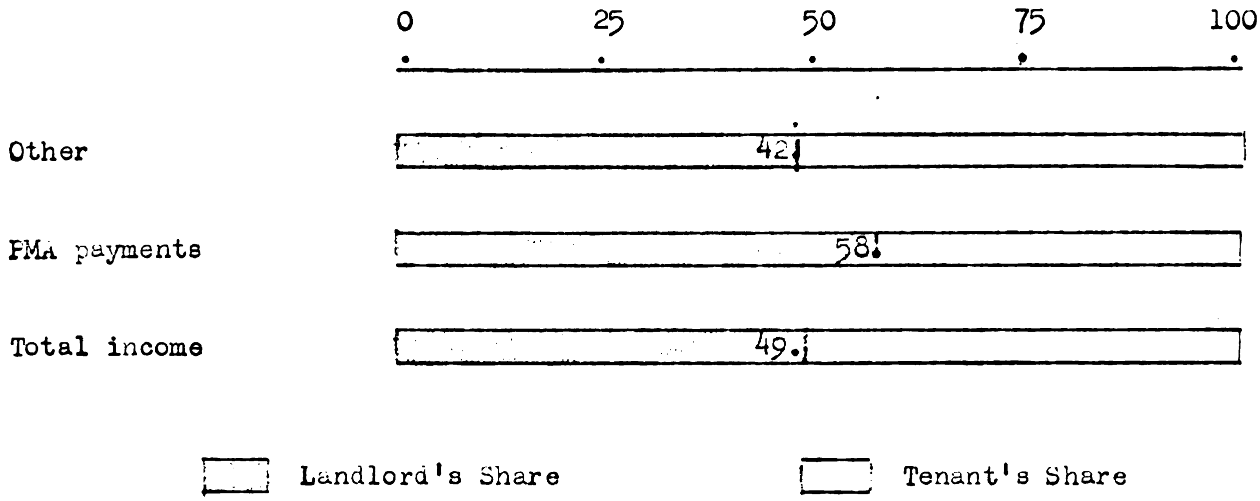
Figure 8 (continued)



Equitability of the 50-50 Lease

It was stated earlier in the discussion that, on the average, tenants received 51 percent of the total income whereas they contributed 58 percent of the expense contributions. The landlords received 49 percent of the income and contributed only 42 percent of the expense contributions. Basing our judgment on the assumptions of an equitable farm lease as one in which expense contributions are divided in the same proportion as income, and assuming that our estimates are approximately correct, it can be reasoned that some of the 50-50 Crop and Livestock Share Leases in this study are not equitable. The landlords are not contributing to the expenses in the same proportion as income received.

Increase in Farm Investment: On analyzing the equitability of present farm leases it is evident that a much larger capital investment must be made in the farm business than was necessary a decade ago. The machinery, equipment and labor which are furnished largely by the tenant are high cost items and their value on some farms has greatly increased. Real estate values, taxes, and costs of maintenance have also greatly increased the landlord's contributions, but usually not in the same proportion as the tenants. Therefore, it may be reasoned that the landlords should make a larger contribution toward expense items to offset this higher investment and expense by the tenant. For example, it would not be unreasonable to ask the landlord to pay for all the grass seed and a larger proportion of the commercial fertilizer.

In this study, on some of the farms with the most equitable farm leases the landlords not only owned one-half the investment in the productive livestock and feed, but they also owned one-half the machinery. Under this arrangement they also provided one-half the machinery depreciation and maintenance cost.

<u>Other Factors Influencing Equitability</u>: However, there are other factors which must be considered before determining the equitability of a farm rental agreement.

We have already stated that the main contribution of the tenant, under a 50-50 Crop and Livestock Share Lease, is the machinery and labor to operate the farm. We must now consider these major contributions and attempt to determine if their costs are larger than what would normally be required to operate the farm efficiently. If the tenant is over-invested in machinery, or has a high labor cost, part of his larger contribution to the farm expenses can be explained by these factors.

The same reasoning as above can be applied to the landlord. If the farm is over capitalized and has excessive improvements it would result in larger improvement expense, higher taxes and interest charge than would normally be found on a farm of that size. These excessive charges would present a distorted picture on the "balance sheet" and would be unfair in determining the equitability of the lease.

To attempt to segregate these factors and to find their effect on the equitability of the farm lease, the farms in this sample were divided into three groups on the basis of the percent of expense contributions made by the landlord. It can be seen in Table 5 the effect of these factors on the proportions of expense contributions made by the landlord and tenant.

Labor Costs: The cost of labor furnished by the tenants shows a direct correlation between the percent of the expense contribution furnished by the tenants and the labor cost. Where the tenants furnished a larger proportion of the expense contributions, there was also a higher labor cost. In general, on the farms in which the tenant's proportion of expense contribution were lower or more nearly equitable, the labor costs were also lower.

Machinery Costs: The machinery cost, which is the second major contribution of the tenant, also shows a direct correlation between the proportion of the expense contributions made by the tenant and the machinery cost. Where the tenant has a large investment in machinery, the "balance sheet" shows him providing a larger proportion of the expense contributions.

Real Estate Charges: The landlord's major contribution, which is the real estate, shows a direct correlation between the proportion of expense contributions provided by the landlord, and the real estate charges and improvement expense per tillable acre. The more the landlord has invested in the land and improvements, the more he contributes toward the expense contributions.

Table 5 -- Effect of various factors on the equitability of the 50-50 Crop and Livestock Share Lease on 22 Michigan farms in 1950. A landlord's contribution of 50 percent of the total expense is considered as equitable.

L. L. 'S* Expense Contributions Percent of Total	No. of Farms	T.A.** per Man	Labor cost per T.A.	Labor cost per P.M.W.U. ***	Machinery cost per T.A.	Machinery cost per P.M.W.U.	Real Estate Charge per T.A.	Improvement Expense per T.A.
Under 40	9	98	$16	$4.16	$11.53	$3.11	$130	$2.66
40-45	7	113	15	4.20	11.01	3.02	156	4.85
Over 45	6	135	12	3.54	7.48	2.27	160	4.48
Average	22	115	14	3.97	10.01	2.80	149	4.00

* L. L. -- Landlord

** T. A. -- Tillable acre

*** P.M.W.U. -- Productive man work unit.

Effect on Equitability: It can be reasoned from the previous discussion that excessive costs and charges do have some effect on the equitability of a farm lease. It is clearly shown that where the tenant has high labor costs, or has an excessive investment in machinery, this will be reflected on the "balance sheet", and will distort the equitability of the farm lease. The same is true for the landlord whose farm is over capitalized with excessive improvements. The "balance sheet" will show him contributing a larger proportion of the total expenses than normally would be contributed under average conditions.

Problem in Determining Equitability: The problem in determining the equitability of a farm lease agreement involves an analysis of the entire farm business. Consideration must be given to such factors as excessive capitalization in the farm, and over-investment in machinery and high labor costs. It will be difficult to determine the exact effect of these factors on the equitability of the farm lease. But by pointing them out, the landlord and tenant can take them into consideration in their bargaining for a farm lease which will be fair to both parties.

Sometimes the lease agreement may appear to be equitable but it still may not be very profitable. Even if the landlord provides a good farm and farm home, if he has a tenant who is an inefficient operator the farm business will not be very profitable. Under such circumstances the landlord should not be required to pay a larger proportion of the expense contributions to make up for the inefficiencies of the tenant.

Adjustments Necessary: From the above data it is evident that adjustments are necessary on some of the farms with 50-50 Crop and Livestock Share Lease. The type of adjustment will depend on each individual case. By using a "balance sheet" and listing the division of expense contributions and income, adjustments can be made which will make the farm lease approximately equitable.

CASH FARM LEASE

Organization and Efficiency Factors

As a general rule, the farms in this study that were rented on a cash basis were smaller and less productive farms. These farms were not large enough and the landlords did not have sufficient capital invested to operate on a 50-50 basis.

The size of business was small on these farms in this study. The average number of acres was 149 with 84 acres tillable. They had an average of 274 productive man work units per farm. These farms averaged 17 productive animal units per farm. The man equivalent was 1.2 men.

Labor efficiency and crop yield index were both below average. The productive man work units per man averaged 235. These farms also averaged 3.6 productive man work units per tillable acre. The average crop yield index was 80 which reflects the low productivity of the farms.

Investments

Total investments on the farms in this study with cash leases were considerably smaller than on farms with 50-50 Crop and Livestock Share Leases. The average total investment per farm was $13,981. The landlords had an investment of $7,762 or 56 percent of the total. The tenants had $6,219 invested, which was 44 percent of the total (Table 6).

The only investment of the landlords was in the land and improvements. These real estate values were adjusted to the 1950 farm real estate price index. All the other investments were made by the tenants.

Table 6 -- Average investments of landlords and tenants on eight rented farms with Cash Leases, Michigan, 1950.

Item	Farm Investment				
	Total Farm	Tenant's Share		Landlord's Share	
	dollars	dollars	percent	dollars	percent
Farm (including dwelling)	7,762	--	--	7,762	100
Machinery and equipment	2,814	2,814	100	--	--
Feed and crops	1,273	1,273	100	--	--
Productive livestock	2,095	2,095	100	--	--
Poultry	37	37	100	--	--
Totals	13,981	6,219	44	7,762	56

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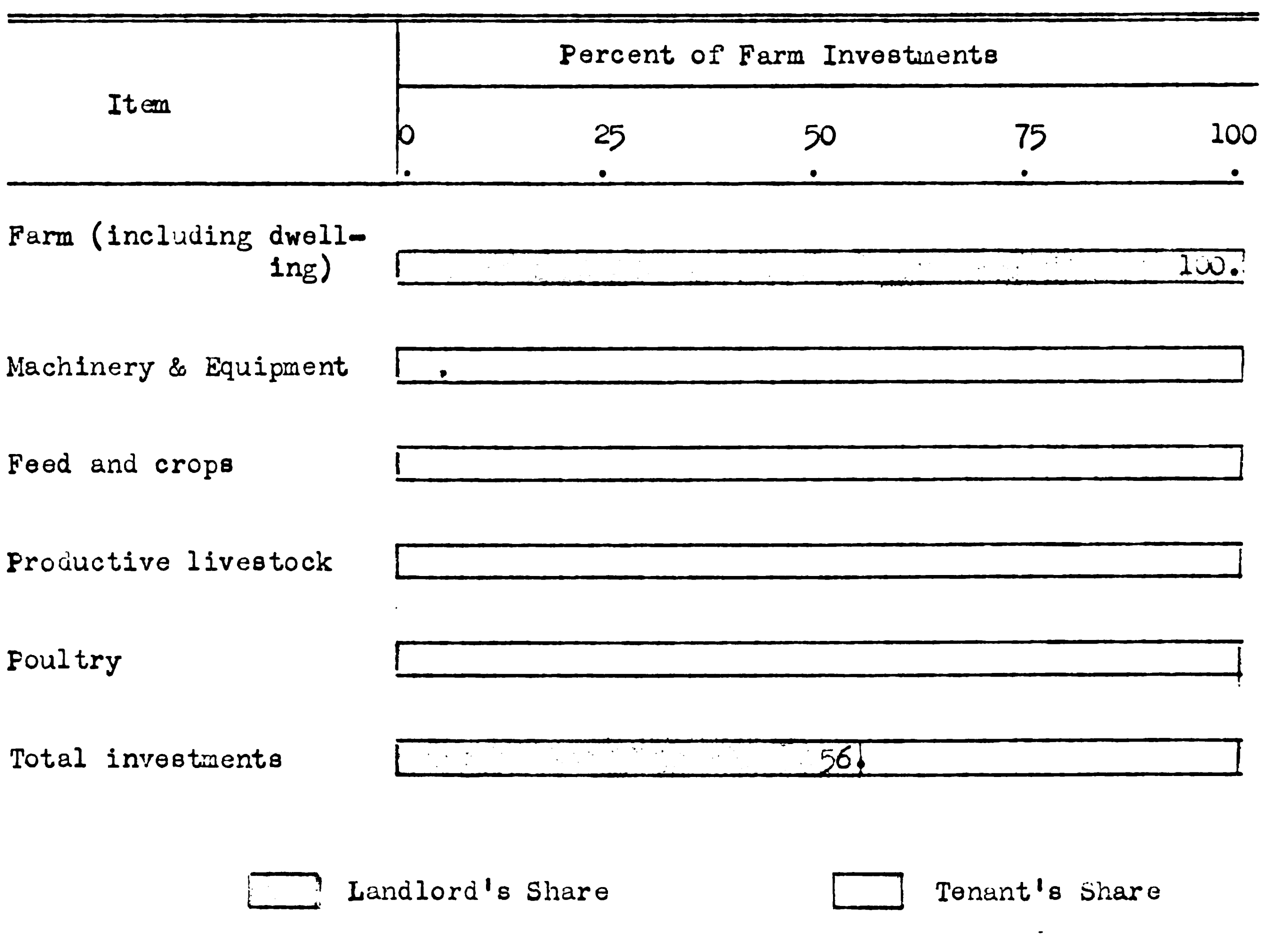
Figure 9 -- Investments: percentage contributed by landlords and tenants on eight farms with Cash Farm Leases, Michigan, 1950.



Expense Contributions

With the Cash Farm Lease most of the expense contributions were made by the tenant (Table 7).

Table 7 -- Average expense contributions of landlords and tenants on eight farms with Cash Farm Leases in Michigan, 1950.

Item	Expense Contributions				
	Total Farm	Tenant's Share		Landlord's Share	
	dollars	dollars	percent	dollars	percent
Operator's labor	1,440	1,440	100	--	--
Unpaid family labor	204	204	100	--	--
Hired labor	250	250	100	--	--
Services of landlord	240	--	--	240	100
Power & machinery	922	922	100	--	--
Machine work hired	100	100	100	--	--
Improvements	212	--	--	212	100
Feed expense	443	443	100	--	--
Crop expenses	365	365	100	--	--
Livestock expenses	142	142	100	--	--
Taxes and cash rent	464	393	85	71	15
Miscellaneous expenses	150	144	96	6	4
Total operating expenses	4,932	4,403	--	529	--
Interest charges	700	342	49	358	51
Total contributions	5,632	4,745	--	887	--
Percent contributed by each	100	--	84	--	16

Of the eight farms studied with cash leases, the major contribution by the landlords was the interest charge on their investment in the land and improvements, plus the taxes, repairs, and depreciation on the improvements. These real estate values were adjusted to the 1950 farm real estate price index.

The landlords with Cash Farm Leases were allowed the same management and service charge as those under a 50-50 Crop and Livestock Share Lease. It is realized that the landlord has more responsibility in the management and operation of the farm under the 50-50 leases. However, it is reasoned that even under a cash lease the landlord must make frequent trips to the farm to make improvement repairs, and other services so they were allowed the same amount.

The improvement expenses and taxes on the farm real estate were all paid by the landlords. Cash rent and taxes on personal property were contributed by the tenant.

The average expense contributions under cash leases was $5,632. Of this amount $4,745, or 84 percent, was contributed by the tenants, and $887, or 16 percent was contributed by the landlords.

Gross Income

All the income from the farm accrued to the tenants (Table 8). The tenants in return paid a fixed sum as cash rent to the landlords, regardless of the amount of gross income received from the farm.

The total gross income on these farms averaged $5,108. The tenants received $4.723 or 92 percent of the total. The cash rent received by the landlords averaged $385 and was only 8 percent of the total gross farm income.

Figure 10 -- Expense contributions; percentage contributed by landlords and tenants on eight farms with Cash Farm Leases, Michigan, 1950.

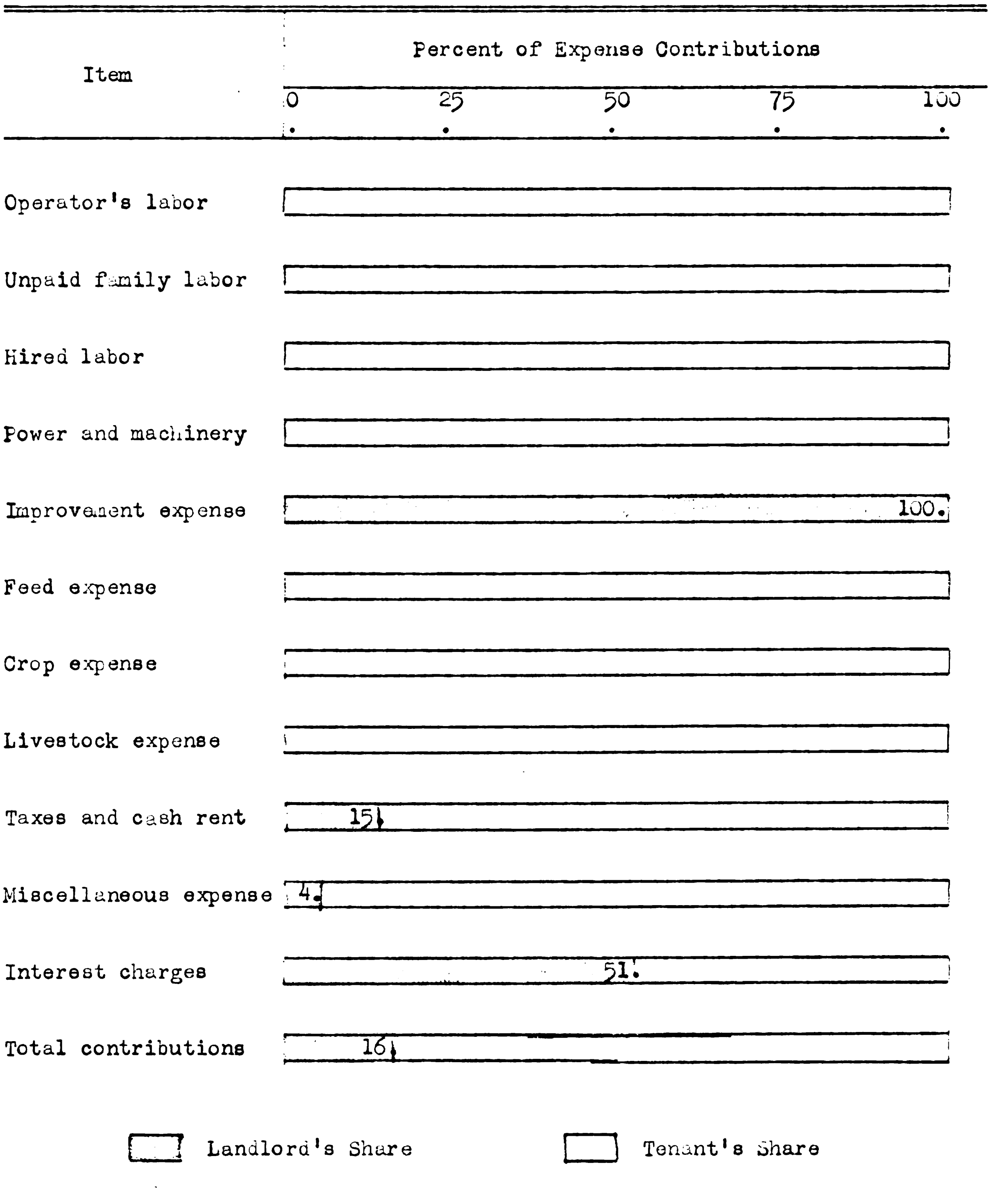


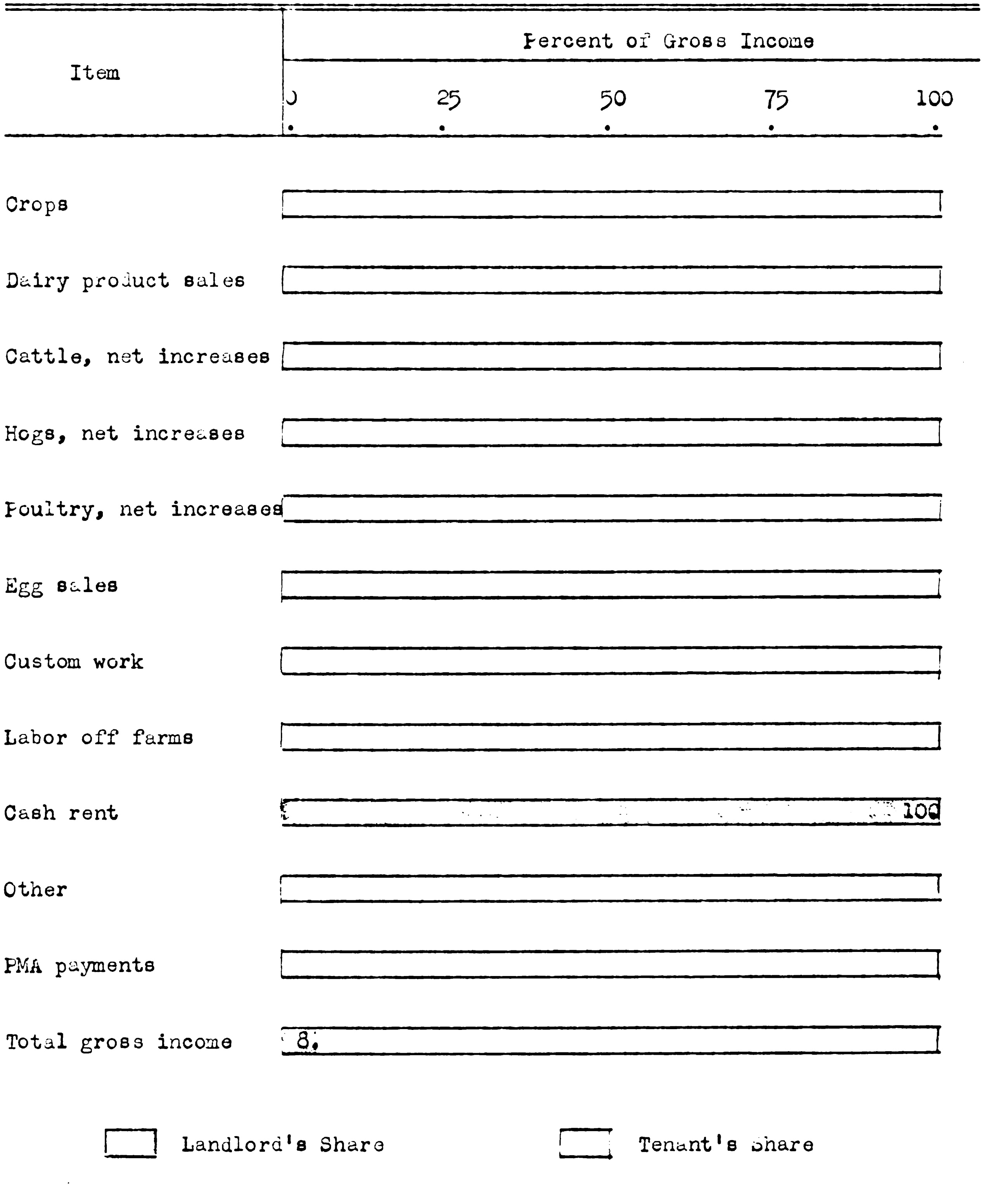
Table 8 — Division of average gross income between landlords and tenants on eight farms with Cash Farm Leases, Michigan, 1950.

Item	Gross Income				
	Total Farm	Tenant's Share		Landlord's Share	
	dollars	dollars	percent	dollars	percent
Crops	1,092	1,092	100	—	—
Dairy product sales	2,388	2,388	100	—	—
Cattle, net increases	725	725	100	—	—
Hogs, net increases	310	310	100	—	—
Sheep & wool, net increases	—	—	—	—	—
Poultry, net increases	42	42	100	—	—
Egg sales	49	49	100	—	—
Custom work	17	17	100	—	—
Labor off farm	34	34	100	—	—
Cash rent	385	—	—	385	100
Other	51	51	100	—	—
PMA payment	15	15	100	—	—
Total income	5,108	4,723	—	385	—
Percent to each	—	—	92	—	8

Equitability of Cash Farm Leases

From the data presented it might be reasoned that the landlords did not receive a large enough cash rent to compensate them for their farm maintenance and investment. The landlords provided 16 percent of the expense contributions, and received 8 percent of the income. The tenants on the other hand provided 84 percent of the expense contributions and received 92 percent of the income. However, if we examine the data more closely we find that the tenants did not fare too well either. Over 50 percent of the tenants in this study with Cash Leases had a negative net income. All of the landlords failed to realize enough gross income to equal their expense contributions.

Figure 11 — Gross income: percentage distributed to landlords and tenants on eight farms with Cash Farm Leases, Michigan, 1950.



One of the first requirements for a successful farm rental agreement is that the farm business must be large enough to pay the landlord a fair return on his investment and to provide the tenant a satisfactory standard of living. It is obvious that the farms in this study with Cash Farm Leases do not meet this requirement.

Unless the size of business on these farms can be increased there is little opportunity of obtaining an equitable lease agreement on most of these farms. These small, less productive farms also attract the poorer, inexperienced and less progressive tenants. The result is a low income from the farm, depletion of the soil resources and improvements, and eventually a "run down" abandoned farm.

CROP-SHARE CASH FARM LEASES

Organization and Efficiency Factors

The farms in this study with Crop-Share Cash Farm Leases were larger and more productive than the average rented farm. They averaged 168 acres per farm with 153 acres tillable. The crop yield index on these farms averaged 100. They had an average of 24 productive animal units. The man equivalent was 1.3 men. Total productive man work units averaged 470 per farm.

Labor efficiency was quite high with an average of 396 productive man work units per man. However, productive man work units per tillable acre was low with only 3.2 per tillable acre.

Investments

Average total investment on the farms in this study with Crop-Share Cash Farm Leases was $27,000. Of this amount the tenants had invested $11,773, or 44 percent. The landlords provided $15,228, or 56 percent of the total investment on these farms (Table 9).

Table 9 -- Average investments of landlords and tenants on three farms with Crop-Share Cash Leases in Michigan, 1950.

Item	Farm Investments				
	Total Farm dollars	Tenant's Share dollars	Tenant's Share percent	Landlord's Share dollars	Landlord's Share percent
Farm, (including dwelling)	14,489	--	--	14,489	100
Machinery and equipment	5,163	5,163	100	--	--
Feed and crops	4,005	3,267	82	738	18
Productive livestock	3,104	3,104	100	--	--
Poultry	239	239	100	--	--
Totals	27,000	11,773	44	15,228	56

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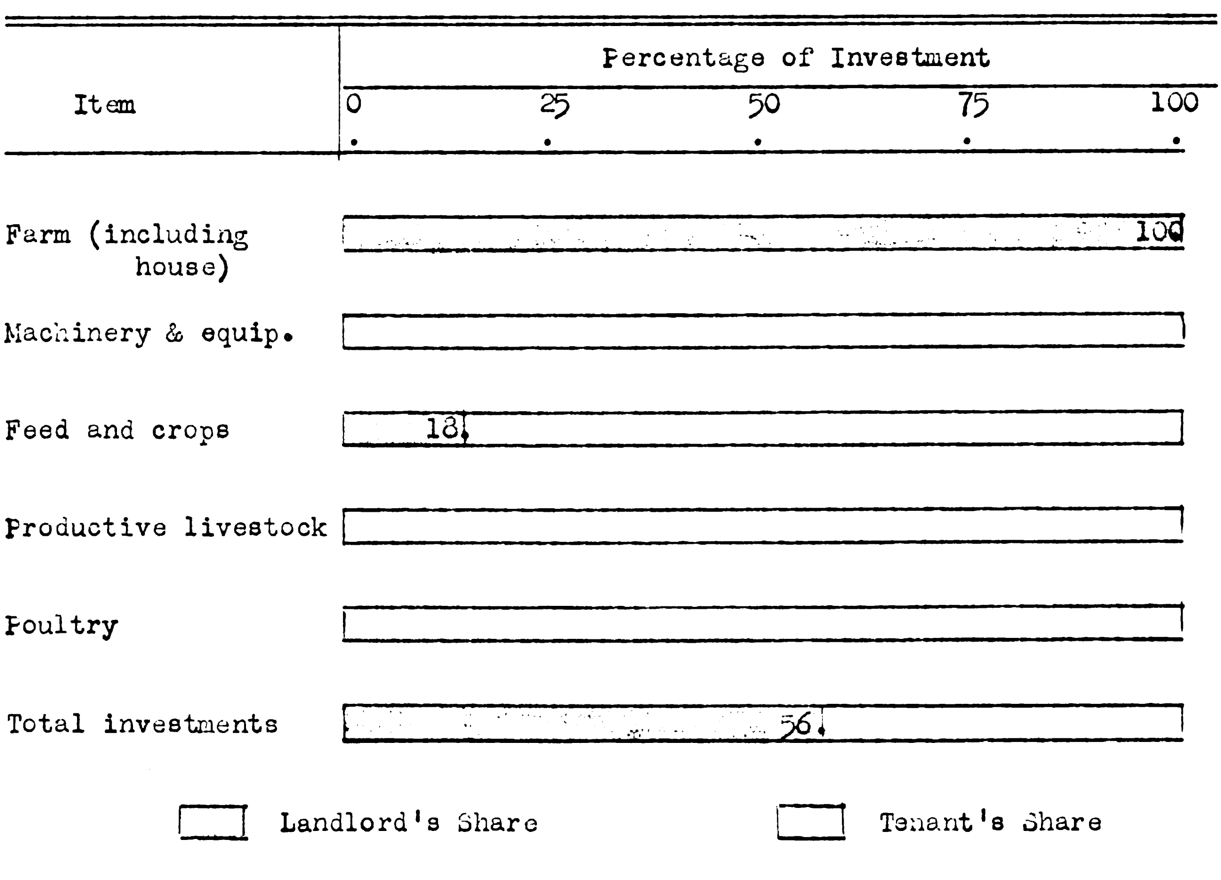
Figure 12 -- Investments: percentage contributed by landlord and tenant on three farms with Crop-Share Cash Farm Leases, Michigan, 1950.



As is customary with this type of lease the tenants owned all the machinery, equipment and the livestock. The machinery investment averaged $5,163.

The average investment in feed and crops was $4,005. Of this amount, the tenants investment was $3,267, or 82 percent of the total, while the landlords had invested $738, or 18 percent.

Expense Contributions

The amounts and division of expense contributions can be seen in Table 10.

Table 10 — Average expense contributions of landlords and tenants with Crop-Share Cash Farm Leases in Michigan, 1950.

Item	Expense Contributions				
	Total Farm dollars	Tenant's Share dollars	Tenant's Share percent	Landlord's Share dollars	Landlord's Share percent
Operator's labor	1,430	1,430	100	—	—
Unpaid family labor	167	167	100	—	—
Hired labor	155	155	100	—	—
Services of landlord	240	—	—	240	100
Power & Machinery	1,823	1,823	100	—	—
Machine work hired	351	54	15	297	85
Improvements	295	—	—	295	100
Feed expenses	827	827	100	—	—
Crop expenses	574	287	50	287	50
Livestock expenses	65	65	100	—	—
Taxes & cash rent	433	292	67	141	33
Miscellaneous expenses	146	146	100	—	—
Total operating expenses	6,506	5,246	—	1,260	—
Interest charges	1,336	643	—	693	52
Total contributions	7,842	5,889	—	1,953	—
Percent contributed by each	100	—	75	—	25

The tenants provided all the labor expense; the power and machinery expense; the feed and livestock expense; and the miscellaneous expense.

The landlords provided the charge for their services; the improvements expense; and the taxes on the real estate.

The crop expense was shared on a 50-50 basis between landlords and tenants.

Machine work hired was provided 85 percent by the landlords and 15 percent by the tenants. The reason for the larger contribution by the landlords was that some of the tenants owned the special machines and the landlords paid the tenants for harvesting their share of the crops.

The average total expense contributions on these farms averaged $7,842. The tenants provided 75 percent of this amount, while the landlords provided 25 percent.

Gross Income

The amount of and the division of the gross income is shown in Table 11.

The only income received by the landlords was 45 percent of the crop income and an average of $440 as cash rent. The remaining farm income accrued to the tenants.

The income from dairy product sales was the largest income item and was followed by the crop income.

The average total gross income per farm was $9,731. The tenants received 82 percent of the amount and the landlords 18 percent (Figure 14).

Figure 13 -- Expense contributions: percentage contributed by landlords and tenants on three farms with Crop-Share Cash Farm Leases, Michigan, 1950.

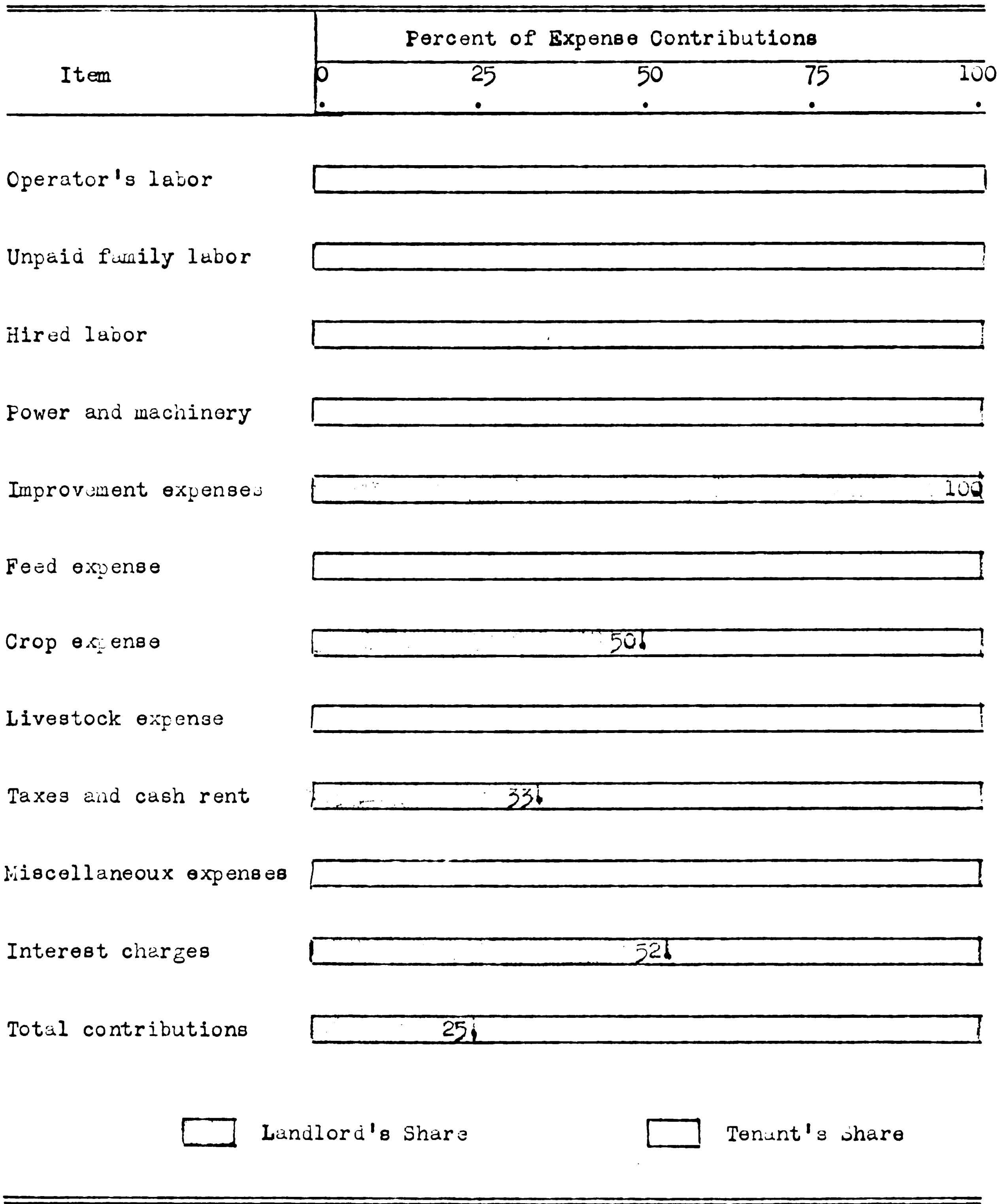


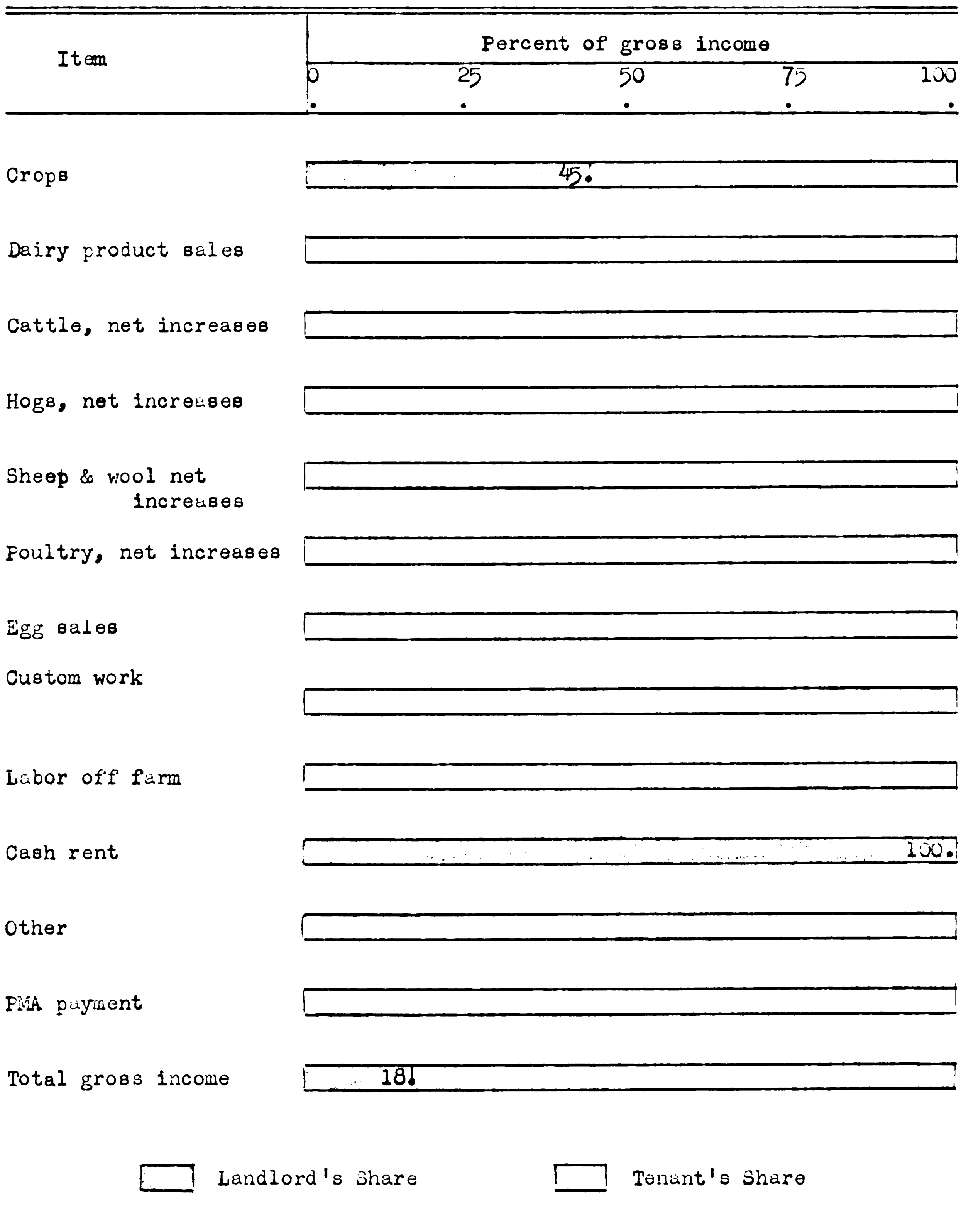
Table 11 — Division of average gross income between landlord and tenants with Crop-Share Cash Farm Leases, Michigan, 1950.

Item	Gross income				
	Total Farm dollars	Tenant's Share dollars	Tenant's Share percent	Landlord's Share dollars	Landlord's Share percent
Crops	2,986	1,651	55	1,335	45
Dairy product sales	3,399	3,399	100	--	--
Cattle, net increases	1,057	1,057	100	--	--
Hogs, net increases	683	683	100	--	--
Sheep & Wool, net increases	171	171	100	--	--
Poultry, net increases	99	99	100	--	--
Egg sales	160	160	100	--	--
Custom work	406	406	100	--	--
Labor off farm	312	312	100	--	--
Cash rent	440	--	--	440	100
Other	6	6	100	--	--
PMA payment	12	11	100	1	--
Total income	9,731	7,955	--	1,776	--
Percent to each	--	--	82	--	18

Equitability of Crop-Share Cash Farm Lease

From the data in this study it can be reasoned that the Crop-Share Cash Farm Lease has not been too satisfactory. The landlords provided 25 percent of the expense contributions and received 18 percent of the income. The tenants provided 75 percent of the expense contributions and received 82 percent of the income. However, before the equitability of a particular farm lease can be determined we must also consider other factors. The size of machinery investment, labor costs, real estate charges, and improvements expense per tillable acre must also be considered as was done with the 50-50 Crop and Livestock Share Leases.

Figure 14 -- Gross income: percent distributed to landlords and tenants on three farms with Crop-Share Cash Farm Leases, Michigan, 1950.



Adaptability of Lease

This type of lease is not very well adapted to Michigan farming conditions. Most farms in Michigan require a livestock program in order to build up the size of business and to conserve the soil. If the landlord has no interest in the livestock program he is not interested in maintaining the buildings and fences for a good livestock program. The landlord may also insist on the growing of more cash crops. The consequences are likely to be a decrease in soil fertility, low income and a run down farm.

Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Lease

Organization and Efficiency Factors

The three farms in this study on a Landlord's 2/3 - Tenant's 1/3 basis were smaller than the average of all rented farms. They averaged 142 acres per farm with 96 acres tillable. They also had an average of 27 animal units. The man equivalent on these farms was 1.5 men. Productive man work units averaged 487 per farm.

Labor efficiency was medium. The average productive man work units per man was 332. Productive man work units per tillable acre averaged 5.1.

Crop yields were quite high on these farms. The average crop yield index was 116.

Investments

Average investments on these farms can be seen in Table 12.

A large proportion of the investment was made by the landlords. The landlords provided about all the machinery and equipment and the pro-

Table 12 — Average investments of landlords and tenants on three farms with Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Lease, Michigan, 1950.

Item	Farm Investments				
	Total Farm	Tenant's Share		Landlord's Share	
	dollars	dollars	percent	dollars	percent
Farm, (including dwelling)	14,424	—	—	14,424	100
Machinery and equipment	4,561	104	2	4,457	98
Feed and crops	3,519	1,290	37	2,229	63
Productive livestock	3,258	84	3	3,174	97
Poultry	347	133	38	214	62
Totals	26,105	1,611	6	24,498	94

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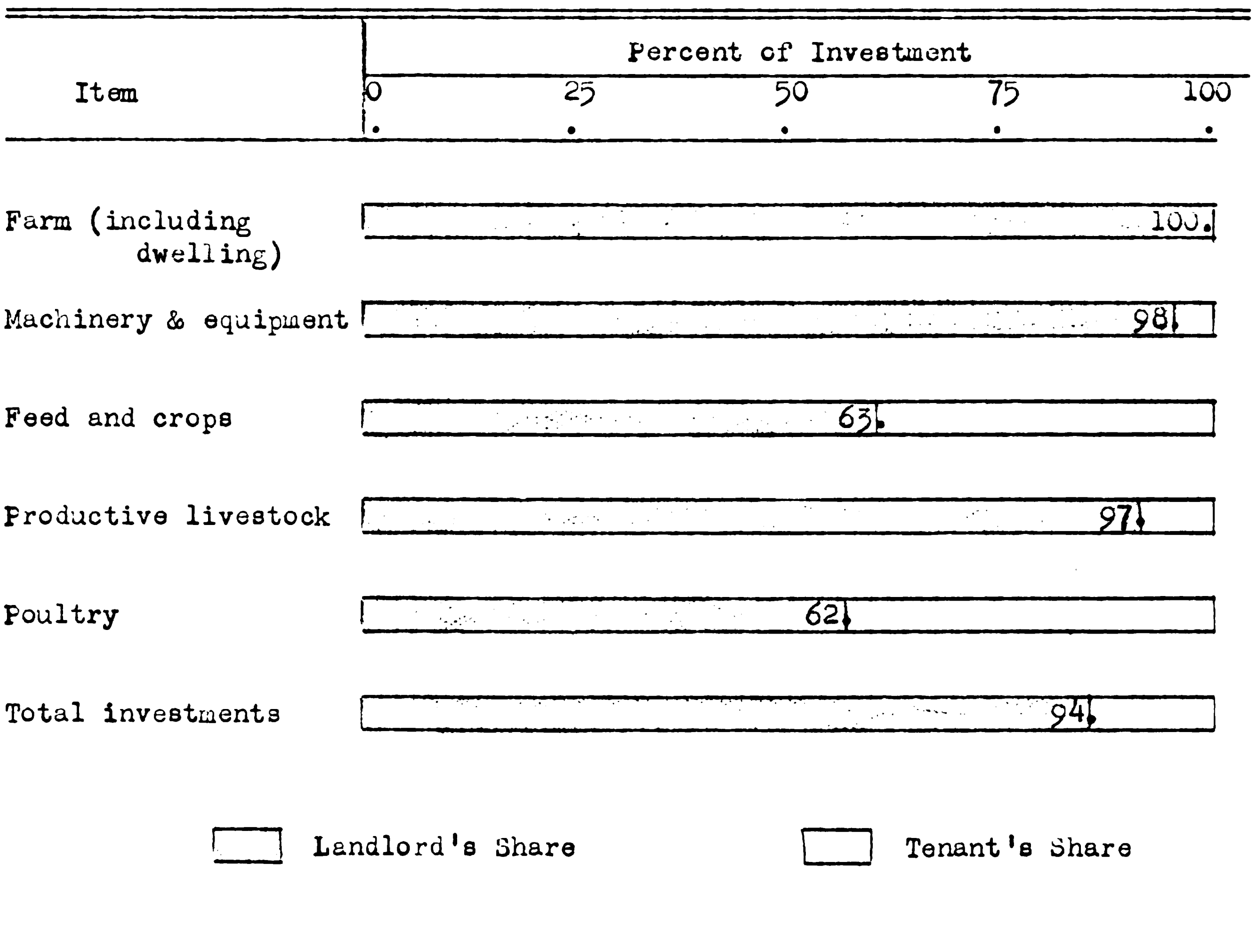
Figure 15 — Investments: percentage contributed by Landlords and Tenant on three farms with Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Leases, Michigan, 1950.



ductive livestock. The investment in feed and in poultry was on a 2/3 - 1/3 basis.

The average total investment on these farms was $26,105. The landlords provided 94 percent of this total investment (Figure 15).

Expense Contributions

Table 13 shows the expense contributions on these farms and the amount provided by landlords and tenants.

Table 13 -- Average expense contributions by landlords and tenants on three farms with Landlord's 2/3 Crop and Livestock Share Leases, Michigan, 1950.

Item	Expense Contribution				
	Total Farm	Tenant's Share		Landlord's Share	
	dollars	dollars	percent	dollars	percent
Operator's labor	1,560	1,560	100	--	--
Unpaid family labor	620	620	100	--	--
Hired labor	29	27	94	2	6
Services of landlord	240	--	--	240	100
Power and machinery	1,771	406	23	1,365	77
Machine work hired	115	46	40	69	60
Improvements	321	--	--	321	100
Feed Expenses	777	293	38	484	62
Crop expenses	339	124	37	215	63
Livestock expenses	56	21	37	35	63
Poultry decreases	131	48	37	83	63
Taxes	161	--	--	161	100
Miscellaneous expenses	124	55	44	69	56
Total operating exp.	6,244	3,200	--	3,044	--
Interest charges	1,292	89	6	1,203	94
Total contributions	7,536	3,289	--	4,247	--
Percent contributed by each	100	--	44	--	56

The tenants provided most of the labor to operate the farm. The landlords provided a very small percentage of the hired labor.

The landlords provided all the improvements expense, taxes on the real estate, and their charge for services and management.

The crop expense, feed expense, livestock expense, and poultry decreases were divided approximately on a 2/3 - 1/3 basis.

The power and machinery expense was provided 77 percent by the landlords and 23 percent by the tenants. The landlords owned the machinery and equipment, therefore they provided most of the repairs and depreciation on the machinery.

The average expense contributions was $7,536. The landlords provided 56 percent of this amount and the tenants provided 44 percent (Figure 16).

Gross Income

Most of the income items on these farms weredivided approximately on a 2/3 - 1/3 basis. There were some minor variations in the division of some income items as is shown in Table 14.

Dairy product sales was the largest single income item followed by crop income and egg sales.

Custom work income was divided on a 2/3 - 1/3 basis because the landlord owns the machinery used for the custom work.

The average total income was $9,811. This amount was divided 63 percent to the landlords, and 37 percent to the tenants (Figure 17).

Figure 16 — Expense contributions: percentage contributed by landlords and tenants on three farms with Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Farm Leases, Michigan, 1950.

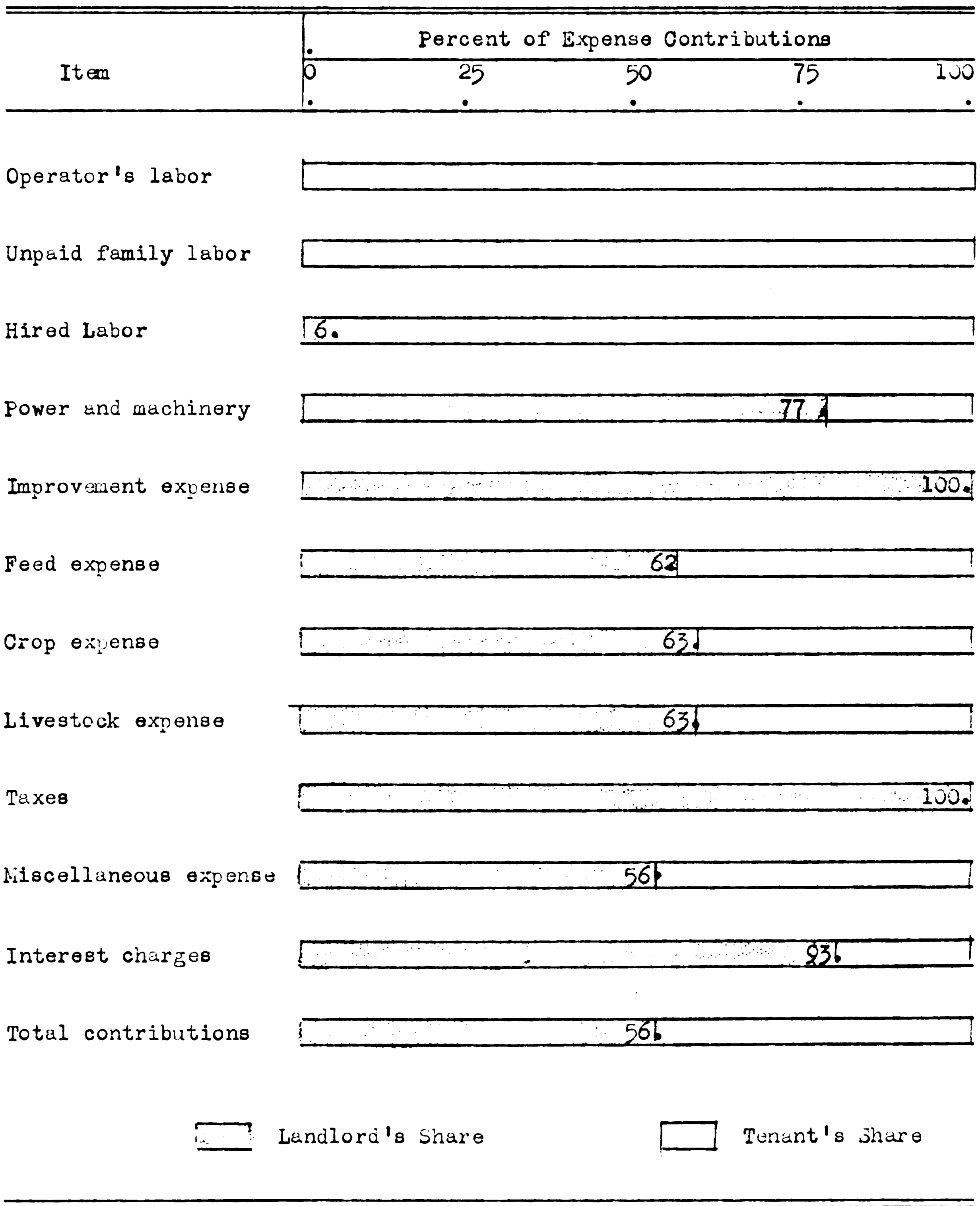


Table 14 -- Division of average gross income between landlords and tenants on three farms with Landlord's 2/3 Crop and Livestock Share Leases, Michigan, 1950.

Item	Total Farm dollars	Tenant's Share dollars	Tenant's Share percent	Landlord's Share dollars	Landlord's Share percent
Crops	2,070	751	37	1,319	63
Dairy product sales	4,023	1,498	37	2,525	63
Cattle, net increases	1,263	474	38	789	62
Hogs, net increases	345	138	40	207	60
Sheep and wool, net increases	--	--	--	--	--
Poultry, net increases	14	6	41	9	59
Egg sales	1,365	512	37	853	63
Custom work	689	259	38	430	62
Labor off farm					
Woodland products					
Other	38	13	35	25	65
PMA payment	4	1	25	3	75
Total income	9,811	3,652	--	6,160	--
Percent to each	--	--	37	--	63

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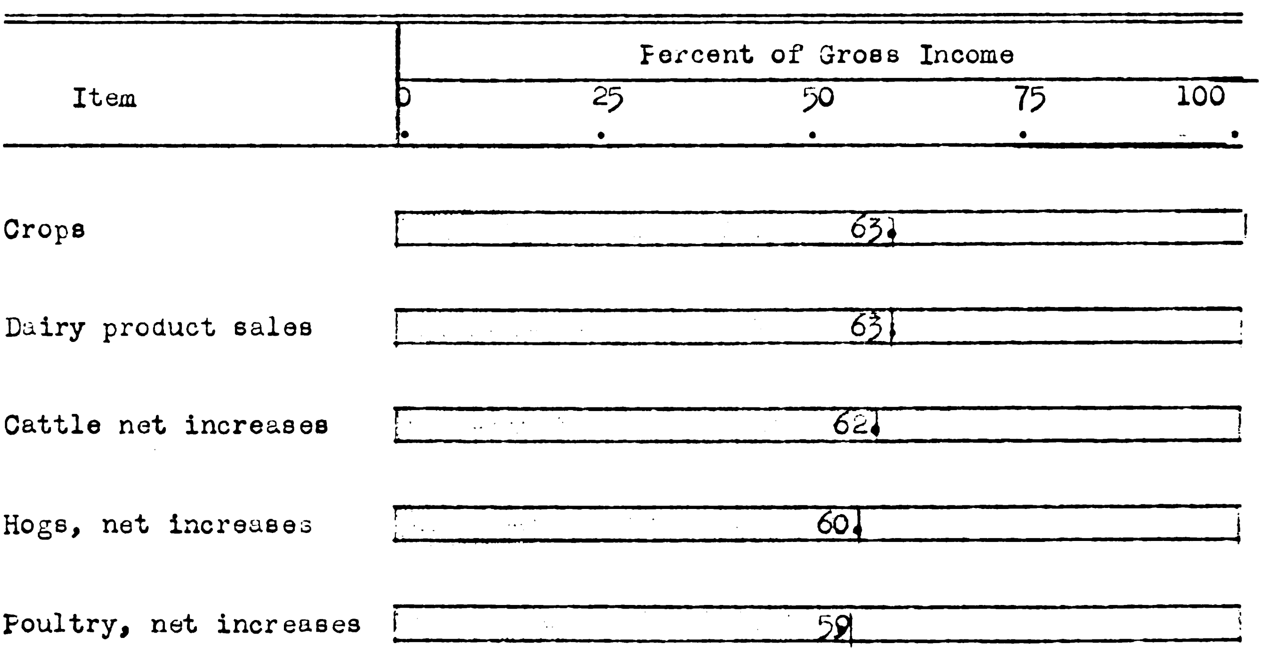
Figure 17 -- Gross income: percentage distributed to landlords and tenants on three farms with Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Leases, Michigan, 1950.



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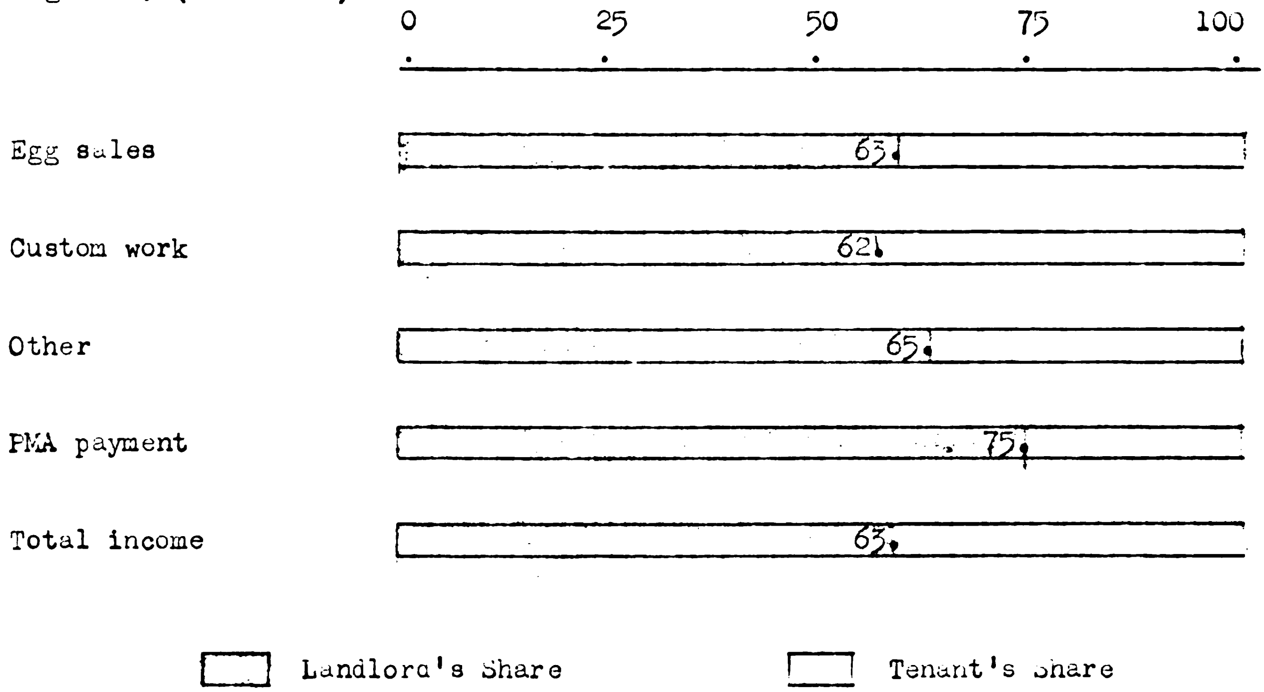


<u>Equitability of Landlord's 2/3 - Tenant's 1/3</u>

<u>Crop and Livestock Share Lease</u>

From the above data it can be reasoned that the landlord is in a favorable position under this type of lease agreement. The landlords are providing 56 percent of the expense contributions and are receiving 63 percent of the income. However, it must be recognized that under this type of lease the landlord is assuming a much greater risk, and therefore he should receive a higher proportion of the gross income to compensate him for bearing this risk. The tenant's major contribution is his labor, while the landlord contributes the farm, the machinery and equipment, and the livestock which he places in the hands of the tenant. The risk is much higher for the landlord than under most other types of leases.

If an adjustment of expense items is desirable under this type of lease, a reduction in the operator's labor charge would be in order. At the same time the amount allowed for the landlord's services and management could be increased. Under this type of lease the tenant usually is inexperienced and must rely heavily upon the landlord's management decisions. Therefore, the landlord must assume a more active role in the management functions in order to protect his high investment. Hence the landlord should be compensated for the increased amount of management and supervision that he must perform.

Only minor adjustments would be necessary to make these lease agreements equitable. Usually the landlord and tenant are related, or close friends, and the adjustments can be worked out without too much difficulty.

Landlord's 1/3 - Tenant's 2/3
Crop and Livestock Share Leases

The sample of farms with this type of farm rental agreement was too small to be representative or significant, therefore, the equitability of this type of lease will not be discussed in this chapter.

Table 15 -- Average organization and efficiency factors on 37 Michigan farms by type of lease for the year 1950.

Item	Type of Lease					
	Average	Cash	Crop-Share Cash	50-50	Landlord's 2/3	Tenant's 2/3
Number of farms	37	8	3	22	3	1
Acres: Total	192	149	168	206	142	300
Tillable	143	84	153	141	96	242
Animal units	22	17	24	33	27	9
Man equivalent	1.6	1.2	1.3	1.3	1.5	2.8
P.M.W.U.: Total	473	274	470	495	487	640
Per man	325	235	396	435	332	229
Per tillable acre	3.7	3.6	3.2	3.8	5.1	2.6
Crop yield index	98	80	100	99	116	96
Dairy sales per cow	$267	$247	$270	$248	$244	$327
Expense per tillable acre	47	58	40	46	60	32
Tractor fuel and oil expense per tillable acre	3.10	3.16	2.42	2.64	3.47	3.79
Investments:						
Tenant's	8,785	6,219	11,773	7,548	1,611	17,167
Landlord's	19,466	7,762	15,228	23,905	24,499	25,917
Expense contributions, tenant's percent of total	63	84	75	58	44	79
Expense contributions, landlord's percent of total	37	16	25	42	51	21
Income, tenant's percent of total	59	92	82	51	37	71
Income, landlord's percent of total	41	8	18	49	63	29

CHAPTER VI

EQUITABILITY OF 50-50 CROP AND LIVESTOCK SHARE LEASE OVER A PERIOD OF YEARS

In Chapter V, the discussion related to the equitability of different farm leases for one year, 1950. It is the purpose of this chapter to present material relating to the equitability of the 50-50 Crop and Livestock Share Lease on two individual farms over a period of years. One rented farm was selected because it had a wide variation in the division of expense contributions and gross income between landlord and tenant. Another farm was then picked in which the farm lease appeared to be approximately equitable from the standpoint of the landlord's and tenant's division of income and expenses. The records of these two rented farms for aperiod of years was studied for the purpose of comparing the equitability of the farm rental agreement one year with another.

The procedure for testing the equitability of the farm lease was the same as that used in Chapter V. A "balance sheet" was used listing the investments, expense contribution, and gross income of landlord and tenant. Farm real estate prices were adjusted to the current farm real estate price index by the same procedure as that used in Chapter V. Other items which required estimating were calculated in a similar fashion.

A Lenawee County Rented Farm

The first farm studied was a 200 acre rented farm located in Lenawee County. This farm is rented under a 50-50 Crop and Livestock Share Lease. Farm account records have been kept since 1945. This farm for 1950 shows a wide variation in the division of expense contributions and gross income between landlord and tenant. The farm rental agreement was tested for equitability for the years 1946 through 1950.

Organization and Efficiency Factors: This farm had a total of 200 acres (Table 16). The number of tillable acres varied from 160 acres for 1946 to 153 acres in 1950, and averaged 157 acres for the five year period. The crop yield index averaged 87 for the five year period, with a range of 69 to 98. The number of animal units ranged from 25 in 1948 to 49 in 1950. The average was 38 for the period of this study.

The size of business increased each year from 1946-1950. The productive man work units increased from 496 in 1946 to 606 in 1950. They averaged 559 for the same period. Similarly, productive man work units per tillable acre increased each year from 2.4 in 1946 to 4.0 in 1950.

Labor efficiency has decreased on this farm. The productive man work units per man has decreased from 382 in 1946 to 337 in 1950. The average for this period was 358. The main reason for this decrease in labor efficiency is because the average number of men on this farm has increased from 1.3 in 1946 to 1.8 in 1950. The size of business has not increased enough to efficiently employ this extra labor.

Investments: In 1946, the total investment on this farm was $24,089. Of this amount the landlord provided $19,898 (83 percent) and the tenant provided $4,189 (17 percent). The investment in machinery and equipment was $2,615, of which the tenant provided $2,152. Other investments in productive livestock and feed was divided on a 50-50 basis (Figures 18 and 19).

In 1947, the total investment on the farm had increased to $29,520. The tenant provided $5,719, or 19 percent of this total, while the landlord provided $23,805, or 81 percent. The tenant continued to own most of

Table 16 -- Organization and efficiency factors on a Lenawee County, Michigan rented farm with 50-50 Crop and Livestock Share Lease for the years 1946-1950.

Item	1946	1947	1948	1949	1950	Average
Acres: Total	200	200	200	200	200	200
Tillable	160	159	159	153	153	157
P.M.W.U.*: Total	496	522	571	602	606	559
Per man	382	381	336	354	337	358
Per tillable acre	2.5	2.6	2.9	3.9	4.0	3.2
Man equivalent	1.3	1.4	1.7	1.7	1.8	1.6
Animal units	35	47	25	33	49	38
Crop yield index	94	98	69	86	90	87
Dairy sales per cow	$350	$450	$439	$330	$363	$386
Total expense per tillable acre	27	37	48	47	49	42
Gross income: per man	6,195	8,272	6,200	6,290	7,120	6,815
Per tillable acre	50	72	66	70	84	68
Investments, tenant's	4,189	5,715	10,089	9,702	12,123	8,364
Percent of total	17	19	29	28	33	26
Investments, landlord's	19,898	23,805	24,537	24,696	24,465	23,480
Percent of total	83	81	71	72	67	74
Expense contributors, tenant's	3,351	4,289	5,313	4,547	6,044	4,709
Percent of total	58	57	59	63	64	60
Expense contributors, landlord's	2,394	3,221	3,719	2,656	3,460	3,090
Percent of total	42	43	41	37	36	40
Gross income, tenant's	4,028	5,835	5,279	5,348	6,516	5,401
Percent of total	50	51	50	50	51	50
Gross income, landlord's	4,028	5,751	5,262	5,348	6,377	5,353
Percent of total	50	49	50	50	49	50

* P.M.W.U. - A productive man work unit is the amount of work that can be accomplished by one man in a 10 hour day working at average efficiency.

the machinery and equipment. The productive livestock and feed continued to be owned on a 50-50 basis.

In 1948, the total farm investment again increased over 1947 to $34,626. The landlord's investment was $24,537, or 71 percent of the total. The tenant's investments in the farm business almost doubled over the previous year to $10,089, or 29 percent of the total. The tenants big increase in investment was for machinery and equipment where the total jumped from $2,445 in 1947, to $6,289 in 1948. Investments in livestock and feed increased only slightly.

In 1949, the total investment in the farm business decreased slightly over the 1948 level. This decrease was in the tenant's investments. The tenant's investment decreased from $10,089 in 1948 to $9,702 in 1949. This was 28 percent of the total farm investment in 1949. The landlord had $24,696 invested in the farm business in 1949.

In 1950, the increase in the total farm investments was from $34,398 in 1949 to $36,588 in 1950. The tenant's investment during this year increased from $9,702 to $12,123, while the landlords investment decreased from $24,696 in 1949 to $24,465 in 1950, or 67 percent of the total investment.

The above data shows that from the period 1946-1950, the total farm investment has increased every year except in 1949. This increase was from $24,087 in 1946 to $36,588 in 1950. Figure 18 shows that the tenant's investment increased from $4,189 in 1946 to $12,123 in 1950. The tenant's percent of the total investment increased from 17 percent in 1946 to 33 percent in 1950. In the same period of time the landlord's percent of the total investment decreased from 87 percent in 1946 to 67 percent in 1950 (Figure 19). The above data will be important in determining the equita-

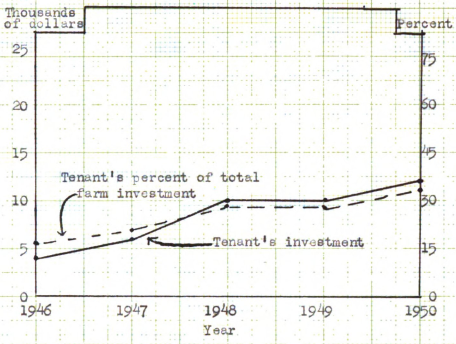


Figure 18 -- Farm investments of a Lenawee County Michigan tenant with a 50-50 Crop and Livestock Share Lease for the years 1946 to 1950.

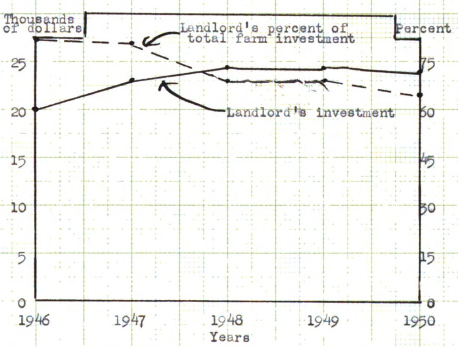


Figure 19 -- Farm investments of a Lenawee County, Michigan landlord with a 50-50 Crop and Livestock Share Lease for the years 1946 to 1950 using adjusted farm real estate values.

bility of the farm lease on this farm and will be discussed later in this chapter.

Expense Contributions: The total expense contributions on this farm has increased from $5,751 in 1946 to $9,504 in 1950. In the same manner the total expense per tillable acre on this farm has increased from $27 in 1946 to $49 in 1950.

Most of the expense contributions were divided on the usual basis for this type of lease. The landlord paid 50 percent of the fuel and oil expense. However, for the years 1947, 1948 and 1949, the landlord paid approximately two-thirds of the crop expense. In 1950 the crop expense was paid on a 50-50 basis. The landlord also paid about one-third of the miscellaneous expense.

Figure 20 -- Expense contributions: percentage contributed by landlord and tenant on a rented farm in Lenawee County, Michigan, with 50-50 Crop and Livestock Share Lease, 1946 to 1950.

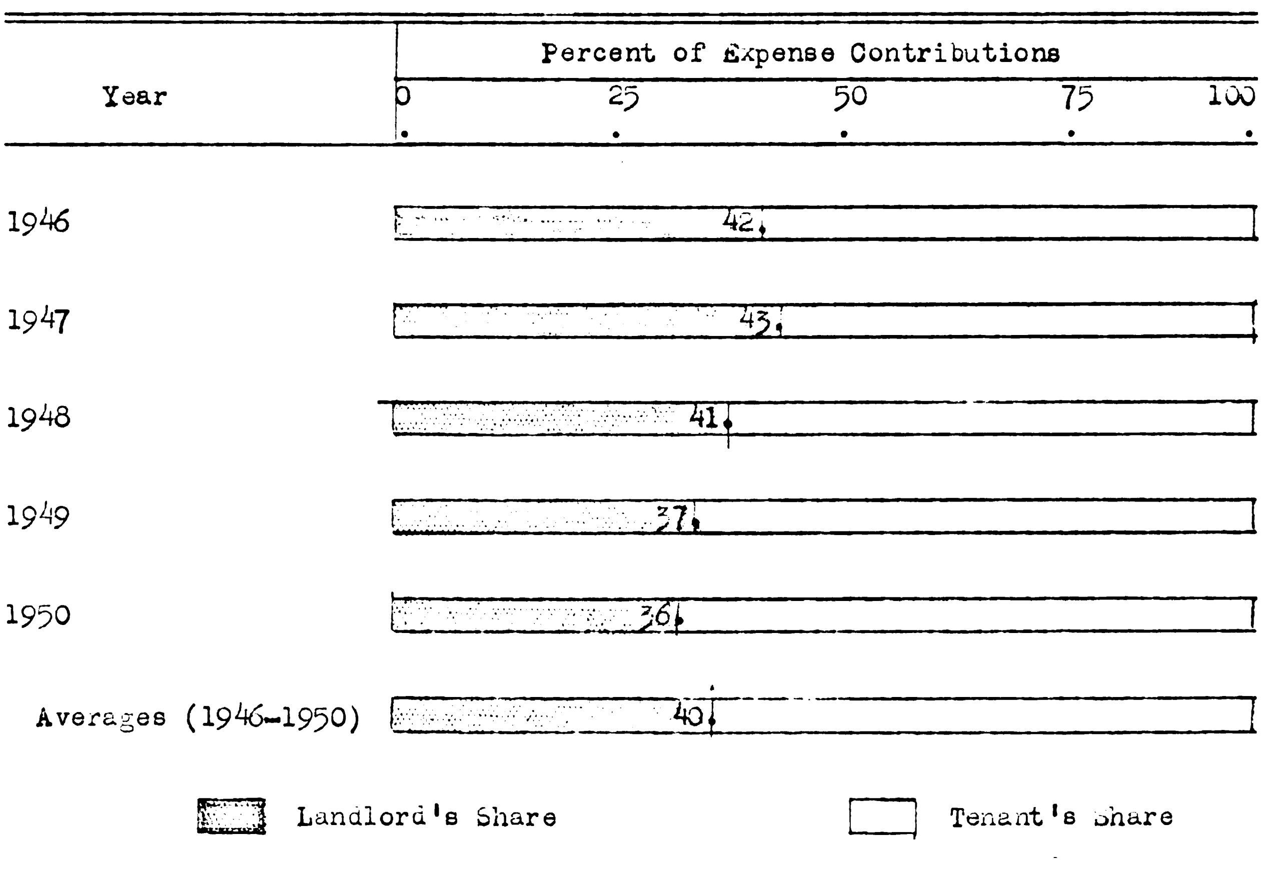


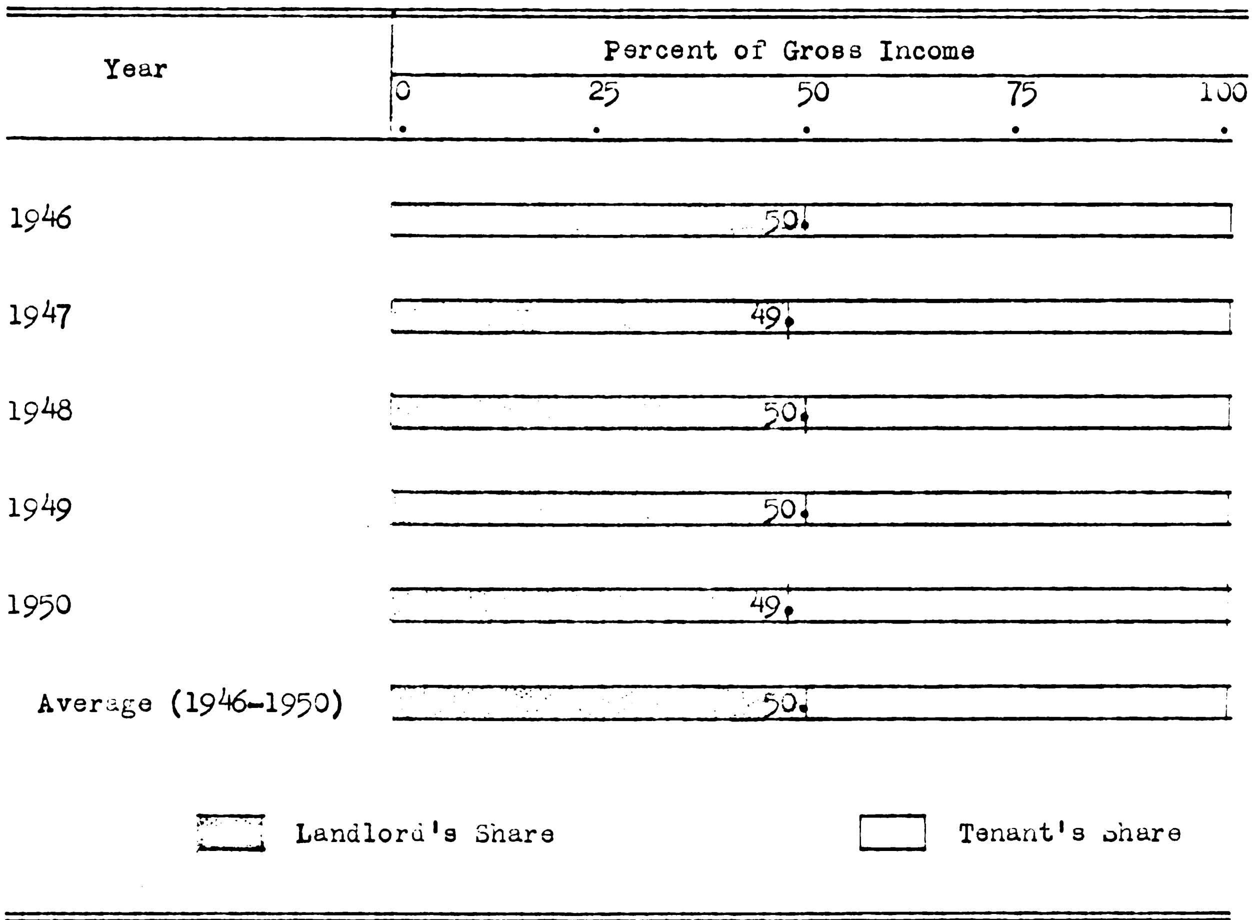
Figure 20 shows that the percentage of the total expense contributions contributed by the tenant increased every year except 1947, from 58 percent of the total in 1946, to 64 percent in 1950. The percentage of the total expense contributions provided by the landlord decreased every year except 1947 from 42 percent in 1946 to 36 percent in 1950.

Gross Income: It can be seen from Figure 21 that the gross income was divided on a 50-50 basis about every year from 1946 to 1950. There was a slight variation in 1947 and again in 1950 when the tenant received 51 percent of the gross income and the landlord received 49 percent. The reason for this variation was that the tenant received income for labor off farm and from custom work which increased his gross income slightly over that of the landlord. All the other farm income was divided approximately on a 50-50 basis.

The net income on this farm, however, was not divided on a 50-50 basis because of the differences of the contributions of the two parties. The landlord's net income increased about every year while the tenant's net income decreased. The landlord's net income averaged $2,063 for the five year period. The tenant's net income averaged only $692 for this same period.

Equitability of Lease from 1946-1950: From the above data, and Figures 22 and 23, we might reason that this farm lease is not equitable. The tenant's percent of the total expense contributions has continued to increase each year, while that of the landlord has decreased. The main contribution of the landlord which is the land and improvements has increased with the increase in real estate values. The cost of maintaining a rented farm has also increased. However, they have not increased in the same proportion as the investments and contributions of the tenant.

Figure 21 -- Gross income: percentage received by landlord and tenant on a rented farm in Lenawee County, Michigan with a 50-50 Crop and Livestock Share Lease, 1946-50.



The tenant's main contribution to the farm business is the labor, the machinery and most of the equipment. All of these items at the present time are high cost items on the farm. The investment in machinery and equipment required on a farm today is considerably larger than it was a decade ago. For example, on this farm the tenant's investment in machinery increased from $2,152 in 1946 to $7,737 in 1950. In the same period the labor expense per tillable acre increased from $10.05 per tillable acre in 1946 to $13.30 per tillable acre in 1950. However, in determining the equitability of the farm lease, we must consider these investments and charges excessive.

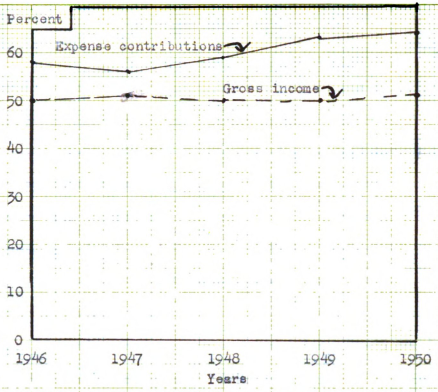


Figure 22 -- Expense contributions and gross income of tenant on a Lenawee County, Michigan rented farm from 1946 to 1950.

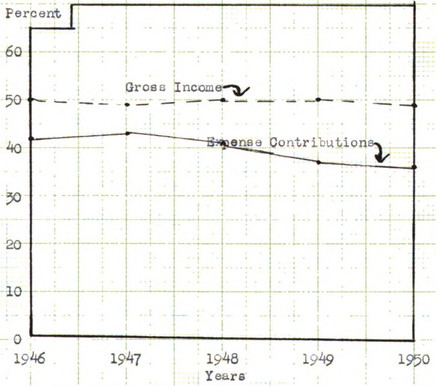


Figure 23 -- Expense contributions and gross income of landlord on a Lenawee County, Michigan rented farm from 1946 to 1950.

The tenant's machinery investment in 1950 was $7,737. This investment is much higher than the average machinery investment for all farm account cooperators in the same area. The average investment of all farms account cooperators was $5,512. Even the top one-third of the farms in this area with the highest incomes had only an average of $6,108 invested in machinery. So, it can be reasoned that this tenant probably has a higher machinery investment than what would be necessary to operate the farm efficiently.

The tenant's labor expense increased from $10.05 per tillable acre in 1946 to $18.30 per tillable acre in 1950. This labor expense of $18.30 per tillable acre in 1950 is higher than the average of all farms account cooperators in the area. Even the less efficient farm account cooperators in the area, who had a labor expense per tillable acre of $17.87, had a lower labor expense than the tenant on this farm. However, the labor efficienty on this farm is within the recommended standard for this area.

In summary, it can be reasoned that part of the excess expense contributions of the tenant on this farm can be explained by his large investment in machinery, and also for his high labor cost. However, even if adjustments were allowed to correct these excessive charges, the tenant would still be contributing more than 50 percent of the total expense contributions.

This same reasoning as above can be applied to the landlord. If the farm is over-capitalized, or has excessive improvements, the interest charges, taxes and improvement expense will be out of proportion for the size of the farm business. Under such a situation the "balance sheet" would be distorted in favor of the landlord.

If the farm lease agreement on this farm is to be made equitable, adjustments must be made in the expense contributions. But, before any definite adjustment could be recommended for this farm, a more detailed study should be made with both the landlord and tenant, to make sure the estimates and division of expenses are agreed upon by both parties. Only with the consent of both parties can an equitable, satisfactory agreement be reached.

A Hillsdale County Rented Farm

Organization and Efficiency Factors: This farm was chosen because it appeared to be approximately equitable, based on the assumptions of an equitable farm lease. This farm is located in Michigan Type-of-Farming Area 1. Farm account records have been kept on this farm since 1937. This study is for the period 1941 through 1950.

Table 14 shows the organization and efficiency factors for the years 1941-50.

The total acres in this farm is 204. The number of tillable acres varies from 136 in 1943 to 107 in 1950.

The total productive man work units varies from 451 in 1944 to 360 in 1948, with an average of 412 for the period.

Labor efficiency was about average and ranged from 337 production man work units per man in 1943 to 234 in 1946. This averages 295 for the period.

The crop yield index was about average from 1941-50. The range was from 71 in 1943 to 143 in 1950. The average for the period was 101.

Investments: Total farm investment on this farm increased from $16,131 in 1941 to $33,562 in 1950. The tenant's total investment increased from $2,902 in 1941 to $5,551 in 1950. The landlord's investment increased from

Table 17 -- Organization and efficiency factors on a Hillsdale County, Michigan rented farm with a 50-50 Crop and Livestock Share Lease for the years 1941 to 1950.

Item	Year									
	1941	1943	1944	1945	1946	1947	1948	1949	1950	Aver.
Acres: Total	204	204	204	204	204	204	204	204	204	204
Tillable	127	136	125	125	125	135	118	118	107	124
P.M.W.U.*: Total	447	421	451	411	391	415	360	410	405	412
Per man	335	337	301	248	234	319	277	315	289	295
Man equivalent	1.3	1.2	1.5	1.6	1.6	1.3	1.3	1.3	1.4	1.4
Animal units	20	24	38	31	32	32	25	31	36	30
Crop yield index	102	71	106	105	79	92	84	124	143	101
Dairy sales per cow	$88	$149	$140	$161	$173	$185	$204	$248	$213	$173
Total expense per tillable acre	20	23	27	29	30	30	36	39	46	31
Investments, tenant's	2,902	3,632	3,666	3,894	4,084	3,723	4,065	4,978	5,551	4,055
Percent of total	18	18	17	17	15	13	13	15	17	16
Investments, Landlord's	13,229	16,082	17,878	19,575	22,471	25,207	26,558	28,092	28,011	21,900
Percent of total	82	82	83	83	85	87	87	85	83	84
Expense contributions, tenant's	1,644	2,010	2,252	2,714	2,831	3,116	3,090	3,320	3,531	2,723
Percent of total	49	53	53	54	54	54	52	52	53	53
Expense contributions, landlord's	1,786	2,033	2,007	2,305	2,414	2,614	2,801	3,097	2,940	2,444
Percent of total	51	47	47	46	46	46	48	48	47	47
Gross income, tenant's	1,922	1,930	2,396	2,416	2,376	2,806	2,788	3,242	3,879	2,639
Percent of total	50	51	50	50	50	49	50	50	50	50
Gross income, landlord's	1,918	1,864	2,378	2,418	2,369	2,872	2,807	3,243	3,848	2,635
Percent of total	50	49	50	50	50	51	50	50	50	50

*P.M.W.U. - A productive man work unit is the amount of work that can be accomplished by one man in a 10 hour day working at average efficiency.

$13,229 in 1941 to $28,011 in 1950.

The investment in livestock, excluding poultry, was on a 50-50 basis.

The investment in machinery and equipment was approximately on a 50-50 basis, for the years 1941-50. This is unusual for this type of farm lease where the tenant usually provides most all the machinery and equipment. Here we have a farm with a 50-50 lease on which the landlord provides approximately 50 percent of the investment in machinery and equipment.

Poultry on this farm was owned by the tenant.

Figures 24 and 25 shows that the percentage of the total investment provided by the landlord and tenant has remained relatively constant for the years 1941-50.

Expense Contributions: The total expense contributions on this farm increased from $3,475 in 1941 to $6,715 in 1950. The total expense per tillable acre increased in a similar manner from $20 per acre in 1941 to $46 per acre in 1950.

The operating expenses were divided on the usual basis for this type of farm lease, except for the power and machinery expense. The landlord owns approximately one-half of the machinery, so he also contributes 50 percent of the machinery expense.

Figure 26 shows that the division of total expense contributions between landlord and tenant has not fluctuated very widely for the years 1941-50.

Gross Income: The division of the gross income on this farm was on a 50-50 basis for the years 1941-50 (Figure 27). There were minor variations in some years where the tenant received income from labor off farm, and where the landlord sold some timber off the farm; however, the regular farm income was divided on a 50-50 basis.

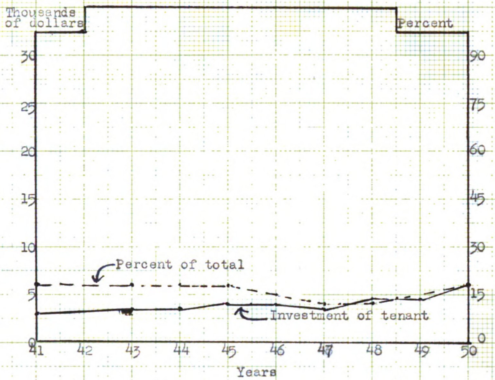


Figure 24 -- Investments of tenant on a Hillsdale County, Michigan rented farm with a 50-50 Crop and Livestock Share Lease for the years 1941 to 1950.

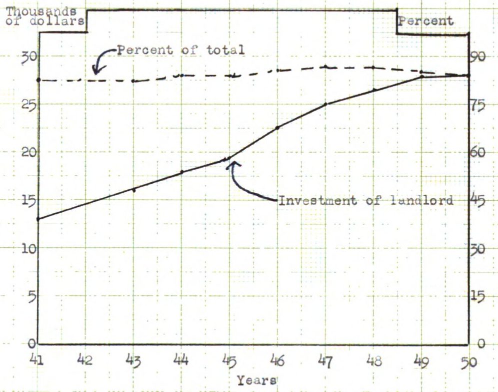


Figure 25 -- Investments of landlord on a Hillsdale County, Michigan rented farm with a 50-50 Crop and Livestock Share Lease for the years 1941 to 1950.

The net income on this farm, however, has not been very satisfactory. The net income of the landlord averaged only $191 for the period 1941 to 1950. The tenant's net income averaged a negative $753 for this same period.

Figure 26 -- Expense contributions: percentage contributed by landlord and tenant on a Hillsdale County, Michigan rented farm with a 50-50 Crop and Livestock Share Lease, 1941-50.

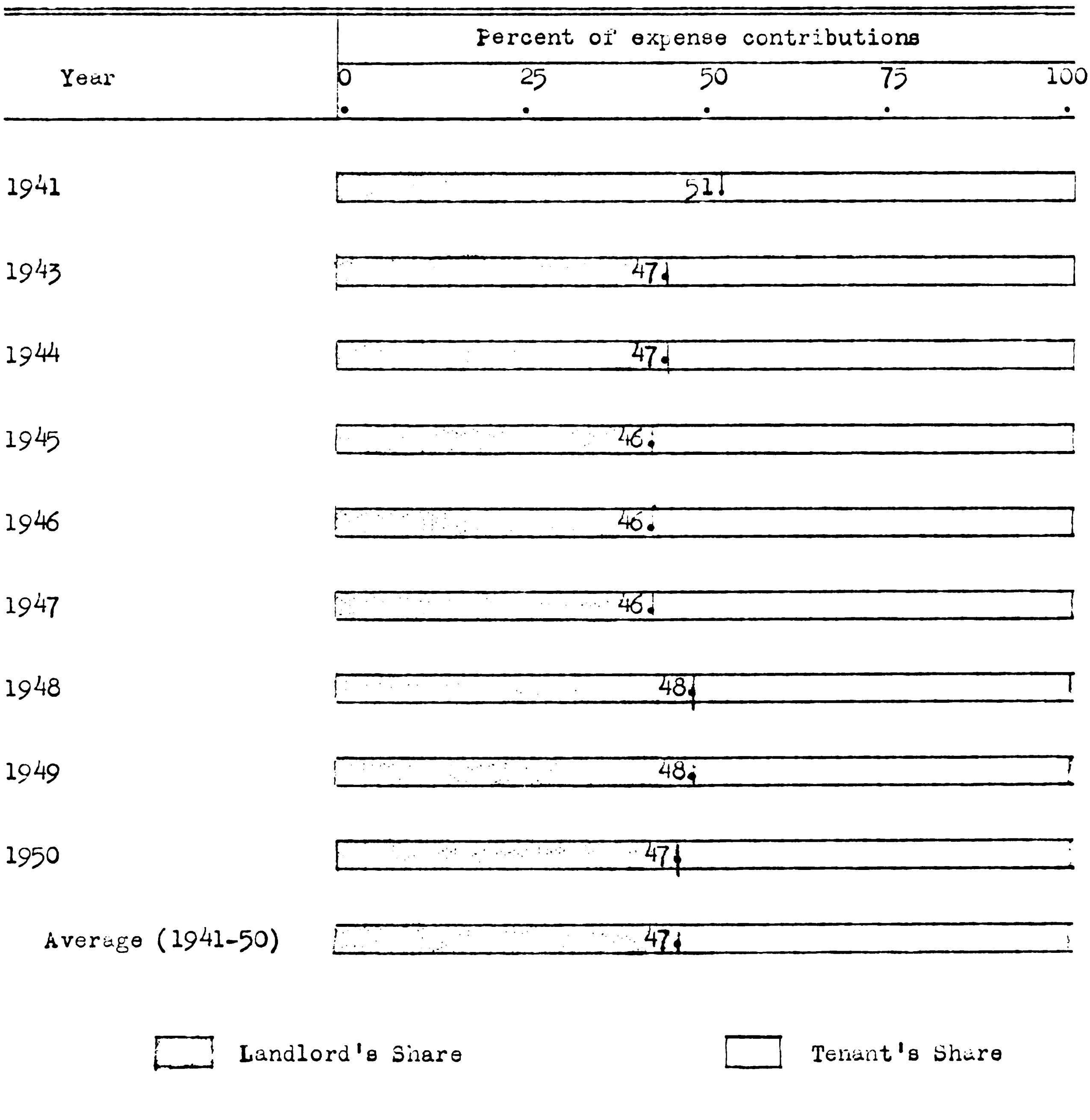
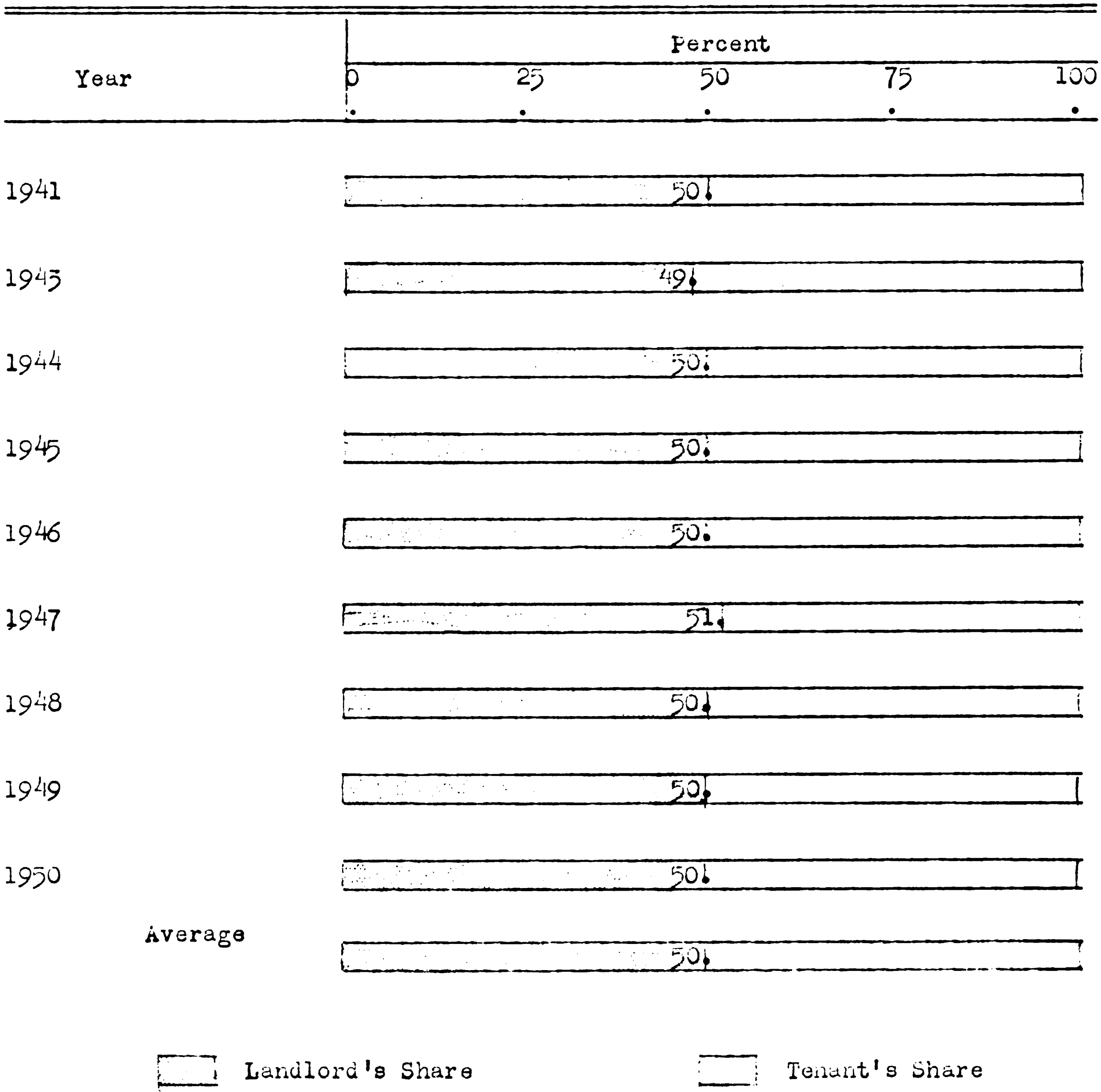


Figure 27 — Gross income: percentage received by landlord and tenant on a Hillsdale County, Michigan rented farm with a 50-50 Crop and Livestock Share Lease, 1941-50.



Equitability of Farm Lease 1941-50: In determining the equitability of the farm lease on this farm, it can be noted from Figures 28 and 29 that there is no wide variation in the division of expense contributions and income between landlord and tenant. Although the division of the expense contributions is not quite on a 50-50 basis, as is the division of income, they do not vary too far from the 50-50 basis.

The tenant is providing on the average 53 percent of the total expense contributions. However, the labor charge, which is the main contribution of the tenant, is quite high for the size of business on this farm. In 1950 the labor expense per tillable acre was \$19.25 as compared to \$16.70 per tillable acre for the average of all farms account cooperators in this area. This high labor charge and relatively low labor efficiency will partly offset some of the larger expense contribution being made by the tenant.

In general, it can be reasoned that this farm lease is not too far from being equitable to both landlord and tenant.

It is important to note that on this farm there is no wide variation in either the percentage of the total investment, or in the division of the total expense contributions from year to year by landlord and tenant. One of the important reasons for this situation is that the landlord owns approximately 50 percent of the machinery and equipment, in addition to his usual investments under this type of lease. Therefore, as the investment in machinery has increased over the past decade, the landlord's investment has increased at the same rate as the tenant's. It can be reasoned that this is an important factor in causing this farm lease to be more nearly equitable than some other farms with this type of lease.

On some of the other farms in this study where the farm lease was considered to be approximately equitable, the landlord also provided about 50 percent of the investment in machinery and equipment. This has not been one of the usual provisions in our 50-50 Crop and Livestock Share Leases. However, serious consideration should be given to this factor if we are to continue to divide the gross income on a 50-50 basis.

It can be reasoned that this farm lease is approximately equitable in the division of expense contributions and gross income. However, it can be noted that even though the lease agreement is equitable, it is not too profitable. Neither the landlord nor the tenant are faring too well in net income. The landlord's net income averaged only $191 for the period 1941 to 1950, and the tenant's net income averaged a negative $753 for the same period.

One of the reasons for this farm business not being very profitable is probably because of an inefficient tenant. Upon examining the efficiency factors on this farm (Table 17) we find that dairy sales per cow are very low. There is also a wide fluctuation in crop yields. It can be noted that during the years that both the landlord and tenant had a negative net income, the crop yield index for that year was very low. Labor efficiency could also be improved on this farm.

From the study of this farm it can be reasoned that even though the "balance sheet" shows that the lease agreement to be equitable, the agreement still might not be profitable and fair to both parties. The landlord is providing more of the investment and expense contributions than is usually provided by the landlord under this type of lease, but he still is not faring too well because of an inefficient tenant.

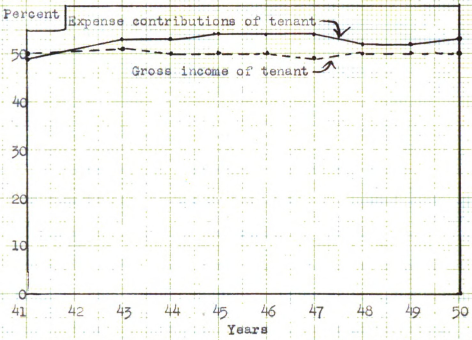


Figure 28 -- Expense contributions and gross income of tenant on a Hillsdale County, Michigan rented farm with a 50-50 Crop and Livestock Share Lease for the years 1941 to 1950.

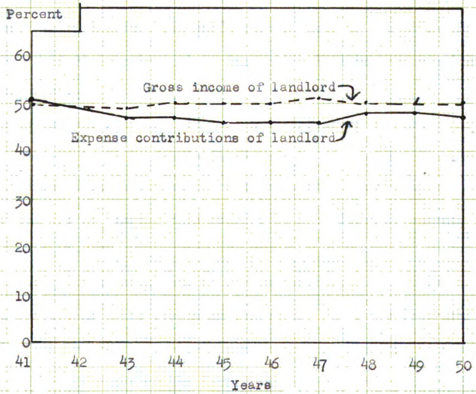


Figure 29 -- Expense contributions and gross income of landlord on a Hillsdale County, Michigan rented farm with a 50-50 Crop and Livestock Share Lease for the years 1941 to 1950.

CHAPTER VII

SUMMARY AND CONCLUSIONS

Farm tenancy has become a permanent part of our agricultural economy. The trend in farm tenancy in the United States was upward until 1935 when it reached an all time high and then declined. In 1945 about 32 percent of the farms in the United States were operated by tenants. In Michigan the trend in farm tenancy has been similar to that for the United States and in 1945 was 12 percent. However, about 26 percent or one acre in four of all Michigan farm land was operated by "non-owners" (i. e. tenants and part owners). It has been estimated that in many farming areas approximately 25 percent of the farms can be tenant operated if the so-called "agricultural ladder" is to operate efficiently. Because farm tenancy is so important it is imperative that we have equitable lease agreements.

Due to custom, landlord and tenant divisions of expense contributions and income tends to remain fixed year after year despite the fact that prices and cost relationships and production vary from year to year and over aperiod of years. This results in many lease agreements which are not equitable.

Technological developments in agriculture and continually changing economic conditions makes custom an inadequate basis for determining an equitable farm lease. An up-to-date appraisal is required to study the effects of these changes on the farm lease agreements.

It is the purpose of this study to determine what constitutes an equitable farm lease and to test the equitability of farm leases used in Michigan. It was reasoned that an equitable farm lease is one in which the expense contributions are shared in the same proportion as the income.

The method used to test the equitability of the farm leases was a "balance sheet" on which were listed the division of investments, expense contributions and gross income. Most of the data used was taken directly from the farm account records at Michigan State College. However, several items such as values placed on the property, the operator's labor charge and the interest rate were estimated items; an attempt was made to place a fair and impartial value on these items based on correct prices and values.

It is realized that the interest rate allowed on the farm real estate may have been too low. Inasmuch as the capital provided by the landlord in the farm is high risk capital, possibly a higher interest rate should have been used.

In this study it was found that the 50-50 Crop and Livestock Share Lease was the most popular type of farm lease used in Michigan. Fifty-nine percent of the farms in the sample operated under this type of lease.

The Cash Farm Lease was second in importance in Michigan. Twenty-two percent of the farms in the sample operated under a cash lease. However, it was noted that the farms rented on a cash basis were smaller, less productive, and operated less efficiently than the farms under the other types of leases.

The Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Lease and the Crop-Share Cash Farm Lease were of equal importance on the farms in this study. Each of these farm leases were used on 8 percent of the farms in this study. These types of leases were not very popular and do not adapt themselves to most Michigan farming conditions.

The Landlord's 1/3 - Tenant's 2/3 Crop and Livestock Share Lease is not important with Michigan farmers. Only 3 percent of the farms in this study operated under this type of lease.

On testing the equitability of the above farm leases, each farm was tested individually and then averages were taken for each type of farm lease.

<u>50-50 Crop and Livestock Share Lease</u>

The farms operating under 50-50 Crop and Livestock Share Leases were about average in size and in productivity. Labor efficiency was above average on most of these farms.

The average investment on these farms was $31,453 of which 76 percent was furnished by the landlords and 24 percent by the tenants. The tenant's investments provided 95 percent of the machinery and equipment, 50 percent of the feed, 41 percent of the livestock and 61 percent of the poultry. All other investments were provided by the landlords.

<u>Expense Contributions</u>: Total expense contributions on farms in this study with 50-50 Crop and Livestock Share Leases averaged $7,717. Of this amount the tenants provided 58 percent while the landlords provided 42 percent.

The tenant's expense contributions included all the operator's labor charge and unpaid family labor, 96 percent of the hired labor, 87 percent of the machinery and power expense, 50 percent of the feed expense, 48 percent of the crop expense, 43 percent of the livestock expense, 7 percent of the taxes, 73 percent of the miscellaneous expense and 27 percent of the interest charges on the investment. The landlords provided the

balance of the expense contributions.

Gross Income: The average gross income on farms in this study with 50-50 Crop and Livestock Share Leases was $8,930. The tenants received 51 percent of this amount while the landlords received 49 percent.

Most of the income items were divided on a 50-50 basis. Such items as custom work income and labor off farm accrued to the tenant.

Dairy product sales were by far the largest single income item. Crop sales were second in importance.

Equitability of 50-50 Leases: If our assumptions of an equitable farm lease are correct, it can be reasoned that adjustments need to be made on some of the farms operating under this type of lease. The tenants on the average are providing 58 percent of the expense contributions and are receiving 51 percent of the income. The landlords, on the other hand, are providing 42 percent of the expense contributions and are receiving 49 percent of the income.

However, before we can determine the equitability of a farm lease other factors must also be considered. It was found in this study that on farms where the tenants provided the highest percentage of the expense contributions, they also had the highest labor expense and the highest machinery expense. It was also found that tenants who provided the smallest proportion of the expense contributions had the lowest labor and machinery expense.

It can be reasoned from this study that the tenants who were contributing the highest proportion of the expense contributions may have had excessive labor costs, poor labor efficiency, and also an excessive investment in machinery.

It was also found that on farms where the landlords were providing a

higher proportion of the expense contributions they had the highest improvement expense and real estate charges per tillable acre.

The above factors must be considered in testing the equitability of a farm lease. On some farms the tenant may have high labor costs, poor labor efficiency and an excessive investment in machinery. The "balance sheet" may show the tenant providing a larger proportion of the expense contributions. The farm may also be over-capitalized with excessive improvements. The "balance sheet" will then show the landlord providing a larger improvement expense, higher taxes, and a larger interest charge than is justified for the size of business on the farm. These factors distort the true picture on the "balance sheet".

In analyzing the equitability of a farm lease, part of the larger proportion of the expense contributions provided by either the landlord or tenant can be offset if the above factors are found to exist.

In some cases it might not always be desirable to divide the expense contributions in the same proportion as the gross income. The landlord who provides a good farm with a modern home may find that he has a poor and inefficient tenant. The result may be low earnings and inefficient operation of the farm. Under such an arrangement it would not be fair to ask the landlord to provide more of the expense contributions to make up for the inefficiencies of the tenant.

Under such an arrangement it could very well be that even if the farm lease was equitable, (i.e. expense contributions were divided in the same proportion as gross income) the farm business might be unprofitable. On some of the farms in this study the farm lease appeared to be equitable, but both the landlord and tenant received a negative net income. The "balance sheet" alone cannot determine if a farm lease is equitable. Consideration must also be given to other factors that may be present and effect the equitability of the lease agreement.

Cash Farm Leases

Farms in this study that operated under a cash lease were smaller and less productive farms than the average rented farm. Labor efficiency and the crop yield index were both below average.

The average total investment on these farms was $13,981 of which 44 percent was provided by the tenant and 56 percent by the landlords. The landlords provided the farm and all other investments were made by the tenants.

Expense Contributions: Total expense contributions on these farms averaged $5,632. Of this amount 84 percent was provided by the tenants, and 16 percent by the landlords. The landlords contributed the interest on their investment, their service charge, the improvement expense and the taxes on the real estate. The tenants provided the remaining expense contributions.

Gross Income: Gross income on farms with cash rent leases averaged $5,108. The tenants received 92 percent of this amount, and the landlords 8 percent. All the regular farm income was received by the tenants. The landlords only income was the cash rent received from the tenant. This averaged $385 per farm.

Equitability of Cash Leases: It might be reasoned from the above that farms with cash leases are not fair to the landlords. The landlords provided 16 percent of the expense contributions and received only 8 percent of the income. However, if we examine these farms more closely we find that over 50 percent of the tenants had a negative net income. The remainder of the tenants barely broke even.

There is little possibility of arriving at an equitable farm lease on these farms. They are too small and unproductive to give the landlord and tenant a fair return for their contributions.

Crop-Share Cash Farm Lease

The farms in this study with Crop-Share Cash Farm Leases were larger and more productive than the average of all rented farms. Labor efficiency and crop yield index were both above average.

The average total investment on these farms was $27,000. The landlords provided 56 percent of this amount and the tenants 44 percent. All the machinery and equipment, livestock and poultry were provided by the tenants. The landlords provided the farm and owned 18 percent of the investment in feed and crops.

Expense Contributions: Total expense contributions on these farms averaged $7,842. Seventy-five percent of this amount was provided by the tenants.

The expense contributions provided by the landlords includes their service charge, interest on their investment, 50 percent of the crop expense and the taxes on the real estate. The remaining expense contributions were provided by the tenants.

Gross Income ; Gross income on these farms averaged $9,731. The tenants received 82 percent of this amount and the landlords received 18 percent. The only income received by the landlords was 45 percent of the crop income and the cash rent paid by the tenants for the hay and pasture land, and for use of the buildings.

Equitability of Crop-Share Cash Lease: The Crop-Share Cash Farm Lease has not been too satisfactory. The landlords provided 25 percent of the expense contributions, and received only 18 percent of the income. The

farming practices usually are not very satisfactory because the landlords receive only a share of the crop sales and are not interested in a good livestock program. This type of lease is not adapted for most of the type of farming in Michigan.

Landlord's 2/3 - Tenant's 1/3
Crop and Livestock Share Lease

The farms with this type of lease had a smaller acreage than the average for all rented farms, but labor efficiency and crop yields were both above average.

The average investment on these farms was $26,109. The landlords provided 94 percent of this investment. The tenant's investment included 2 percent of the machinery and equipment, 37 percent of the feed, 3 percent of the livestock and 38 percent of the poultry.

Expense Contributions: Expense contributions on these farms averaged $7,536 of which 56 percent was provided by the landlords and 44 percent by the tenants. The labor was provided by the tenants. The landlords provided the improvements cash expenses, their service charge and the taxes on the real estate. Most of the other expense contributions were divided approximately on a 2/3 - 1/3 basis.

Gross Income: The gross income on farms with this type of lease averaged $9,811. This was divided 63 percent to the landlords and 37 percent to the tenants. Most of the income items were divided approximately on a 2/3 - 1/3 basis.

Equitability of Landlord's 2/3 Lease: It might be reasoned that landlords on farms with this type of lease are in a more favorable position than with some other types of lease. The landlords provided 56 percent of the expense contributions, and received 63 percent of the income. However it must be recognized that under this type of lease the landlord assumes a much higher risk than with any other type of lease, hence, he should be entitled to a larger proportion of the income. It can also be reasoned that the tenant should be allowed a lower labor charge because of the increased amount of supervision and management that must be provided by the landlord.

The Landlord's 2/3 - Tenant's 1/3 Crop and Livestock Share Lease is not very important in Michigan. It does not adapt itself very well to Michigan conditions, and has not been very satisfactory with landlords and tenants.

50-50 CROP AND LIVESTOCK SHARE LEASE OVER A PERIOD OF YEARS

This study had two objectives. The first was to test the equitability of farm leases for a one year period. The other objective was to test the equitability of the 50-50 Crop and Livestock Share Lease over a period of years on two farms.

A Lenawee County Rented Farm from 1946 to 1950

One of the rented farms studied over a period of 5 years was a 200 acre farm located in Lenawee County. Farm account records have been kept on this farm since 1945. In this study the farm lease was tested for the years 1946-50.

This farm was above average in acreage but below average in crop yields.

The size of business has increased each year from 1946-50, but labor efficiency has decreased each year for the same period.

Total investments on this farm has increased from $24,089 in 1946 to $34,398 in 1950. The investment of the tenant has increased from $4,189 in 1946 to $12,123 in 1950, or from 17 percent of the total investment in 1946 to 33 percent in 1950. In the same period, the landlord's percentage of the total investment dropped from 87 percent in 1946 to 67 percent in 1950.

Expense Contributions: Total expense contributions on this farm have increased from $5,571 in 1946 to $9,504 in 1950. The percentage of the total expense contributions provided by the landlord has decreased about every year from 42 percent of the total in 1946 to 36 percent in 1950. The percentage of the expense contributions by the tenant, on the other hand, have increased.

Gross Income: The division of gross income on this farm has been approximately on a 50-50 basis for the years 1946-50. The net income, however, was not divided on a 50-50 basis. The landlord's net income has increased about every year while the tenant's net income has decreased.

Equitability of Lease: It can be reasoned on the basis of the sharing of the expense contributions that the farm lease agreement on this farm is not equitable. The tenant's proportion of the expense contributions has increased each year, while the division of income has remained approximately on a 50-50 basis. For example, in 1946 the tenant was providing 58 percent of the expense contributions and received 50 percent of the income. In 1950 the tenant provided 64 percent of the expense contributions and received 51 percent of the income.

The major reason for this increase in the proportion of expense contributions provided by the tenant has been his much larger investment in machinery and equipment. Labor costs which are provided by the tenant have also greatly increased.

It was found in this study, however, that the machinery and labor provided by the tenant on this farm were excessive. But, even if allowances were made for these factors the tenant would still be providing more than his proportionate share of the expense contributions.

If this farm lease is to be made equitable, adjustments must be made in the expense contributions. The landlord is not providing the expense contributions in the same proportion as income received.

A Hillsdale County Rented Farm from 1941 to 1950

The second rented farm that was studied over a period of years is a 204 acre farm located in Hillsdale County. Farm account records have been kept on this farm since 1937. This study covers the period 1941-50.

The total farm investment on this farm increased from $16,131 in 1941 to $33,562 in 1950.

The percentage of the total investment provided by landlord and tenant has remained relatively constant from 1941-50. The chief reason for this is that the landlord has continued to provide approximately one-half the machinery and equipment along with his other usual investments.

Expense Contributions: Total expense contributions increased from $3,475 in 1941 to $6,715 in 1950. The proportion provided by landlord and tenant has remained relatively constant during this period. They were divided approximately on a 50-50 basis.

Gross Income: Gross income on this farm was divided on a 50-50 basis during the years 1941-50. However, this farm business was not very profitable. The landlord had an average net income of only $191 for the period 1941 to 1950 and the tenant had a negative net income for this same period.

Equitability of Lease: The farm lease agreement on this farm appears to be approximately equitable. There is no wide variation between the division of income and expenses. Only minor adjustment would be required in the expense items to make this lease equitable.

It is important to note that the landlord on this farm provided approximately one-half the investment in machinery and equipment. This is not one of the usual provisions of a 50-50 Crop and Livestock Share Lease.

The "balance sheet" shows the farm lease on this farm to be approximately equitable. However, the farm business is still not very profitable. One of the reasons for low earnings on this farm appears to be because of an inefficient tenant.

Conclusions

It can be reasoned from this study that a large number of the farm lease agreements in Michigan are not equitable. Some lease agreements are unfair to the landlord and others are unfair to the tenant.

In general, many of the 50-50 Crop and Livestock Share Leases need to be appraised and adjustments made in the expense contributions. The usual provisions of this type of lease may have been approximately equitable a decade ago, but this situation does not seem to be true today. If we are to continue to divide the income on a 50-50 basis, we should make adjustments so the expense contributions are also divided on similar basis.

Upon examining the records of the farms where the lease agreement is approximately equitable, we find several modifications from the usual provisions. One important modification of the 50-50 Crop and Livestock Share Lease was that the landlord owned 50 percent of the machinery and equipment as well as his usual investments. This may not be a desirable recommendation to make for this type of lease; however, this study shows that serious consideration should be given to this factor if the farm lease is to be made equitable.

Another modification of the usual provisions of the 50-50 Crop and Livestock Share Lease is that the landlord pays the tenant for his share of the custom work where the tenant owns the special machines. This seems like a fair practice and should be recommended; however, in this study only a few landlords followed this practice.

Other modifications that were made in this type of lease are that the landlord furnishes all the grass seed and over 50 percent of the commercial fertilizer. On some farms the landlord pays for one-half the cost of hired labor.

The above modifications along with other adjustments can be made if it is desirable to divide the expense contributions in the same proportion as income. However, each farm is an individual case and adjustments must be made on that particular farm which will make the lease agreement fair to both parties.

On several of the rented farms in this study, the "balance sheet" showed the landlord to be in a favored position. The landlord was not contributing to the expense contributions in the same proportion as income received.

It is realized that possibly the interest rate that was allowed on the real estate was too low. An interest rate of 4½ percent was used which is the going rate on well secured farm mortgages. However, it is reasoned that the landlord in providing the farms for the tenant is assuming a large amount of risk. In other words, the landlord is providing risk capital and therefore should receive a higher rate of interest. Possibly an interest rate of 6 percent should be allowed on the real estate. This higher interest rate still would not make the lease agreement equitable on a large number of farms, but it would help to make the expense contributions more nearly equitable to both parties.

It was also found in this study that the equitability of a farm lease agreement cannot be determined entirely by the "balance sheet". The "balance sheet" may show the lease agreement to be approximately equitable, but still the lease agreement may not be fair and the farm business may not be profitable. For example, the landlord may provide a good farm with a modern home and have an inefficient tenant operating the farm. Under such circumstances in attempting to make the lease agreement equitable, the landlord may be required to make additional expense contributions to make up for the inefficiencies of the tenant.

When using the "balance sheet" in attempting to arrive at an equitable lease agreement, consideration must also be given to all other factors involved. The lease agreement must be fair to both parties, and the farm business must be profitable if we are to have satisfactory leasing agreements.

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