



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

UNIVERSITY OF MINNESOTA
Department of Agriculture

THE FINANCIAL RESOURCES AND EARNINGS
OF
BEGINNING FARMERS

Mimeographed Report No. 123
Division of Agricultural Economics
University Farm
St. Paul 1, Minnesota
March, 1949

800 3-49

The Financial Resources and Earnings of Beginning Farmers

Wm. E. McDaniel, Andrew Vanvig and T. R. Nodland (1)

One of the basic problems of beginning farmers is the matter of securing sufficient capital to operate a farm either as an owner or tenant. The amount of capital resources available to the farmer will determine to some extent the type of tenure to be employed, his farm earnings and financial progress. The purpose of this report is to show for a group of beginning farmers operating under various tenure arrangements: (1) the amount of capital employed, (2) the earnings secured from farming, (3) the non-farm income and family living expenses, and (4) the financial progress. This information should be of interest to agriculture instructors and others who are working with beginning farmers and prospective farmers.

The data used in this report were secured from veterans receiving on-the-farm training in the public schools of the state, and who are enrolled in a farm accounting service in cooperation with the University of Minnesota. The 1947 records from 213 enrollees have been used as a basis for this report. Since most of the veterans began farming in 1946, these records give a picture of the capital resources used, the earnings, and the financial progress made during the second year of business.

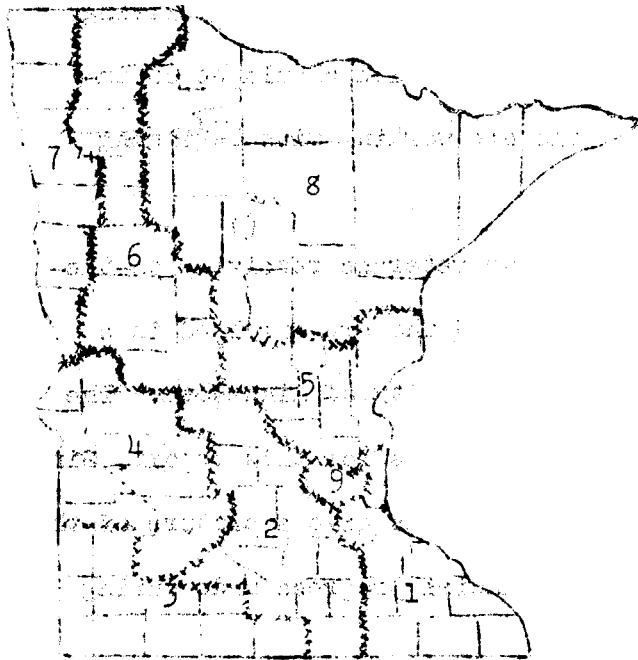
The 213 records used in this summary were grouped according to type-of-farming areas and tenure within the areas. Table 1 shows the number of cases in each area by tenure group and the accompanying map shows the various type-of-farming areas in the state. (2) For this report, the type of farming areas as designated in figure 1 are grouped as follows: Areas 1 and 2 are referred to as the southeast area, Area 4 as west central, Area 6 as northwest, and Areas 5 & 8 as northeast. The five tenure classes used are owner operator, part-owner,

-
- (1) The authors wish to express their appreciation to George A. Pond, S. A., Eugene, and F. T. Hady, for critically reviewing the manuscript before publication.
 - (2) For a more complete description of the type-of-farming areas in Minnesota, see Eugene, S. A., and Pond, G. A., "Agricultural Production and Types of Farming in Minnesota," Minn. Agr. Expt. Sta. Bul. 347, May, 1940.

cash and/or crop share tenant, livestock and crop share tenant and partnership in which the tenant furnishes little or no capital.

Table I. Number of Records Included in Report by Type of Farming Areas and Tenure Groups, 1947

Type of Farming Area	Owner Operator	Part Owner	Cash & Crop Share	L. S. and Crop Share	Father-Son Partnership	Total
Scutheast	17	-	31	23	13	84
West Central	11	-	34	-	-	45
Northwest	16	-	14	-	6	36
Northeast	37	11	-	-	-	48
Total	81	11	79	23	19	213



Legend

1. Southeast dairy and livestock.
2. South Central dairy.
3. Southwest livestock and cash grain.
4. West Central cash grain and livestock.
5. East Central dairy.
6. Northwest dairy, livestock, and clover seed.
7. Red River Valley Small grain, potatoes and livestock.
8. Northern, out over, dairy, potatoes and clover seed.
9. Twin Cities suburban truck, dairy and fruit.

Figure 1. Type of Farming Areas in Minnesota

Farm Investments

The amount of capital invested in a farm business varies considerably among the different types of farming areas as well as among different types of tenure. The data in Tables 2 to 4 shows both the total investment in the farm business and the amount of capital that was furnished by the operator from his savings and from borrowed funds. Since owner-operators must furnish all of the capital needed

Table 2. Farm Inventories by Tenure Groups,
Southeast Area, January 1, 1947

	Cash & Crop Share		Livestock & Crop Share		Father-Son Partnership		
	Owner Operator	Oper. Wh. farm	Oper.	Wh. farm	Oper.	Wh. farm	
Acres in farm	142.8	142.4		161.6		229.5	
Avg. value per acre	\$62	\$79		\$86		\$59	
Productive livestock	1574	\$1734	1802	\$1449	3335	\$1189	4839
Crops	1245	1162	1162	903	1827	611	3421
Power, mach., & equip.	1907	1986	1986	1756	2446	645	3537
Real estate	8839	-	11318	-	13913	-	13512
TOTAL FARM CAPITAL	13565	4882	16268	4108	21521	2445	25309

Table 3. Farm Inventories by Tenure Groups,
West Central and Northeast Areas, January 1, 1947

	West Central Area			Northeast Area		
	Owner Operator	Cash & Crop Share Oper. Wh. Farm		Owner Operator	Part Owners Oper. Whole Farm	
Acres in farm	181.5		217.9	125.2	92	148.1
Avg. value per acre	\$ 50		\$ 62	\$ 35	\$ 48	\$ 38
Total livestock	1210	\$1065	1065	1109	1369	1369
Crops	905	895	921	397	452	452
Power, mach., & equip.	1784	2067	2067	1624	1036	1088
Real estate	9025	-	13538	4429	4397	5621
TOTAL FARM CAPITAL	12924	4027	17591	6959	7254	8530

in their business, they usually require a greater amount of capital with which to start farming than do renters although their equity in the capital furnished may be relatively small. However, renters frequently employ more total capital than owner-operators by leasing the real estate and in some tenure arrangements, part of the livestock and equipment. The percent of the total farm investment supplied by the operators in this study varied from 100 per cent for the owner-operators to an average of 7 per cent for the junior partners in the father-son partnerships in the northwest area. The percent of total farm investment supplied by operators under different forms of tenure is shown in table 5. Even with a smaller amount

Table 4. Farm Inventories by Tenure Groups
Northwest Area, January 1, 1947

	Owner Operator	Cash and Crop Share		Father-Son Partnership	
		Operator	Whole Farm	Operator	Whole Farm
Acres in farm	120.8		173.1		215.8
Avg. value per acre	\$ 48		\$ 57		\$ 60
Total livestock	1184	\$1387	1387	\$430	3845
Crops	466	665	665	870	2367
Power, mach., & equip.	1092	1498	1498	319	3236
Real estate	5750	-	9844	-	12862
TOTAL FARM CAPITAL	8492	3550	13394	1619	22310

of capital to invest, renters were able through some form of leasing arrangement to operate larger and better equipped farms than the owner-operators. For example, owner-operators in southeastern Minnesota employed capital valued at only \$13565 on January 1, 1947 as compared to \$16,268 for cash or crop share renters, and \$21,521 for livestock and crop share renters. Similar variations are evident in the other areas.

Table 5. Percent of Capital Supplied by Operator
by Type of Farming Areas and Tenure Groups, Jan. 1, 1947

Type of Farming Area	Owner Operator	Part Owner	Cash and Crop Share	L. S. and Crop Share	Father-Son Partnership
Southeast	100	-	30	19	10
West Central	100	-	23	-	-
Northwest	100	-	27	-	7
Northeast	100	85	-	-	-

Renting offers an opportunity to the beginning farmer with a limited amount of financial resources to combine his capital with that of a landlord to provide an adequate unit. In most of the areas included in this study, renters were operating larger farms on the average than owners. Unless a farmer has sufficient capital to buy a good farm and one that is large enough to make efficient use of labor and equipment, ownership may be a handicap.

Farm Earnings

The return to capital and family labor represents the earnings from the farm available to the operator for family living expenses, savings, and any principal payments which may be made on indebtedness. It represents only the farm earnings of the operator and does not include the landlord's earnings. The farm earnings of the operators under various tenure arrangements in different areas of the state are shown in tables 6 to 8.

In all areas, except the southeast, the owner operators received lower returns to capital and family labor than did the operators under other types of tenure. In

Table 6. Farm Earnings Statement by Tenure Groups, Southeast Area, 1947

	Owner Operator	Cash and Crop Share	Livestock & Crop Share	Father-Son Partnership
<u>FARM RECEIPTS</u>				
Cattle sales	\$519	\$610	\$443	\$301
Dairy products	1264	1408	1035	900
Hogs	1506	1363	1270	1406
Sheep and wool	7	12	4	18
Poultry and eggs	647	819	574	191
Crops	1107	659	630	363
Misc.	947	317	286	124
Total farm sales	5997	5188	4242	3303
Increase in farm capital	2124	2220	1269	1439
Family living from the farm	439	456	485	301
Total farm receipts	8560	7864	5996	5043
<u>FARM EXPENSES</u>				
Livestock purchases	\$830	\$893	\$422	\$370
Miscellaneous livestock expense	51	71	60	37
Feed	735	893	534	594
Misc. crop expense	408	257	132	155
Custom work hired	250	180	146	96
Mechanical power bot.	585	658	412	315
Mechanical power upkeep	586	582	544	371
Crop mach. & livestock equip. bot.	696	599	508	280
Crop mach. & livestock equip. upkeep	124	97	94	121
New real estate improvements	234	-	-	277
Real estate upkeep	121	23	9	83
Hired labor	199	87	166	95
Taxes and general farm expense	235	60	46	71
Cash rent	-	447	13	65
Interest paid	252	62	38	10
Total farm purchases	5306	4909	3124	2940
Board for hired labor	95	33	89	62
Total farm expenses	5401	4942	3213	3002
Return to capital and family labor	3159	2922	2783	2041

Table 7. Farm Earnings Statement by Tenure Groups, West Central Area and Northeast Area, 1947

Item	West Central Area		Northeast Area	
	Owner-Operator	Cash and Crop Share	Owner	Part-owner
<u>FARM RECEIPTS</u>				
Cattle sales	477	256	390	457
Dairy products	450	370	1207	1351
Hogs	1079	1569	105	330
Sheep and wool	105	21	30	-
Poultry and eggs	828	460	328	667
Crops	1123	1739	298	155
Misc.	496	162	236	150
Total farm sales	<u>4558</u>	<u>4577</u>	<u>2594</u>	<u>3110</u>
Increase in farm capital	2240	1858	696	1786
Family living from the farm	346	343	385	414
Total farm receipts	<u>7144</u>	<u>6778</u>	<u>3675</u>	<u>5310</u>
<u>FARM EXPENSES</u>				
Livestock purchases	784	531	350	461
Misc. livestock expense	82	57	45	45
Feed	598	602	489	897
Misc. crop expense	391	338	132	144
Custom work hired	159	193	146	141
Mech. power bought	807	445	428	549
Mech. power upkeep	635	730	286	352
Crop mach. & livestock equip. bct.	549	540	176	427
Crop mach. & livestock equip. upkeep	119	141	50	71
New real estate improvements	148	-	118	331
Real estate upkeep	207	78	73	87
Hired labor	71	137	83	110
Taxes and gen'l. farm expense	236	41	101	135
Cash rent	-	158	-	32
Interest paid	350	50	87	106
Total farm purchases	<u>5136</u>	<u>4041</u>	<u>2564</u>	<u>3888</u>
Board for hired labor	17	44	9	40
Total farm expenses	<u>5153</u>	<u>4085</u>	<u>2573</u>	<u>3928</u>
Return to capital and family labor 1991		2693	1102	1382

computing returns to capital and family labor, interest paid on borrowed funds was deducted as an expense but no charge was deducted for the operators equity in the farm business. If interest on the operator's equity in the farm business is considered as an expense, the return to the operator and his family will be reduced in all types of tenure, but the greatest reduction will occur in the return to the owners because on the average they have more of their own capital invested.

It is well recognized that size of farm business is a factor having considerable influence upon farm earnings. In general, the larger the farm business, other factors being equal, the greater will be the farm earnings except in periods

Table 8. Farm Earnings Statement by Tenure Groups, Northwest Area, 1947

	Owners	Cash and Crop Share	Father - Son Partnership
FARM RECEIPTS			
Cattle sales	\$364	\$378	\$566
Dairy products	921	1283	1316
Hogs	512	826	320
Sheep and wool	14	55	-
Poultry and eggs	390	666	270
Crops	297	697	934
Miscellaneous	186	104	229
Total farm sales	<u>2684</u>	<u>4009</u>	<u>3635</u>
Increase in farm capital	937	1431	1100
Family living from the farm	391	426	431
Total farm receipts	<u>4012</u>	<u>5866</u>	<u>5166</u>
FARM EXPENSES			
Livestock purchases	\$301	\$662	\$153
Miscellaneous livestock expense	30	65	23
Feed	548	606	348
Miscellaneous crop expense	139	208	156
Custom work hired	141	176	77
Mechanical power bought	232	305	387
Mechanical power upkeep	382	497	731
Crop machinery & livestock equip. bot.	203	493	681
Crop machinery & livestock equip. upkeep	65	110	164
New real estate improvements	234	-	-
Real estate upkeep	121	29	13
Hired labor	40	166	297
Taxes and gen'l. farm expense	115	45	55
Cash rent	-	330	38
Interest paid	116	55	6
Total farm purchases	<u>2667</u>	<u>3747</u>	<u>3129</u>
Board for hired labor	15	98	62
Total farm expenses	<u>2682</u>	<u>3845</u>	<u>3191</u>
Return to capital and family labor	1330	2021	1975

of extreme depression. (1) This study showed that in each area the size of farm business as measured by productive work units was smaller for the average of the beginning owner-operators than for any other tenure group. For example, in Northwestern Minnesota the owner-operators had an average of 191 productive work units, while cash and crop share tenants had 270 and father-son partners, 417 work units. By beginning farming as a tenant, it is possible for the operator to combine his capital with that furnished by the landlord to provide a more adequate farm business.

(1) For a more complete discussion of factors effecting farm earnings, see Pond, George A., "Why Farm Earnings Vary". Minn. Agr. Expt. Sta. Bul. 386.

There is evidence that in addition to being smaller, the farms operated by the owners were less productive. In most of the groups studied, the value of the real estate on a per acre basis was lower on the owner-operated farms than the farms operated under a leasing arrangement (tables 2 to 4). Further evidence of this shows up in the low crop yields secured. The index of crop yields on the owner-operated farms in northwestern Minnesota was 88, on cash and crop share rented farms, 97, and on father-son partnership farms, 137. In west central Minnesota, owner-operators had a crop yield index of 86 as compared to 104 for the cash and crop share group. Similar variations occurred in the other areas studied as is shown by table 9.

Table 9. Average Crop Yield Index by Type of Farming Areas and Tenure Groups, 1947

Type of farming area	Owner Operator	Part Owner	Cash and Crop Share	L. S. and Crop Share	Father-Son Partnership
Scuttheast	91	-	95	105	116
West Central	86	-	104	-	-
Northwest	88	-	97	-	137
Northeast	98	106	-	-	-

The beginning farmers included in this study who purchased farms were, in many cases, obliged because of their limited amount of capital to buy not only smaller units, but also land which was on the average lower in fertility than that operated by the beginning farmers under other types of tenure. Thus many of the beginning operators who purchased rather than rented farms placed themselves at a disadvantage from the standpoint of income they were able to make.

Net Worth

The financial progress of the farmer during the year is shown by the change in his net worth. The net worth statements at the beginning and end of the year take into account the operator's farm assets and liabilities, outside investments and household and personal assets and liabilities.

In this study, the net worth is largest for the owner operators when compared to the operators under other types of tenure in their respective areas, except

Table 10. Net Worth Statements for Beginning and End of Year
by Tenure Groups, Southeast Area, 1947

	Owners		Cash and Crcp Share		Livestock and Crcp Share		Father - Son Partnership	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31	Jan. 1	Dec. 31	Jan. 1	Dec. 31
ASSETS								
Livestock	1574	2183	1734	2519	1449	1841	1189	1428
Crp, seed and feed	1245	2506	1162	1885	903	1302	611	1106
Power, mach., L.S. equip.	1907	2298	1986	2698	1756	2234	645	1350
Real estate	8839	8702	-	-	-	-	-	-
Total farm capital	13565	15689	4882	7102	4108	5377	2445	3884
Accounts receivable	214	244	65	13	28	10	411	242
Outside investments	612	617	345	337	365	448	692	649
Cash	215	350	319	379	234	317	487	405
Household & personal assets	1015	1136	1250	1432	1170	1399	1030	1259
Total Assets	15621	18036	6861	9263	5905	7551	5065	6439
LIABILITIES								
Real estate mortgages	6267	5689	-	-	-	-	-	-
Chattel mortgages	332	367	1065	1202	769	546	104	61
Notes and accounts payable	1704	1799	709	525	1153	861	264	204
Total Liabilities	8303	7855	1774	1727	1922	1407	368	265
Net Worth	7318	10181	5087	7536	3983	6144	4697	6174
Increase in net worth		2863		2449		2161		1477

Table 11. Net Worth Statements for Beginning and End of Year
by Tenure Groups, West Central and Northeast Areas, 1947

	West Central				Northeast			
	Owner		Crop Share		Owner		Part Owner	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31	Jan. 1	Dec. 31	Jan. 1	Dec. 31
ASSETS								
Livestock	1211	1888	1065	1673	1110	1297	1369	1947
Crop, seed and feed	905	1811	895	1525	397	568	452	802
Power, mach., L.S. equip.	1784	2538	2066	2686	1024	1370	1036	1745
Real estate	9024	8927	-	-	4428	4420	4397	4515
Total farm capital	12924	15164	4026	5884	6959	7655	7254	9040
Accounts receivable	72	12	85	44	44	30	13	-
Outside investments	429	410	226	587	411	290	145	76
Cash	345	395	303	380	312	258	158	159
Household & personal assets	1031	1264	927	1204	864	931	740	859
Total Assets	14801	17245	5567	8099	8590	9164	8310	10134
LIABILITIES								
Real estate mortgages	6822	6958	-	-	2004	1816	1923	1853
Chattel mortgages	808	563	957	1120	583	598	135	597
Notes and accounts payable	639	805	619	525	235	235	270	326
Total Liabilities	8269	8326	1576	1645	2822	2649	2328	2776
Net Worth	6532	8919	3991	6454	5768	6515	5982	7358
Increase in net worth		2387		2463		747		1376

Table 12. Net Worth Statements for Beginning and End of Year
by Tenure Groups, Northwest Area, 1947

	Owners		Cash and Crop Share		Father - Son Partnership	
	Jan. 1	Dec. 31	Jan. 1	Dec. 31	Jan. 1	Dec. 31
ASSETS						
Livestock	1184	1501	1387	1991	430	495
Crop, seed and feed	466	808	664	975	870	1028
Power, mach., L.S. equip.	1091	1296	1498	2014	319	1196
Real estate	5750	5823	-	-	-	-
Total farm capital	8491	9428	3549	4980	1619	2719
Accounts receivable	14	6	14	16	323	323
Outside investments	234	163	317	283	465	491
Cash	174	102	146	173	391	242
Household and personal assets	622	824	990	1088	668	951
Total Assets	9535	10523	5016	6540	3466	4726
LIABILITIES						
Real estate mortgages	2639	2453	-	-	-	-
Chattel mortgages	606	476	1213	981	163	128
Notes and accounts payable	550	493	575	542	-	-
Total Liabilities	3795	3422	1788	1523	163	128
Net Worth	5740	7101	3228	5017	3303	4598
Increase in Net Worth		1361		1789		1295

in the northeast area where the part owners show a larger net worth (tables 10 to 12).

Since these are beginning farmers they are using a substantial amount of their income to increase their farm capital rather than paying off their indebtedness. Each of the eleven tenure groups studied in the four areas invested 75 per cent or more of their increase in net worth in farm capital except the "owner operators" in the northwest area who invested 69 per cent in farm capital, and the "livestock and crop share" tenants in the southeast area, who invested 59 per cent in farm capital.

The owners who were forced to borrow a considerable share of the funds to acquire a farm plus working capital may find themselves in an uncomfortable position in the event of falling prices. Table 13 shows the percentage of the operator's total assets which is represented by his net worth as of January 1, 1947. The owner operators have the lowest ratio of net worth to capital while the junior partners of the father-son partnerships have the highest. In the west central area, the net worth of the owner operators represent 44 per cent of the operators total assets; the corresponding figure for the cash and crop share renters in the same area is 72 per cent.

Table 13. Percent of Operator's Total Assets Represented by Net Worth Jan. 1, 1947, by Types of Farming Areas and Tenure Groups

Type of Farming Area	Owner Operator	Part Owner	Cash and Crop Share	L. S. and Crop Share	Father-Son Partnership
Southeast	47	-	74	68	93
West Central	44	-	72	-	-
Northwest	60	-	64	-	95
Northeast	67	72.0	-	-	-

Similar fluctuations are shown for other areas in table 13. Since the value of farm assets are influenced by changes in the price level while liabilities (being actual monetary accounts) are not, it is important that farm operators maintain a favorable ratio of assets to liabilities. (1) Principal and interest payments on debt remain fixed when prices fall, while cash rent tends to decline. Share rent

(1) For a discussion on the amount of debt that can be repaid, see "Capital Needed to Farm in the Midwest" Minn. Agr. Expt. Sta. Bul. 389, January, 1946.

is automatically adjusted to changes in the price level since the share of the crops given as rent usually remains constant.

Family Income and Expenses

The total family income and the total family expenses are shown in tables 14 to 16. Total family income includes the return to capital and family labor from the farm business, personal income, and the net gain from outside investments. Personal income was largely in the form of veteran's compensation payments. Net gains from outside investments occur when the receipts from outside investments plus the increase in outside investment inventory exceed the purchases and expenses of outside investments.

Total family expenses include household and personal expenses, family living from the farm, and the net expense of outside investments, minus the value of board furnished hired labor. The increase in inventory of household and personal assets (other than cash) is subtracted from the cash household and personal expenses in order to get the actual cash household and personal expenses chargeable to the current year. Family living from the farm is included because it is part of the expense of the household even though it is not a direct cash transaction. Net

Table 14. Family Income and Family Expenses,
by Tenure Groups, Southeast Area, 1947

	Owner Operator	Cash and Crop Share	Livestock and Crop Share	Father-son Partnership
Return to farm capital & family labor	\$3159	\$2922	\$2783	\$2041
Personal income	1425	1318	1231	1180
Net gain from outside investments ^{1/}	-	20	31	-
(1) Total family income	<u>4584</u>	<u>4260</u>	<u>4045</u>	<u>3221</u>
Cash household & personal expenses ^{2/}	1459	1355	1543	1368
Family living from the farm	441	454	485	301
Net expense of outside investments ^{1/}	12	-	-	185
Total household expenses	<u>1912</u>	<u>1809</u>	<u>2028</u>	<u>1854</u>
Board for hired labor ^{3/}	95	33	89	62
(2) Total family expenses	<u>1817</u>	<u>1776</u>	<u>1939</u>	<u>1792</u>
Savings (1) - (2)	2767	2484	2106	1429
Increase in net worth	2863	2449	2161	1477

^{1/}Receipts from outside investments plus increase in outside investments inventory minus (purchases of outside investments + insurance premiums) equals net gain from outside investments if positive, or net expense of outside investments if negative.
^{2/}Total household and personal expenses minus increase in inventory of household and personal assets other than cash.
^{3/}The value of the board furnished hired labor is deducted from the total household expenses to arrive at the total family expenses.

Table 15. Family Income and Family Expenses by Tenure Groups,
West Central and Northeast Areas, 1947

	West Central Area		Northeast Area	
	Owner Operator	Cash and Crop Share	Owner Operator	Part Owners
Return to farm capital & family labor	\$1991	\$2693	\$1102	\$1382
Personal income	1519	1297	1211	1198
Net gain from outside investments ^{1/}	-	251	-	-
(1) Total family income	<u>3510</u>	<u>4241</u>	<u>2313</u>	<u>2580</u>
Cash household & personal expenses ^{2/}	1106	1506	1128	1015
Family living from the farm	346	343	385	414
Net expenses of outside investments ^{1/}	78	-	23	34
Total household expenses	<u>1530</u>	<u>1849</u>	<u>1536</u>	<u>1463</u>
Board for hired labor ^{3/}	17	44	9	40
(2) Total family expenses	<u>1513</u>	<u>1805</u>	<u>1527</u>	<u>1423</u>
Savings (1) - (2)	1997	2436	786	1157
Increase in net worth	2387	2463	747	1376

Table 16. Family Income and Family Expenses,
Tenure Groups, Northwest Area, 1947

	Owner Operator	Cash and Crop Share	Father-Son Partnership
Return to farm capital & family labor	\$1330	\$2021	\$1975
Personal income	1112	1080	994
Net gain from outside investments ^{1/}	-	-	-
(1) Total family income	<u>2442</u>	<u>3101</u>	<u>2969</u>
Cash household & personal expenses	879	1223	1321
Family living from the farm	391	426	431
Net expense of outside investments ^{1/}	12	37	36
Total household expenses	<u>1282</u>	<u>1686</u>	<u>1788</u>
Board for hired labor ^{2/}	15	98	62
(2) Total family expenses	<u>1267</u>	<u>1588</u>	<u>1726</u>
Savings (1)-(2)	1175	1513	1243
Increase in net worth	1361	1789	1295

expenses of outside investments occur when the costs of outside investments exceed the total return from outside investments. Board furnished hired labor is deducted from total household expenses to arrive at total family expenses.

In setting up tables 14 to 16 a method has been devised to check the accuracy of the account records. The difference between the total family income and total

^{1/} Receipts from outside investments plus increase in outside investments inventory minus (purchases of outside investments + insurance premiums) equals net gain from outside investments if positive, or net expense of outside investments if negative.

^{2/} Total household and personal expenses minus increase in inventory of household and personal assets other than cash.

^{3/} The value of the board furnished hired labor is deducted from the total household expenses to arrive at the total family expenses.

family expenses is called savings and should equal the increase in Net Worth.⁽¹⁾ In 9 out of the 11 groups savings were less than the increase in net worth, This is probably due to the omission of some of the operator's farm or non-farm income from the record. Farm records provide the greatest value to the operator only if they are kept completely and accurately. The results in tables 14 to 16 indicate that for some areas accuracy can and should be improved.

Conclusions

This report is an analysis of 213 farm records kept by beginning farmers in 1947. In drawing conclusions or generalizing from such an analysis, one must bear in mind that these records cover only one year of the farm business and that the analysis was made on the basis of averages. It is also important to remember that the owner operators have purchased their farms during a period of high land prices.

The prospective beginning farmer with a given amount of capital faces the question as to what type of tenure he should enter. This report does not answer that question, but it does show the average investment, earnings, and increase in net worth for one year of a group of beginning farmers classified according to different types of tenure in four different farming areas in Minnesota.

The analysis indicates that on the average the tenants have less money invested than the owner operators but have a larger farm income except in the southeast area; where there was no significant difference between the average income of the owner operators and the cash and crop share tenants. The study indicates some of the factors which are responsible for the higher income of the tenants. Some of the owner operators have handicapped themselves by obtaining less fertile land than the beginning farmers who have chosen other forms of tenure within the same type of farming area. The owner operators included in this study operate a smaller farm business than the tenants when measured either in acres or total work units. Evidently the limited amount of capital at the command of the

(1) Savings may be in the form of cash, bank deposits, reduced debts, farm capital, or outside investments.

beginning farmers was not enough to enable them to purchase larger and more fertile farms.

As the size of business increases within reasonable limits, the efficiency of much of the operating capital and labor increases. For example, the cost per acre of machinery and power such as drills, plows, tractors, etc., decreases as it is used over more acres. The efficiency of labor increases as the size of business increases and as the combination of the farm enterprises approaches the point at which the demand for labor is distributed evenly throughout the year. In the southeast area where there is not a significant difference between the average size of farm business of the owner operator and the cash and crop share tenant, there is not a significant difference between the return to capital and family labor under the two types of tenure.⁽¹⁾

On the average, the liabilities of the owners are considerably greater than those of the tenants while their incomes are less. As the price declines, many of the owner operators, due to a combination of small size of business and less productive land, along with the decline of prices, may experience difficulty in meeting interest and principal payments on their indebtedness.

This analysis should not be taken to mean that some beginning farmers should not buy farms. It does signify, however, that unless the beginning farmer has sufficient financial resources to purchase an adequate farm unit, he should consider investing his limited amount of capital in machinery and livestock and combining it with a rented farm under an appropriate lease to give him the greatest earning capacity. If the eventual goal of a farm operator is debt-free ownership of a farm, many operators might actually reach that goal more quickly by renting a productive farm of sufficient size to make the best use of their labor and financial resources until they have accumulated sufficient capital to purchase a good farm. They will then be in a better position to handle the financing involved in ownership. In addition, they will be reducing the risks associated with a heavy indebtedness.

(1) For factors other than size that effect farm earnings, see Pond, George A., "Why Farm Earnings Vary", Minn. Agr. Expt. Sta. Bul. 386.