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Farm Interest Paid: Evaluation of USDA/ERS-Administrative, FCRS, IRS and Census Estimates

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Interest

AAEA paper

INTRODUCTION

Given the current farm financial crisis, income and balance sheet estimates have become important indicators to those concerned with gauging the performance of U.S. farmers. Farm net income estimates are key components of these indicators. With 1985 USDA/Economic Research Service (ERS) estimates of farm debt at $212 billion and nominal rates of interest ranging from 8 to 10 percent, interest payments on this debt are significant expenses to be considered in computing net income of the agricultural sector. Recognizing the importance of farm interest payments ERS has taken several steps in verifying the accuracy of these expense estimates.

Table 1, published by ERS (Simunek), reports four independent estimates of farm interest expenses excluding households, for 1971-1983. The objectives of this paper are to document the specific methodologies employed in estimating three of these farm interest expenses; the USDA/Economic Reseach Service (ERS) administrative, the Farm Cost and Returns Survey (FCRS) and the Internal Revenue Service (IRS), to evaluate these methodologies and to develop preliminary recommendations for improving future estimates.

The interest expenses in column (1), ERS -Administrative, are developed from data provided by the Farm Credit System (FCS), Farmers Home Administration (FmHA), Life Insurance Companies (LIC's), Commercial Banks (CB's) and Individual and Other lenders (IO's). These are of particular importance since they are

Table 1 ERS -Administrative, FCRS, IRS, and Census Interest Expenses excluding farm households, 1971-83.

Year	Economic Research Service Administrative	Farm Cost and Returns Survey	Internal Revenue Service	Census of Agriculture
	Millions of Dollars			
1971	3,337	2,531	2,815	
1972	3,666	3,275	3,118	
1973	4,433	3,655	3,833	
1974	5,429	4,019	4,421	N/A
1975	6,075	4,755	5,196	
1976	7,012	4,688	6,043	
1977	8,146	6,033	6,511	
1978	10,228	7,477	7,942	N/A
1979	13,063	9,212	10,040 a	
1980	16,257	10,725	12,847 a	
1981	19,858	12,553	16,522 b	
1982	21,825 a	14,046	18,905 b	11,663
1983	21,430 a	13,905	N/A	
1984	21,130 b	13,474	N/A	

a Revised
b Preliminary
N/A = not available

Source: Simunek.

recognized as official USDA estimates, and are published annually in Economic Indicators of the Farm Sector: Income and Balance Sheet Statistics.

The second column presents interest paid estimates from the Farm Cost and Returns Survey (FCRS) developed by USDA/Statistical Reporting Service (SRS). These numbers are published annually by SRS in Farm Production Expenditures. Column (3) reports the Internal Revenue Service (IRS) estimates of farm interest expenses for agricultural sole proprietorships, partnerships and corporations derived from income tax return data. The last column in Table 1 shows 1982 farm interest expenses reported by the Census of Agriculture.

The intention of Table 1 is to indicate levels of the four interest paid estimates and to permit examination of the correspondence among these estimates. Obviously, large differences between the alternative estimates would not instill confidence in ERS's methodology for computing farm sector interest expenses and other income indicators derived from these numbers.

The $7.65 billion dollar difference between 1984 ERS and FCRS estimates in Table 1 is disturbing. This inconsistency can alter farm net income estimates by approximately $3,200 per farm, depending on the particlar interest expense employed. From an operational perspective, the compelling issues are simply which estimate is most accurate, and is the degree of accuracy sufficient for future use by ERS.

When this research was undertaken IRS and FCRS methodologies for computing farm interest paid numbers were generally known, but not well documented. The methodology employed in calculating ERS interest expenses however, was not adequately documented. [1]

The remaining text is organized into three sections. Methodologies employed in computing each interest paid estimate are discussed in the next section, beginning with FCRS and ending with the ERS numbers. Section three critiques the three methods, highlights strengths and weaknesses, and explains the differences reported in Table 1. The

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[1] Documentation of procedures is a continuing effort complicated by changes in the availability of data and data concepts, turnover in personnel and the placing of typically higher priorities on completing estimates of accounts and staffwork projects.

final section presents the summary and conclusions of the preceding analysis. Recommendations will be reserved for this final section.

DISCUSSION OF THE INTEREST PAID METHODOLOGIES

This section discusses the FCRS, ERS and IRS methodologies for computing interest expenses on farm debt. The methodolgy employed for the FCRS will be presented first, followed by IRS procedures, and ending with those of ERS.

The Farm Cost and Returns Survey Estimates

The Farm Cost and Returns Survey (FCRS) estimates of farm interest expenses are derived from a sample of U.S. farms and ranches. In 1983 this sample contained over 13,000 observations. For purposes of the survey, a farm is defined as any producer of agricultural commodities with annual sales of $1,000 or more in the survey year.

Types of agricultural establishments included in the survey are similar to those listed in the Federal Government Standard Industrial Code (SIC) for crop and livestock production. The crop code includes production of field crops, vegetables, nuts, fruits and horticultural specialties. The livestock production code includes: cattle, hogs, sheep, goats, poultry, turkeys, milk and eggs, horses and honey.

Samples are selected from both list and area frame sources. The list source includes operators of farms and ranches who qualify as agricultural producers. For survey purposes these include larger, more specialized operations. The area frame source divides the contiguous

U.S. into small sampling units, each with a known probability of selection. The FCRS sample is made up of agricultural producers within a selected number of these units. These producers are surveyed and their information used with expansion factors to develop estimates for the entire U.S. The expansion factor or sample weight is equal to, with modification, the inverse of a known selection probability. For example, a sampled operation with selection probability equal to 1 out of 100, or 1 percent, represents 100 farms in the population. Therefore the economic data for this observation will be multiplied by 100 to get population, or in this case U.S., aggregates. Since farms surveyed from the list source are also included in the area source, strict procedures are employed to eliminate double counting these operations.

The Farm Cost and Returns Survey questionaire breaks down the various farm expenditures by specific groups. In the 1984 survey questionnaire one page related to farm taxes, interest and other expenditures (see Appendix A). Farm interest estimates published by SRS are developed by multiplying the operator's response for interest charges on the survey by the appropriate expansion factor.

The Internal Revenue Service Estimates

This subsection describes the sample criteria and selection of returns, and method of estimating Internal Revenue Service (IRS) farm interest expenses presented in Table 1. These estimates are computed by summing corporation, partnership and sole proprietorship farm enterprise estimates, for each enterprise type, reported in IRS's annual Statistics of Income: Income Tax Returns publication.

IRS estimates of farm interest expenses are developed from stratified probability samples of tax returns, based on principal business activity (PBA) codes, after revenue processing but before auditing. Standard Industrial Classification (SIC) Codes are used to categorize businesses by industry, size of receipts and State data. All sample returns are computer selected from the IRS's Business Master File system. Aggregate farm income information for sole proprietorships are developed by IRS from Schedule F -Farm Income and Expenses and Form 4835 -Farm Rental Income and Expenses. Farm partnership and corporation data are developed from the income tax returns of enterprises classified as such.

The sample of farm corporate returns are drawn from Form 1120 - U.S. Corporation Income Tax Return. The corporation population for 1981 consisted of 3,044,496 returns for active and inactive corporations, from which a sample of 92,876 returns were drawn (IRS, 1984). Because it is difficult to link industrial classifications to corporations from income and expense information reported on their tax returns, the IRS assigns industrial classifications according to the type of industry from which the corporation earns the most income. Therefore corporations are classified as farms only if their major source of income is derived from farming.

The sample of partnership returns are drawn from Form 1065-Partnership Returns of Income. In 1980 this sample consisted of 45,770 partnership returns from a population of 1,467,132 (IRS, 1982). Classification of partnership returns by industry categories poses similiar problems to those of corporations. Partnership returns are therefore assigned to an industry class with the following

considerations: the partnership's description of business activity and its principal product or service, the code entered by the partnership to describe its principal business activity, the sources of income and the nature of its expenses.

The sample of sole proprietorship returns is drawn from unaudited Forms 1040 -U.S. Individual Income Tax Returns, containing a Schedule F. There were approximately 2.5 million returns containing a Schedule F in 1980 (IRS, 1982). Farm proprietorships can file more than one Schedule F if they own more than one farm or if individual records are maintained for separate operations. In addition, two Schedule F's may be filed for the same farm operation under a crop-share rental agreement. In this case one form reporting the tenant's share of income and expenses and another reporting the "materially participating" landlord's share. Since the term "materially participating" is not defined by IRS, the landlord decides whether to file a separate Schedule F, or Form 4835 -Farm Rental Income and Expenses and Summary of Gross Income from Farming or Fishing and Schedule E -Supplemental Income Schedule (for a nonmaterially participating landlord) as recommended by IRS. The inclusion of Schedule F with Form 1040 precludes identifying materially participating landlords in IRS sole proprietorship data.

The sampling process involves dividing the States into five groups based on the population of Forms 1040 in each state. Sample returns are selected from each state based on the group's assigned sampling rate. In 1980 sample of sole proprietorships contained a minimum of 1,800 returns from each state (IRS, 1982).

Estimation of IRS farm interest expenses for each type of enterprise from tax returns are similar to the methods employed from the FCRS. Weighting factors are obtained by dividing the number of sample (stratum) returns for each type of business by the total number of returns in that stratum. The weighting factors are then converted to "integer weighting factors" and applied to each sample return to obtain estimates for the entire population.

Economic Research Service Estimates

This subsection examines ERS's procedures for estimating farm "real estate" interest expenses. The reason for discussing only farm real estate interest expenses is that there are several procedural difficulties which the authors wish to address in the limited time available for this presentation. However, Table 2 provides a breakdown of farm nonreal estate and real estate debt and interest expenses from 1978 to 1984 (USDA, 1985). The sum of nonreal estate and real estate interest expenses, or total interest expenses corresponds to the ERS -Administrative values in Table 1. The results of Table 2 indicate approximately one half of farm interest expenses are associated with farm real estate debt.

The methodology for computing ERS -Administrative farm real estate interest expenses is thoroughly documented in USDA Farm Real Estate Interest Expenses: Methodology and Procedures (in review), therefore only the main points are discussed in the following subsection. These estimates are developed from state and regional data on farm real estate debt outstanding held by various lenders at the end of the period, and

Table 2--Farm Interest Expenses, 1978-84

Item	1978	1979	1980	1981	1982	1983	1984
				Percent			
Selected interest rates							
Average on new farm loans							
Real estate loans							
Federal Land Banks	8.36	9.16	10.39	11.27	12.27	11.63	11.76
Life insurance companies	9.58	10.52	13.21	15.42	15.51	12.47	13.49
Farmers Home Admin.	6.42	9.05	11.05	13.00	12.94	10.79	10.75
Nonreal estate loans							
Rural banks, farm production loans	9.33	10.80	14.82	17.87	17.08	14.30	14.40
Production Credit Assoc	8.74	10.56	12.74	14.46	14.58	11.95	13.42
Farmers Home Admin.	8.20	9.43	11.00	14.04	13.73	10.31	10.25
Prime rate, large banks	8.63	9.25	15.06	19.63	15.56	10.88	12.06
				Billion dollars			
Average debt outstanding: 1/							
Real estate 2/	71.61	85.60	95.76	105.80	110.03	112.62	111.64
Nonreal estate 2/, 3/	69.40	80.38	86.45	96.12	106.81	103.04	100.15
Total	141.01	165.98	182.21	201.92	216.84	215.66	211.78
Interest expenses 4/							
Real estate 2/	5.06	6.19	7.54	9.14	10.48	10.82	10.73
Nonreal estate 2/, 3/	5.17	6.87	8.72	10.72	11.35	10.62	10.40
Total	10.23	13.06	16.26	19.86	21.83	21.43	21.13
				Percent			
Average on outstanding farm debt:							
Real estate 2/	7.07	7.23	7.88	8.64	9.53	9.60	9.61
Nonreal estate 2/, 3/	7.45	8.54	10.08	11.15	10.63	10.30	10.38
Total	7.25	7.87	8.94	9.84	10.07	9.94	9.98
Percent change in -							
Average interest rate on outstanding farm debt	9.8	8.6	13.6	10.1	2.3	-1.3	0.4
Debt outstanding	14.8	17.7	10.2	10.8	7.4	-0.5	-1.8
Interest paid	19.8	27.7	24.5	22.2	9.9	-1.8	-1.4

1/ Average of debt outstanding at beginning and end of each year. 2/ Includes farm household debt. 3/ Includes CCC debt. 4/ Interest expenses are flows measured at the end of each year. 5/ "Average on outstanding farm debt" is estimated as interest expenses as a percentage of debt outstanding. 6/ This may give a better estimate of the average interest rate on real estate/debt, as it weights each component by the loan volume held by each lender.
N/A= Not yet available.

Source: USDA, "Economic Indicators of the Farm Sector: Farm Sector Review, 1984" ERS/NED (in review).

the average interest rates on this debt. Outstanding farm real estate debt data are provided by the Farm Credit System (FCS), the Farmers Home Administration (FmHA), Life Insurance Companies (LIC's), Commercial Banks (CB's) and Individuals and Others (IO's) lenders. However, similar data for average farm real estate rates of interest at the end of the period, are no longer provided by these lenders. In light of data limitations, the methodology proposed by Robison and Leatham for computing these rates is employed. This method involves estimating the equation,

(1) $\underline{r}_{t+1}=(r_tN_t+\underline{r}_t(L_t-R_t))/L_t$,

where $\underline{r}_{t+1}$=the average interest rate on outstanding farm real estate debt at the end of the period,

r_t =the average interest rate on new farm real estate loans made during the period,

$\underline{r}_t$ =the average interest rate on outstanding farm real estate debt at the beginning of the period,

N_t =new farm real estate loans made during the period,

R_t =repayments of loans during the period,

L_t =loans outstanding at the beginning of the period,

L_{t+1}=loans outstanding at the end of the period.

Robison and Leatham note that $\underline{r}_t$ can be computed as a weighted average of the interest rate on new loans during the period and the average rate on loans outstanding at the beginning of the period. Recognizing difficulties in using a weighted average [2] the authors suggest an alternative rate, $\underline{r}_t'$, which represents the rate on loans outstanding at the beginning of the period and not repaid.

Utilizing 1951-1977 data and regressing $\underline{r}_t'$ on $\underline{r}_t$, Robison and Leatham measure the statistical relationship between these two rates for LIC's, CB's and IO's. These are

(2) $\underline{r}_t'=1.147((\underline{r}_t)^{0.913})$ for LIC's,

(3) $\underline{r}_t'=0.934((\underline{r}_t)^{1.031})$ for CB's,

(4) $\underline{r}_t'=1.305((\underline{r}_t)^{0.825})$ for IO's.

Respective values of $\underline{r}_t'$ are obtained for each lender by substituting the appropriate average rates of interest on outstanding farm real estate debt at the beginning of the period, $\underline{r}_t$, into Eqs. (2)-(4).

The average rate of interest on farm real estate debt, at the end of the period, is obtained by substituting the values $\underline{r}_t'$, r_t, L_{t+1}, L_t, N_t, and R_t into Eq. (1).[3] This rate together with data on farm real estate debt outstanding at the end of the period, are used to obtain USDA estimates of farm real estate interest payments.

EVALUATION OF THE ALTERNATIVE METHODS

In this section the previously described FCRS, ERS and IRS procedures for computing interest expenses on farm debt, and the Census estimates are evaluated. The discussion is aimed at accuracy and applicability of each particular estimate. Reference will be made to Table 1, as the differences between the estimates presented in this table are key factors in comparing alternative methodologies.

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[2] This difficulty arises because borrowers tend to pay off loans financed at higher rates before the lower rate loans.

[3] Only a U.S. average rate is estimated for each lender due insufficient data.

A foremost observation is the type of data employed in FCRS, ERS and IRS methodologies. Both the FCRS and IRS procedures utilize actual interest expenses of specific farm operations (the borrowers), and expand these numbers by some known sample weight or expansion factor to derive population estimates. The ERS procedure develops interest payments on farm real estate debt outstanding data from lenders and average rates of interest on this debt.

Since IRS and FCRS farm interest expenses employ similiar data and estimation techniques, it is useful to know why they differ. Compared to FCRS estimates, the results of Table 1 consistently show IRS estimates of interest expenses about 10 percent higher through much of the 1970's, and from 25-35 percent higher during the early 1980's. While it is possible farmers may be slightly overstating interest expenses on their income tax returns, we assume farmers are honest in their tax filing. Another justification involves the definition of a "farm operation" employed by IRS and SRS in developing their samples. The IRS defines a farm operation as any enterprise which produces over $250 in value of agricultural commodities, where as the SRS includes only those operations with value of sales greater than $1000. In 1978 IRS reported 3.3 million farms whereas 2.4 million were recorded from the FCRS (Simunek). The IRS is considering more farms with farm real estate debt, and therefore more interest on this debt.

In addition, the IRS may be capturing interest expenses not directly related to farming. This idea draws from the possibility that farmers may use agricultural loans, in part, for nonagricultural purposes. This measurement error may also occur in the Farm Cost and Returns Survey questionaire. However, in filing tax returns the farmer is more likely

to record interest deductions by the individual loan rather than specific loan purpose. An example would be a loan for agricultural cropland which contains a small nonagricultural rental unit. The farmer may be inclined not to include interest on this unit in filling out the FCRS, but as an income tax deduction may report the entire loan's interest.

On the other hand, farmers may list farm interest expenses on Schedule A -for personal deductions, out of ignorance or to minimize the frequency of losses reported in Schedule F. Hobby farmers, in particular, may be sensitive to showing continuing farm losses since these are reputed to be a factor considered in the likelihood of a tax audit.

IRS's classification of corporations and partnerships as farms may also cause discrepancies between IRS and FCRS numbers. For example, a very large vertically integrated corporation or partnership's production of agricultural commodities may be the source of greater income than say the marketing of these goods. In this case all real estate interest payments may be defined as farm expenses by the IRS. This of course can also work in the reverse where interest is not considered a farm expense by IRS. Whether these differences in sample data account for the entire difference between the FCRS and IRS farm interest expenses in Table 1 is presently not known.

Having identified the relationship and some discrepancies between FCRS and IRS estimates of farm interest charges, one might expect the ERS estimates to be relatively close. The methodologies differ, but theoretically the results should be similar. That is, outstanding farm debt held by farm lenders multiplied by the average interest rate on this debt, should equal interest expenses paid by agricultural borrowers.

Careful examination of the ERS procedures also reveals notable data limitations. State and regional data for average rates of interest on farm real estate loans outstanding by lender are no longer available. In addition, collection of other lender data, i.e., R_t, N_t and $\underline{r}_t'$, necessary to compute these average rates, via Eq. (1), has recently been discontinued by CB's and IO's. Faced with this limitation, ERS presently estimates R_t, N_t and $\underline{r}_t'$ using methods proposed by Robison and Leatham.

Repayments of loans outstanding during the period, R_t, are estimated for CB's and IO's from loans outstanding at the beginning of the period, L_t, and its respective 1977 repayment ratio, k_{77}, developed by Robison and Leatham. This procedure for computing R_t is expressed as

$$(5) \qquad R_t = L_t * k_{77}.$$

Difficulties arise in the use of k_{77} to estimate repayments from L_t. The authors developed yearly repayment ratios for 1951 thru 1977. These are presented in Table 3. Examination of these ratios reveals no trends, and no apparent explanation for using the 1977 repayment ratio in estimating R_t instead of another year, or an average of all (or part) of the series. Comparing CB and IO values of k_{77} to their respective average values for the entire series, .320 and .143, results in 10 and 2 percent differences in repayments for CB's and IO's, respectively. Errors in measurement may be compounded since the estimated values of R_t are used with L_{t+1} and L_t lender data to compute new farm real estate loans issued during the period, N_t, where

Table 3--Annual ratios of farm real estate loans repaid during the year to loans outstanding at the beginning of the year, 1951-1977

Year	All lenders 1/	Federal land-banks 1/	Life insurance companies 1/	Farmers Home Administration 1/	Commercial banks 1/	Individuals and others 1/
1951	.204	.172	.161	.098	.433	.158
1952	.185	.174	.128	.098	.425	.139
1953	.193	.174	.146	.067	.431	.151
1954	.184	.174	.134	.096	.395	.152
1955	.199	.212	.144	.083	.403	.167
1956	.179	.184	.136	.072	.396	.135
1957	.176	.128	.123	.051	.374	.175
1958	.167	.135	.138	.072	.352	.148
1959	.165	.144	.127	.069	.348	.149
1960	.155	.127	.110	.063	.310	.156
1961	.164	.144	.123	.088	.361	.142
1962	.167	.149	.123	.079	.307	.143
1963	.165	.159	.141	.067	.328	.143
1964	.159	.178	.143	.071	.334	.113
1965	.165	.181	.148	.087	.350	.116
1966	.171	.154	.121	.060	.343	.171
1967	.137	.124	.098	.066	.269	.137
1968	.119	.104	.099	.063	.281	.094
1969	.133	.094	.099	.059	.257	.147
1970	.136	.081	.076	.049	.236	.184
1971	.139	.115	.098	.057	.284	.143
1972	.156	.134	.112	.099	.325	.143
1973	.165	.145	.121	.103	.346	.143
1974	.154	.131	.113	.068	.325	.140
1975	.147	.123	.103	.065	.309	.140
1976	.156	.129	.129	.100	.332	.140
1977	.163 2/	.130 2/	.171 2/	.074 2/	.356 2/	.140 2/

1/ Estimate. 2/ Preliminary.

Source: Robison and Leathan, p. 5.

(6) $N_t = L_{t+1} + R_t - L_t$.

Comparing CB and IO estimates of $\underline{r}_{t+1}$ developed from k_{77} and the average repayment ratio for the entire series, k_{ave}, suggests a 34 percent decrease and 4 percent increase in the latter, respectively. This amounts to a 2 percent or $202 million reduction in ERS's 1984 estimate of farm real estate interest expenses.

Possible errors in measurement stemming from these methods may be further compounded due to poor quality data, provided by the various lenders, on outstanding farm real estate debt. It appears that these lenders have no way of identifying agricultural real estate loans used for non-agricultural or non-real estate purposes. In addition, outstanding farm real estate debt reported by the Farm Credit System (FCS) included loans for timber property. In the southeastern U.S. this constitutes a significant portion of farm real estate debt held by these lenders.

Combined, these data weaknesses may result in over-estimation of the ERS farm real estate interest expenses. By how much these estimates may be overstated is not now known.

SUMMARY AND RECOMMENDATIONS

Farm real estate interest expenses are a significant component of farm net income estimates. These estimates are not only important to policy makers but also to other analysts concerned with the health of U.S. agriculture. Currently, the ERS is undertaking steps to upgrade the standards by which these estimates are made. The purpose of this paper

has been to report on two initial steps in this effort, that is, documenting the computation of methods and identifying sources of possible probelms in the interest paid estimates currently available.

Frequently the process of verifying past estimation methodologies raises questions that can result in concern with the quality and comprehensiveness of both data and estimation techniques. While the potential for professional chagrin or embarassment exists in this process, the fallibility of the estimates is always an open issue in the scientific tradition. Assessing and upgrading the quality of our economic and statistical work is an issue that transcends both traditions and personalities.

Four estimates of farm real estate interest expenses were evaluated in this paper: ERS Administrative, FCRS, IRS and Census.

The ERS administrative estimates of farm real estate interest expenses suffer from data limitations. This has been primarily due to cut backs in information usually provided by the Farm Credit System and other lenders, and the use of certain information which may be outdated. However, it is clear that the present methodology continues to hold promise and even in a diminished future role would serve as a formal check on other estimates. FCRS estimates may offer the best source of operator interest expense with the exception of small farm information. This survey has dramatically improved in both quality and content in recent years, and is the most available annual survey source.

Differences in the IRS estimates of farm real estate interest expenses appear to be caused by: sample definitions of farm operations which do not conform with ERS and FCRS definitions; data which may overstate actual farm real estate interest expenses; and interest paid numbers which when published are lagged 2-3 periods and therefore must be estimated, based on past trends, to make current comparisons.

Census interest estimates much comprise a large component of the "benchmark" for the year in which the census is conducted. However, the 1982 Census did not provide an interest expense by real estate versus nonreal estate categories, and these is a reluctance by Census personnel to gather financial data in general. Further, with a 5 -year gap between Census years and a nearby two year wait to receive the Census information, this source is not timely.

While Economic Indicator analysts have had serious reservations regarding the accuracy of the official ERS administrative estimates, reservations that have been increased by the continuing erosion of data availability and quality, there is at present little justification for superceeding the traditional estimate with one of the alternatives discussed above. However, there are several recommendations to validate and improve the estimates:

(1) Solicit more data from the Farm Credit System and Commercial banks, even if this requires working with individual state and regional offices. The focus would be on interest rate, new loans and outstanding loan levels.

(2) Sensitivity test the ERS administrative model parameters to better determine the robustness of the current estimates.

(3) Increase the usage of FCRS information for operator, and medium and large size farm estimates.

(4) Analyze IRS data for applicability of the landlord and to a lesser extent, corporate interest expense estimates.

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Appendix A: Page 22 of Farm Cost and Returns Survey for operator taxes, interest and other expenses

P. TAXES, INTEREST, AND OTHER EXPENSES

	TOTAL EXPENSE DOLLARS	LANDLORD SHARE DOLLARS
1. Total property taxes paid 1984 (for this farm operation)? *(Include taxes on farm real estate, machinery, livestock, autos (farm share) and other property taxes levied.)*	453	454
2. Of the total property tax, reported in question 1, how much was for farm **Real Estate?**	455	456
3. Interest paid in 1984 on farm real estate debt *(mortgages, land contracts, etc. Exclude interest paid on real estate debts and operating loans for land owned, but rented out. Exclude payments on principal.)*	457	458
4. Interest paid in 1984 on operating loans for the farm business -- loans for purchase of feed, seed, fertilizer, livestock, trucks, autos *(farm share only)* machinery, etc.	459	460
5. What was the total debt of this farm operation *(farm share only)* as of January 1, 1985?	461	

6. Of the total debt of the farm operation what percent was owed to each of the following and what percent of the debt owed to each lender was secured by real estate?

	Percent of Total Debt	Percent Secured by Real Estate
a. **Federal Land Banks**	462	463
b. **Farmers Home** *(FmHA)*	464	465
c. **Banks**	466	467
d. **Production Credit Association's** *(PCA)*	468	469
e. **Merchants** and dealers	470	471
f. **Individuals** *(other farmers, etc.)*	472	473
g. **Commodity Credit Corporation** *(CCC)*	474	475
h. **Other** *(Insurance companies, etc.)*	476	477
	100%	

OTHER EXPENSES

7. Were there any other farm expenses or capital purchases during 1984 that have not been reported elsewhere?

Specify Item	Amount

TOTAL AMOUNT Dollars
478