ACCOUNTING FOR DIFFERENCES IN AGGREGATE ESTIMATES AND SIZE DISTRIBUTIONS OF FARM PROPRIETORS' INCOME

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This paper explores some of the reasons for differences in the reporting of net income from farm self-employment (FSE) in the Bureau of the Census's Current Population Survey (CPS) and farm proprietors' (Schedule F) plus partnership income from tax returns, as estimated in the Statistics of Income (SOI) by the Internal Revenue Service (IRS). In general, aggregate estimates of farm income derived from the SOI are only a third to a half of the CPS, and the SOI distributions show considerably more inequality than the CPS, particularly in the number and proportion of farm units reporting a break-even (zero income) or a loss. Previous work on farm income estimates had focused on the SOI and the U.S. Department of Agriculture's (USDA) estimates of the net income of farm operators, particularly on the estimates of gross receipts and expenses available from those sources [1]. After adjusting for differences in the coverage of the CPS and IRS income concepts we find that the two estimates are much closer than fractions of 1/3 or 1/2 would suggest, a finding implied in other studies [2]. The USDA estimate, on the other hand, substantially exceeds the other two, even after adjustments to align it more closely with the population coverage and income concept of the CPS or IRS.

1. Comparisons of IRS and CPS Aggregates

The IRS farm income estimate derived from the SOI consists of the net income reported by farm sole proprietorships on Schedule F of Form 1040 and by farm partnerships on Form 1065, plus payments to farm partners, which, together with the partner's share of the net income, is reported on Schedule E. The CPS estimate, on the other hand, is a combination of amounts reported in personal interviews by household members (about 80 to 90% of the total) and amounts imputed or allocated to nonreporters whose longest employment that year was farm self-employment (the remaining 10 to 20 percent). Only net FSE income is obtained in the interview. The left-hand panel of Table 1 compares aggregate farm income estimates for the two sources. SOI farm income averages only 42.2 percent of the CPS from 1966 to 1978; in only two years is it over half the CPS. The same kind of discrepancy, on the other hand, is not apparent in the reporting of nonfarm self-employment (NFSE) income on tax returns and in the CPS. The right-hand panel on Table 1 shows a similar comparison between the SOI and the CPS for NFSE income. In no year is the SOI as low as 79 percent of the CPS, and averages 88 percent of the CPS over the 13 year period.

While the concept of farm income collected in the CPS appears to be quite similar to that reported on tax returns, most of the differences in the left-hand part of Table 1 may well be due to differences in the coverage of the two estimates. The CPS defines FSE income only in rather general terms, and the concept is subject to rather broad interpretation by the respondent, whereas farm income in the IRS has been defined and interpreted more precisely in tax statutes and in both IRS and court decisions. Accordingly, we identify and

TABLE 1 - CPS AND SOI ESTIMATES OF NET SELF-EMPLOYMENT INCOMES, 1966-1978 (Billions of Dollars)

| Year | Farm | | | Nonfarm | | |
	CPS	SOI	SOI/CPS (Pct.)	CPS	SOI	SOI/CPS (Pct.)
1966	7.8	4.8	61.5	35.0	33.6	96.0
1967	9.8	3.9	39.8	38.3	38.9	101.6
1968	7.7	3.7	48.1	43.8	41.1	93.8
1969	8.5	4.2	49.4	43.6	41.9	96.1
1970	7.9	3.3	41.8	45.3	41.5	91.6
1971	8.4	2.7	32.1	49.7	42.6	85.7
1972	10.6	4.8	45.3	54.2	45.4	83.8
1973	15.7	8.5	54.1	55.8	48.3	86.6
1974	12.8	6.1	47.7	59.5	49.4	83.0
1975	11.9	4.4	37.0	61.5	49.1	79.8
1976	12.6	4.6	36.5	68.0	56.8	83.5
1977	10.2	1.2	11.8	78.3	65.0	83.0
1978	14.6	6.8	46.6	88.6	70.2	79.2

Source: CPS: Bureau of the Census; SOI: _Statistics of Income, Business Income Tax Returns_, various issues.

measure farm-related income in the IRS or other sources which is likely to have been reported in the CPS, but not on farm proprietorship or partnership returns.

Table 2 shows a step-by-step reconciliation procedure for the years 1966 through 1978. Line (1) is the net income of farm sole proprietors and partners, plus payments to partners, as shown in Table 1.

CPS enumerators' instructions state that the net cash (fixed) rent of farm landlords should be entered as net rental income, while landlords' net share (variable) rent is to be reported as FSE income. For tax return purposes, landlords who receive share rent report it either on Schedule F or on Form 4835 (and ultimately on Schedule E), depending on whether they actively participate in the operation of the farm. Not until 1971 were nonparticipating landlords who receive a share rent required to file Form 4835, which is similar to Schedule F in receipt and expense detail; before that date, they were expected to report net rental income on Schedule E. Because time series on the number of Schedule F and Form 4835 returns filed, as well as comparisons with other recipient series, suggest that most such landlords were filing Schedule F's prior to 1971, no adjustment is shown on line (2) for years prior to 1971.

Periodically, IRS conducts an intensive audit study, known as the Taxpayers' Compliance Measurement Program (TCMP), with a sample of tax returns. In both the 1973 and 1976 studies, net farm income from Schedule F of Form 1040 was increased by approximately 40 percent. It seems more likely that CPS respondents report amounts closer to what they would have reported to IRS had their returns been selected for audit than what they actually reported on their returns. For example, SOI NFSE income adjusted for audit is very close to the CPS, averaging only four percent more over the same time

TABLE 2 - RECONCILATION OF SOI AND CPS ESTIMATES OF NET INCOME FROM FARM SELF-EMPLOYMENT, 1966-1978 (Dollars in Billions)

Item	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
(1) Net Income of Farm Proprietors & Partners, SOI	4.783	3.929	3.712	4.155	3.293	2.657	4.828	8.485	6.123	4.448	4.550	1.199	NA
(2) Net Share Rent, Non-participating Landlords	NA	NA	NA	NA	NA	0.225	0.594	1.381	1.851	1.413	1.528	1.467	NA
(3) Farm Income Before Audit [(1) + (2)]	4.783	3.929	3.712	4.155	3.293	2.882	5.422	9.866	7.974	5.861	6.078	2.666	6.797
(4) Unreported Farm Income, per Audit	1.913	1.572	1.485	1.662	1.317	1.153	2.169	3.946	3.190	2.344	2.431	1.066	2.719
(5) Farm Income After Audit [(3) + (4)]	6.696	5.501	5.197	5.817	4.610	4.035	7.591	13.812	11.164	8.205	8.509	3.732	9.516
(6) Livestock Gains Reported on Form 4797	0.898	0.875	0.918	1.031	1.067	1.107	1.295	1.672	1.505	1.567	1.678	1.726	2.149
(7) Net Farm Income, SOI Sources [(5) + (6)]	7.594	6.376	6.115	6.848	5.677	5.142	8.886	15.848	12.669	9.972	10.187	5.458	11.665
(8) Net Farm Income, Nonfilers	0.349	0.439	0.349	0.380	0.356	0.376	0.479	0.706	0.574	0.536	0.565	0.458	0.659
(9) Net Farm Income, Adjusted SOI [(7) + (8)]	7.943	6.815	6.464	7.228	6.033	5.518	9.365	16.190	13.243	10.308	10.752	5.916	12.324
(10) CPS FSE Income	7.760	9.756	7.748	8.455	7.908	8.351	10.645	15.680	12.753	11.906	12.564	10.170	14.647
(11) Adjusted SOI/CPS [(9) ÷ (10)] x 100	102.4	69.9	83.4	85.5	76.3	66.1	88.0	103.3	103.8	86.6	85.6	58.2	84.1

NA = not applicable or not available.   Sources: see text.

TABLE 4 - CONSUMER UNITS WITH FARM INCOME GAIN, BREAK-EVEN, OR LOSS AND AGGREGATE GAIN AND LOSS, CPS AND SOI, BEFORE AND AFTER AUDIT, 1972

| | Current Population Survey | | Statistics of Income[a] | | | |
| | | | Before Audit | | After Audit | |
	Number	Percent	Number	Percent	Number	Percent
Consumer Units (thousands)						
With Gains	2,530	78.7	2,100	62.2	2,366	71.6
Break-even	231	7.2	54[b]	1.6	54[b]	1.6
With Losses	453	14.1	1,220	36.2	885	26.8
Total Units	3,214	100.0	3,374	100.0	3,305	100.0

	Amount	Amount	Amount
Aggregate Income (millions)			
Gains	$11,503	$9,351	$11,194
Losses	- 889	-3,753	- 2,693
Net Income	$10,614	$5,598	$ 8,501

[a]Includes CPS incomes of nonfilers.   [b]Break-evens are for CPS nonfilers only.

Source: Bureau of Economic Analysis. Based on the 1972 Benchmark Income Size Distribution File.

period. Since a separate audit adjustment for farm partnerships is not available, we assume that the adjustment ratio for sole proprietorships applies to partnerships as well. Hence, line (4) is 40 percent of line (3).

Receipts from sales of livestock held for draft, breeding, dairy or sporting (DBDS) purposes are reported, not on Schedule F, but on Form 4797, and the net gain from such sales is reported either as a capital gain on Schedule D or an ordinary gain on Form 4797. Since all expenses associated with maintaining the livestock, including depreciation, are reported on Schedule F, the amount of such livestock receipts, minus original cost of purchases (less accumulated depreciation), represents an addition to farmers' net income.

Direct estimates of such gains on livestock sales are available from SOI supplemental reports only for 1962 ($0.718 billion) and 1973 ($1.672 billion). Net gains were 70.6 percent of livestock receipts in 1962 and 81.5 percent in 1973, with over half of the returns reporting no cost basis for computing the gain. Gains for intervening years were estimated by interpolation, based on the movement in the value of USDA livestock sales. For years subsequent to 1973, the 1973 estimate was extrapolated forward by USDA livestock sales based on the ratio of DBDS livestock gains to USDA livestock sales in 1973. Gains on sales of DBDS livestock from Form 4797 are shown on line (6) of Table 2.

A small amount of farm income is received by persons who for various reasons, legal or illegal, do not file individual tax returns. The only evidence available on nonfilers' income is from the CPS-IRS-SSA 1973 Exact Match (EM) File, which indicates that in 1972 the CPS FSE income of nonfilers was 4.5 percent of total CPS FSE income. In the absence of estimates for any other year, we have used the 1972 percentage to estimate nonfiler income for other years. The estimated net FSE income of nonfilers is shown on line (8).

The adjusted IRS estimate of net farm income is given on line (9) of Table 2. FSE income from the CPS, on line (10), is from Census Bureau tabulations. Line (11) shows the percent the adjusted IRS estimate is of the CPS estimate.

It can be seen from Table 2 that our reconciliation procedure accounts for much, if not most, of the difference between the initial, unadjusted SOI and the CPS. In 1973, the one year for which interpolations or extrapolations of the adjustments were not necessary (except for the nonfiler adjustment), the estimates for the adjusted SOI and the CPS virtually coincide. In 9 of the 13 years, 1966-1978, the adjusted SOI averages 91 percent of the CPS, with no year falling below 83 percent. For the other four--1967, 1970, 1971, and 1977-- the ratio of the adjusted SOI to the CPS averages only 67.6 percent, with a low of 58 percent in 1977.

2. Size Distribution of Farm Proprietors' Income

A further problem in the comparison of CPS and IRS farm income estimates is the lack of comparability in their distributions by size of income. In general, IRS distributions of self-employment incomes, farm or nonfarm, show considerably more relative inequality than CPS distributions. Size distributions of farm income based on CPS and IRS data for 1972 are shown in Table 3.

To increase the comparability of these and

suceeding distributions, each has been tabulated from BEA's benchmark microdata file of the size distribution of total money income for 1972 [3]. This file is based on the Exact Match (EM) File, prepared jointly by the Bureau of the Census and the Office of Research and Statistics (ORS) of the Social Security Administration. The latter is the result of an exact match of the CPS with SSA's earnings records and the limited tax information in IRS's Individual Master File. In order to increase the amount and detail of tax return information available, the EM was statistically matched by ORS with a subsample of the SOI; the resulting file will hereafter be referred to as the EM-SM file. All the distributions are based on consumer units (the sum of families and unrelated individuals) rather than on tax return units. (There are about 200,000 more tax return units with farm income than consumer units in the EM-SM file.) Comparability among the SOI and CPS distributions has been further increased by including in the SOI distributions the CPS incomes of those CPS units who did not file tax returns, or so-called nonfilers.

The tables show, for vigesiles of consumer units (intervals 5 percentiles wide), the dollar mean and the relative mean income, i.e., the dollar mean divided by the mean of the distribution as a whole, or simply the income share of an interval divided by the size of the interval (in percentiles). It is a convenient way of abstracting from apparent differences in two distributions occasioned by differences in their dollar means. The top vigesile is further divided between the top 1 percent and the remaining 4 percentiles. Finally, the upper bound is the income which separates the given interval from the one immediately above it.

As can be seen in Table 3, the SOI before audit distribution is substantially more unequal than the CPS. In the upper tail of the distribution, for example, the dollar mean incomes of those in the top five percent of the SOI distribution exceed those in the CPS, despite the fact that the overall SOI mean is only half that of the CPS. The major difference between the two distributions is clearly in the number and size of loss incomes (Table 4), with 36 percent showing a loss in the SOI compared with only 14 percent in the CPS--21 percent if CPS break-evens are counted as losses rather than gains. (In the CPS, the respondent has the option of reporting "broke even;" such break-even incomes, which are coded as $1, were reported by seven percent of the CPS recipients of farm income. No comparable category exists in the SOI, since net income is the difference between stated receipts and expenses and could only come out to exactly zero or $1 by coincidence. While we suspect that reporting a break-even is a shortcut way of reporting a loss in the CPS without having to report its amount, there is no way of knowing whether the income of the respondent would be positive or negative if he or she were required to make a specific calculation.)

As is true of the aggregates, part of the difference between the two distributions can undoubtedly be attributed to the fact that the returns in the SOI sample are unaudited. The effect on the SOI size distribution of correcting each return in the SOI for the results of audit is shown in the right-hand panel of Table 3. Space is lacking to describe in detail the methods used to correct the EM-SM file for audit. Based on the relationships

Table 3 - DISTRIBUTION OF FARM INCOME (GAINS AND LOSSES), BY VIGESILES OF CONSUMER UNITS: MEAN INCOME, RELATIVE MEAN INCOME, AND UPPER INCOME BOUND OF VIGESILE, FOR CURRENT POPULATION SURVEY AND STATISTICS OF INCOME, BEFORE AND AFTER AUDIT, 1972

Percentiles of Consumer Units	Current Population Survey			SOI Before Audit			SOI After Audit		
	Mean Income	Relative Mean Income	Upper Income Bound	Mean Income	Relative Mean Income	Upper Income Bound	Mean Income	Relative Mean Income	Upper Income Bound
1 - 5	$-4,505	-1.36	$-1,530	$-14,250	-8.59	$-4,600	$-11,970	-4.65	$-3,657
6 - 10	880	-0.27	- 330	- 3,682	-2.22	-2,600	- 2,696	-1.05	-1,636
11 - 15	144	-0.04	1	- 1,970	-1.19	-1,436	- 1,146	-0.45	- 639
16 - 20	1	0.00	1	- 1,138	-0.69	- 883	- 411	-0.16	- 200
21 - 25	41	0.01	190	- 673	-0.41	- 500	- 67	-0.03	- 36
26 - 30	194	0.06	275	- 379	-0.23	- 423	4	a	50
31 - 35	341	0.10	401	- 149	-0.09	- 61	105	0.04	176
36 - 40	522	0.16	600	7	a	60	258	0.10	333
41 - 45	809	0.24	1,000	134	0.08	222	438	0.17	541
46 - 50	1,095	0.33	1,246	298	0.17	352	612	0.24	703
51 - 55	1,532	0.46	1,825	459	0.28	579	875	0.34	1,040
56 - 60	2,039	0.62	2,300	758	0.46	1,000	1,291	0.50	1,514
61 - 65	2,692	0.82	3,000	1,201	0.72	1,414	1,847	0.72	2,123
66 - 70	3,340	1.01	3,900	1,681	1.01	1,974	2,436	0.95	2,880
71 - 75	4,393	1.33	5,000	2,340	1.41	2,840	3,316	1.29	3,736
76 - 80	5,446	1.65	6,239	3,340	2.01	3,917	4,273	1.66	4,839
81 - 85	7,160	2.17	8,000	4,796	2.89	6,001	5,957	2.32	7,208
86 - 90	8,882	2.69	10,000	7,130	4.30	8,743	3,391	3.26	10,158
91 - 95	11,436	3.46	14,000	10,968	6.61	13,979	12,583	4.89	16,037
96 - 100	21,660	6.56	99,000	22,323	13.45	1,131,976	25,340	9.85	1,315,129
96 - 99	17,049	5.16		17,771	10.70		20,241	7.86	
100	40,103	12.14		40,531	24.43		45,735	17.78	
All units	$3,303	1.00		$1,659	1.00		$2,572	1.00	

Source: Bureau of Economic Analysis. Based on the 1972 Benchmark Income Size Distribution File. a: < 0.005.

shown by the 1973 TCMP between the income reported by the taxpayer and income as corrected by the auditor, gains were increased and losses reduced by selected ratios for most returns. In addition, as can be seen in Table 4, a net of 266,000 consumer units with IRS farm income were changed from a loss to a gain, and for another 69,000 with a loss, the loss was changed to a zero. The final result was a 20 percent increase in gain income and a 28 percent reduction in loss income [4].

The effect of the audit adjustment in raising the mean income of and reducing the degree of inequality in the SOI distribution is evident in Table 3. It is now the top 10 percent of the after audit distribution whose dollar mean income exceeds that in the identical part of the CPS distribution, rather than the top 5 percent. Most of the effects on the relative distribution come from the reduction in the number and size of losses, with the proportion of those with a loss being reduced from 36 to 27 percent.

One way of determining whether the major difference between the CPS and the SOI distributions is due to the number and size of loss incomes is to exclude losses from the size distributions. The results are presented in Table 5. Because of the uncertainty as to whether break-evens in the CPS should be interpreted as gains or as losses, we have included two distributions for the CPS: one for gains only in the first two columns, and one for the sum of gains and break-evens (each break-even being tabulated as $1) in the second two columns. In both SOI distributions, on the other hand, CPS nonfilers of tax returns who reported a break-even in the CPS have been excluded.

It can be seen that the overall dollar means

correspond much more closely when based on positive incomes only. For example, the CPS mean exceeds the before audit SOI mean by only two percent and falls short of the after audit SOI mean by only four percent when the calculations are restricted to those consumer units reporting a gain. Another result is a considerable narrowing of the rather large differences previously noted in the three relative size distributions--before audit SOI, after audit SOI, and the CPS--when the comparisons are restricted to the recipients of positive, or positive and break-even, incomes. The similarity between the two SOI distributions is not surprising, since, as previously noted, the major effect of the audit correction was on the size and proportion of loss incomes. On the other hand, small but important differences remain between the SOI and CPS relative distributions. As one would expect, the SOI distributions still show more inequality than the CPS, with the relative mean incomes in the SOI exceeding those in either of the two CPS distributions for the highest four or five vigesiles, and lying below those in the CPS for the other vigesiles, except the very lowest. In the lower part of the distribution the SOI distributions are closer to the CPS distribution that includes the break-evens than the one that omits them.

3. Consistency of Reporting in the CPS and to IRS

The foregoing comparisons suggest only that the reporting of positive incomes is more nearly similar in the two sources than is the reporting of losses and possibly break-evens. The distributions compared are, in effect, the row and column totals of a joint distribution or cross-tabulation

TABLE 5 - DISTRIBUTION OF FARM INCOME EXCLUDING LOSSES: MEAN INCOMES AND RELATIVE INCOMES FOR CURRENT POPULATION SURVEY AND STATISTICS OF INCOME, BEFORE AND AFTER AUDIT, 1972

Percentiles of Consumer Units	CPS Gains Only		CPS Gains plus Breakevens		SOI Before Audit		SOI After Audit	
	Mean Income	Relative Mean	Mean Income	Relative Mean	Mean Income	Relative Mean	Mean Income	Relative Mean
1 - 5	$ 58	0.01	$ 1	a	$ 43	0.01	$ 51	0.01
6 - 10	184	0.04	6	a	130	0.03	138	0.03
11 - 15	299	0.07	106	0.03	232	0.05	253	0.05
16 - 20	433	0.10	248	0.06	318	0.07	372	0.08
21 - 25	582	0.13	368	0.09	431	0.10	518	0.11
26 - 30	842	0.19	531	0.13	568	0.13	631	0.13
31 - 35	1,059	0.23	768	0.18	789	0.18	814	0.17
36 - 40	1,355	0.30	1,033	0.25	1,085	0.24	1,084	0.23
41 - 45	1,806	0.40	1,340	0.32	1,345	0.30	1,426	0.30
46 - 50	2,118	0.47	1,819	0.44	1,650	0.37	1,840	0.39
51 - 55	2,717	0.60	2,185	0.52	2,052	0.46	2,224	0.47
56 - 60	3,195	0.70	2,825	0.68	2,494	0.56	2,798	0.59
61 - 65	3,883	0.85	3,383	0.81	3,155	0.71	3,417	0.72
66 - 70	4,830	1.06	4,278	1.03	3,854	0.87	4,119	0.87
71 - 75	5,676	1.25	5,162	1.24	4,912	1.10	4,973	1.05
76 - 80	7,076	1.56	6,511	1.56	6,340	1.42	6,663	1.41
81 - 85	8,312	1.83	7,878	1.89	8,126	1.83	8,287	1.75
86 - 90	10,079	2.22	9,677	2,32	10,623	2.39	11,087	2.34
91 - 95	12,884	2.83	12,362	2.97	14,096	3.17	15,210	3.22
96 - 100	23,559	5.18	22,841	5.48	26,811	6.02	28,702	6.07
96 - 99	18,371	4.04	17,879	4.29	21,712	4.88	23,180	4.90
100	44,308	9.74	42,689	10.25	47,206	10.60	50,792	10.74
All Units	$4,547	1.00	$4,166	1.00	$4,453	1.00	$4,730	1.00

a: < 0.005.   [1]Excludes CPS break-even incomes of CPS nonfilers.
Source: Bureau of Economic Analysis. Based on the 1972 Benchmark Income Size Distribution File.

of CPS and IRS incomes and tell us little about the degree of consistency in reporting the presence of farm income in either of the two sources, or, if reported in both, the degree of consistency in the amount reported and in its sign.

The extent of consistency in reporting can only be determined from an exact match of CPS respondents with their corresponding tax returns. Unfortunately, the 1972 EM is far from adequate for this purpose. First, the tax return information included in the EM (which is based on the Individual Master File (IMF), not the SOI) is limited to the amount of adjusted gross income (AGI), wages, interest, and dividends in AGI, and to the presence of such tax schedules as E and F, but not the amount of income reported on them. Second, more than half of the "flags" indicating the presence of a Schedule F were lost in the matching process which created the file.

Certain limited tests with the EM file, can, however, be made. Out of 698 tax return units with a Schedule F indicator or "flag," 613, or 88 percent of the persons filing them, reported farm income in the CPS, suggesting a rather high degree of consistency between the filing of a Schedule F and the reporting of CPS farm income. Unfortunately, because of the missing farm flags, no conclusions can be drawn about the converse case: the frequency with which those reporting CPS farm income filed a Schedule F.

The only possible test of consistency in the reporting of amounts in the two sources in the 1972 EM file is admittedly crude and indirect. It is a matter of arithmetic that the difference between AGI and the sum of wages, interest, and

dividends in the IMF must be equal to the algebraic sum of net incomes reported on the various schedules (C, D, E, and F), other reported income, and adjustments to AGI. If we restrict ourselves to those EM tax filing units who reported the receipt of farm income in the CPS and who did not file Schedules C, D, and E with their tax returns and we assume that other income and the various adjustments to AGI are zero or at least small, we can take the difference between AGI and the sum of wages, interest, and dividends as an indicator of, or "proxy" for, the size of Schedule F income. The resulting cross-tabulation is shown in Table 6.

Perhaps the most interesting part of the table is the 275,400 recipient units--over 27 percent of the total--whose tax returns indicate a farm loss. While the average loss reported is in the neighborhood of $1,300, the units filing these returns reported net gains averaging $229 in the CPS! When the loss and zero brackets are excluded from both distributions, the overall means are virtually identical: $3,806 for the CPS and $3,816 for the IMF. When the distributions are limited to those with positive incomes in the IMF, the IMF shows more inequality than the CPS, with the two relative mean income functions intersecting in the neighborhood of the 70th to 75th percentiles, compared with an intersection between the 81st and 85th percentiles for the CPS gains only and the before audit SOI distributions in Table 5. Given the "noise" in the data underlying Table 6, resulting from the absence of farm flags in the EM and the crude nature of the estimate of Schedule F income in the IMF, it is indeed surprising that the results of this last test approximate so

TABLE 6 - RELATIONSHIP BETWEEN IMF PROXY AND
CPS FSE INCOME FOR TAX FILING UNITS REPORTING
RECEIPT OF FSE INCOME IN THE CPS, 1972

Size of IMF Sched. F Proxy	Units with CPS FSE Income (000)	Mean CPS Amount	Mean IMF Proxy Amount	Relative Mean for Gain Incomes: CPS	IMF
Loss	275.4	$ 229	$-1,283	--	--
Zero	39.2	92	0	--	--
<750	230.5	816	264	0.21	0.07
<4,250	279.9	2,763	2,178	0.73	0.57
<8,250	92.3	5,427	6,012	1.43	1.58
<13,250	52.5	8,960	10,456	2.35	2.74
<27,250	33.4	14,763	16,919	3.88	4.43
27,250+	10.3	22,857	31,956	6.01	8.37
All Units	1,013.5	$2,691	$2,283	--	--
Units with positive IMF Proxy	698.9	3,806	3,816	1.00	1.00

Source: Tabulated from 1972 CPS-SSA-IRS Exact
Match File. See text.

closely our previous findings on the size distri-
bution of farm proprietors' income.

A hypothesis consistent with the results in
this and the preceding section is that farmers
are reporting in the CPS their permanent or nor-
mal incomes, interpreted as some average of in-
comes realized in immediate past years and the
current year, and incomes expected in future
years. In particular, CPS respondents are not as
likely to regard a loss as a normal state of af-
fairs and hence tend to report either a small
gain or a break-even for the preceding year in
the CPS in March, even though they may be in the
process of preparing a tax return to be filed in
April that more accurately reflects their actual
income (e.g., a loss) for the same year.

4. Summary
In this paper we find that much, if not most,
of the difference between the aggregate amount of
farm proprietors' income reported in the CPS and
that reported on tax returns can be accounted for
by apparent differences in the coverage of the two
estimates, in particular, the omission in Schedule
F and partnership returns of the net share rent of
nonparticipating farm landlords, gains on DBDS
livestock, the farm income of persons not filing
tax returns, and by the fact that the SOI esti-
mates are not corrected for audit.

In general, IRS farm income distributions show
considerably more inequality than the CPS.
Despite the lower overall mean income in the IRS
as compared with the CPS, the dollar incomes of
those in the upper tail of the IRS distributions,
whether before or after audit, actually exceed
those in the upper tail of the CPS distributions.
Differences between the two sets of distributions
can be accounted for primarily by the larger pro-
portion and greater size of losses in the various
IRS distributions as compared with the CPS. The
overall mean incomes and the corresponding size
distributions from the two sources resemble each
other much more closely when restricted to those
recipient units with positive, or positive plus
break-even, incomes, although the IRS still shows
somewhat more inequality than the CPS when positive

incomes alone are considered. The relative mean
incomes of those in the top quintile of the IRS
distribution appear to lie above those in the top
quintile of the CPS, with those in the bottom 75
or 80 percent of the IRS distributions having
relative mean incomes lower than those in the
corresponding parts of the CPS distributions.
These findings are in agreement with limited
tests of the consistency of reporting of farm
income based on the 1972 Exact Match File. They
support the hypothesis that farmers tend to re-
port some estimate of their permanent or normal
incomes in the CPS, rather than their previous
year's income. The greater year-to-year vari-
ability in aggregate IRS farm income relative to
the CPS aggregate is also consistent with this
hypothesis.

NOTES AND REFERENCES

[1] Stocker, F. D., and Ellickson, J. C., "How
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National Tax Journal, June 1959, pp. 116-126;
Houthakker, H. S., "The Great Farm Tax
Mystery," Challenge Magazine, Jan.-Feb. 1967,
pp. 12-13, 38-39; Reinsel, E. J., Farm and
Off-Farm Income Reported on Federal Tax Re-
turns, Economic Research Service, U.S.D.A.,
August 1968, 33 pp.

[2] E.g., Peach, R. W., "Recommendations for the
Content and Design of Income Survey Questions
Relating to Farm Self-Employment Income,"
U.S. Department of Commerce, Bureau of
Economic Analysis, unpublished, November 1979.

[3] For a description of this file and the metho-
dology used in the creation, see Budd, E. C.,
and Salter, J. K., "Supplementing Household
Survey Estimates of Income Distribution with
Data from Other Sources: The U.S. Distri-
bution of Total Money Income for 1972," Paper
presented at the 17th General Conference of
the International Association for Research
in Income and Wealth, Gouvieux, France,
August 1981.

[4] The implied overall correction ratio differs
from the 40 percent used in Section 1, since
the audit corrections to the size distribu-
tions were made on an individual return basis,
not by applying an aggregate correction to all
returns. See J. K. Salter, Improving the
Quality of Income Data Reported on Field Sur-
veys and on Individual Tax Returns, unpub-
lished Ph.D. dissertation, The Pennsylvania
State University, 1980, for a more complete
discussion of audit correction methods applied
to the 1972 EM-SM file.