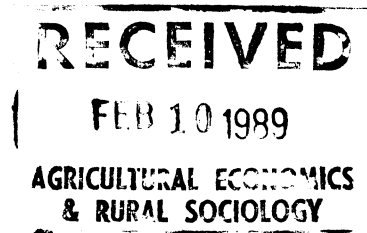


INTERPRETING FINLRB OUTPUTS: BENCHMARKS AND AVERAGES



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This paper presents benchmarks and averages for selected portions of the FINLRB input and output forms. These items may aid in the completion and interpretation of FINLRB runs.

Averages are taken from return and cost surveys or from farm record summaries. These surveys or summaries are for Ohio or regions having agricultural characteristics fairly similar to Ohio. Sources and regions are selected based on stringency of collection and reporting procedures.

As is always the case, averages should only be viewed as reference points. Individual farm returns and costs can and do vary substantially from averages.

The remainder of this paper is divided into two sections:

1. AVERAGES FOR INPUTS. This section includes five tables:

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These tables are divided into two sections. The first gives averages for FINLRB input items. The remainder of the table gives other returns and costs that may be of interest.

2. BENCHMARKS FOR INTERPRETING OUTPUTS. This section contains five tables:

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These tables correspond to one item on the FINLRB output. For each item, a benchmark is given if one exists. Also, averages for differing farms are given.

Table 1.
 RETURNS AND COSTS PER PLANTED ACRE OF CORN, OHIO, 1986

Item	Average
FINLRB INPUT ITEMS (enterprise code 100)	
Yield per acre	127 bu.
Price per bushel	\$ 1.38 ¹
Seed	\$ 18
Fertilizer	64
Crop chemicals	19
Crop insurance	0
Drying fuel	6
Irrigation energy	0
Custom hire	5
Direct crop labor	2
OTHER COSTS:	
Fuel, oil, and electric	6
Repairs	11
Misc.	1
General farm overhead	13
Taxes and insurance	17
Interest	38
SUMMARY	
Receipts less cash expenses	-25

Source: Davenport, Gregory. State-Level Costs of Production 1986. U.S.D.A. E.R.S. Washington D.C. March 1988.

¹ Note that this price is for 1986 and does not include government receipts.

Table 2.
 RETURNS AND COSTS PER PLANTED ACRE OF SOYBEANS, 1986

Item	Average
FINLRB INPUT ITEMS (enterprise code 104)	
Yield per acre	40 bu.
Price per bushel	\$ 4.63
Seed	\$ 10
Fertilizer	11
Crop chemicals	20
Crop insurance	0
Drying fuel	0
Irrigation energy	0
Custom hire	2
Direct crop labor	1
OTHER COSTS:	
Fuel, oil, and electric	5
Repairs	6
Misc.	0
General farm overhead	12
Taxes and insurance	15
Interest	35
SUMMARY	
Receipts less cash expenses	67

Source: Davenport, Gregory. State-Level Costs of Production 1986. U.S.D.A. E.R.S. Washington D.C. March 1988.

Table 3.
 RETURNS AND COSTS PER PLANTED ACRE OF WHEAT, OHIO, 1986

Item	Average
FINLRB INPUT ITEMS (enterprise code 106)	
Yield per acre	42 bu.
Price per bushel	\$ 2.20
Seed	\$ 11
Fertilizer	37
Crop chemicals	0
Crop insurance	0
Drying fuel	0
Irrigation energy	0
Custom hire	5
Direct crop labor	1
OTHER COSTS:	
Fuel, oil, and electric	5
Repairs	6
Misc.	0
General farm overhead	8
Taxes and insurance	15
Interest	22
SUMMARY	
Receipts less cash expenses	1

Source: Davenport, Gregory. State-Level Costs of Production 1986. U.S.D.A. E.R.S. Washington D.C. March 1988.

Table 4.
 RETURNS AND COSTS PER PLANTED ACRE OF OATS, OHIO, 1986

Item	Average
FINLRB INPUT ITEMS (enterprise code 112)	
Yield per acre	46 bu.
Price per bushel	\$.79
Seed	\$ 7
Fertilizer	28
Crop chemicals	2
Crop insurance	0
Drying fuel	0
Irrigation energy	0
Custom hire	5
Direct crop labor	1
OTHER COSTS:	
Fuel, oil, and electric	5
Repairs	6
Misc.	1
General farm overhead	5
Taxes and insurance	15
Interest	16
SUMMARY	
Receipts less cash expenses	-41

Source: Davenport, Gregory. State-Level Costs of Production
1986. U.S.D.A. E.R.S. Washington D.C. March 1988.

Table 5.
 RETURNS AND COSTS PER DAIRY COW, NEW YORK, 1987

Item	Average	Top 10 % ¹
FINLRB INPUT ITEMS (enterprise code 200)		
Quantity of milk	163 cwt.	179 cwt.
Price	\$ 12.80	\$ 12.92
Cull income	183	225
Other sales	39	39
Purchased feed	533	577
Artificial insemin.	31	32
Health	46	54
Supplies	86	84
Marketing	121	125
OTHER COSTS:		
Hired labor	243	348
Machinery expenses	207	192
Replacement livestock	21	12
Fertilizer	82	77
Seed	34	37
Chemicals	31	40
Rent and repair	75	96
Taxes	92	76
Utilities	63	53
Misc	32	31
RECEIPTS LESS CASH COSTS	611	743

¹Top 10 percent farms in terms of per cow profitability.

Source: Smith, S.F., W.A. Knoblauch, and L.D. Putnam. Business Summary, New York 1987. Dept. of Agricultural Economics. Cornell University, Ithaca, New York. July 1988.

Table 6.
RETURN ON ASSETS

Benchmark: Over time, return on assets should exceed the cost of debt.

Average Return on Assets, 1987

Category	Return on Assets
United States¹	
All farms	2.87 %
Sales	
Less than \$9,999	-.01
\$10,000 - \$19,999	.08
\$20,000 - \$39,999	.86
\$40,000 - \$99,999	3.15
\$100,000 - \$249,999	5.46
\$250,000 - \$499,999	8.34
Greater than \$500,000	12.38
Farm type	
Cash grain	4.52
Beef, hogs, sheep	2.75
Dairy	3.35
Tenure	
Full tenant	7.86
1 to 20 %	6.06
21 to 40 %	3.95
41 to 60 %	5.60
61 to 80 %	3.31
81 to 99 %	2.05
Full owner	2.40
Ohio²	
All farms	-1.1
greater than \$100,000 sales	5.6
Cash grain ³	
Hog ³	7.2
Dairy ³	5.4

¹U.S. Return on Assets taken from U.S. Department of Agriculture. Financial Characteristics of U.S. Farms, January 1, 1988. E.R.S. Bull. No. 551. Oct. 1988.

²Taken from Ohio Farm Household Longitudinal Study, Department of Agricultural Economics and Rural Sociology, The Ohio State University. Returns do not include capital gains.

³Returns given for farms with sales over \$100,000.

Table 7.
RETURN ON EQUITY

Benchmark: Over time, return on equity should exceed the cost of debt

Average Return on Equity, 1987

Category	Return on Equity
United States ¹	
All farms	3.59 %
Sales	
Less than \$9,999	-.56
\$10,000 - \$19,999	-.66
\$20,000 - \$39,999	-.09
\$40,000 - \$99,999	1.91
\$100,000 - \$249,999	4.24
\$250,000 - \$499,999	7.57
Greater than \$500,000	12.84
Farm type	
Cash grain	3.09
Beef, hogs, sheep	1.91
Dairy	1.74
Tenure	
Full tenant	7.37
1 to 20 %	4.54
21 to 40 %	2.26
41 to 60 %	4.46
61 to 80 %	1.98
81 to 99 %	.12
Full owner	1.55

¹U.S. Return on Assets taken from U.S. Department of Agriculture. Financial Characteristics of U.S. Farms, January 1, 1988. E.R.S. Bull. No. 551. Oct. 1988.

Table 8.
CASH FARM EXPENSES AS % OF VALUE OF PRODUCTION

Benchmark: none. Percentages appear to be in the 70 to 80 percent range.

Average Cash Farm Expenses As % of income, 1987

Category	Cash Expenses as % of Income
United States ¹	
All farms	76 %
Sales	
Less than \$9,999	150
\$10,000 - \$19,999	91
\$20,000 - \$39,999	80
\$40,000 - \$99,999	73
\$100,000 - \$249,999	72
\$250,000 - \$499,999	72
Greater than \$500,000	74
Farm type	
Cash grain	71
Beef, hogs, sheep	81
Dairy	76
Tenure	
Full tenant	78
1 to 20 %	71
21 to 40 %	77
41 to 60 %	71
61 to 80 %	77
81 to 99 %	80
Full owner	76

¹U.S. Return on Assets taken from U.S. Department of Agriculture. Financial Characteristics of U.S. Farms, January 1, 1988. E.R.S. Bull. No. 551. Oct. 1988.

Table 9.
FARM INTEREST AS % OF VALUE OF PRODUCTION

Benchmark: none

Average Farm Interest As % of
Value of Production, 1987

Category	Farm Interest as % of Value
United States ¹	
All farms	7 %
Sales	
Less than \$9,999	21
\$10,000 - \$19,999	11
\$20,000 - \$39,999	5
\$40,000 - \$99,999	8
\$100,000 - \$249,999	8
\$250,000 - \$499,999	8
Greater than \$500,000	5
Farm type	
Cash grain	10
Beef, hogs, sheep	7
Dairy	7
Debt-to-Asset Ratio	
No debt	0
.01 - .10	4
.11 - .40	8
.41 - .70	14
.71 - 1.0	15

¹U.S. Return on Assets taken from U.S. Department of Agriculture. Financial Characteristics of U.S. Farms, January 1, 1988. E.R.S. Bull. No. 551. Oct. 1988.

Table 10.
PERCENT IN DEBT

Benchmark: none

If return on assets exceed the cost of debt, then profitability increases as percent in debt increases.

If return on assets are less than the cost of debt, then profitability decreases as percent in debt increases.

Conventional wisdom suggests that farms with percent in debt less than 40 percent are financially strong, 40 to 70 percent are financially stressed, and above 70 percent are in severe financial stress.

Average Percent in Debt, 1987

Category	Percent in Debt
United States ¹	
All farms	15 %
Sales	
Less than \$9,999	7
\$10,000 - \$19,999	8
\$20,000 - \$39,999	10
\$40,000 - \$99,999	17
\$100,000 - \$249,999	20
\$250,000 - \$499,999	22
Greater than \$500,000	23
Farm type	
Cash grain	20
Beef, hogs, sheep	11
Dairy	21
Return on equity	
Insolvent	171
less than -.21	50
-.11 to -.20	28
-.06 to -.10	23
-.05 to .04	9
.05 to .09	16
.10 to .19	22
greater than .20	35

¹U.S. Return on Assets taken from U.S. Department of Agriculture. Financial Characteristics of U.S. Farms, January 1, 1988. E.R.S. Bull. No. 551. Oct. 1988.