

2004 Harvest Year Report

for USCHI's

Custom Harvester Analysis and Management Program (CHAMP)

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U.S. Custom Harvesters Inc.

**2004 Harvest Year Report
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Custom Harvester Analysis and Management Program (CHAMP)**

Background and Structure

At the urging of a number of USCHI (U.S. Custom Harvesters, Inc.) members, a pilot financial management program was initiated in January, 1998. The program was soon coined CHAMP, for Custom Harvester Analysis and Management Program. CHAMP, conducted by two economists at Kansas State University (K-State), Kevin Dhuyvetter and Terry Kastens, relies chiefly on results from a participant mail-in survey. The primary purpose of the program is to provide participants (CHAMP members) with important economic and production information about themselves. In this program, each participating firm is able to evaluate its production and economic performance relative to the CHAMP group as a whole, with individual firm information remaining confidential.

CHAMP is designed to be dynamic, so that it's accuracy and relevance can improve over time. Besides immediately providing useful information to individual participants, this program provides custom harvesting industry benchmarks and trend information over time and is instrumental in guiding future government lobbying efforts.

Each year, following compilation of the survey information in late February, each CHAMP member receives a report showing how it stands relative to group benchmarks or averages. In that report, individual cost categories are reported so participants can see where best to focus their management efforts to increase profits. Additionally, this written report, which depicts only aggregate values of interest (not values for individual members) is made publicly available each year. At USCHI's annual spring meeting, Dhuyvetter and Kastens present survey

results to CHAMP and USCHI members and conduct short one-on-one consultations with individual CHAMP members. Historical CHAMP harvest reports and participation information are available by clicking on the CHAMP logo at www.aganalysisplus.com. Also, these reports can be found at the site www.agmanager.info.

A formal CHAMP guidance or advisory committee was established by USCHI in 1998. The advisory committee's main role is to serve as a liaison between CHAMP members and the K-State economists conducting the program – ensuring that members' economic analyses needs are being met over time. The committee also serves as an important link between CHAMP membership and the overall USCHI membership in general, and USCHI's governing committee in particular. More specifically, the CHAMP committee helps 1) devise the questions asked in the annual mail-in survey, 2) determine arrangements for funding the CHAMP program, and 3) describe and promote the program to other custom harvesters.

USCHI members initiated CHAMP and USCHI strongly supports it. For the 1997 - 1999 harvest years, K-State charged \$150 per CHAMP member annually. However, only \$75 was paid directly by the CHAMP member, with the balance (\$75) covered by USCHI. For 2000-2003 harvest years, through an annual payment of \$8,700, John Deere has underwritten the fixed costs associated with the CHAMP program. Beginning with 2004, AGCO has picked up the annual \$8,700 payment. Since 2000, and for 2004, CHAMP member fees were \$225 each. USCHI covered \$75 of the \$225 – for CHAMP members who are also USCHI members. Although AGCO and

USCHI financially support CHAMP, to ensure confidentiality, completed surveys are only viewed by Dhuyvetter and Kastens.

Survey Results

Numerical inputs to our analysis sometimes change based on information attained from the one-on-one CHAMP contacts at USCHI’s annual meeting. Also, other occasional historical numerical errors emerge over time. Hence, the values shown in this report are sometimes revised in our databases over time. Yet, to ensure continuity over time for this series of reports, historical values shown in the text portion of this current report generally are merely the same ones shown in previous years’ reports, rather than revised numbers. Consequently, it is possible that some of the historical numbers you may see us present to audiences could deviate slightly from the historical numbers shown here or in prior reports; but, deviations should not be large. Indeed, any graphical depictions of historical trends shown following the text of this report actually use revised data when available, and hence may be slightly inconsistent with the text part of this report.

CHAMP members were asked to provide detailed production and financial information, some of which has not typically been compiled by custom harvesting firms. Additionally, they were asked to prorate financial information between the custom harvesting business and any side business. For 2004, 23 surveys were returned. Although such “few” responses may be inadequate for industry representation or certain intense statistical analyses, that sample is adequate to garner some understanding of custom harvesters’ economic performance.

As with the previous CHAMP surveys and mail-in surveys in general, in this now-web-based survey there was plenty of room for

error. Most surveys required one or more follow-up phone calls to clarify information provided. To maximize the number of useable responses in this analysis, some judgement had to be exercised in modifying and interpolating survey responses. In all such cases, the judgement was a joint effort of both Kevin Dhuyvetter and Terry Kastens – individuals who have extensive experience in working with farm and custom harvester financial analyses. However, because of CHAMP advisory committee efforts to improve previous years’ surveys, and because many surveys are completed by repeat members (10 members participated in all 8 years and only 1 was totally new in 2004), the judgement required of the analysts continues to diminish. Surveys from repeat members indicate there is a “learning curve” associated with filling out the forms, and that a better understanding of the economic principles of the business results, which should mean improved management abilities as well.

Table 1

	no. of CHAMP members	members in for current year and prior year	members in for current year and any prior year
1997	43	-----	-----
1998	24	21	21
1999	25	18	22
2000	23	20	20
2001	20	18	19
2002	25	19	23
2003	21	20	20
2004	23	22	22

Throughout this report, references to a particular year mean *that* harvest year, and are associated with the survey completed early in the calendar year following harvest. Unless specified otherwise, averages reported here are firm averages. That is, some values require first averaging within a firm and then across firms. For example,

reported average profit per acre is calculated by first computing profit per acre within each firm, then averaging each firm's profit per acre across all responding firms. This answers the question, Randomly choosing a firm, what would I expect its profit per acre to be? Caution must be used in interpreting such results. For example, if large firms (those harvesting many acres) are profitable but small firms are not, the average profit per acre reported here could be negative even though the typical acre being harvested by the industry is harvested at a profit.

General Information

The first page of the 2004 survey, the Information Page, requests general information of interest to custom harvesters. Information ranged from demographics and business structure to questions designed to uncover how important custom harvesting was to a member's overall business, as well as questions about family involvement.

CHAMP members in 2004 were located in 6 states, with most (12) in Kansas. The average age of the "main persons in charge" was 46.6 years, which was an average of 44 people (because some of the 23 CHAMP members listed more than one person to be in charge). These ages are somewhat lower than the average age of U.S. farmers, which is regularly asserted to be in the mid 50's.

Table 2

	no. of states represented by CHAMP	age of main person in charge	years in business
1997	10	47.0	23.9
1998	7	45.4	24.9
1999	6	44.9	26.3
2000	6	43.8	25.4
2001	6	45.9	26.7
2002	6	46.0	29.0
2003	6	46.6	29.5
2004	6	46.6	31.3

Of the 23 2004 members, 2 operated as a partnership, 4 as an LLC, 5 as a sole-proprietorship, and 12 as a corporation. Firms appear well established, with an average number of years in business of 31.3.

Most (14 of 23) members indicated they typically run their combines 1 or 2 years. Thirteen members indicated they typically run new combines, 9 run used combines, and 1 runs either or both of new and used.

In addition to custom harvesting, a majority of members (16 of 23) have sideline businesses. Farming/ranching was a sideline for 11 of the members, 11 were involved in trucking, and 3 had some other sideline business (do not add to 16 since some have more than one side business).

A repeatedly large percent of members lodge in campers or mobile homes (rather than stay in motels). These campers have become an intricate part of the equipment moved from job to job. Consequently, this question was dropped from the survey in 2003. On average, 21.7% of the meals are from a restaurant rather than home-prepared. On average, across the 44 "main persons in charge," managers indicate they allocate 68.5% of their time to the custom harvesting business. Some (23%) of the managers indicated they spent more than 80% of their time in their harvesting businesses; 27% were so-employed less than half time.

In 2004, harvesting firms spent 6.1 months in actual harvesting on average, with 7 firms spending 7 months. The number of customers serviced by a CHAMP member ranged from 17 to 93, and averaged 44.6 (table 3).

At the harvest season peak, member harvesters employ 13.2 individuals on average, with the most common number indicated to be between 8-9 people. Of the

total season-peak individuals, 28.6% were family members. On average, the typical non-family employee stays with a harvester for 2.1 seasons, with the most frequent response being 2 seasons (table 4).

Table 3

	% using mobile homes	% of restaurant meals rather than home-prepared	% of time main person allocates to harvesting	No. of customers
1997	79%	38.4%	NA	NA
1998	84%	43.4%	73.1%	33.4
1999	96%	34.0%	69.0%	39.1
2000	95%	29.1%	70.8%	38.8
2001	95%	27.5%	69.7%	37.4
2002	94%	29.6%	70.8%	40.5
2003	NA	24.6%	70.9%	42.7
2004	NA	21.7%	68.5%	44.6

Table 4

	season peak no. of employees	% of employees that are family	years non-family employee with business
1997	NA	NA	NA
1998	8.5	31.3%	2.0
1999	11.4	36.2%	1.9
2000	9.8	34.1%	1.7
2001	8.8	34.6%	1.8
2002	11.5	30.0%	1.8
2003	11.1	31.6%	1.8
2004	13.2	28.6%	2.1

Table 5

	% of foreign employees (average of member percentages)	% of all employees that are foreign	not used
2004	34.1%	45.5%	xxx

A new question was asked in 2004, “Of the season-peak employees, how many are foreign?” The average percentage of the

calculated values across the 23 members in 2004 was 34.1%. Across the 303 total employees accounted for by the 2004 members, 45.5% were foreign.

The question regarding whether members split their machines was dropped in 2003. Most (67%) finance their combines through the dealer or manufacturer; 67% get their combine insurance the same way. With a minimum of 4.1% and a maximum of 9.0%, the average reported interest rate on loans in 2004 was 5.94%.

Table 6

	% that split machines	% that finance combines through dealer or manufacturer	average reported interest rate
1997	NA	NA	NA
1998	52%	76%	8.90%
1999	40%	76%	8.94%
2000	50%	77%	9.32%
2001	60%	70%	7.66%
2002	58%	81%	6.55%
2003	NA	71%	6.31%
2004	NA	67%	5.94%

Combine Information

The second page of the 2004 survey, the Combine Page, reports details about the combines used by CHAMP members – such as brand, model year, hours of use, and other descriptive features. In addition, start-of-year, purchase, sale, and end-of-year values of combines were also reported on this page. Information from those values provides an estimate of annual market depreciation, which averaged 13.3% across the 101 owned combines used in 2004.

John Deere made up 75.9% of the 116 combines used for harvest in 2004, with 21.6% for Case-IH, and 2.6% for all other brands. More than half (68.1%) of the combines were of model year 2003 or

newer. A large majority (87.1%) of combines were owned rather than rented (5.2%) or leased (7.8%).

Table 7

	combine market depreciation	% of combines that are JD	% of combines that are Case-IH	% of combines owned
1997	NA	58.0%	37.0%	95.0%
1998	NA	67.4%	27.2%	90.0%
1999	16.1%	63.2%	34.6%	91.0%
2000	15.1%	77.6%	22.4%	89.0%
2001	14.7%	61.3%	37.3%	89.3%
2002	14.0%	71.2%	25.4%	92.4%
2003	14.4%	65.6%	30.0%	91.1%
2004	13.3%	75.9%	21.6%	87.1%

Of the 116 combines used in 2004, 89.7% had yield monitors, and 50.9% had GPS-equipped yield monitors (the chaff spreader question was dropped in 2003). Based on this small sample of combines, it appears that yield monitors are virtually a standard, and that GPS inclusion is still increasing. On the other hand, only 9 (39.1%) of the members provide *any* yield maps for their customers in 2004, and, of those that did provide yield maps, they provided for only 7.3% of their customers, on average.

Table 8

	% of combines with yield monitors	% of combines with yield monitors with GPS	% of members providing yield maps	for map providers, % of customers affected
1997	38.0%	21.0%	NA	NA
1998	37.0%	15.2%	NA	NA
1999	54.9%	25.6%	NA	NA
2000	55.3%	27.1%	NA	NA
2001	60.0%	37.3%	NA	NA
2002	78.8%	39.8%	NA	NA
2003	81.1%	40.0%	28.6%	8.1%
2004	89.7%	50.9%	39.1%	7.3%

Among the 116 combines used in 2004, the

typical combine was used for 525 separator hours (711 engine hours) and had 1023 hours on the separator hourmeter at the end of 2004 or when it was traded if traded during the year (table 9). The average separator-to-engine hours ratio across the 116 combines was 73.7%, but that ratio varied widely among combines (59.8% to 96.1%). Moreover, usage rates were quite disperse, reflecting that firms differ in the amount of time spent on the harvest run, are subjected to different weather-related harvest delays, have different amounts of downtime, and have different management styles. For example, some harvesters might use rented combines for short periods of peak harvesting activity.

Table 9

	separator and engine hours per combine this year	separator hours on combine at end of year	combines simultaneously operated	separator hours per combine simultaneously operated
1997	585/NA	1156	3.5	581
1998	577/NA	1106	3.2	641
1999	524/NA	975	4.2	603
2000	559/NA	1146	3.6	577
2001	502/NA	1263	3.3	551
2002	458/NA	805	4.9	473
2003	574/761	1161	4.1	588
2004	525/711	1023	4.7	587

Comparing individual and average usage rates and end of season hours across years is not straightforward, as combine trading patterns can affect the numbers. For example, if combines are traded during the season, low average hours per combine will result – along with numbers of combines per harvester that may be much larger than the typical number of combines simultaneously operated by that harvester.

In 2004, on average across the 23 CHAMP members, the number of combines simultaneously operated was 4.7. Using the

total combine separator hours accumulated during 2004 for each member, divided by the number of machines simultaneously operated by that member, provides a better picture of harvest intensity. The average of this value (across the 23 members) in 2004 was 587 separator hours (table 9), and ranged from 255 to 826; the average engine hours calculated this way was 773 and the average separator-to-engine hours ratio was 76.0% (ranging from 64.4% to 93.4%).

Average acres covered per combine simultaneously operated in 2004 was 6872 (table 10), similar to 2003. Relative to CHAMP reports before 2003, note that what used to be “acres harvested” is now referred to as “acres covered.” This is because we later make a distinction between acres harvested by the firm and acres harvested by someone else renting the firm’s combines.

Closely related to hours per combine and acres per combine is acres per hour, at 11.81. The trend towards more acres per combine or higher harvest speed shown in table 10 likely is an indicator of ever larger combines and platforms (e.g., several harvesters now use 36-foot grain platforms). As always, wide variability across members prevails, with 1 member in the 7-8 acres per hour range and 2 above 14 acres per hour. Of course, these differences also are partly due to the types of crops harvested – some crops naturally require slower travel speeds.

Table 10

	acres covered per combine operated	acres per hour
1997	5505	9.51
1998	5852	9.23
1999	5311	8.83
2000	5969	10.45
2001	5821	10.68
2002	5486	11.79
2003	7052	12.10
2004	6872	11.81

Platform Information

The third page of the CHAMP survey sought information on the “additional” combine headers/platforms used by harvesters (one standard grain platform was included with each combine on the Combine Page). Average annual depreciation on the 259 platforms listed on the platform page was 5.0% (table 11).

Of the 116 combines that tallied more than zero hours in 2004, 50.9% had flex heads, 69.8% had cornheads, 23.3% had draper or “extra” platforms, 20.7% had row crop heads, and 66.4% had pickup heads.

Because the total number of operations involved in CHAMP is not great, coupled with the fact that operators are probably consistent across years in the machines they operate, the effective sample size appropriate for making reliable inferences may be closer to the number of operations than the number of combines. Thus, caution should be observed in making too much of observed differences across years.

Table 11

	combine platform depreciation	% of combines with flex heads	% of combines with corn heads
1997	NA	NA	NA
1998	NA	40.2%	70.7%
1999	9.1%	51.7%	61.7%
2000	7.4%	50.6%	67.1%
2001	5.1%	72.0%	62.7%
2002	7.9%	61.9%	69.5%
2003	7.5%	57.8%	63.3%
2004	5.0%	50.9%	69.8%

Table 12

	% of combines with draper heads	% of combines with row crop heads	% of combines with pickup attachments
1997	NA	NA	NA
1998	15.7%	30.4%	70.7%
1999	13.3%	25.0%	55.8%
2000	0.0%	28.2%	68.2%
2001	6.7%	20.0%	60.0%
2002	19.5%	14.4%	84.7%
2003	5.6%	22.2%	63.3%
2004	23.3%	20.7%	66.4%

Trucks and Supporting Equipment

The fourth page of the 2004 survey, the Non-combine Harvesting Equipment Page, reports details about grain trucks, trailers, tractors, grain carts, service vehicles, and other supporting equipment used by CHAMP members. At an average model year of 1992.3 (12.7 years old at the end of 2004 given model years are tied to a January 1 purchase), the 134 grain trucks reported by members were much older than the combines, and older (0.5 years) than trucks reported in 2003 (table 13). Tandem-axle trucks made up 34% of the 134, triple-axle trucks were 3%, and semis were 63%. Over time, the increased use of semis rather than tandem axle trucks is quite apparent.

Members owned 96% of their grain trucks as opposed to leasing or renting. On average where reported, 12,433 miles were put on each truck during the 2004 harvest season. At the end of 2004, the average odometer reading was 473,299. Ending mileage values suggest that many of the trucks had been at one time or are currently being used for over-the-road hauling.

Table 13

	age of trucks in years	% of trucks that are tandem axle	% of trucks that are semis
1997	NA	NA	NA
1998	11.6	59%	41%
1999	11.6	50%	42%
2000	11.3	61%	39%
2001	12.8	46%	54%
2002	11.8	38%	57%
2003	12.2	42%	56%
2004	12.7	34%	63%

Reported grain truck values were used to estimate market depreciation, which averaged 4.0% across the 130 trucks where those values were reported (table 14). The depreciation on trucks of 4.0% was less than a third of the 13.3% depreciation reported on combines. These values appear to be departing ever farther from each other over time (see tables 7 and 14).

Table 14

	% of trucks that are owned	miles per truck in harvesting	odometer at end of year for trucks	truck depreciation
1997	NA	NA	NA	NA
1998	91%	16308	NA	5.2%
1999	93%	17766	443883	5.9%
2000	89%	19589	513162	12.1%
2001	89%	12692	558707	11.0%
2002	92%	13549	552128	11.0%
2003	94%	12982	454461	7.2%
2004	96%	12433	473299	4.0%

Crops Harvested and Revenue Generated

The annual survey solicits information on the number of fields, acres, and bushels of each crop harvested in each state, the associated revenue coming from those crops and how it was split between combining and trucking, as well as the portion of harvested crops that was also hauled by the harvester. Typically, this information was included on

Custom Harvester Analysis and Management Program (CHAMP)
2004 Harvest Year
Individual Firm Report

Happy Harvesters Inc. Box 999 Wheat Country, KS 99999

	Firm Value	Survey Average Value	Firm Value per Combine	Survey Avg. of Value per Combine	Firm Value per per Acre	Survey Avg. of Value per per Acre	Firm Value per per Hour	Survey Avg. of Value per per Hour
Number of Machines Operated	3.0	4.73	----	----	----	----	----	----
Value of Combines	\$428,000	\$630,126	\$142,667	\$136,790	\$21.54	\$21.01	\$255.22	\$247.09
Value of Platforms	\$81,000	\$133,477	\$27,000	\$28,173	\$4.08	\$4.23	\$48.30	\$49.47
Value of Other Equipment	\$325,000	\$502,764	\$108,333	\$122,673	\$16.35	\$18.23	\$193.80	\$215.31
Value of Other Assets	\$120,000	\$161,796	\$40,000	\$32,996	\$6.04	\$5.21	\$71.56	\$61.95
Total Assets	\$954,000	\$1,428,162	\$318,000	\$320,632	\$48.01	\$48.69	\$568.87	\$573.81
Total Acres Covered	19,872	31,725	6,624	6,872	1.0	1.0	11.85	11.81
Combine Rent Acres	223	1,638	74	121	0.011	0.021	----	----
Small Grains Percent	76.3	70.6	----	----	----	----	Combine Efficiency	
Total Fields Harvested*	132	230	44.0	55.7	150.5	138.0	sep hrs/engine hrs	
Total Separator Hours in 2004	1,677	2,649	559	587	0.084	0.086	74.8%	76.0%



U.S. Custom Harvesters Inc.

	Firm	Survey Avg.							% of Total Revenue	
			Firm	Survey Avg.	Firm	Survey Avg.	Firm	Survey Avg.	Firm	Survey Avg.
INCOME AND EXPENSE										
Harvest Revenue	\$452,089	\$700,740	\$150,696	\$158,954	\$22.75	\$22.94	\$269.58	\$271.35	98.3%	97.6%
Combine Rent Revenue	\$2,027	\$19,061	\$676	\$1,428	\$0.10	\$0.24	\$1.21	\$3.02	0.4%	1.0%
Other Revenue	\$5,873	\$13,732	\$1,958	\$2,509	\$0.30	\$0.32	\$3.50	\$3.84	1.3%	1.4%
Total Revenue	\$459,989	\$733,533	\$153,330	\$162,891	\$23.15	\$23.51	\$274.29	\$278.21	100.0%	100.0%
Labor (paid and unpaid)	\$111,514	\$155,339	\$37,171	\$35,172	\$5.61	\$5.04	\$66.50	\$59.41	24.2%	21.4%
Travel	\$20,989	\$28,753	\$6,996	\$6,895	\$1.06	\$1.01	\$12.52	\$11.82	4.6%	4.3%
Fuel and Lubrication	\$68,312	\$96,563	\$22,771	\$22,542	\$3.44	\$3.20	\$40.73	\$37.97	14.9%	13.6%
Repair and Maintenance	\$38,121	\$71,751	\$12,707	\$17,113	\$1.92	\$2.41	\$22.73	\$28.47	8.3%	10.2%
Insurance	\$27,038	\$37,010	\$9,013	\$8,621	\$1.36	\$1.30	\$16.12	\$15.29	5.9%	5.5%
Telephone and Utilities	\$7,759	\$11,458	\$2,586	\$2,517	\$0.39	\$0.36	\$4.63	\$4.21	1.7%	1.5%
Other Expenses	\$16,834	\$54,962	\$5,611	\$11,548	\$0.85	\$1.54	\$10.04	\$18.22	3.7%	6.5%
Market Depreciation	\$52,500	\$125,180	\$17,500	\$28,995	\$2.64	\$4.14	\$31.31	\$49.21	11.4%	17.6%
Interest on Assets (assigned)	\$56,626	\$84,771	\$18,875	\$19,032	\$2.85	\$2.89	\$33.77	\$34.06	12.3%	12.3%
Total Expense	\$399,693	\$665,787	\$133,231	\$152,434	\$20.11	\$21.89	\$238.34	\$258.65	86.9%	93.1%
Total Operating Profit	\$60,296	\$67,746	\$20,099	\$10,457	\$3.03	\$1.62	\$35.95	\$19.56		

Debt-to-Asset Ratio (end of year)	33.6%	42.2%			Insurance as percent of equipment value =>	3.2%	2.9%
Return on Assets	12.3%	9.9%					
Return on Equity (based on IS)	15.4%	xxx	<=== Operating profit + interest charged on equity divided by beginning of year equity.				
Return on Equity (based on BS)	12.8%	xxx	<=== Change in balance sheet equity divided by the beginning of year equity.				
Expense/\$100 Revenue	\$86.89	\$93.16					

* Value used per acre for Total Fields Harvested represents the average field size in acres.

Note: Some reported values were modified from those reported on the survey due to arithmetic and other data entry errors.



BALANCE SHEETS PAGE (schedule D)

Happy Harvesters Inc.
 Box 999
 Wheat Country, KS 99999

Balance sheet for custom harvesting business only, 2004 (read the footnotes)

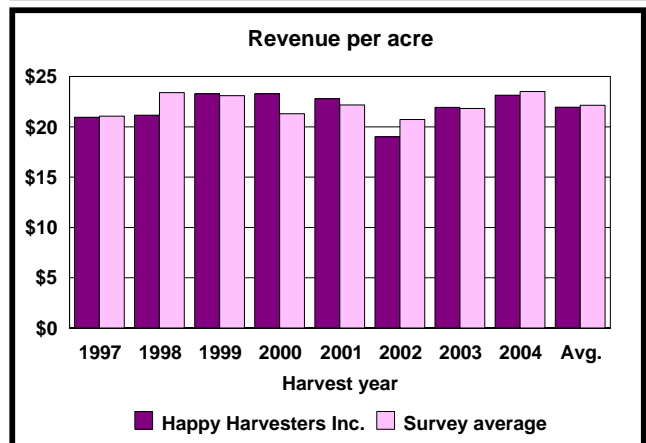
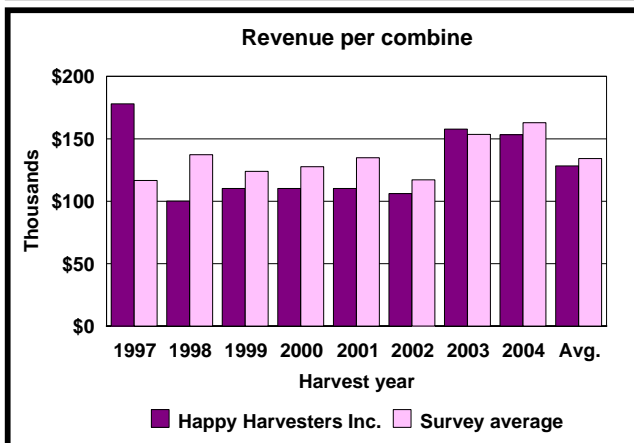
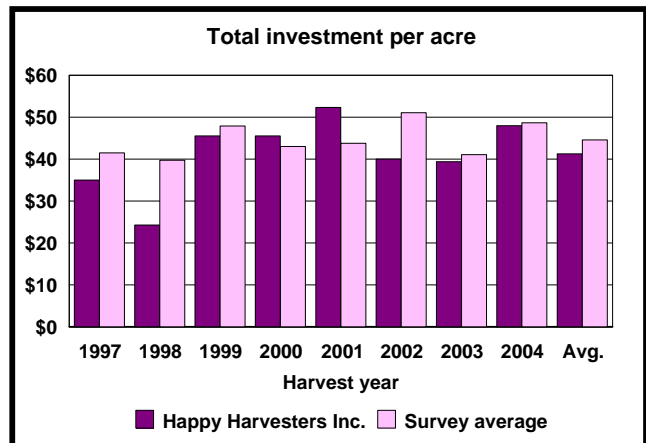
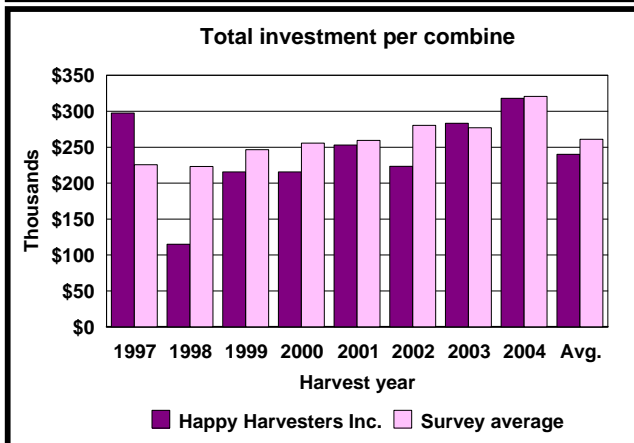
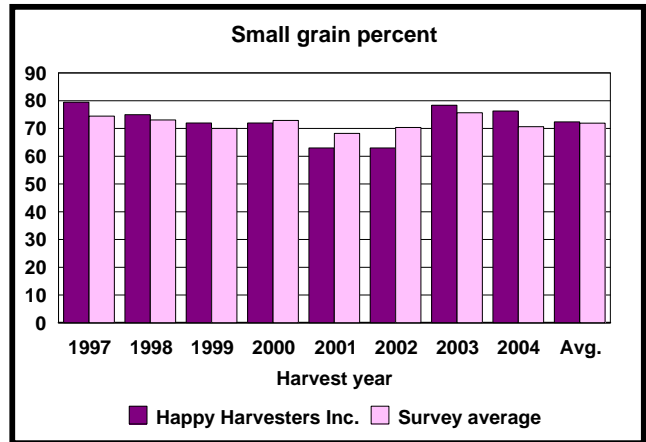
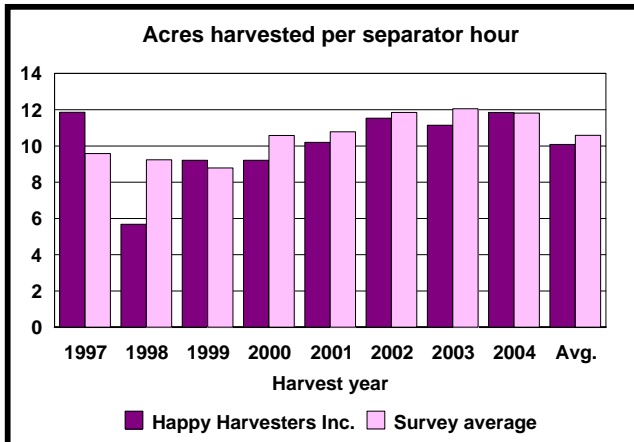
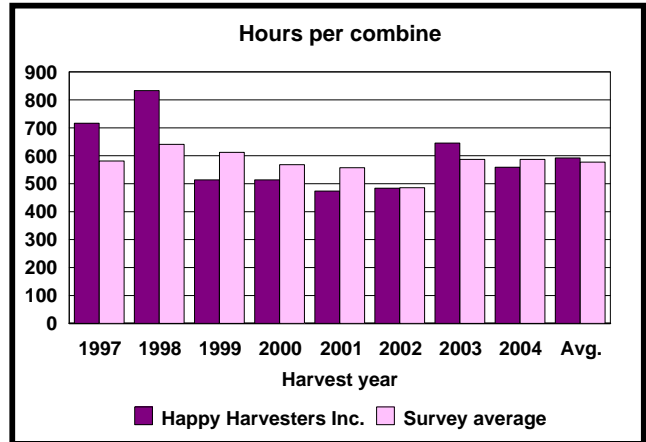
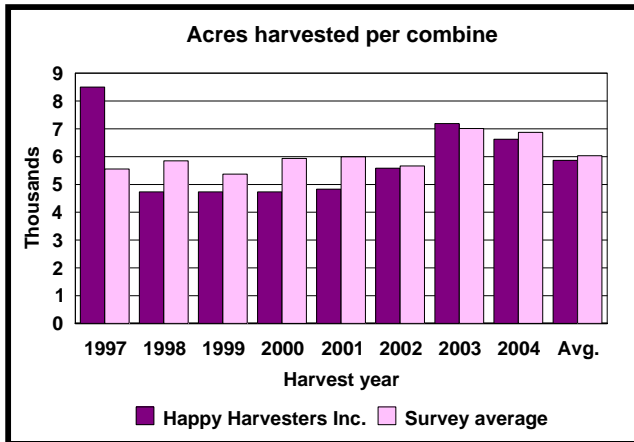
ASSETS (market value)			LIABILITIES & OWNER EQUITY		
	beginning 01/01/04	end 12/31/04		beginning 01/01/04	end 12/31/04
Current Assets	\$	\$	Current Liabilities	\$	\$
Cash on hand & in checking	6,850	11,500	Accounts payable	2,200	1,500
Savings, bonds, stocks, etc.	15,800	17,000	Short term loans (due within 1 yr.)		
Accounts receivable	3,600	1,200	principal outstanding	12,750	11,500
			accrued interest	314	284
Supply inventories	4,500	5,000	Other current liabilities (specify)	0	0
Other current assets (specify)	0	0			
D1. TOTAL CURRENT ASSETS	30,750	34,700	D4. TOTAL CURRENT LIABILITIES	15,264	13,284
Non-current Assets			Non-current Liabilities		
Combines (from A1+B1, A2+B2)	437,350	527,350	Long term loans (due beyond 1 yr.)		
Non-combine equipment (from C1, C2)	289,800	275,310	principal outstanding	295,000	282,000
			accrued interest	2,728	2,608
Market value of business real estate (i.e., office, storage bldgs., etc.)	50,000	50,000	Other non-current liabilities (specify)	0	0
D2. TOTAL NON-CURRENT ASSETS	777,150	852,660	D5. TOTAL NON-CURRENT LIABILITIES	297,728	284,608
D3. TOTAL CUST. HARV. ASSETS (D1+D2)	807,900	887,360	D6. TOTAL CUST. HARV. LIABILITIES (D4+D5)	312,992	297,891
			D7. TOTAL CUST. HARV. NET WORTH (D3-D6)	494,908	589,469
			Change in equity =====>	94,561	
TOTAL EQUITY (custom harvesting and outside businesses)				01/01/04	12/31/04
Investments in other businesses (such as a farm) and non-business investments (such as your residence). Report only the NET investment, which is assets less liabilities (net worth), for these investments:			D8.	130,000	145,000
Overall equity or net worth for whole business (D7+D8)			D9.	624,908	734,469
			Change in equity =====>	109,561	



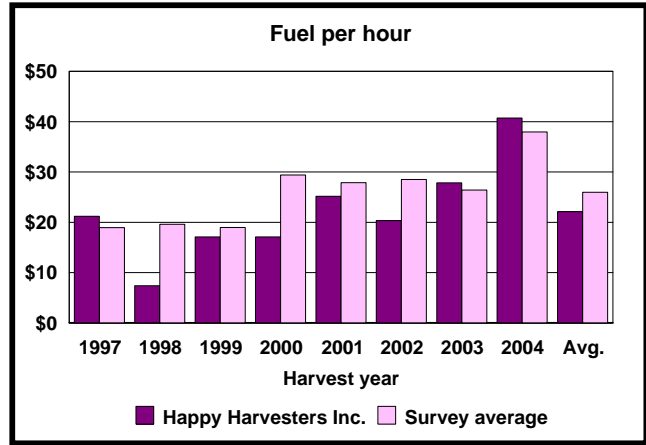
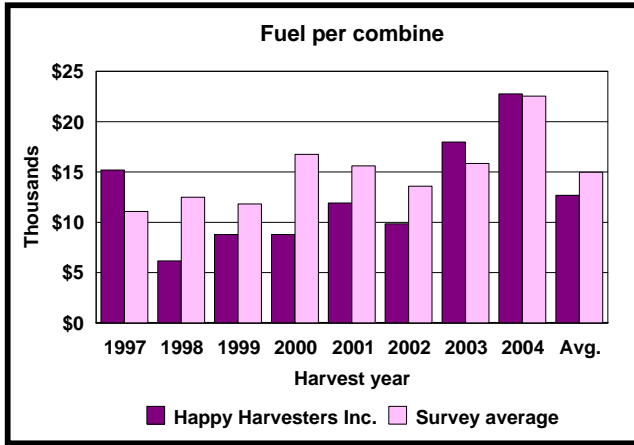
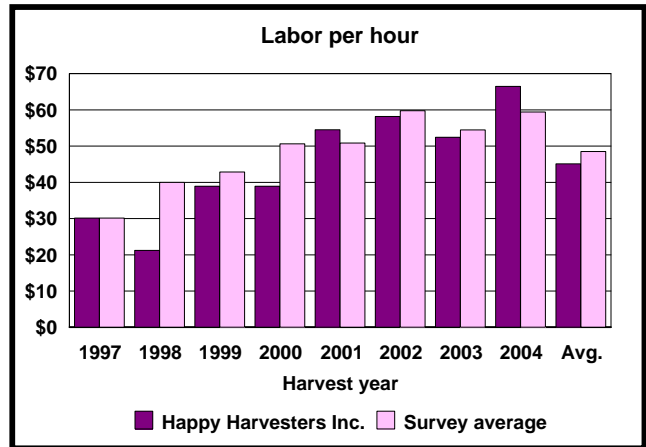
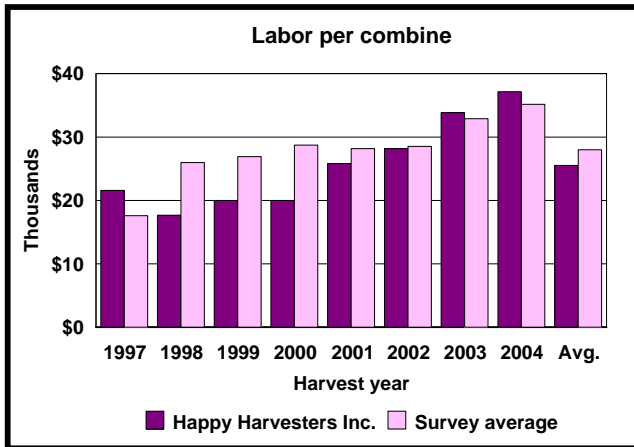
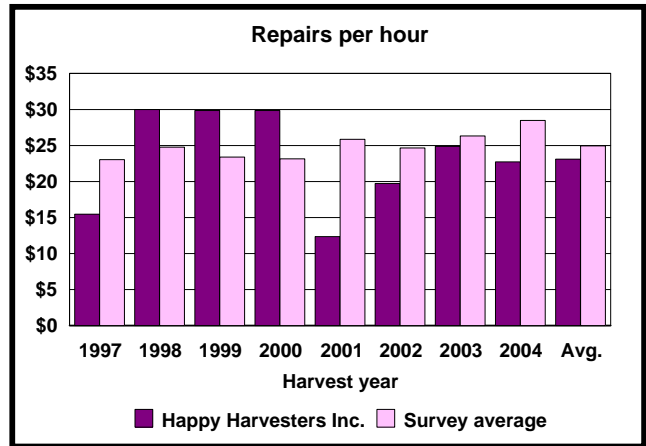
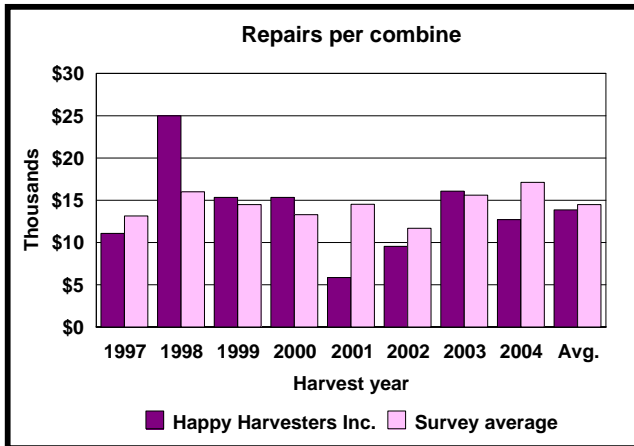
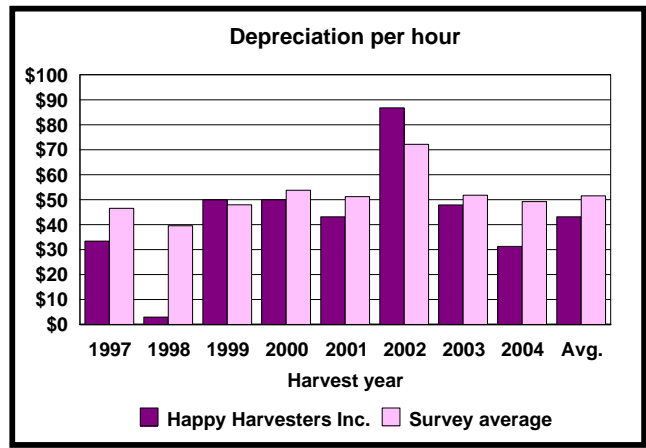
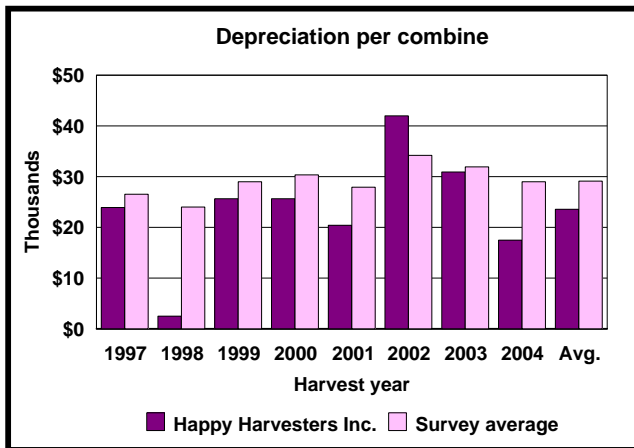
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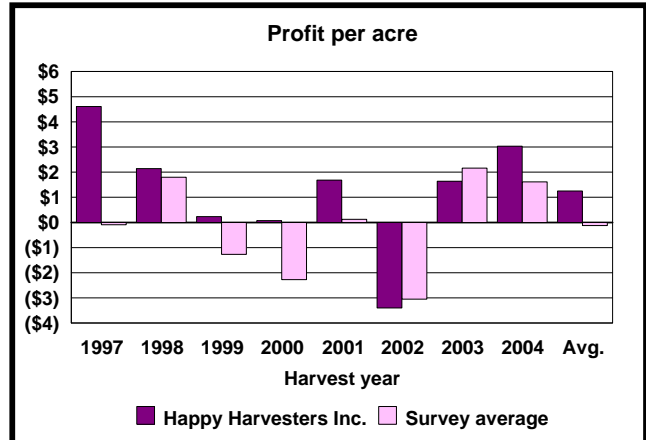
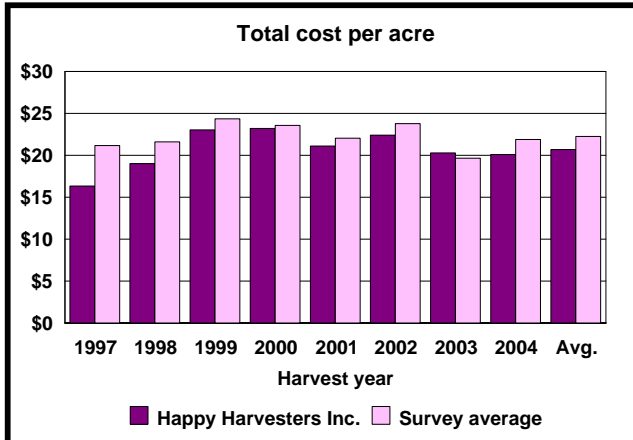
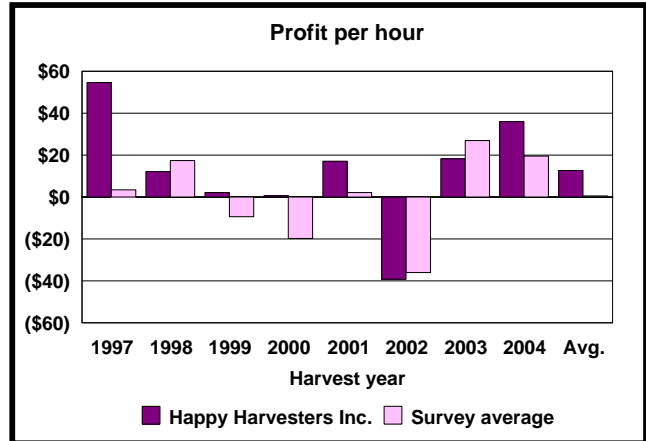
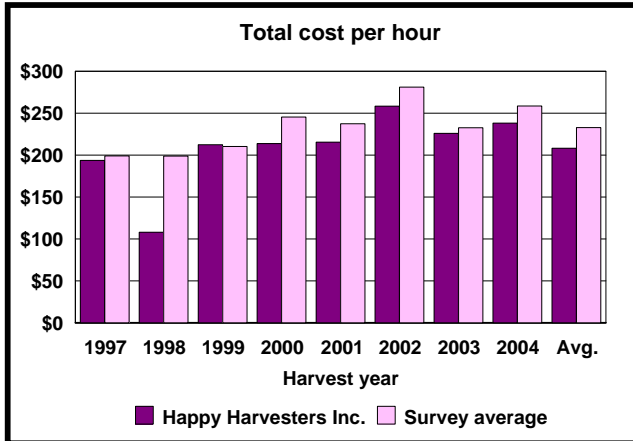
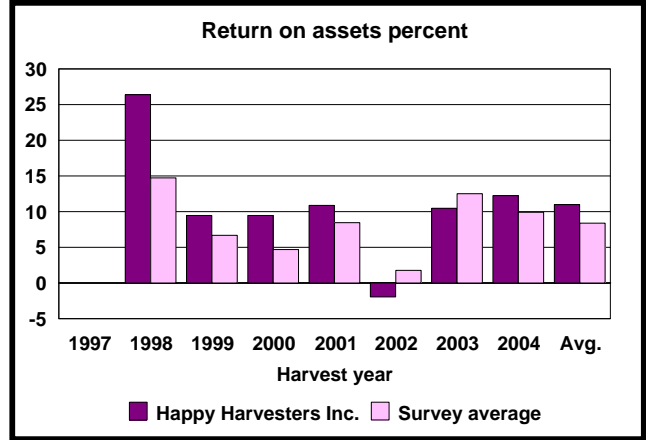
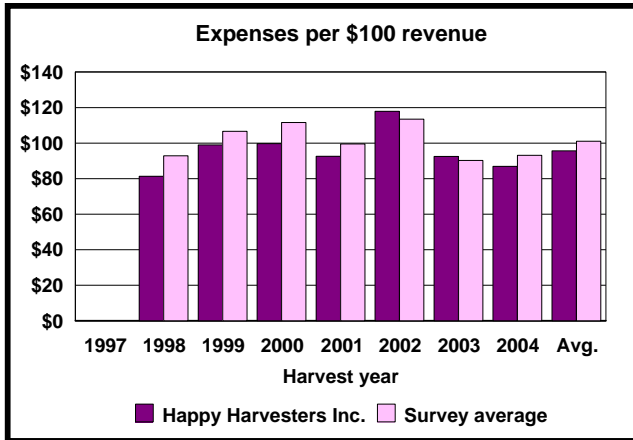
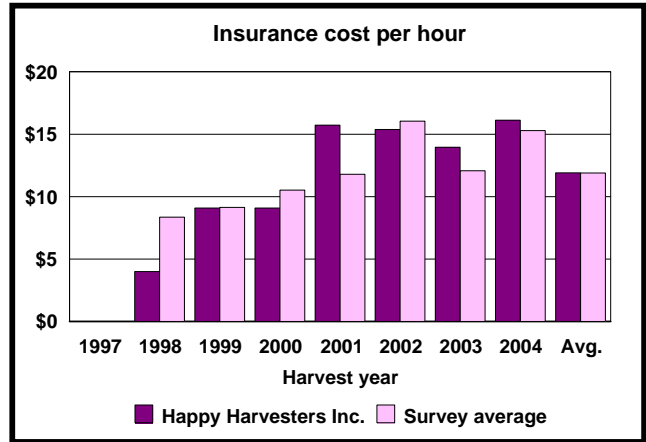
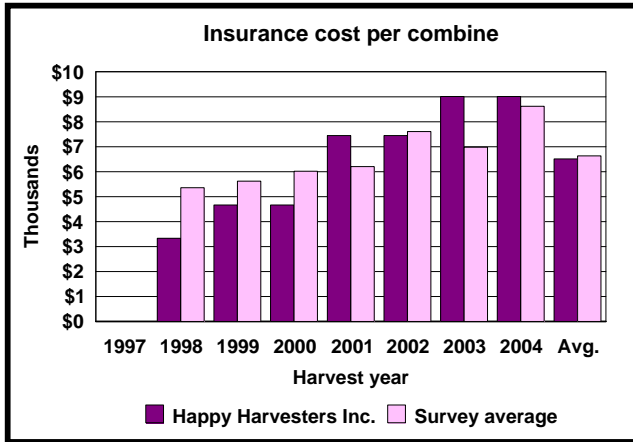
Historical Trends of Key Variables -- Individual harvester vs survey average



Historical Trends of Key Variables -- Individual harvester vs survey average



Historical Trends of Key Variables -- Individual harvester vs survey average



2004 Harvest Year Report for USCHI's Custom Harvester Analysis and Management Program (CHAMP)

Kevin Dhuyvetter and Terry Kastens
Agricultural Economists
AgAnalysis+ and
Kansas State University

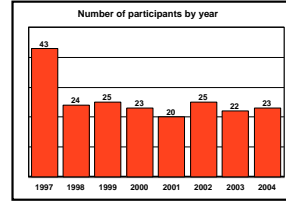
kcd@ksu.edu
tkastens@ksu.edu
www.agmanager.info



1

CHAMP: Over the years . . .

• Participation



• Repeat members

- 22 of 23 2004 members participated in 2003
- 10 members have participated all 8 years

2

CHAMP: Over the years . . .

• Continually seek ways to improve analysis

- Learning curve associated with filling out forms
- Better understanding of economic principles
- Prior year asset values and balance sheet
- Developed RevenueTracker.xls spreadsheet

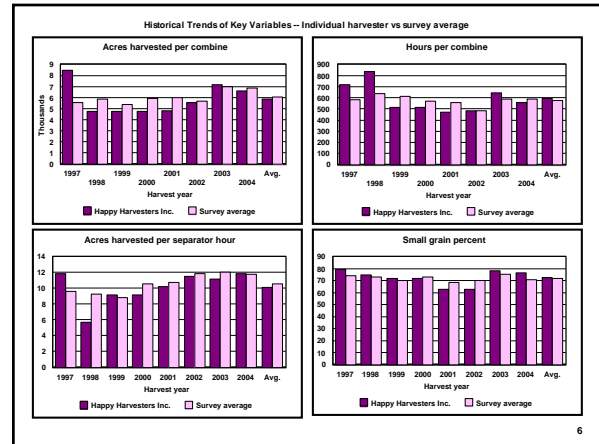
3

	Firm Value	Survey Average Value	Firm Value per Combine	Survey Avg. Value per Combine	Firm Value per Acre	Survey Avg. Value per Acre	Firm Value per Hour	Survey Avg. Value per Hour	% of Total Revenue
Number of Machines Operated	33	6.9							
Value of Combines	\$428,000	\$630,126	\$142,667	\$136,750	\$21.54	\$21.01	\$252.22	\$247.09	96.3%
Value of Planters	\$91,000	\$133,477	\$27,000	\$28,173	\$4.09	\$4.23	\$48.50	\$48.47	1.0%
Value of Other Equipment	\$225,000	\$502,764	\$108,333	\$22,673	\$14.35	\$11.23	\$193.80	\$215.31	4.3%
Value of Other Assets	\$120,000	\$181,796	\$40,000	\$2,996	\$6.04	\$6.21	\$71.56	\$61.95	1.3%
Total Assets	\$964,000	\$1,428,162	\$318,000	\$30,692	\$48.01	\$48.69	\$668.87	\$525.81	100.0%
Total Acres Covered	19,873	31,725	6,824	4,872	1.0	1.0	11.85	11.81	
Combine Rent Acres	223	1,638	74	121	0.011	0.021	-----	-----	
Small Grains Percent	76.3	70.6	-----	-----	-----	-----	-----	-----	
Total Fields Harvested*	132	200	44.0	55.7	195.5	138.0	74.8%	78.0%	
Total Separator Hours in 2004	1,877	2,849	559	587	0.084	0.086	-----	-----	
INCOME AND EXPENSE									
Harvest Revenue	\$403,088	\$703,743	\$103,688	\$130,364	\$22.75	\$22.04	\$268.58	\$271.35	96.3%
Combine Rent Revenue	\$2,027	\$19,081	\$676	\$1,426	\$0.10	\$0.24	\$1.21	\$3.02	0.4%
Other Revenue	\$5,873	\$13,722	\$1,958	\$2,299	\$0.30	\$0.35	\$3.50	\$3.84	1.3%
Total Revenue	\$410,988	\$736,546	\$106,624	\$134,089	\$23.15	\$22.63	\$274.29	\$278.21	100.0%
Labor (sold and unpaid)	\$111,514	\$155,330	\$37,171	\$35,172	\$5.61	\$5.04	\$66.50	\$59.41	24.2%
Travel	\$20,989	\$28,753	\$6,966	\$6,856	\$1.06	\$1.01	\$12.52	\$11.82	4.8%
Fuel and Lubrication	\$68,312	\$98,563	\$22,771	\$22,542	\$3.44	\$3.20	\$40.73	\$37.97	14.9%
Repair and Maintenance	\$38,121	\$71,251	\$12,707	\$17,113	\$1.62	\$2.41	\$20.73	\$28.47	8.3%
Insurance	\$27,038	\$37,010	\$9,013	\$8,421	\$1.38	\$1.30	\$16.12	\$16.29	5.9%
Telephone and Utilities	\$7,790	\$11,468	\$2,566	\$2,517	\$0.39	\$0.36	\$4.63	\$4.21	1.7%
Other Expenses	\$18,834	\$64,962	\$5,611	\$11,549	\$0.85	\$1.54	\$10.04	\$18.22	3.7%
Market Depreciation	\$52,500	\$125,140	\$17,500	\$28,995	\$2.84	\$4.14	\$31.31	\$48.21	11.4%
Interest on Assets (assprad)	\$56,028	\$84,711	\$18,875	\$19,022	\$2.85	\$2.89	\$33.77	\$34.06	12.3%
Total Expense	\$359,693	\$666,787	\$133,231	\$152,434	\$20.11	\$21.89	\$238.34	\$258.65	86.9%
Total Operating Profit	\$60,295	\$69,766	\$20,399	\$10,457	\$3.03	\$1.62	\$35.95	\$19.56	2.9%
Debt-to-Asset Ratio (end of year)	33.6%	42.2%							
Return on Assets	12.3%	9.9%							
Return on Equity (based on BS)	15.4%	xxx							
Return on Equity (based on BS)	12.8%	xxx							
Equity-to-BS Revenue	\$61.59	\$51.15							

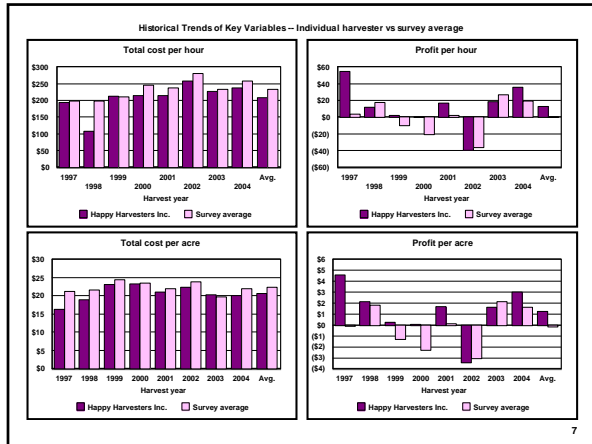
* Value used per acre for Total Fields Harvested represents the average field size in acres.
Note: Some reported values were modified from those reported on the survey due to arithmetic and other data entry errors.

ASSETS (in market value)		LIABILITIES & OWNER EQUITY	
beginning	end	beginning	end
01/01/04	12/31/04	01/01/04	12/31/04
Current Assets	\$	Current Liabilities	\$
Cash on hand & checking	6,860	Accounts payable	2,200
Savings, bonds, stocks, etc.	15,800	Short term loans (due within 1 yr.)	1,500
Accounts receivable	3,650	principal outstanding	12,700
Supply inventories	4,500	accrued interest	314
Other current assets (specify)	0	Other current liabilities (specify)	0
D1. TOTAL CURRENT ASSETS	30,750	D4. TOTAL CURRENT LIABILITIES	15,284
Non-current Assets		Non-current Liabilities	
Combines (from D1-E1, A2-B2)	437,300	Long term loans (due beyond 1 yr.)	295,000
Non-current equipment (from C1, C2)	285,800	principal outstanding	280,000
Market value of business real estate (i.e., office, storage bldgs., etc.)	50,000	accrued interest	2,728
		Other non-current liabilities (specify)	0
D2. TOTAL NON-CURRENT ASSETS	777,100	D5. TOTAL NON-CURRENT LIABILITIES	297,728
D3. TOTAL CUST. HARV. ASSETS (D1+D2)	807,900	D6. TOTAL CUST. HARV. LIABILITIES (D4+D5)	312,992
		D7. TOTAL CUST. HARV. NET WORTH (D3-D6)	494,908
		Change in equity	54,561
TOTAL EQUITY (custom harvesting and outside businesses)			
	01/01/04		12/31/04
Investments in other businesses (such as a farm) and non-business investments (such as your residence). Report only the NET investment, which is assets less liabilities (net worth), for these investments.		D8. 130,000	145,000
Change in equity	554,908		724,469
			139,561

In balance sheet above, except for D8 and D9, values are those assigned to ONLY the CUSTOM HARVESTING BUSINESS. If you run multiple businesses with your overall business, without tracking assets and liabilities accordingly, you will need to prorate proper values to the custom harvesting business. All values are market values, not income tax basis values.



6

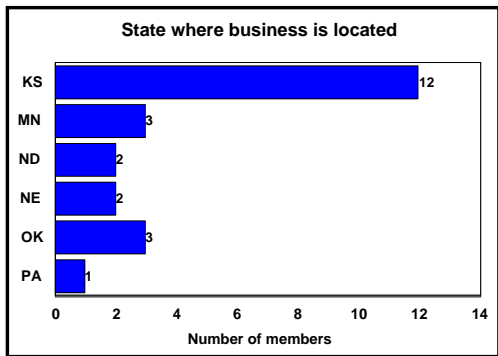


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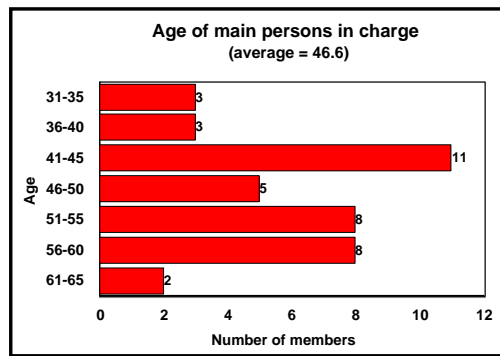
General Information

- Location
- Age of manager
- Business structure
- Years in business
- Age and number of combines
- Relative importance of business
- Housing and meals
- People involved in business
- Number of customers

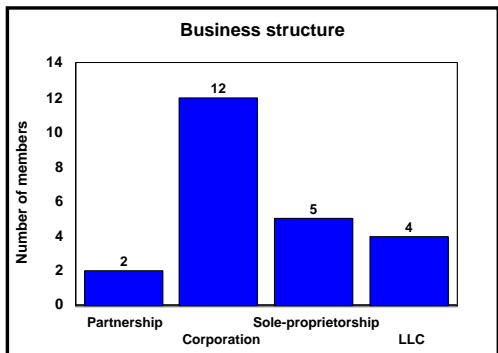
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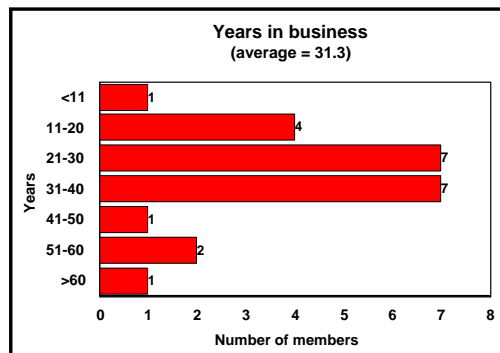
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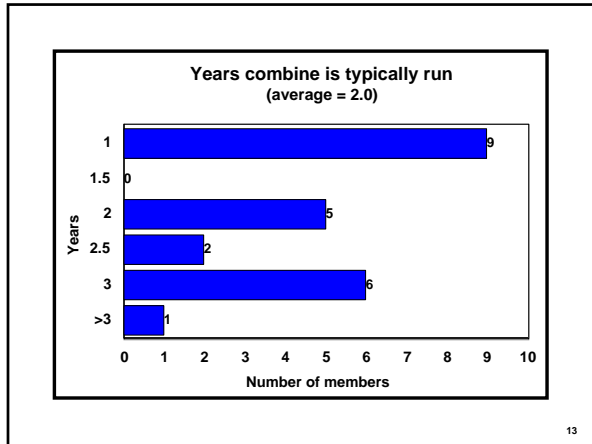
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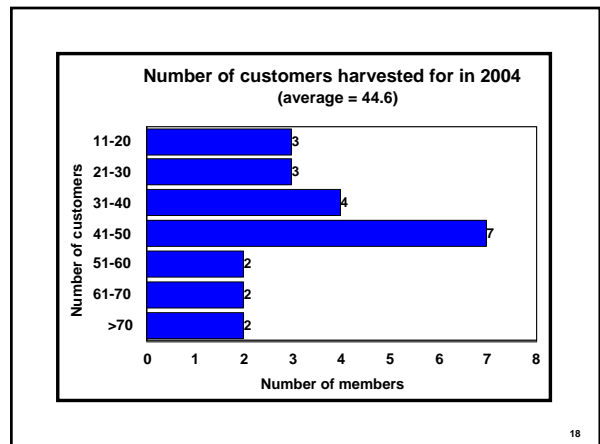
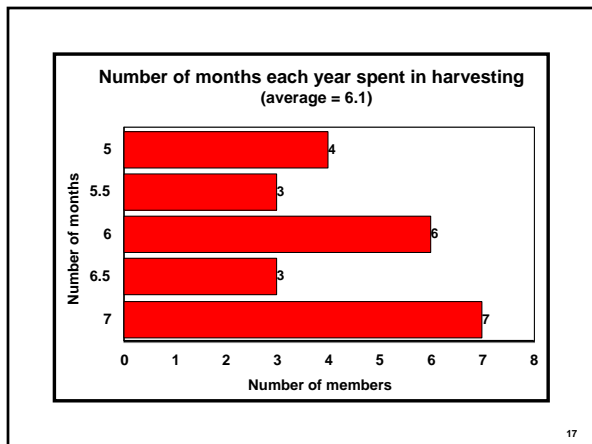
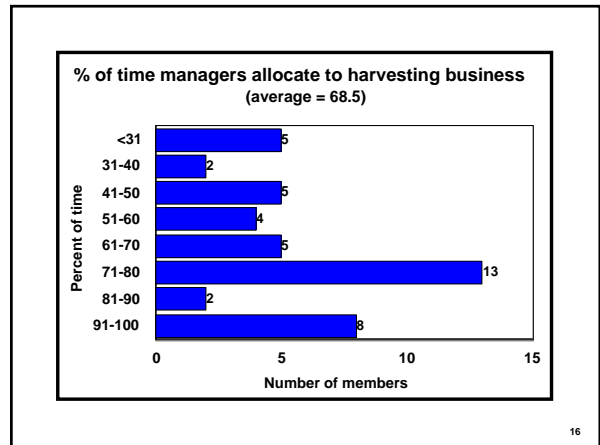
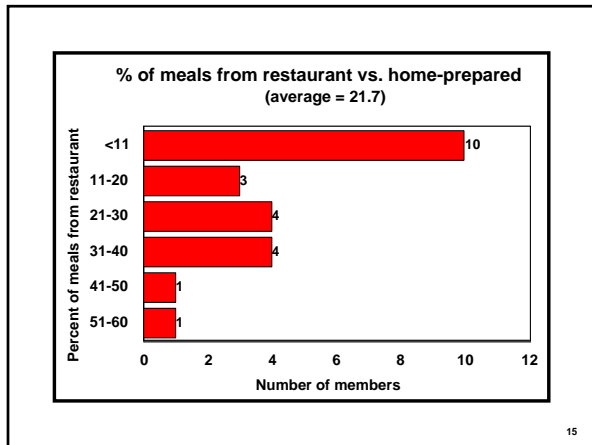
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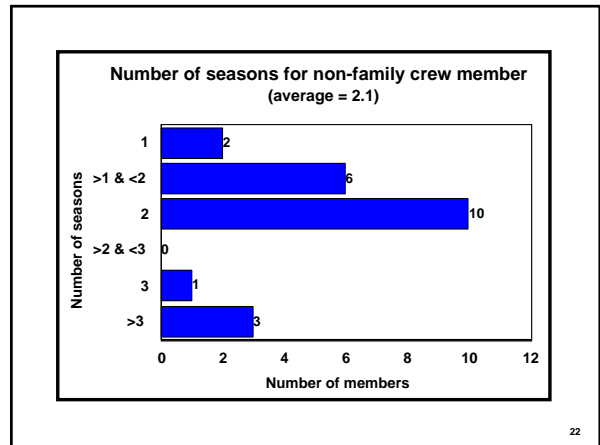
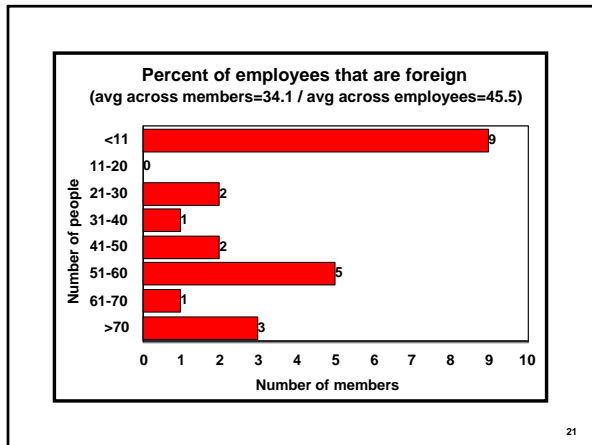
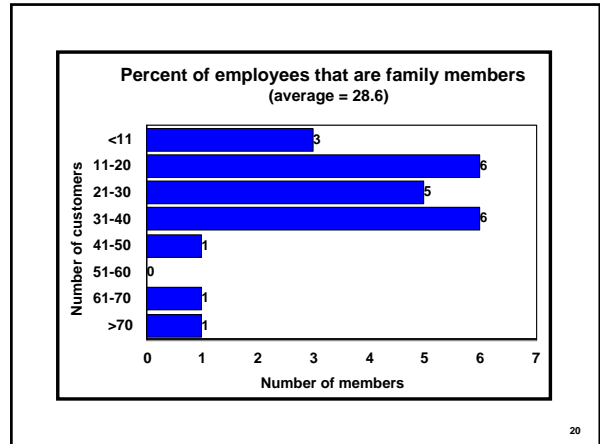
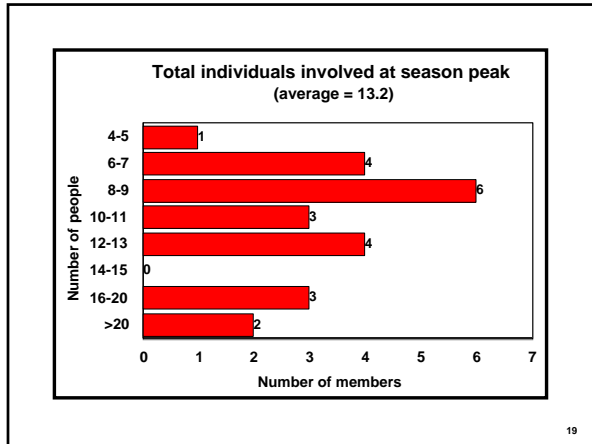


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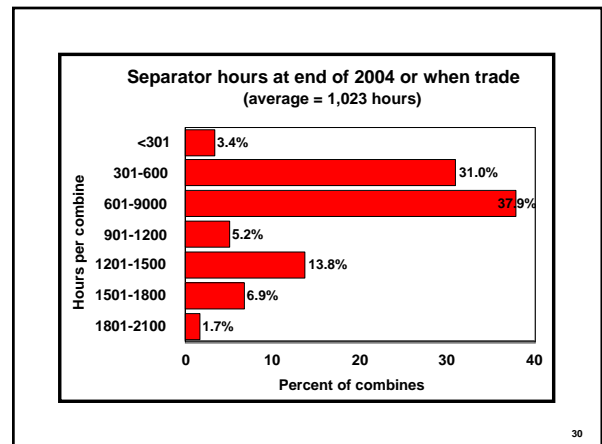
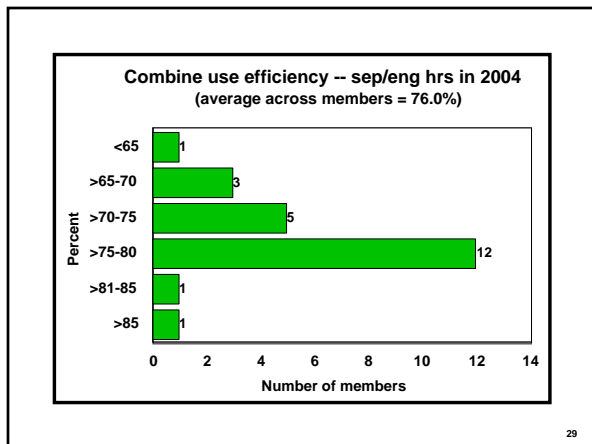
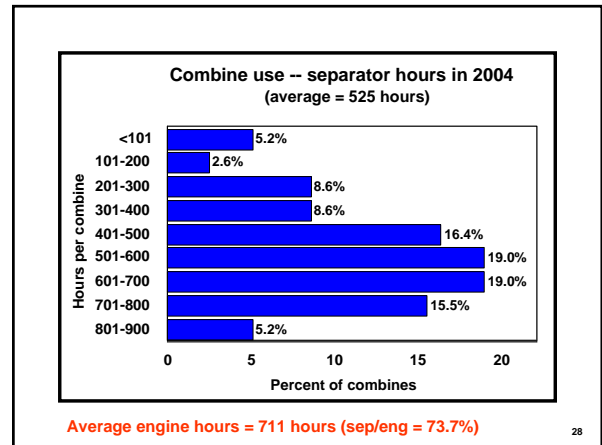
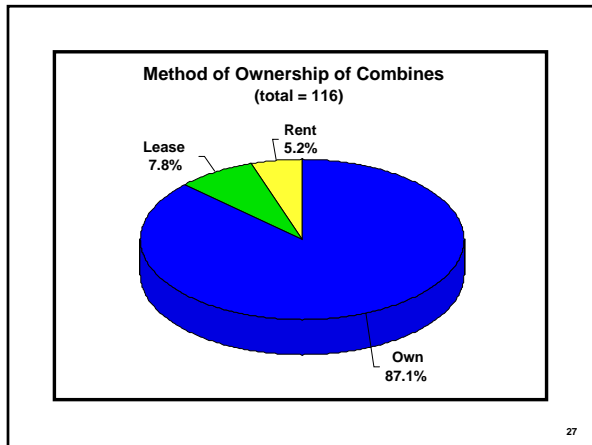
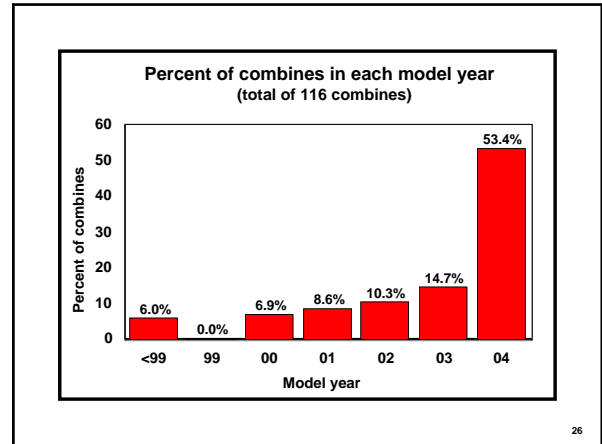
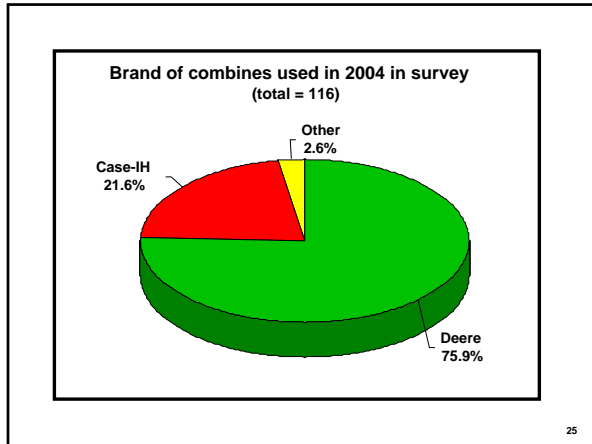
- Miscellaneous Information**
- 13 run new combines
 - 9 run used combines
 - 1 runs both
 - 16 of 23 (69.6%) have sideline businesses
 - 11 involved in farming/ranching
 - 11 involved in trucking
 - 3 involved in other businesses
- 14

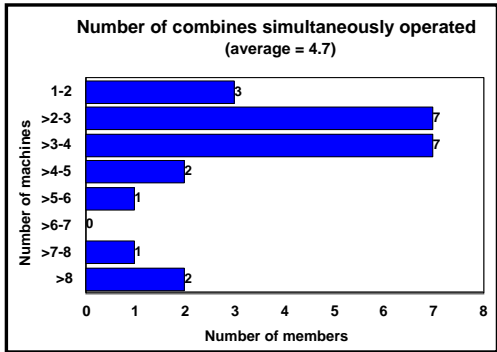




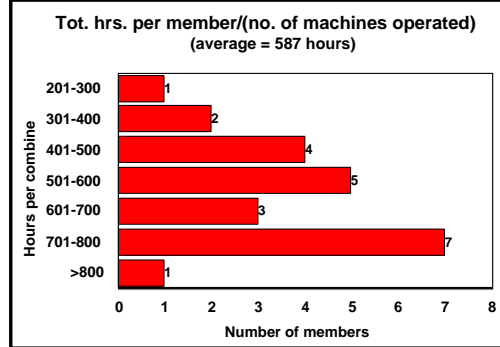
- More Miscellaneous Information**
- Average employees (season peak) per combine was 2.85 (min = 2.17, max = 4.33)
 - 16 of 23 finance their combines through dealers/manufacturers
 - 14 of 23 get combine insurance through dealer/manufacture
 - Average interest rate was 5.94%
 - 2003 6.31%; 2002 6.55%; 2001 7.66%; 2000 9.32%
 - Minimum in 2004 = 4.1%
 - Maximum in 2004 = 9.0%
- 23

- Combine Information**
- Brand
 - Model year
 - Own, lease, or rent
 - Headers
 - Hours used (separator and engine)
 - Auxiliary equipment
 - Beginning and end of season values
- 24

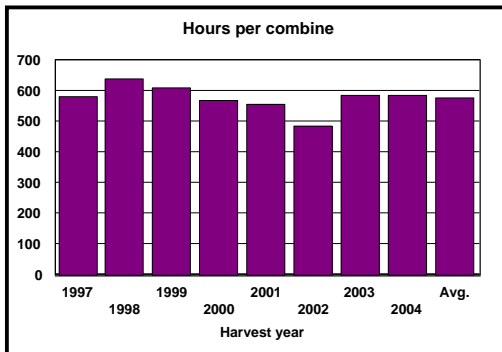




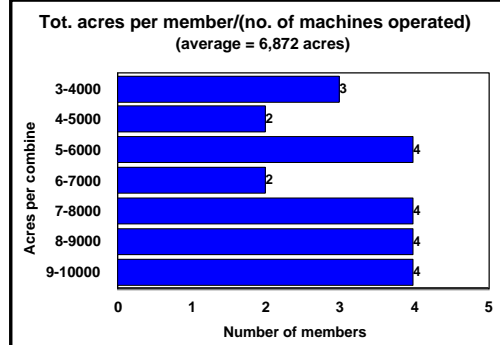
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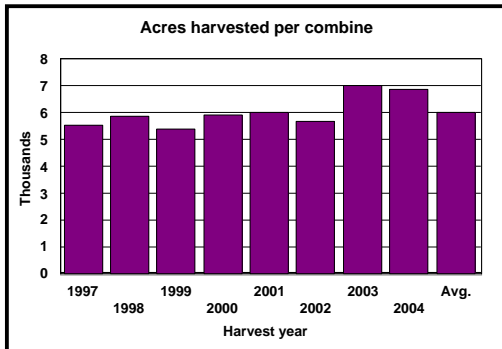
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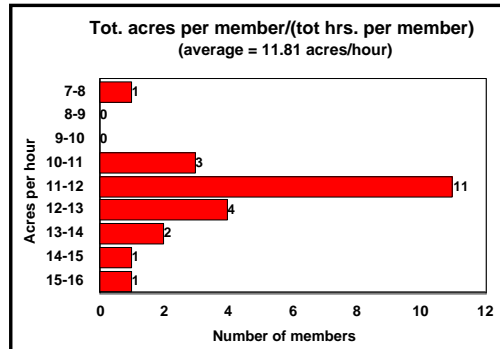
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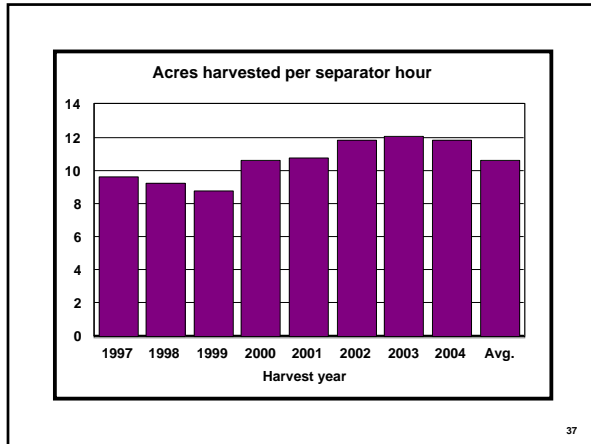
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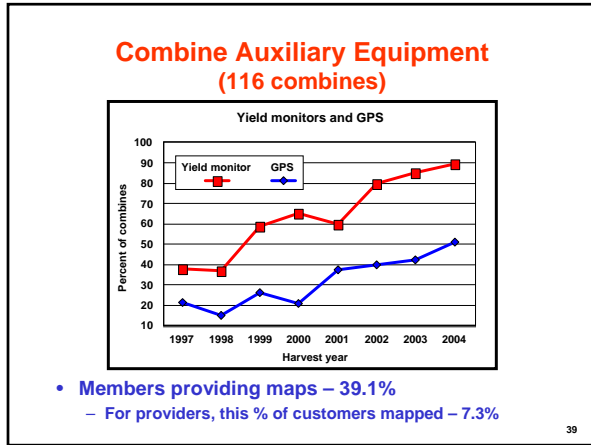
36



37

- ### Combine Headers & Equipment (116 combines)
- Grain platform - - - 32.4 ft.
 - Flex head 50.9% 29.5 ft.
 - Corn head 69.8% 9.5 rows
 - Row crop head 20.7% 8.3 rows
 - Pickup 66.4%
 - Draper/extra pltfm 23.3% 31.0 ft.

38



39

- ### Grain Truck Information (134 total)
- Average year 1992.3
(2003 1991.8 2002 1991.2; 2001 1989.2; 2000 1989.7)
 - % Tandems 33.6%
 - % Semis 63.4%
 - % owned 97%
 - Avg. mi. in 2004 (91 total) 12,443
(2003 12,982; 2002 13,549; 2001 12,692; 2000 19,589)
 - Avg. miles on truck at end of year
– (69 total): 473,299
(2003 454,461; 2002 552,128; 2001 558,707; 2000 513,162)

40

Equipment depreciation

Market depreciation (% drop in value)

	2004	2003	2002	2001	2000	1999
• Combines	13.3	14.4	14.0	14.7	15.1	16.1
• Headers/equip	5.0	7.5	7.9	5.1	7.4	9.1
• Trucks	4.0	7.2	11.2	11.0	12.1	5.9

41

- ### Revenue Information
- Acres harvested
 - Crops harvested
 - small grains vs. other
 - Harvest states
 - Number of fields
 - Percent hauled to farm
 - Combine vs. trucking revenue

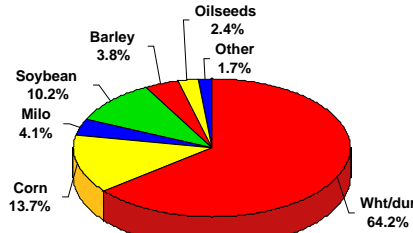
42

Acres Information

- Total-- 729,674 acres
- Small grains-- 496,762 acres (68.1%)
 - Wheat, durum, barley, oats
- Other-- 232,913 acres (31.9%)
 - Beets, canola, corn, edible beans, flax, lentils, milo, mustard, peas, pinto beans, popcorn, soybeans, sunflowers

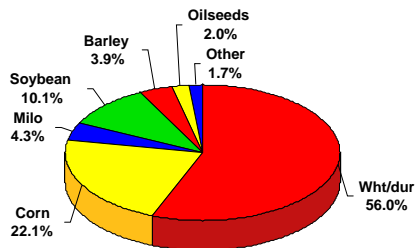
43

Distribution of acres by crop
(total = 729,674 acres)



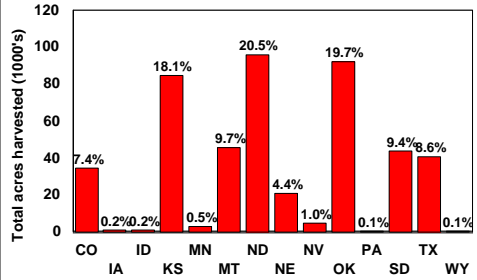
44

Distribution of revenue by crop
(total revenue = \$16,555,430)



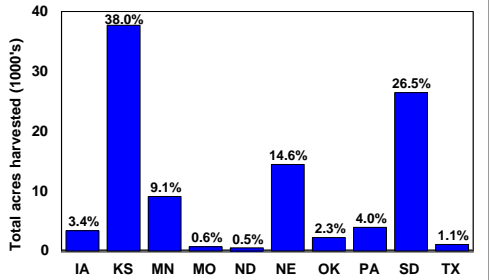
45

Acres of wheat by state
(total = 468,622 acres)



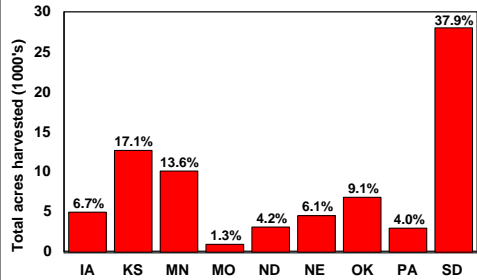
46

Acres of corn by state
(total = 99,737 acres)

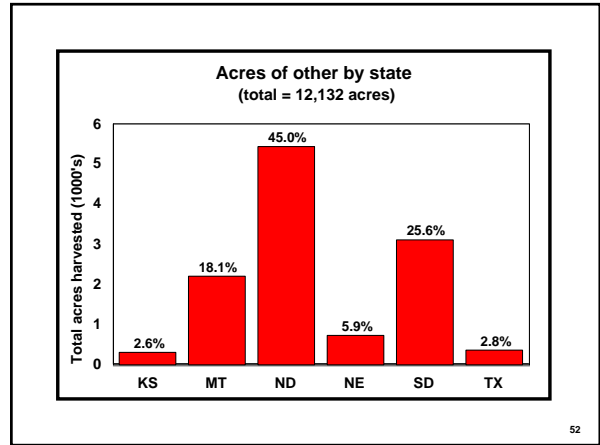
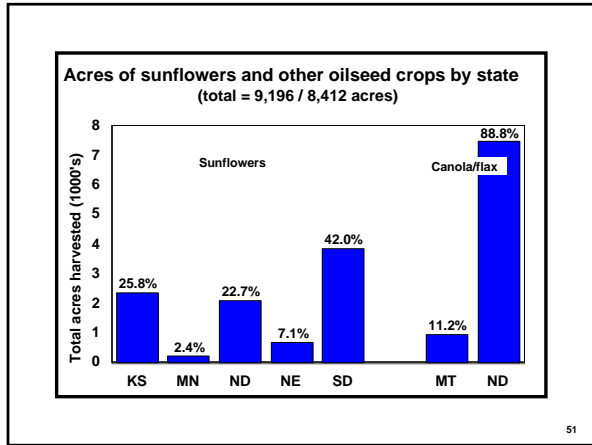
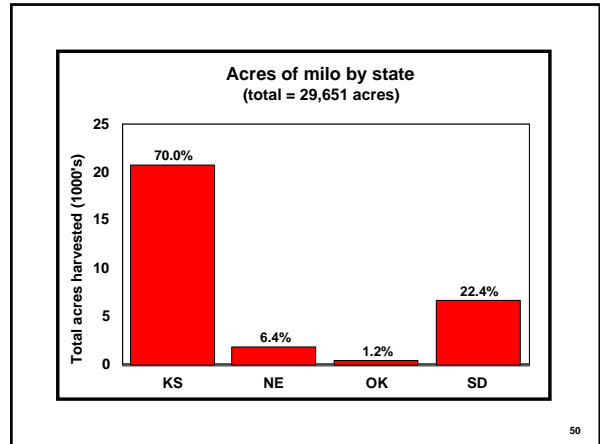
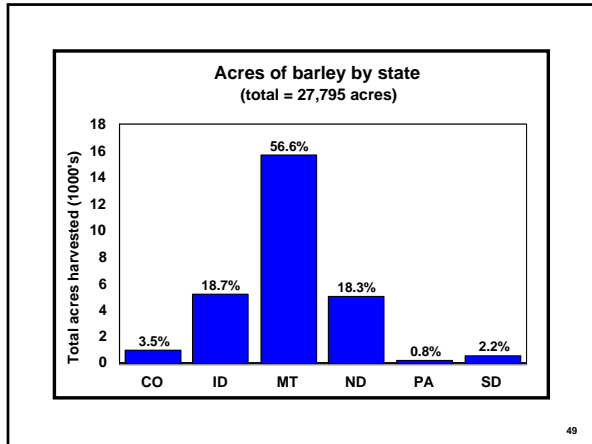


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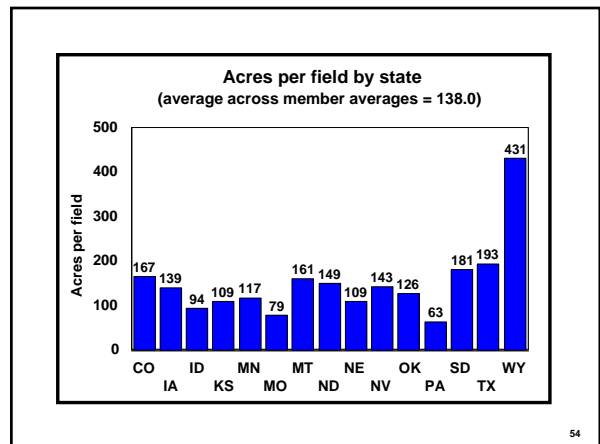
Acres of soybeans by state
(total = 74,129 acres)

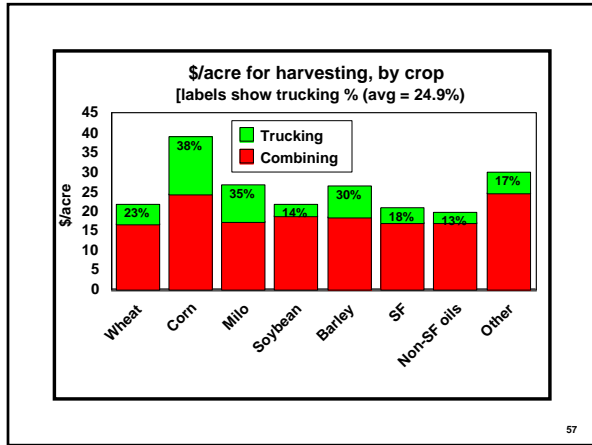
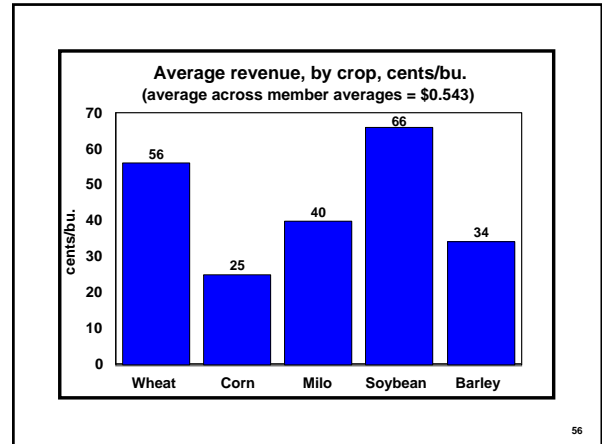
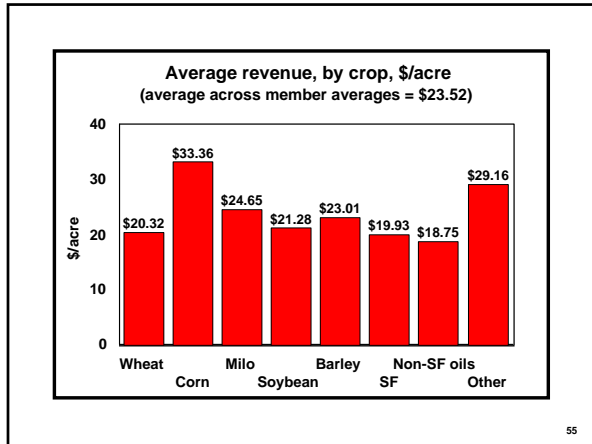


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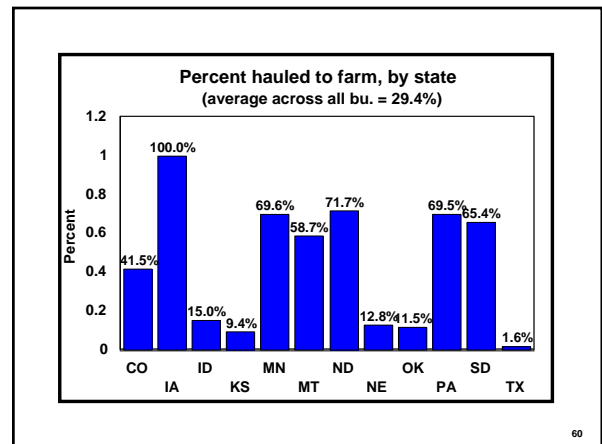
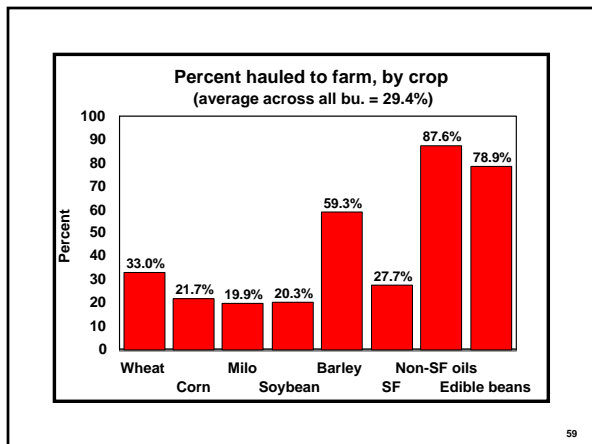


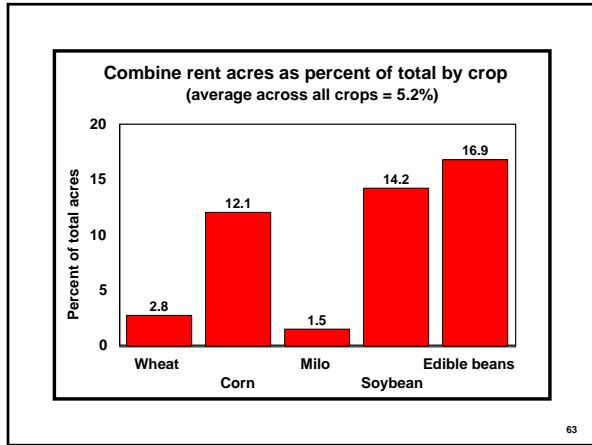
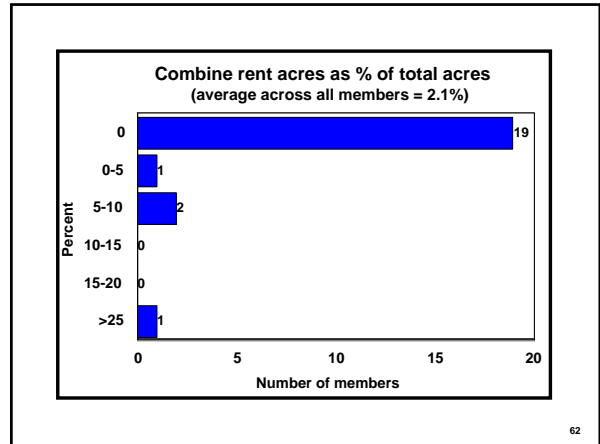
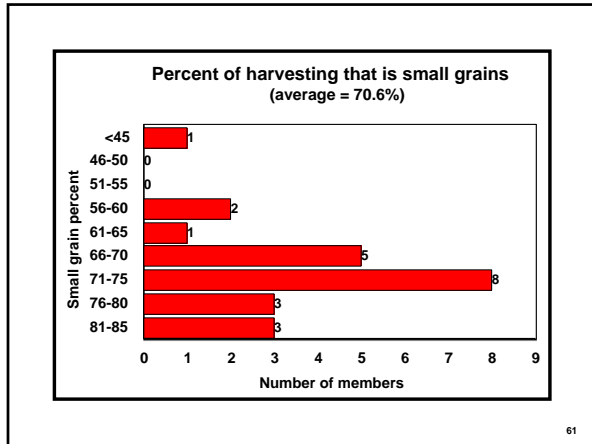
- ### Acres per Field
- Wheat 147.7
 - Corn 119.0
 - Milo 131.5
 - Soybeans 126.5
 - Barley 136.4
 - Sunflowers 129.5
 - Non Foils 149.8
 - Other 101.6
- Total acres divided by total fields = 127.7
- 53





- Percent of Grain Hauled by Harvester**
- Wheat 82.8%
 - Corn 78.8%
 - Milo 87.4%
 - Soybeans 59.7%
 - Barley 89.0%
 - Sunflowers 97.2%
 - Non SF oils 100.0%
 - Other 84.4%
- Average across all member reports = 91.4%
- 58



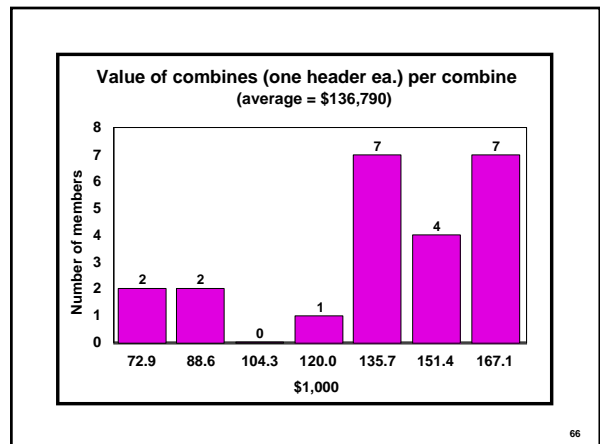


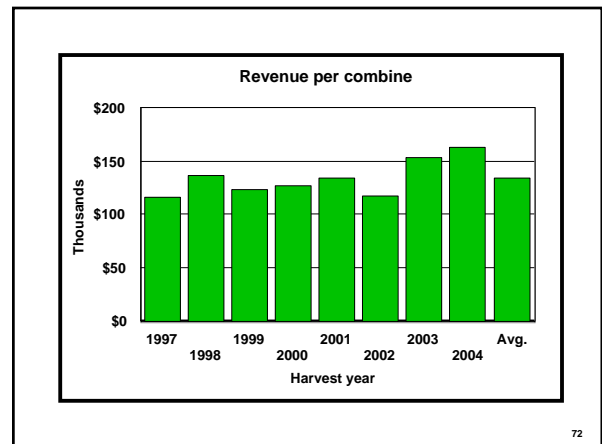
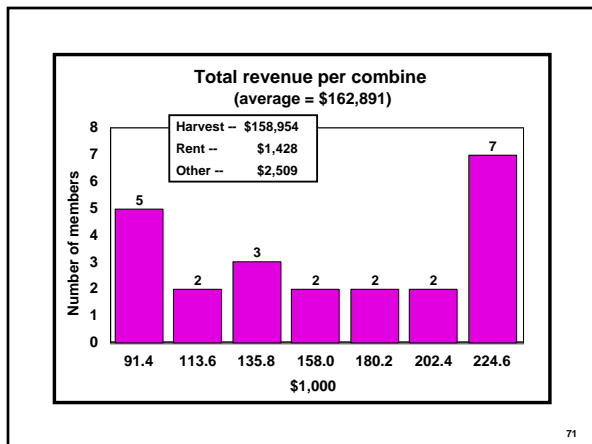
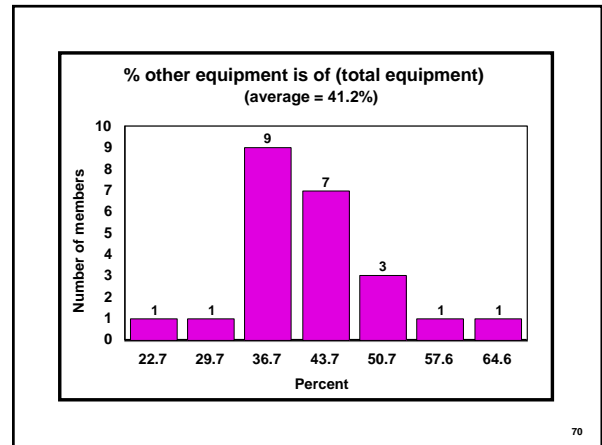
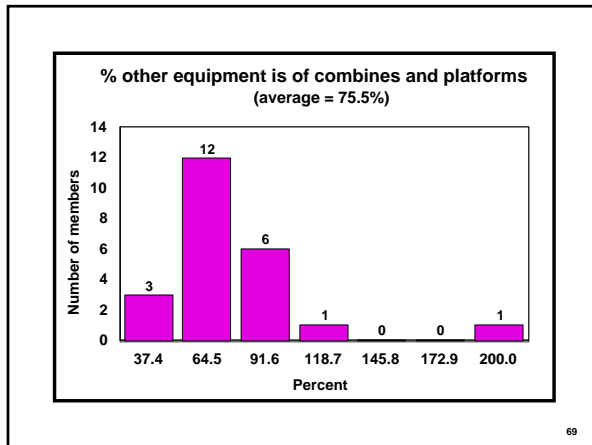
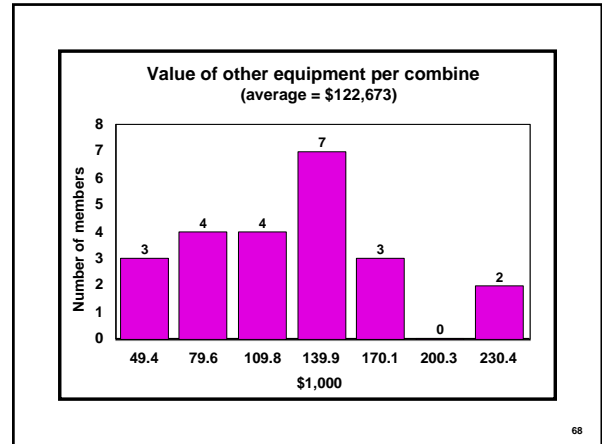
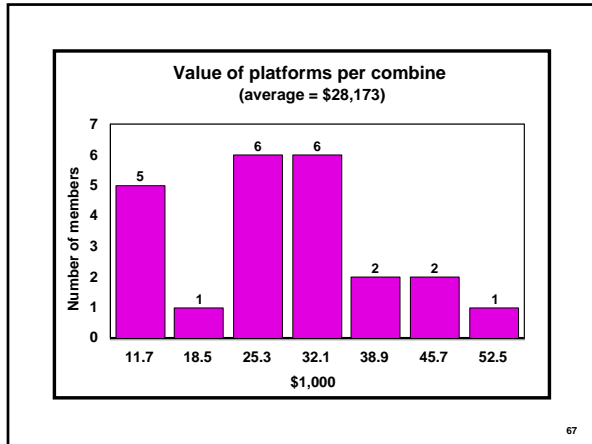
- ### Operating Expense Information
- Labor (paid and unpaid)
 - Travel
 - Fuel and Lubrication
 - Repair and Maintenance
 - Insurance
 - Telephone and Utilities
 - Other Expenses
 - Market Depreciation
 - Interest on Assets (assigned)
- 64

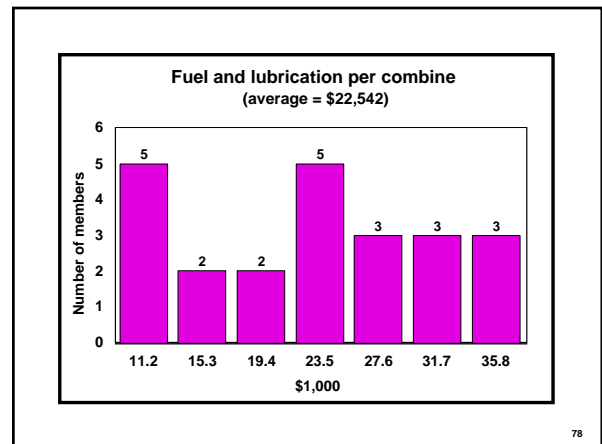
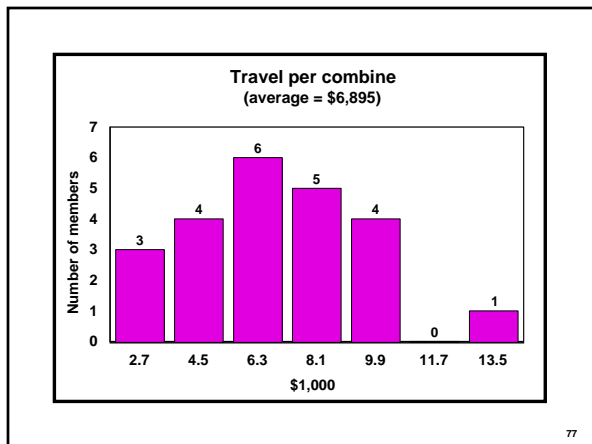
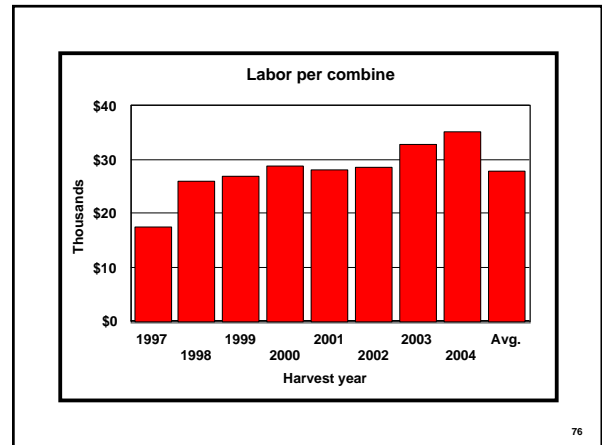
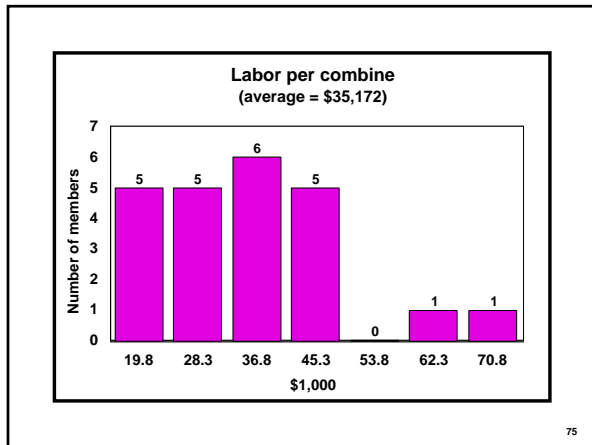
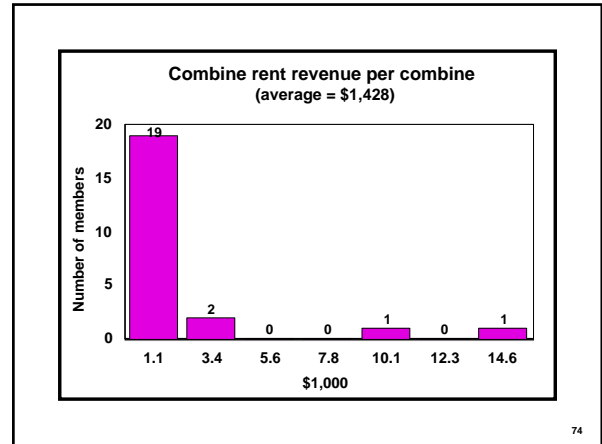
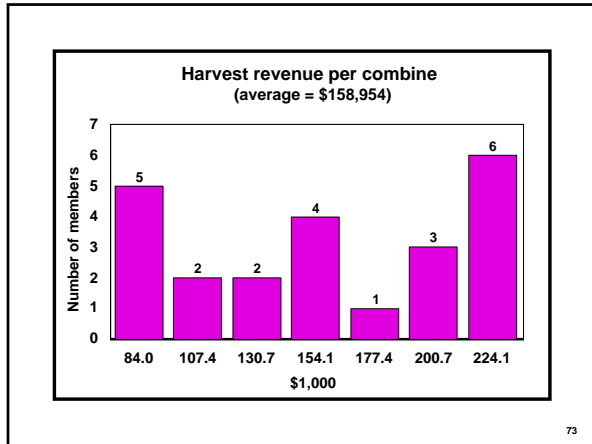
Value of Assets per Combine Operated

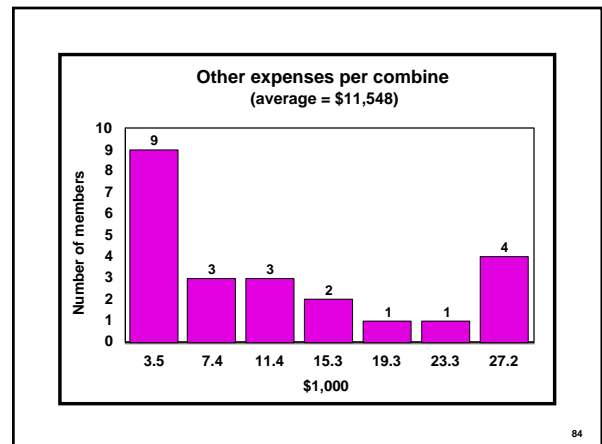
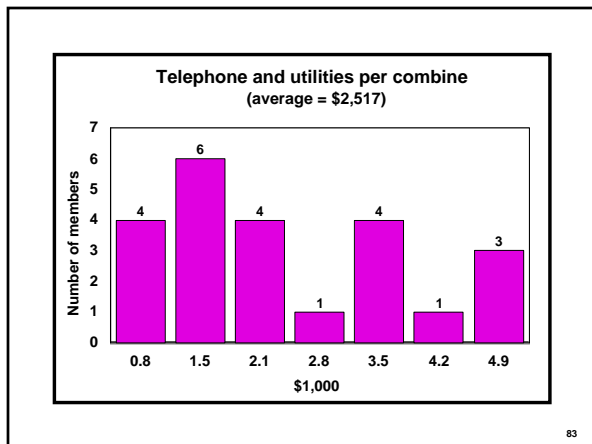
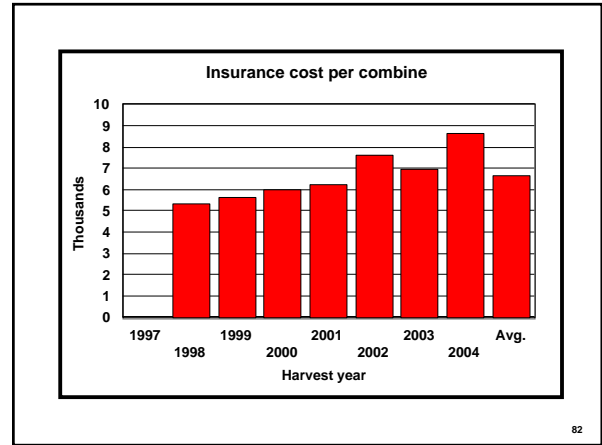
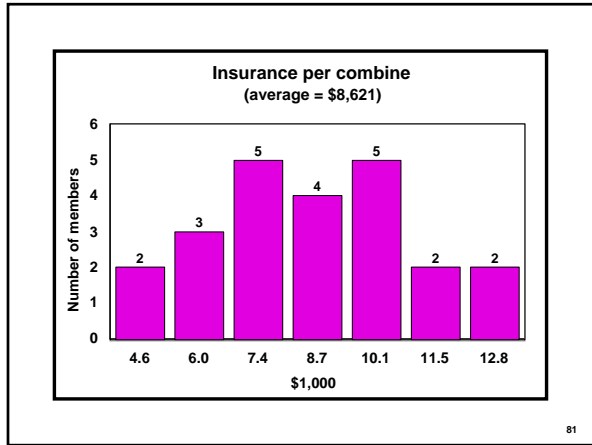
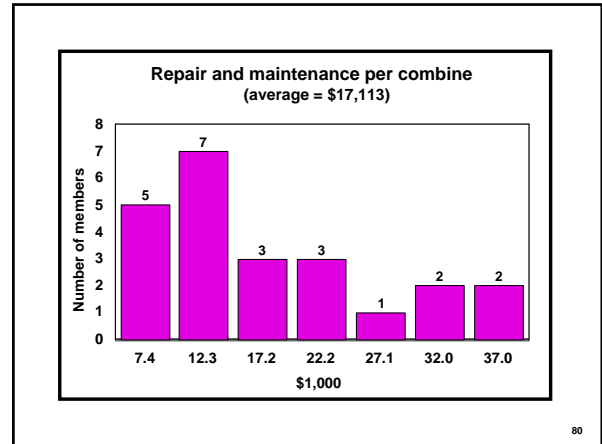
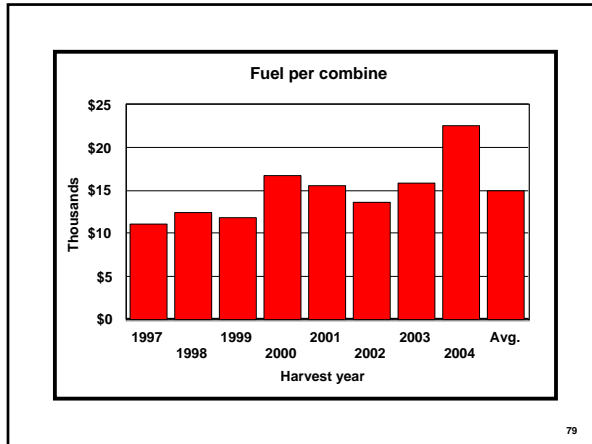
• Combine	\$136,790
• Platforms	\$28,173
• Other equipment (trucks, etc)	\$122,673
Sub Total	\$287,636
• Other assets (balance sheet)	\$32,996
TOTAL	\$320,632

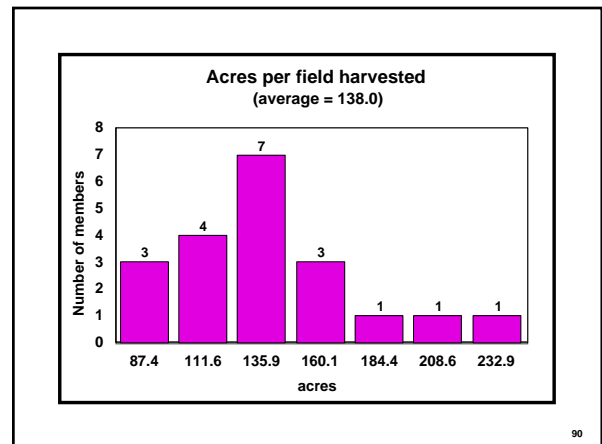
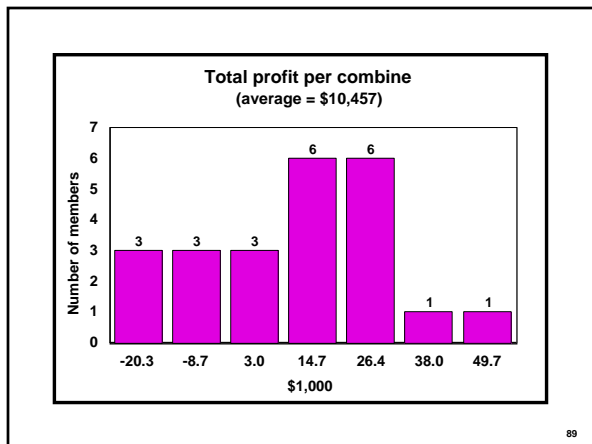
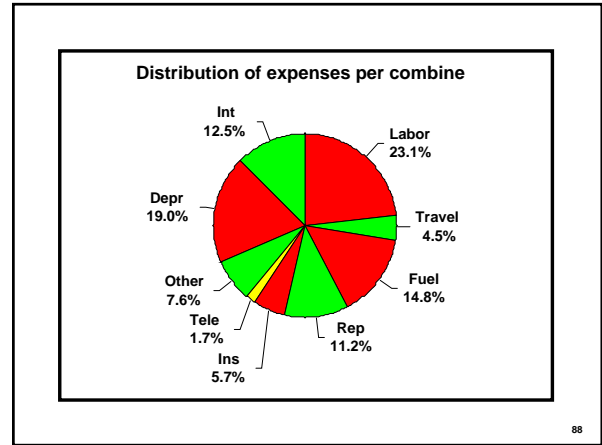
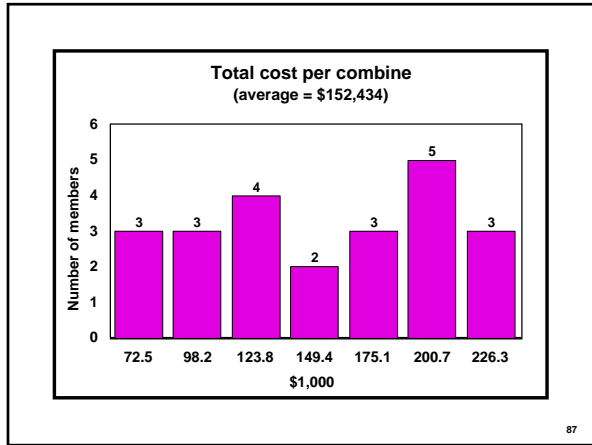
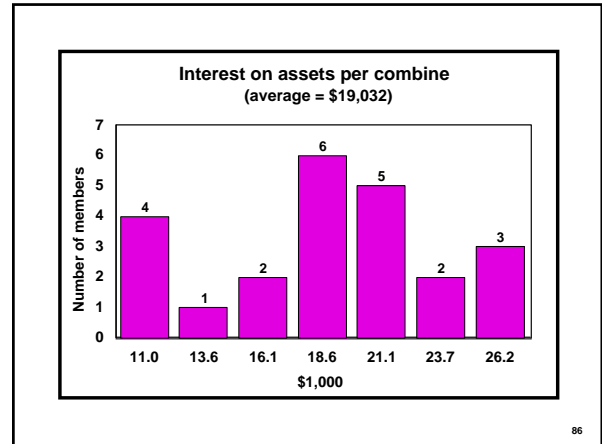
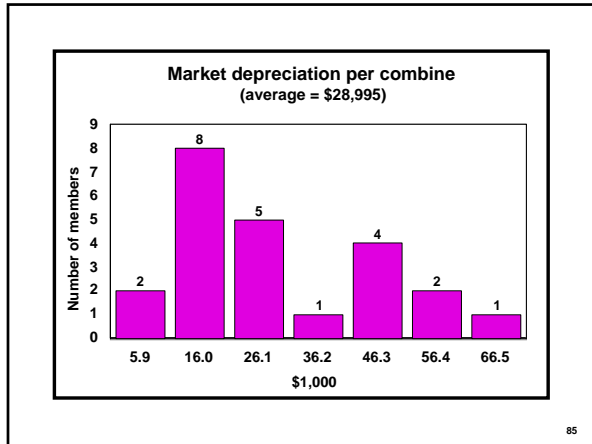
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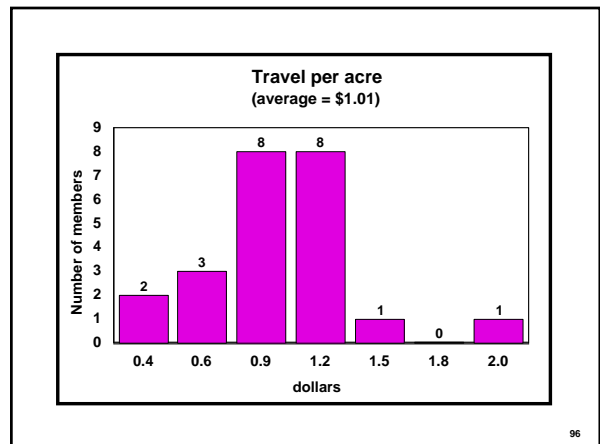
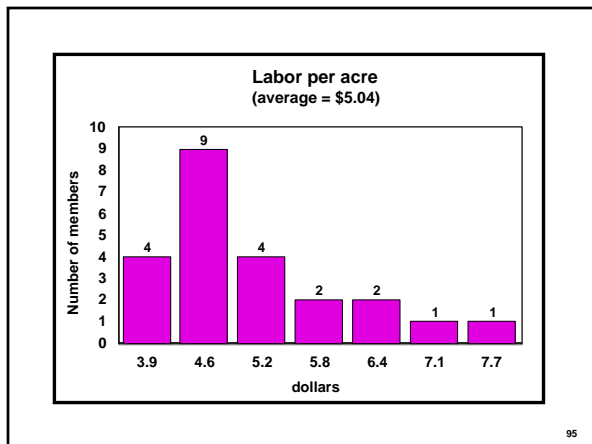
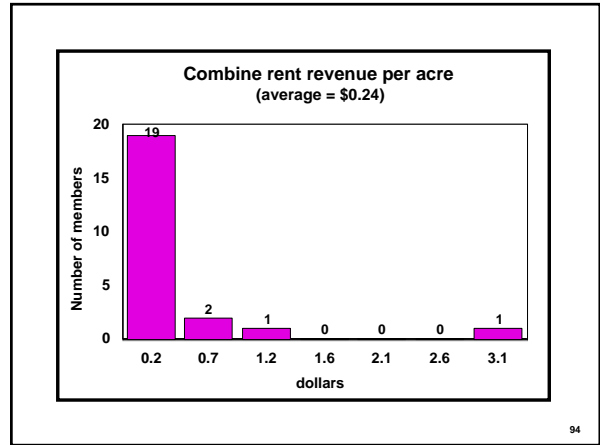
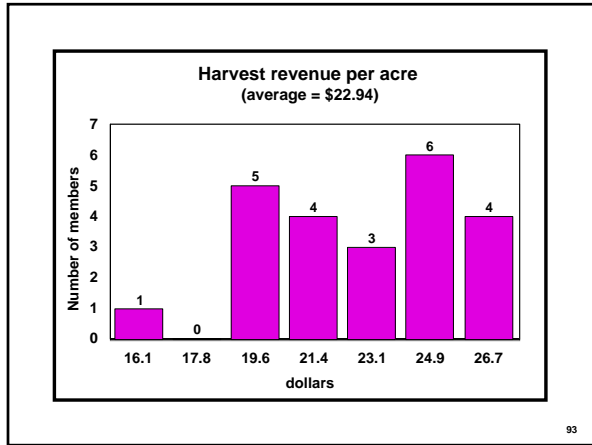
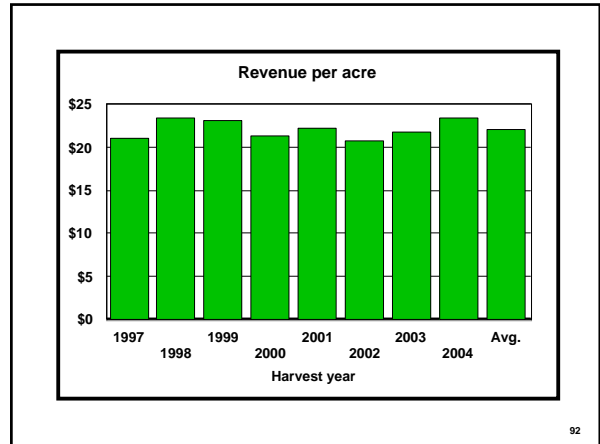
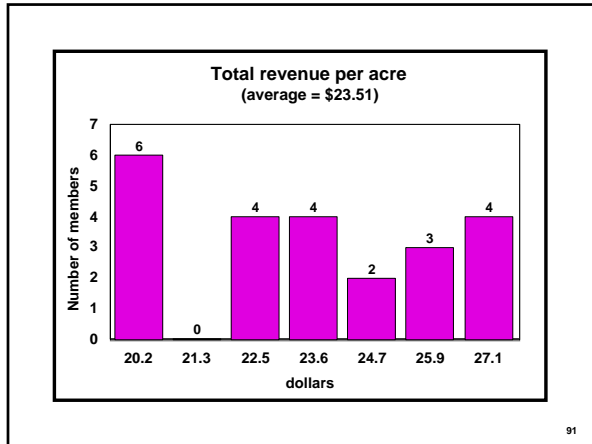


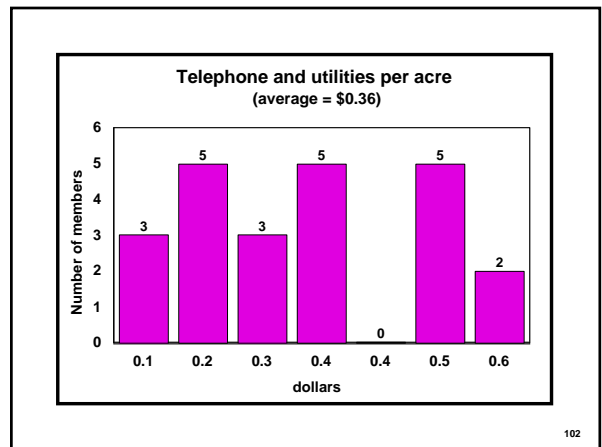
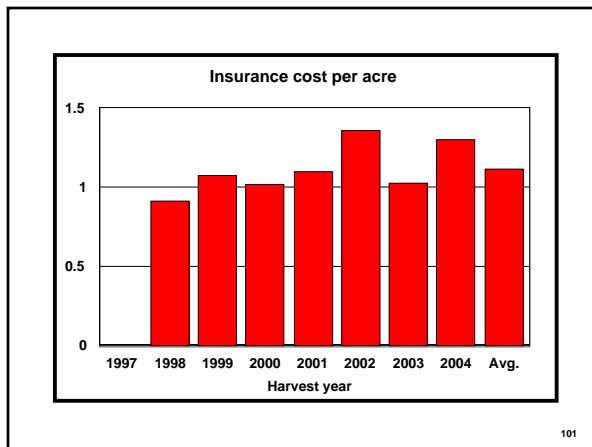
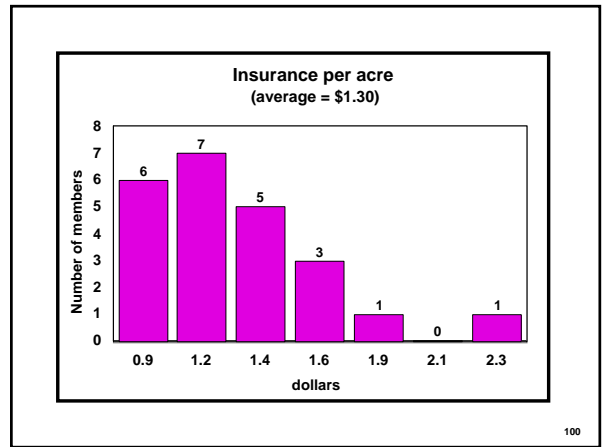
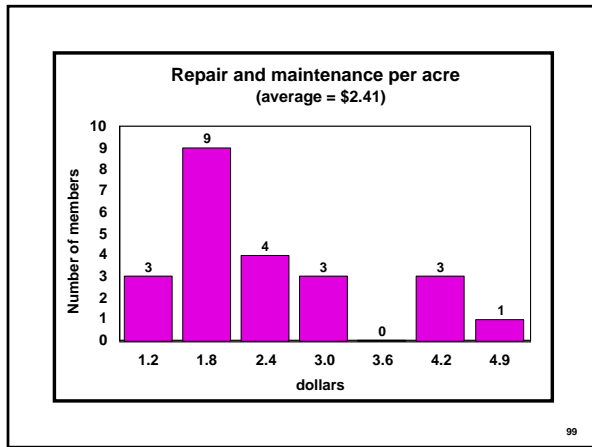
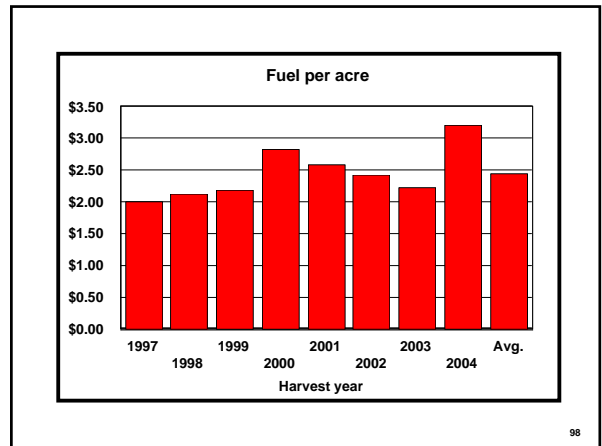
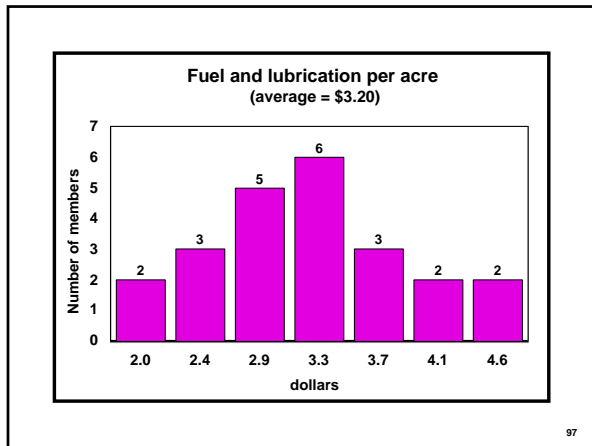


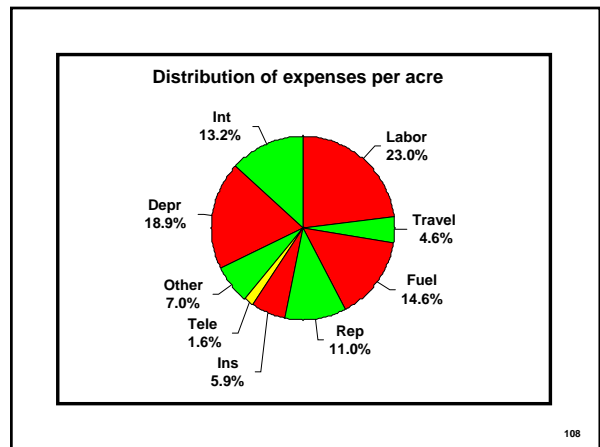
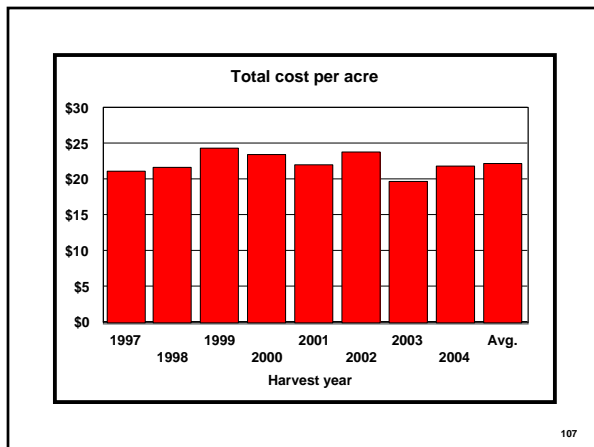
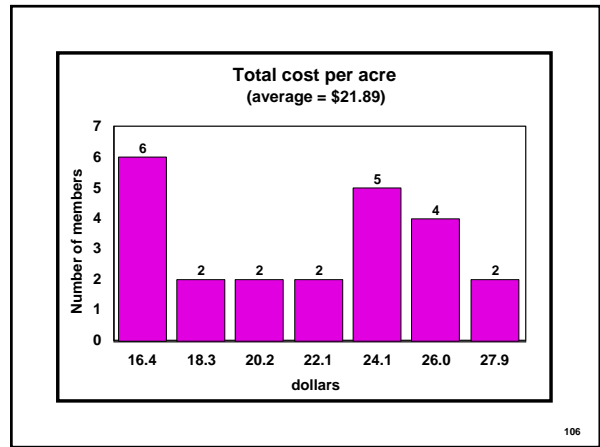
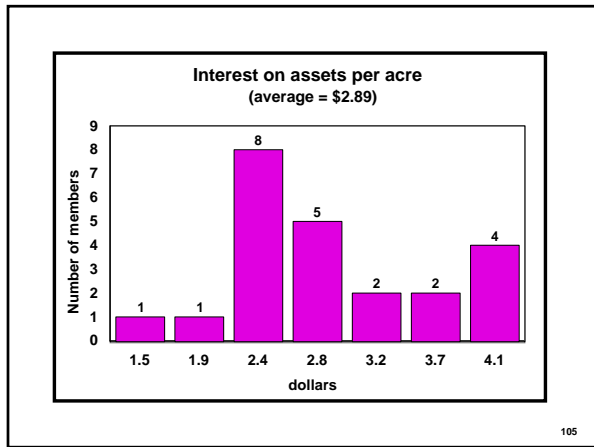
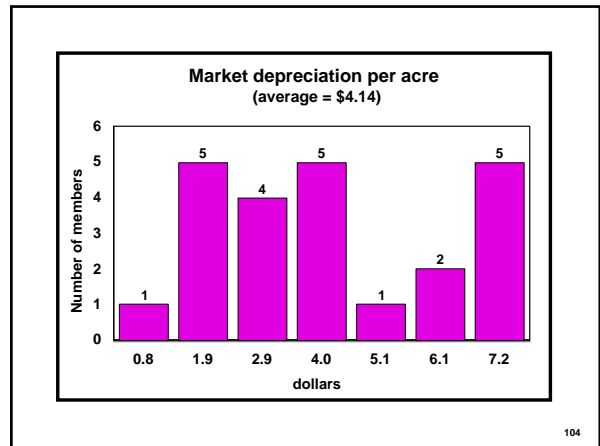
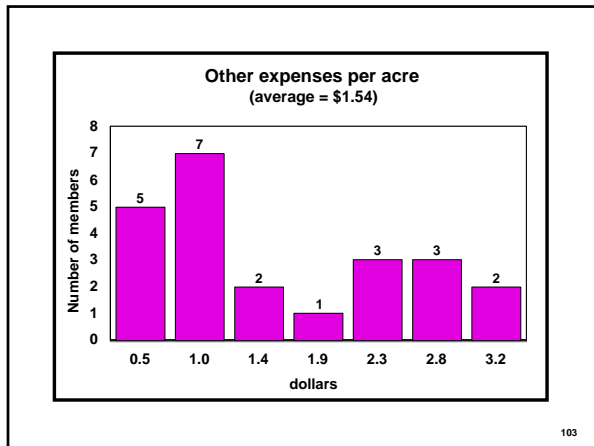


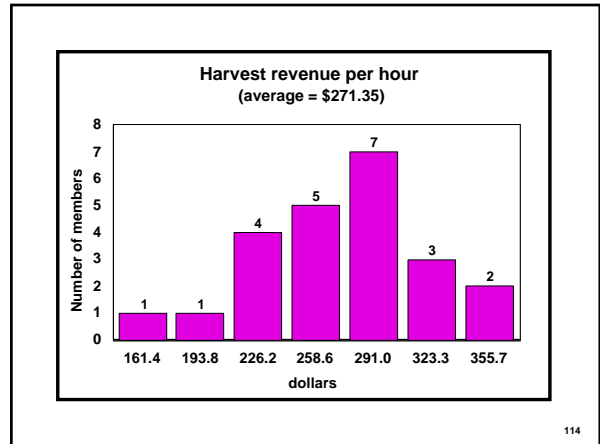
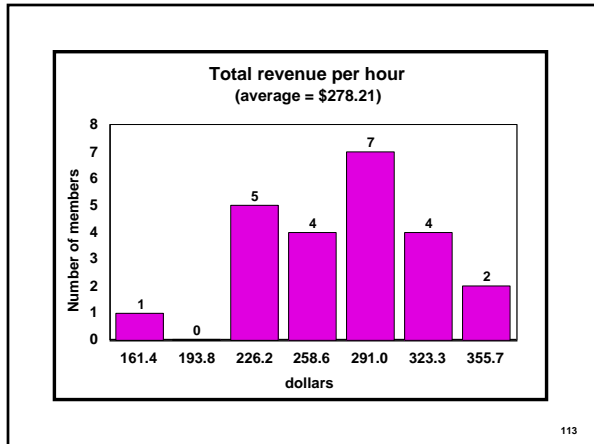
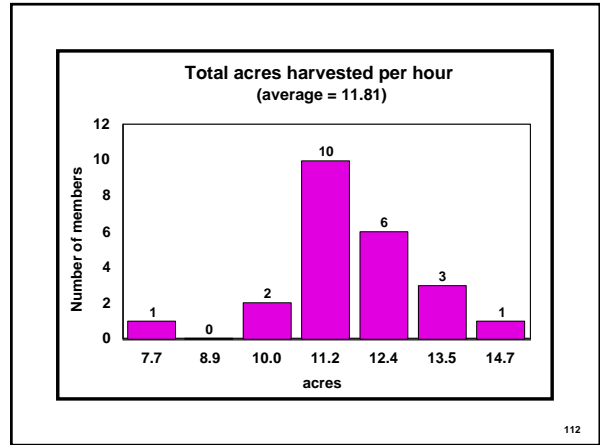
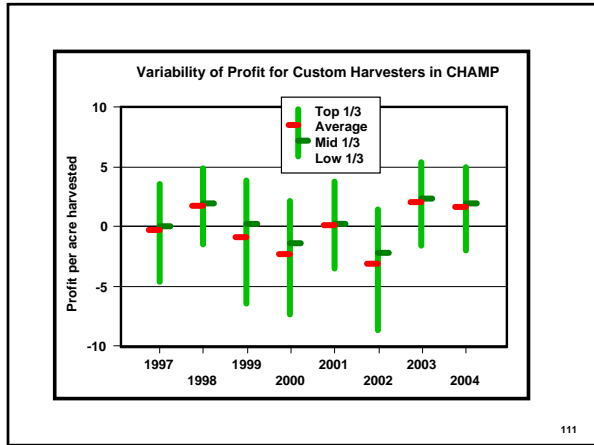
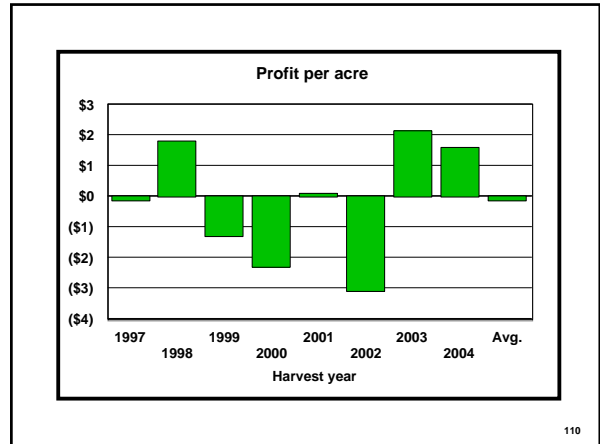
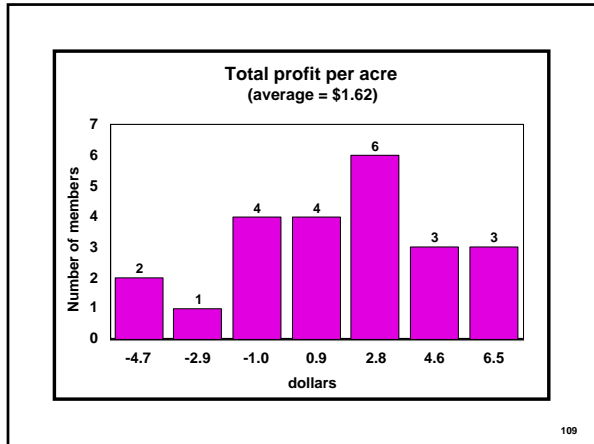


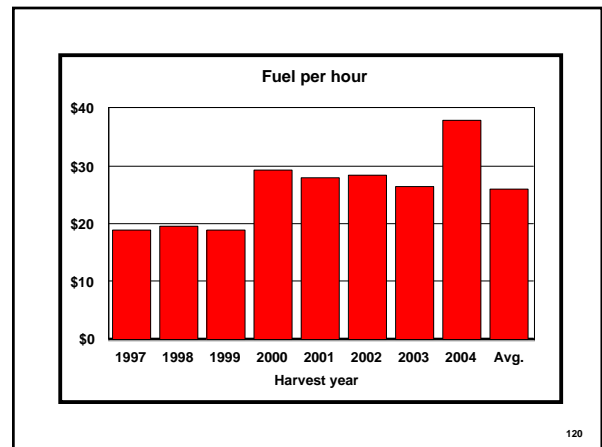
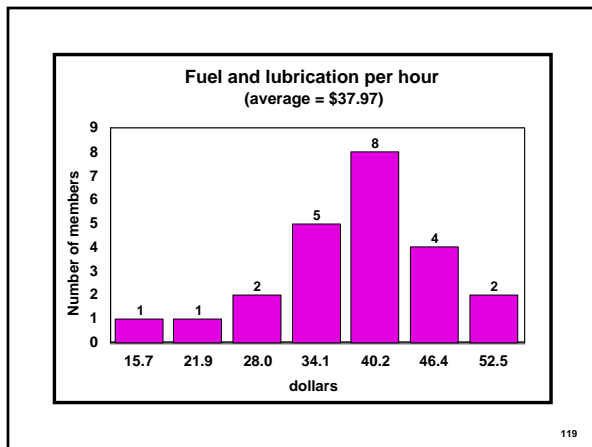
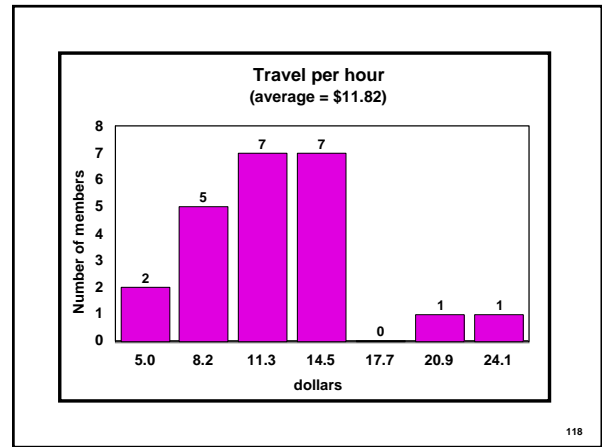
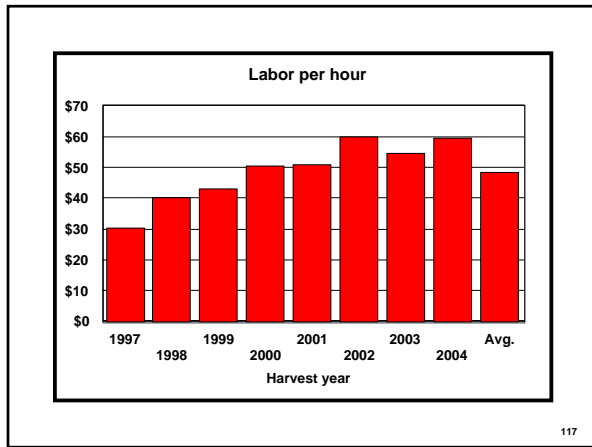
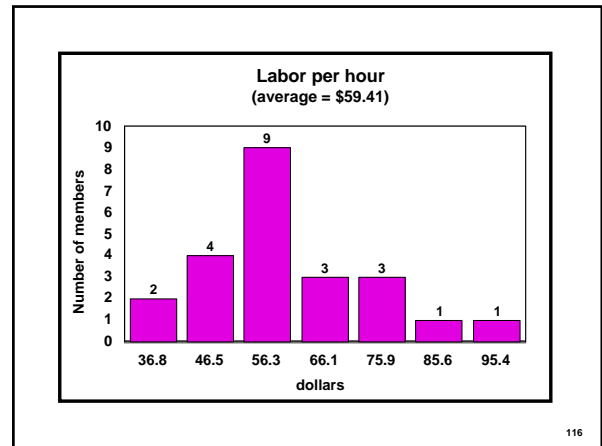
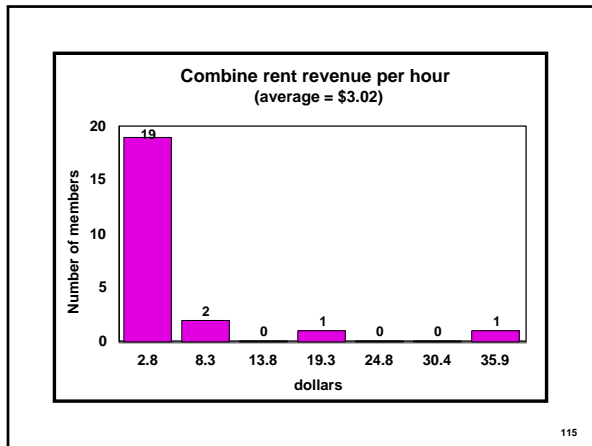


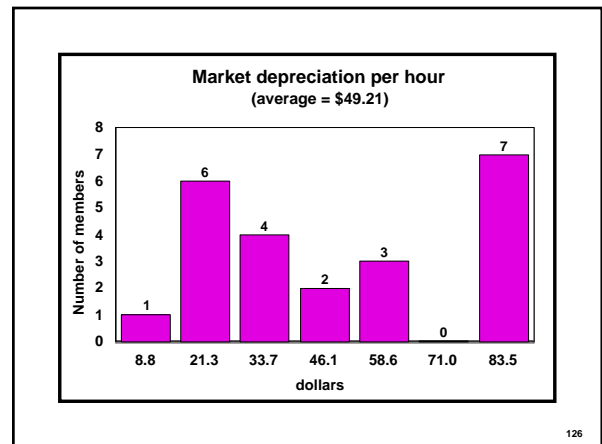
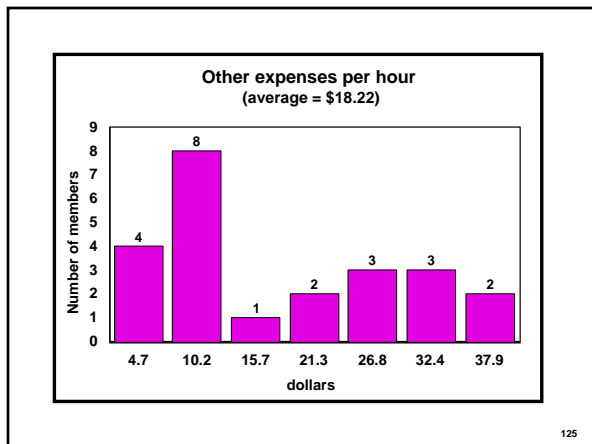
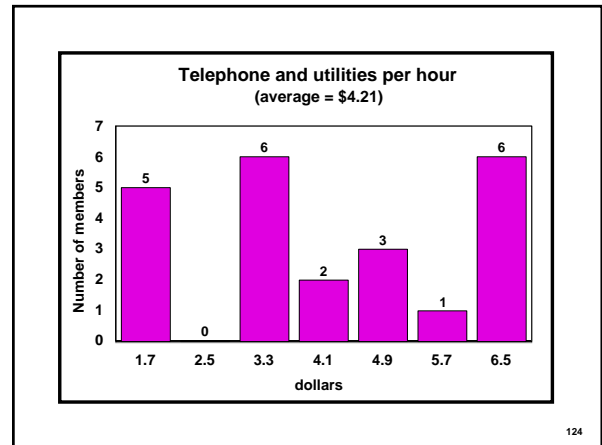
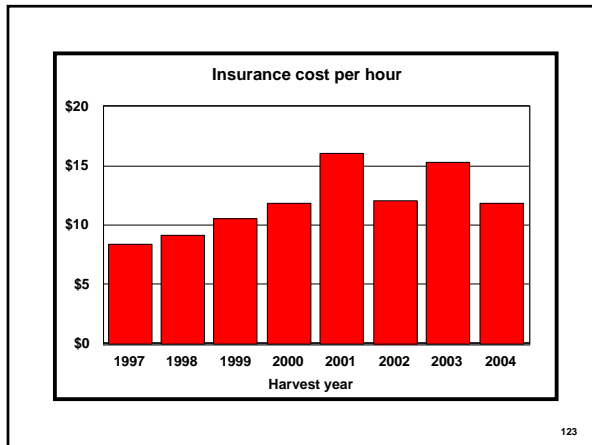
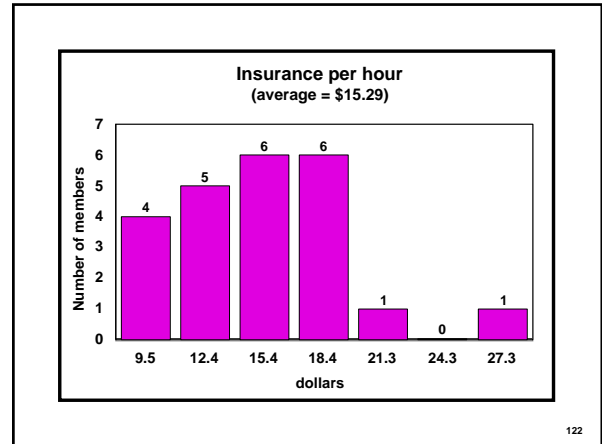
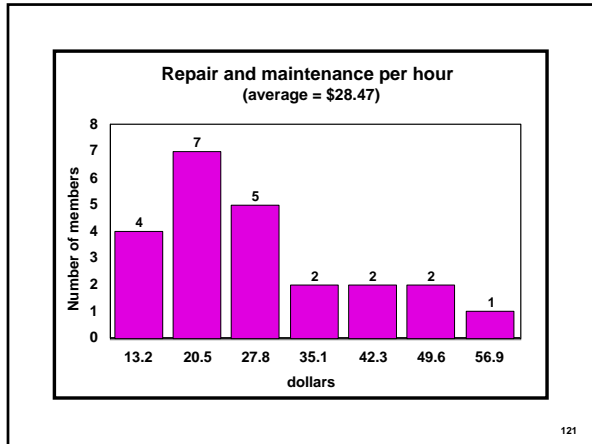


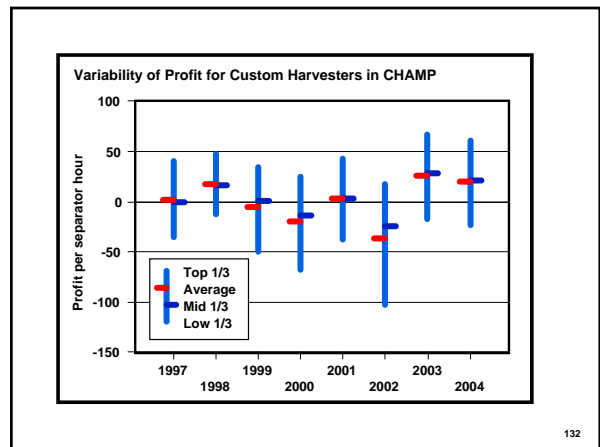
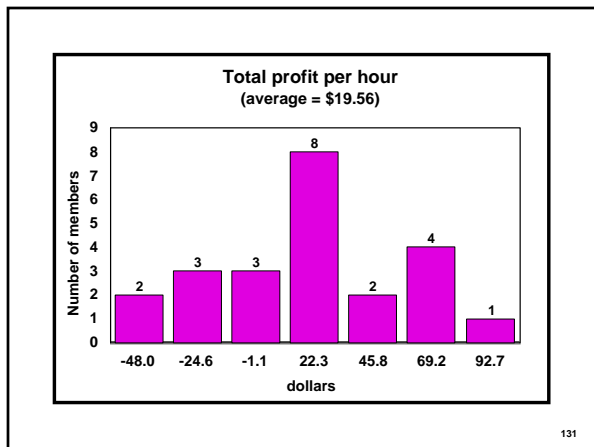
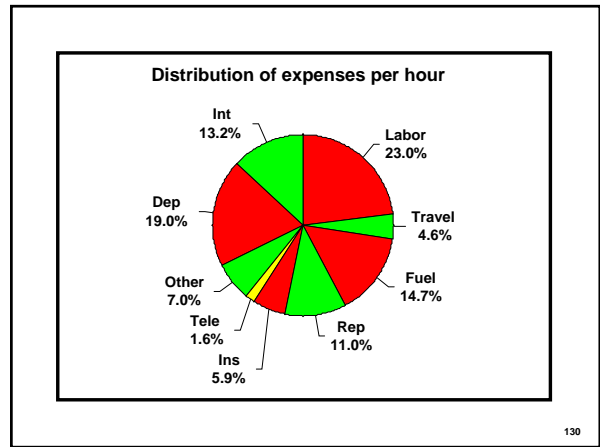
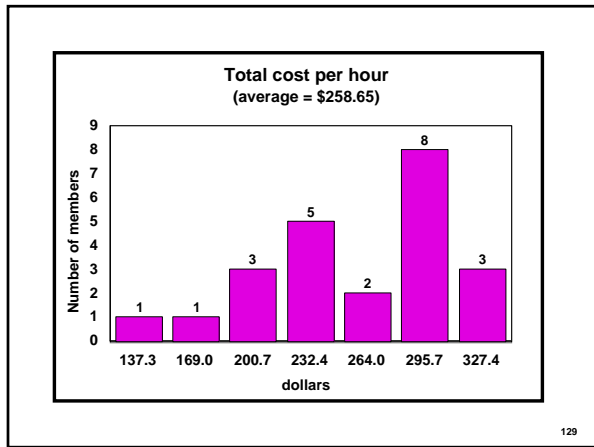
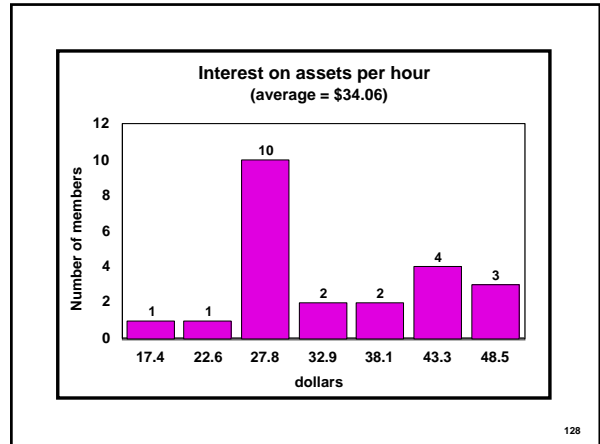
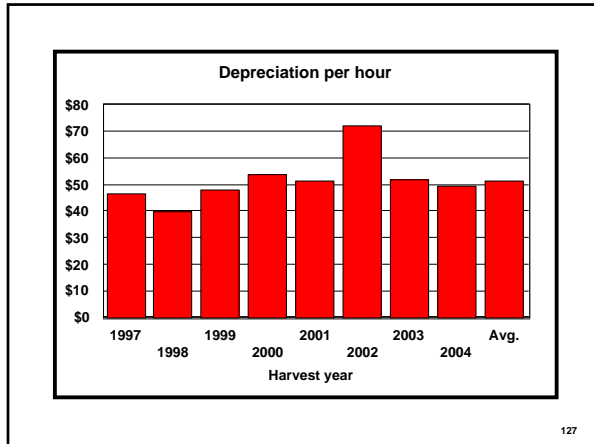












Survey Average Income and Expense

INCOME AND EXPENSE	\$/Combine	\$/Acre	\$/Hour
Harvest Revenue	\$158,954	\$22.94	\$271.35
Combine Rent Revenue	\$1,428	\$0.24	\$3.02
Other Revenue	\$2,509	\$0.32	\$3.84
Total Revenue	\$162,891	\$23.51	\$278.21
Labor (paid and unpaid)	\$35,172	\$5.04	\$59.41
Travel	\$6,895	\$1.01	\$11.82
Fuel and Lubrication	\$22,542	\$3.20	\$37.97
Repair and Maintenance	\$17,113	\$2.41	\$28.47
Insurance	\$8,621	\$1.30	\$15.29
Telephone and Utilities	\$2,517	\$0.36	\$4.21
Other Expenses	\$11,548	\$1.54	\$18.22
Market Depreciation	\$28,995	\$4.14	\$49.21
Interest on Assets (assigned)	\$19,032	\$2.89	\$34.06
Total Expense	\$152,434	\$21.89	\$258.65
Total Operating Profit	\$10,457	\$1.62	\$19.56

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Profit and Financial Ratios

- Profit = revenue - expense
- Debt to assets (D/A) = $\frac{\text{total liabilities}}{\text{total assets}}$
- Return on Assets (ROA) = $\frac{\text{profit} + \text{interest}}{\text{average assets}}$

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Financial Ratios

- Return on Equity from income statement (ROE--- IS) = $\frac{\text{profit} + \text{interest on equity}}{\text{average equity}}$
- Return on Equity from balance sheet (ROE--- BS) = $\frac{\text{change in equity}}{\text{beginning equity}}$

135

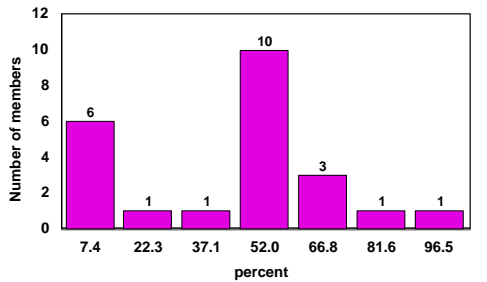
Expense Ratio

a measure of financial efficiency

- Expense Ratio (ER) = $\frac{\text{total expense}}{\text{total revenue}}$

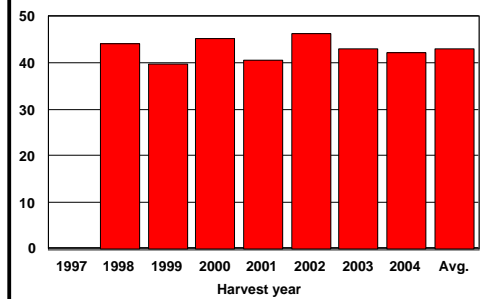
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Debt-to-assets (end of year)
(average = 42.2%)

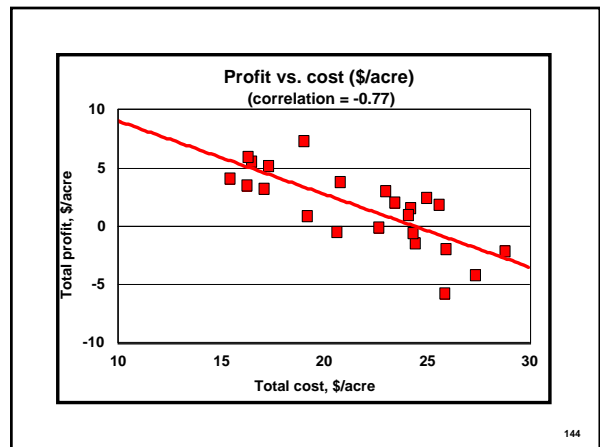
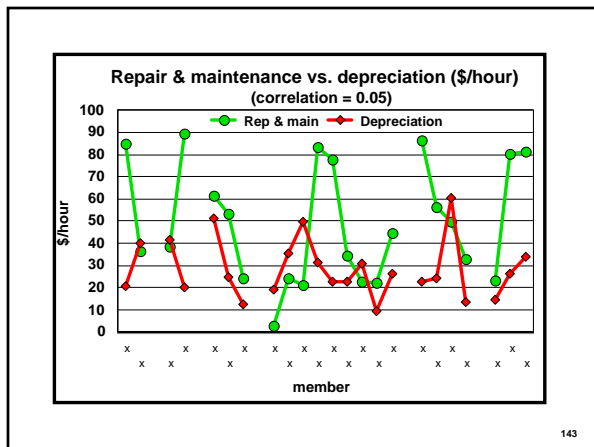
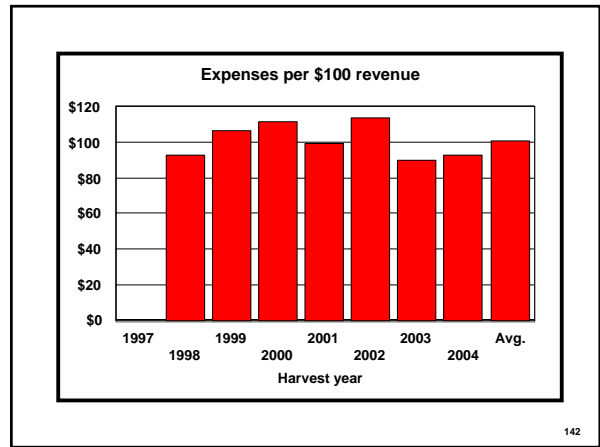
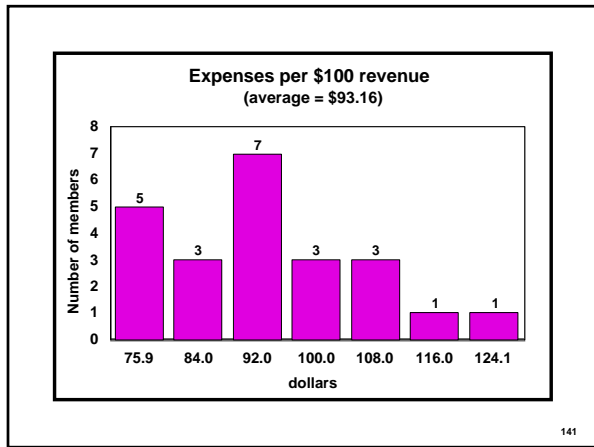
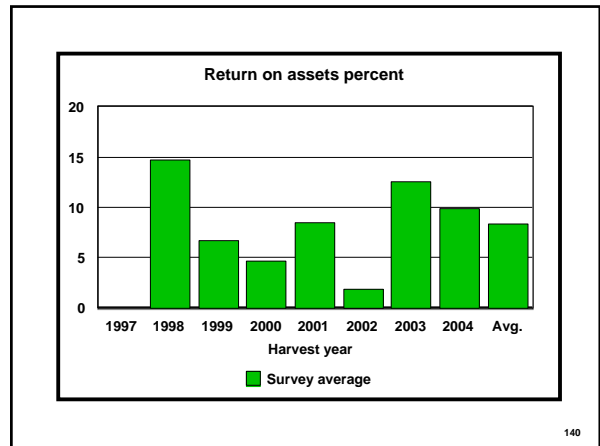
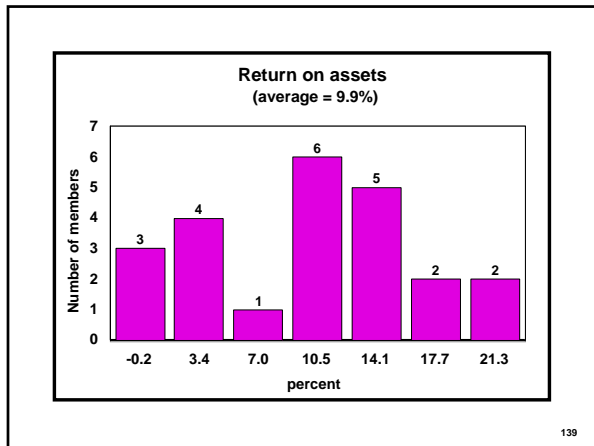


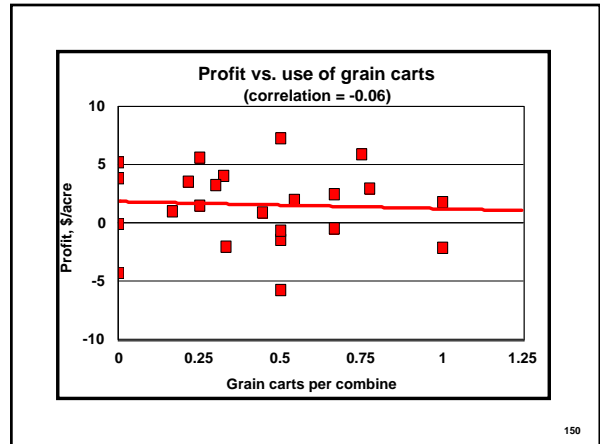
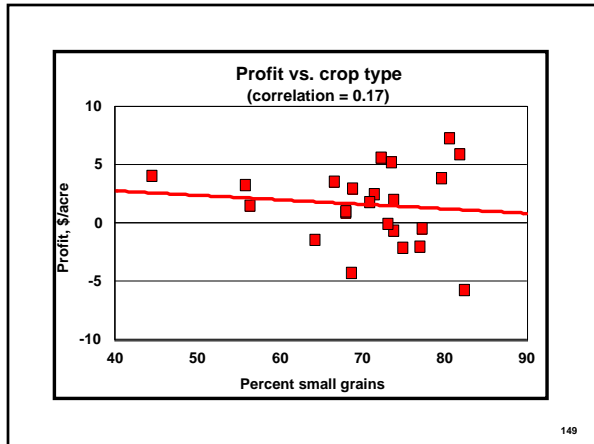
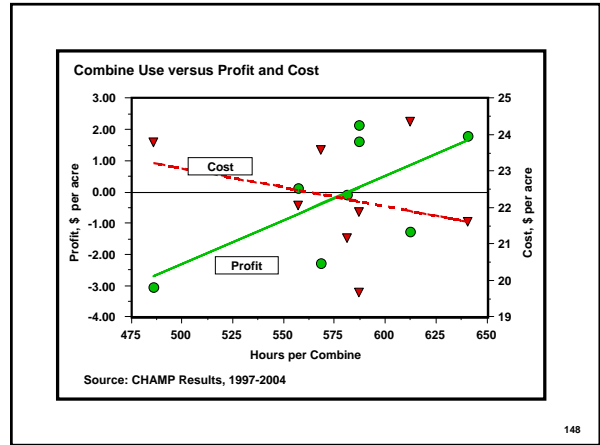
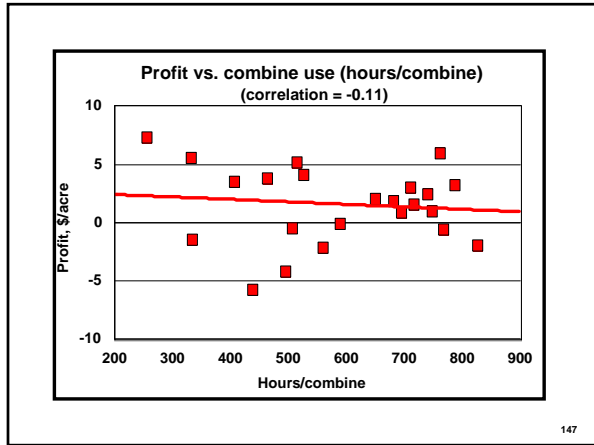
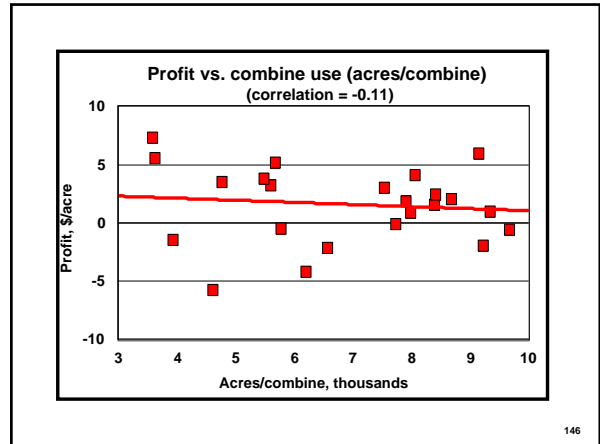
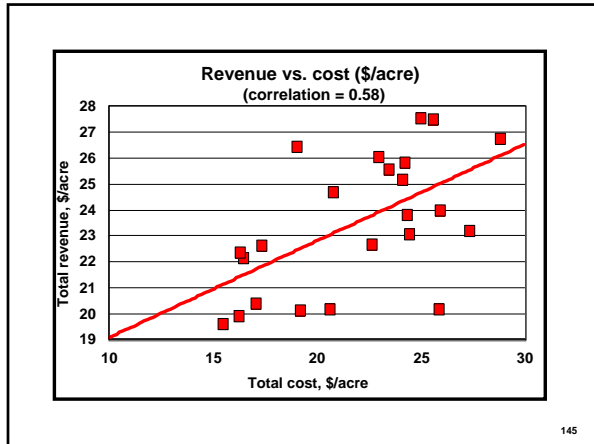
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End of year debt-to-asset, %

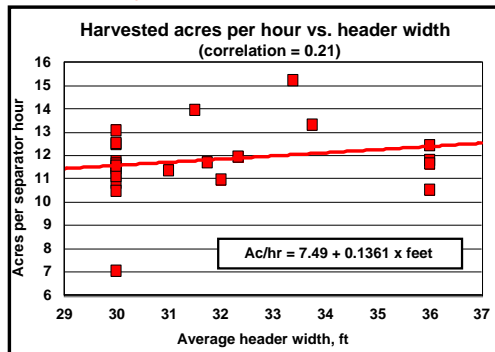


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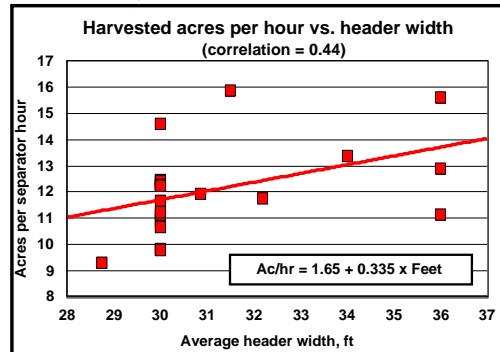


2004 harvest year



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2003 harvest year



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Summary

- On average, 2004 was a good year
- Of 8 years analyzed, 2004 was:
 - 2nd most profitable year
 - 2nd highest acres harvested/combine (and hour)
 - Highest revenue per combine, hour, and acre
 - Highest fuel, labor, & insurance cost/combine
- Considerable variability between firms
 - 16 of 23 firms were profitable in 2004
 - (17/22 in 2003; 6/21 in 2002; 11/20 in 2001; 9/22 in 2000)

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Questions???

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