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Cropland Leasing

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Cropland Leasing

Bruce Johnson

for

Educator In-Service

April 5, 2006

Grand Island, NE

Department of Agricultural Economics
University of Nebraska-Lincoln

Shift from Crop-share to Cash leasing over time.

Tenant Preference:

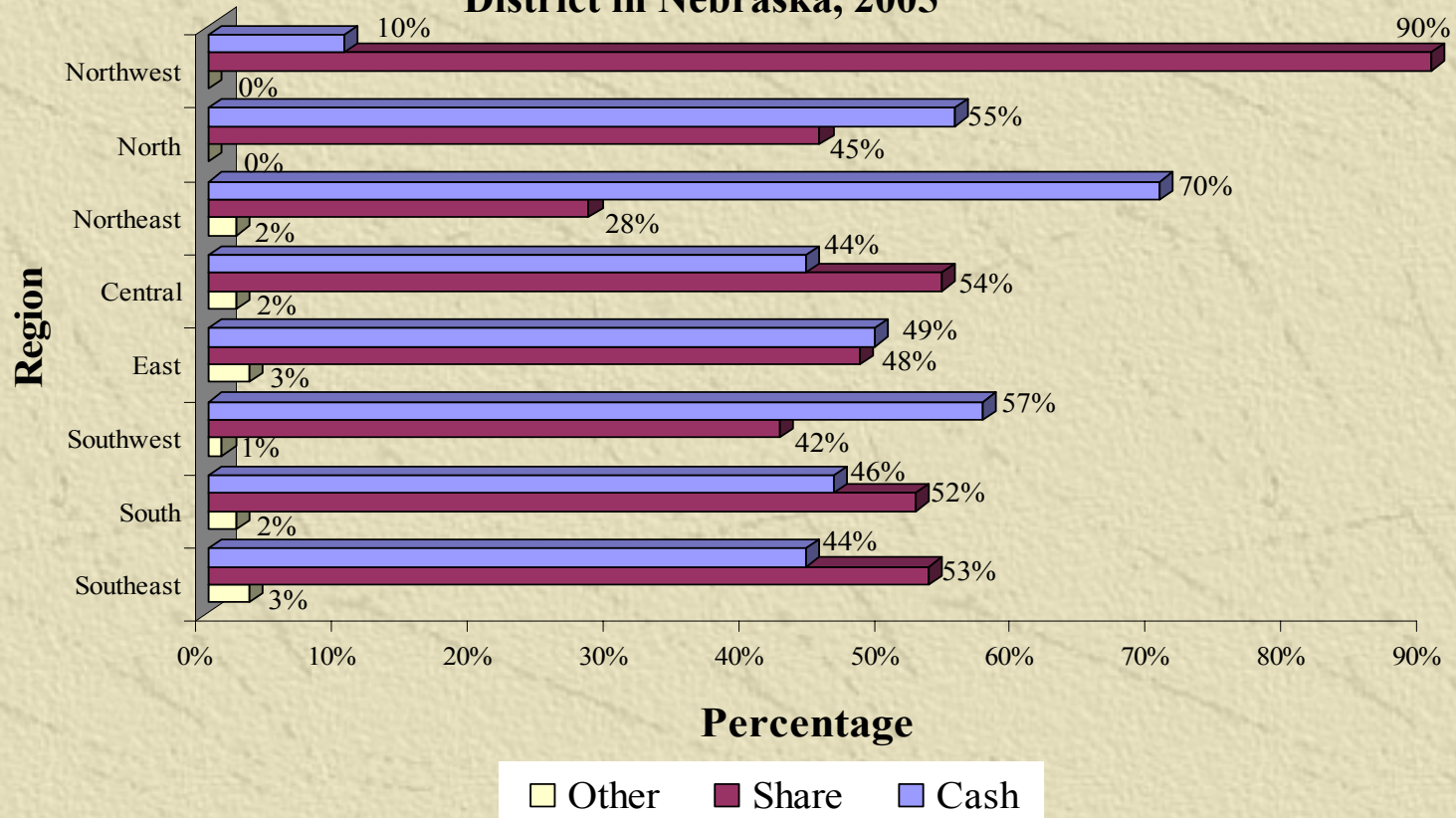
- ✦ Greater management flexibility given multiple parcels being leased.
- ✦ Greater capture of returns to management abilities
- ✦ Greater opportunity to compete in rental land market

Landlord Preference:

- ✦ Less management responsibility
- ✦ Less risk (income variability) from year to year
- ✦ Potentially greater \$ returns than crop share leasing

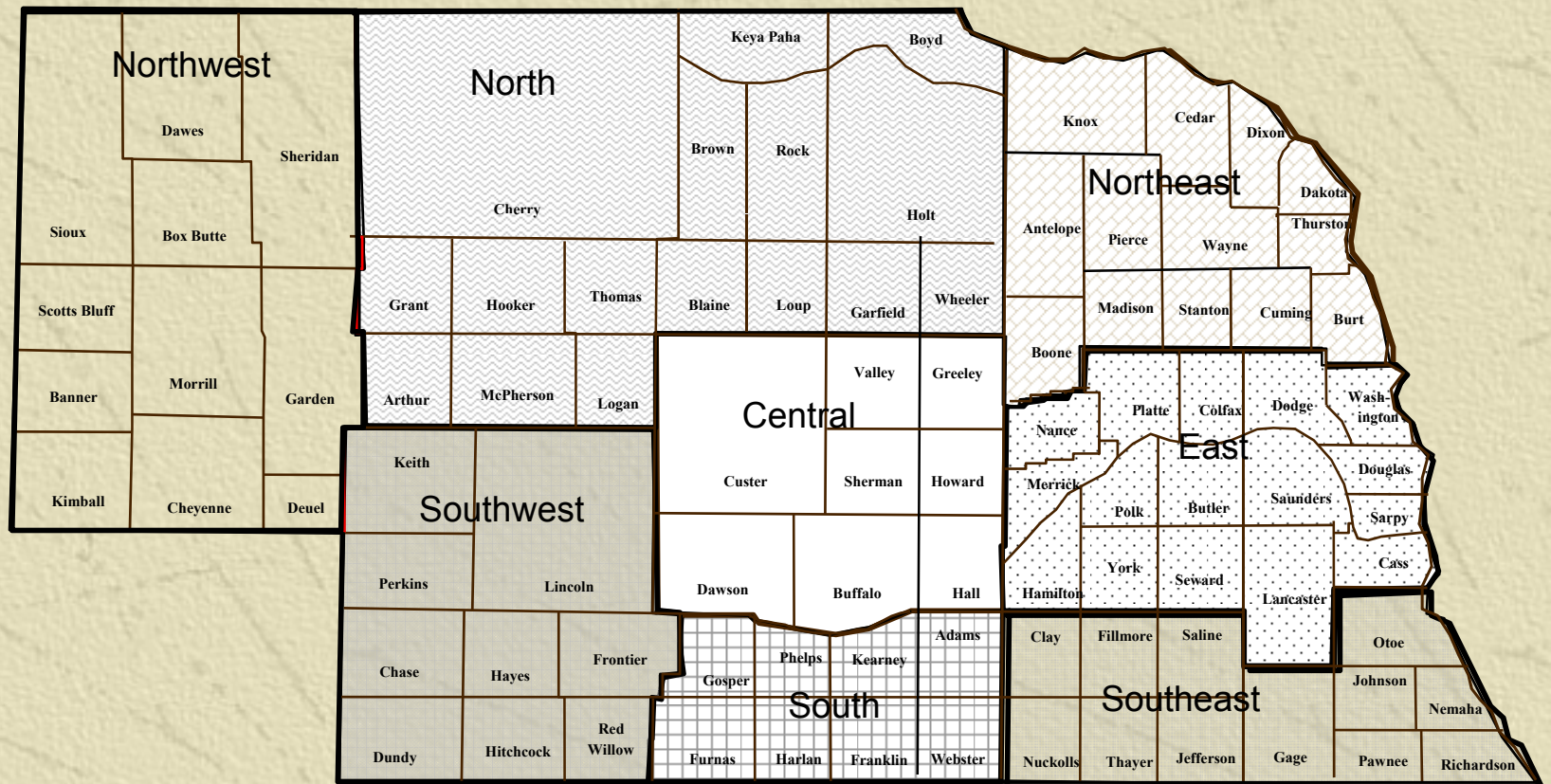
Incidence of Crop Share and Cash Leasing varies across the state

Estimated Proportions of Rental Land by Type of Lease and Agricultural Statistic District in Nebraska, 2005



Source: 2005 Nebraska Farm Real Estate Market Survey

Nebraska Agricultural Statistical Districts



Cash Lease Rates for Cropland

Table 9. Reported Cash Rental Rates for Various Types of Nebraska Farmland: 2006 Averages and Ranges by Agricultural Statistics District.^a

Type of Land	Agricultural Statistics District							
	Northwest	North	Northeast	Central	East	Southwest	South	Southeast
----- Dollars Per Acre -----								
Dryland Cropland:								
Average	24	38	97	63	102	31	52	83
Range:								
High	29	50	117	80	123	38	66	100
Low	17	27	75	49	82	23	41	64
Gravity Irrigated Cropland:								
Average	97	105	135	135	144	101	130	138
Range:								
High	124	124	154	156	162	119	152	155
Low	72	93	119	109	123	85	107	118
Center Pivot Irrigated Cropland								
Average	102	120	147	140	157	120	139	152
Range:								
High	123	141	166	161	177	135	159	172
Low	84	98	131	114	137	100	119	134

^a SOURCE: Reporters' estimated cash rental rates (both averages and ranges) from the 2006 UNL Nebraska Farm Real Estate Market Developments Survey.

^b Insufficient number of reports.

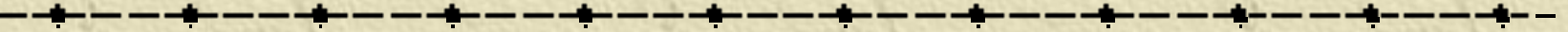
Cash rent adjustments for non-irrigated corners and for shared irrigation equipment.

Center-Pivot Irrigated Cropland -- Cash Rental Rates, 2006

District	Average	Dryland Corners	Tenant owns power unit	Tenant owns CP
Northwest	102	20	93	90
North	120	33	--	--
Northeast	147	91	140	129
Central	140	60	131	125
East	157	97	148	137
Southwest	120	24	--	--
South	139	50	134	123
Southeast	152	78	145	133

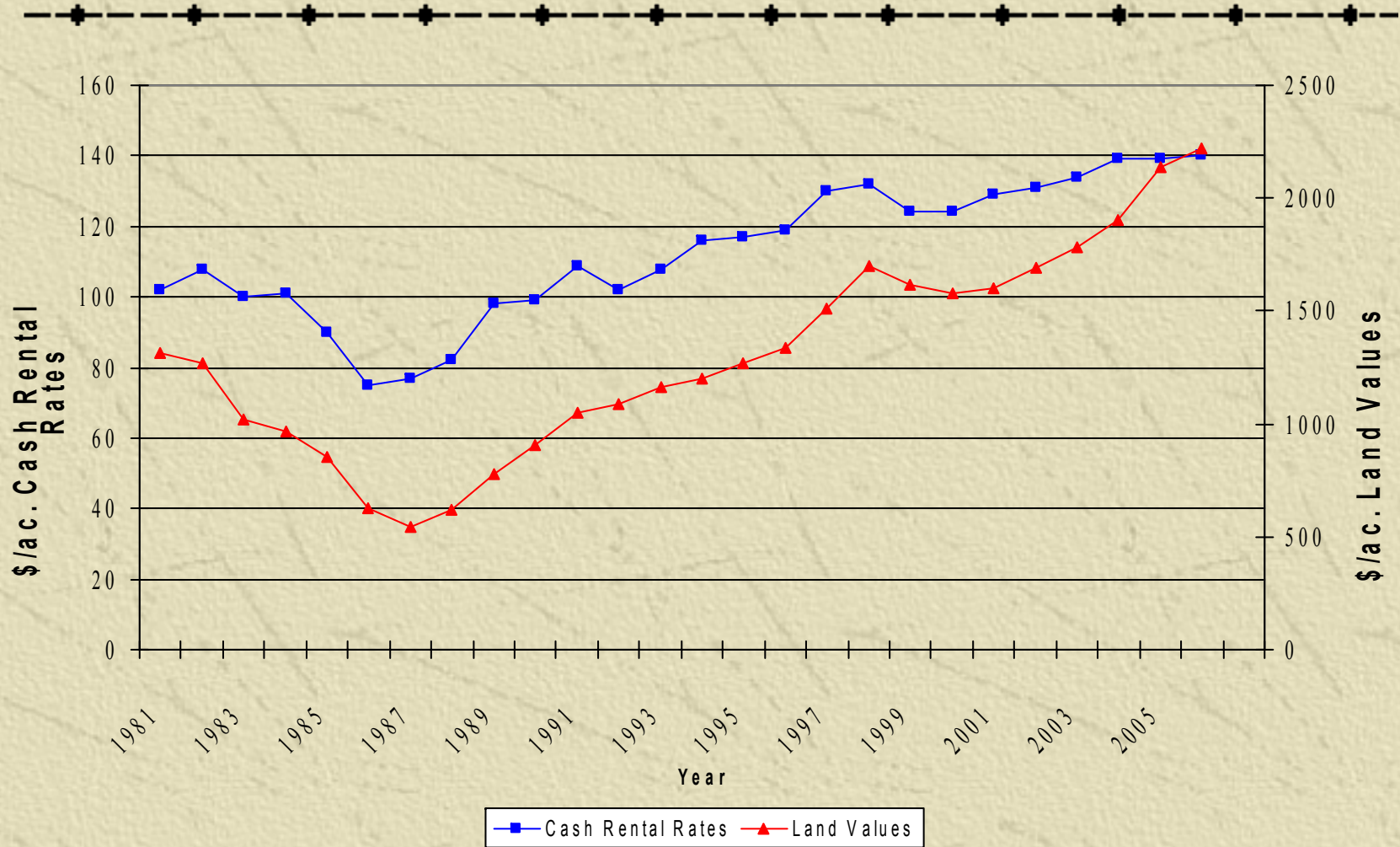
Source: 2006 Nebraska Farm Real Estate Market Developments Survey.

Do cash rents lead or lag cropland value trends?

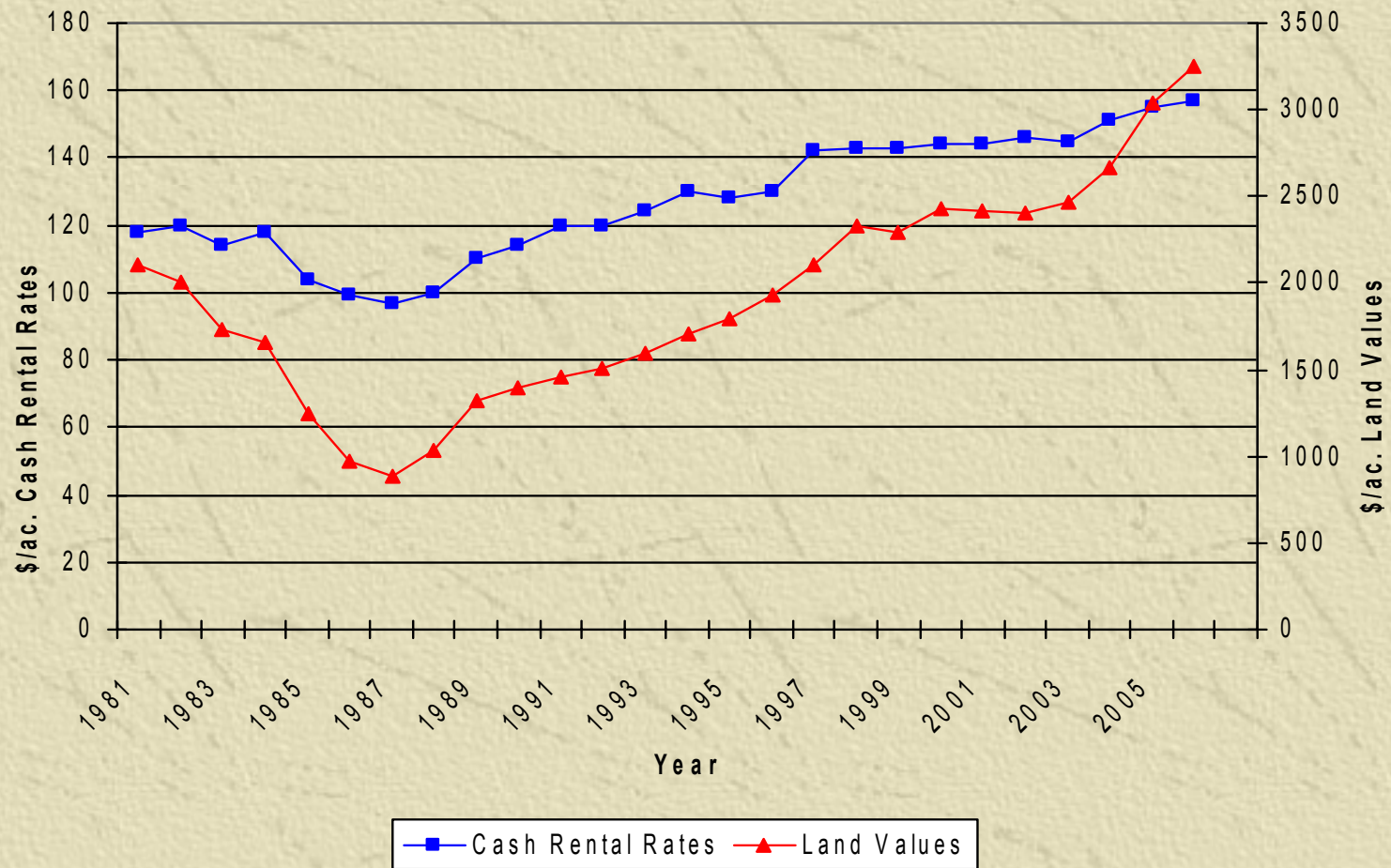


- ✦ As an income-producing asset, theory would suggest income (cash rent) trends would lead land value changes.
- ✦ Historical patterns suggest otherwise – values lead rents.

Central Nebraska Center Pivot Irrigated Land: Cash Rental Rates & Values 1981-2006



Eastern Nebraska Center Pivot Irrigated Land: Cash Rental Rates & Values 1981-2006

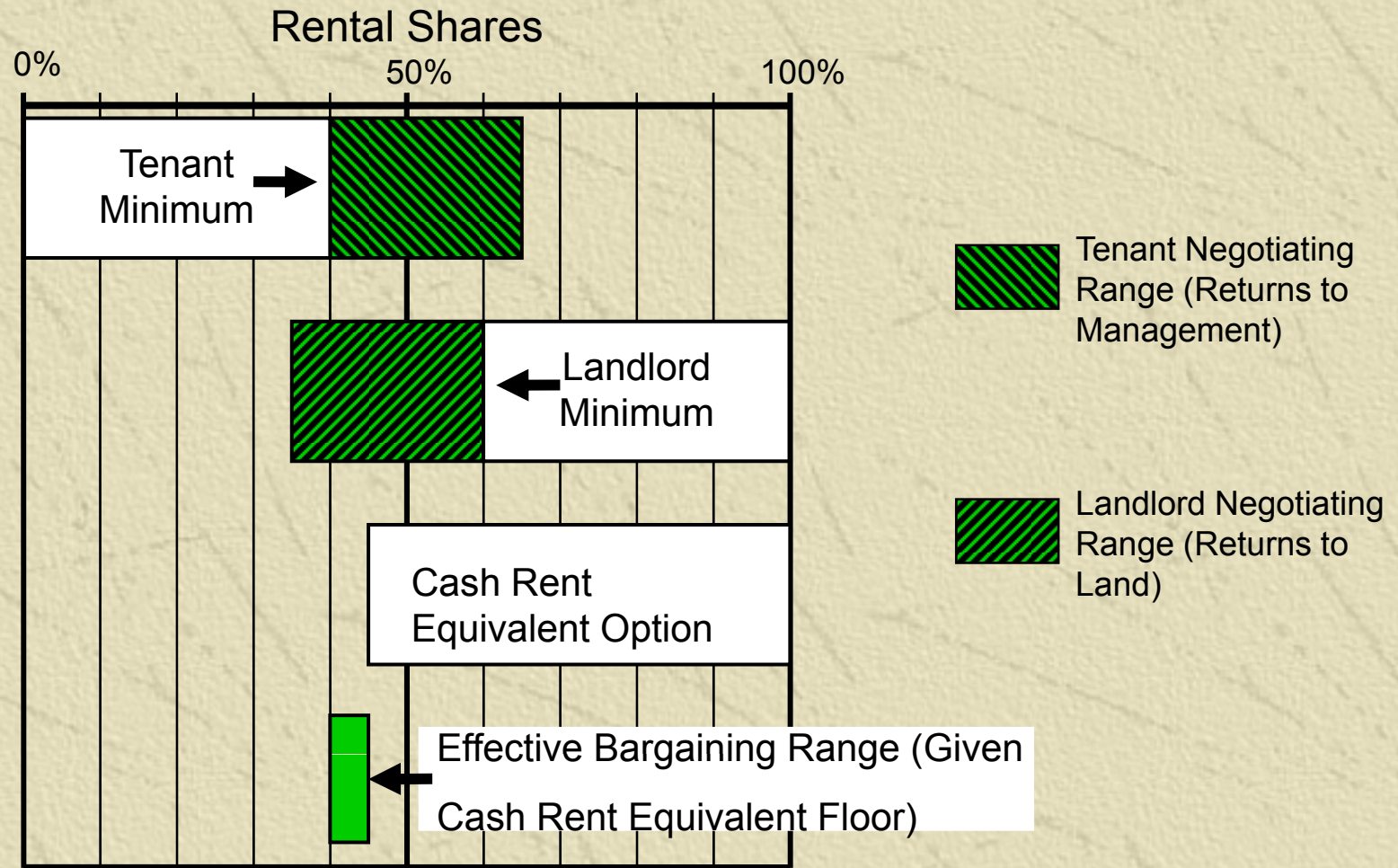


Relation of Cash Leasing to Crop Share Leasing.

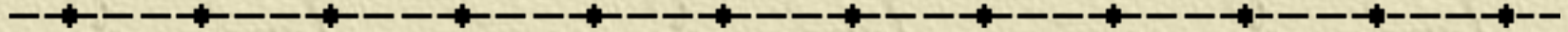
Shift in historical crop share rental rates occurring due in part to cash lease alternatives

- ◆ Land owners wanting larger shares or cash boots.
- ◆ Cash rent option sets new floor to negotiating range.
- ◆ Varies in intensity from western to eastern Nebraska
- ◆ “Warp” reflecting changing relative contributions.

Today's Crop Share Rent Negotiation Process



Western EcoFallow



LANDOWNER RELATIVE CONTRIBUTION:	Corn	Wheat			
Variable Expenses:	\$35.52	\$18.20	\$0.00	\$0.00	\$3,491.62
Fixed Expenses:	\$12.75	\$12.75	\$0.00	\$0.00	\$1,657.50
Total Expenses:	\$48.27	\$30.95	\$0.00	\$0.00	\$5,149.12
Land Contribution:	\$20.00	\$20.00	\$20.00	\$20.00	\$2,600.00
Total Expenses and Contributions:	\$68.27	\$50.95	\$20.00	\$20.00	\$7,749.12
Net Contribution Percentage:	33.2%	33.0%	100.0%	100.0%	33.1%
Arranged Contribution:	33.0%	33.0%	0.0%	0.0%	33.0%
Difference:	0.2%	0.0%			0.1%

TENANT RELATIVE CONTRIBUTIONS:	Corn	Wheat			
Variable Expenses:	\$94.60	\$60.19	\$0.00	\$0.00	\$10,061.26
Fixed Expenses:	\$42.75	\$43.19	\$0.00	\$0.00	\$5,586.10
Total Expenses:	\$137.35	\$103.38	\$0.00	\$0.00	\$15,647.36
Total Expenses and Contributions:	\$137.35	\$103.38	\$0.00	\$0.00	\$15,647.36
Net Contribution Percentage:	66.8%	67.0%	0.0%	0.0%	66.9%
Arranged Contribution:	67.0%	67.0%	0.0%	0.0%	67.0%
Difference:	-0.2%	0.0%			-0.1%

East-Central 50-50 Pivot

LANDOWNER RELATIVE CONTRIBUTION:	Corn	Soybeans			
Variable Expenses:	\$129.24	\$78.50	\$0.00	\$0.00	\$13,503.44
Fixed Expenses:	\$73.50	\$73.50	\$0.00	\$0.00	\$9,555.00
Total Expenses:	\$202.74	\$152.00	\$0.00	\$0.00	\$23,058.44
Land Contribution:	\$75.33	\$75.33	\$75.33	\$75.33	\$9,792.39
Total Expenses and Contributions:	\$278.07	\$227.33	\$75.33	\$75.33	\$32,850.83
Net Contribution Percentage:	58.4%	61.7%	100.0%	100.0%	59.8%
Arranged Contribution:	50.0%	50.0%	0.0%	0.0%	50.0%
Difference:	8.4%	11.7%			9.8%

Crop Insurance:	\$17.00	\$15.00	\$0.00	\$0.00	\$2,080.00
Drying, Storage, Transportation:	\$35.68	\$9.10	\$0.00	\$0.00	\$2,910.70
Machinery/Field Operations:	\$20.39	\$18.36	\$0.00	\$0.00	\$2,518.75
Irrigation:	\$48.00	\$48.00	\$0.00	\$0.00	\$6,240.00
Custom Operations:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Labor:	\$7.50	\$7.50	\$0.00	\$0.00	\$975.00
Rent:	\$155.00	\$155.00	\$0.00	\$0.00	\$20,150.00
Interest on Variable Expenses:	\$12.43	\$8.93	\$0.00	\$0.00	\$1,388.18
Risk Premium:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Variable Expenses:	\$445.06	\$341.49	\$0.00	\$0.00	\$51,125.53

Central NE 50-50 Pivot

LANDOWNER RELATIVE CONTRIBUTION:	Corn		Soybeans		
Variable Expenses:	\$120.15	\$70.94	\$0.00	\$0.00	\$12,421.15
Fixed Expenses:	\$66.50	\$66.50	\$0.00	\$0.00	\$8,645.00
Total Expenses:	\$186.65	\$137.44	\$0.00	\$0.00	\$21,066.15
Land Contribution:	\$41.03	\$41.03	\$41.03	\$41.03	\$5,333.82
Total Expenses and Contributions:	\$227.68	\$178.47	\$41.03	\$41.03	\$26,399.97
Net Contribution Percentage:	54.3%	56.8%	100.0%	100.0%	55.3%
Arranged Contribution:	50.0%	50.0%	0.0%	0.0%	50.0%
Difference:	4.3%	6.8%			5.3%

TENANT RELATIVE CONTRIBUTIONS:	Corn		Soybeans		
Variable Expenses:	\$151.61	\$100.29	\$0.00	\$0.00	\$16,373.56
Fixed Expenses:	\$40.21	\$35.65	\$0.00	\$0.00	\$4,930.90
Total Expenses:	\$191.82	\$135.94	\$0.00	\$0.00	\$21,304.46
Total Expenses and Contributions:	\$191.82	\$135.94	\$0.00	\$0.00	\$21,304.46
Net Contribution Percentage:	45.7%	43.2%	0.0%	0.0%	44.7%
Arranged Contribution:	50.0%	50.0%	0.0%	0.0%	50.0%
Difference:	-4.3%	-6.8%			-5.3%

Southeast 50-50 Pivot

LANDOWNER RELATIVE CONTRIBUTION:	Corn		Soybeans		
Variable Expenses:	\$127.97	\$78.43	\$0.00	\$0.00	\$13,416.32
Fixed Expenses:	\$69.50	\$69.50	\$0.00	\$0.00	\$9,035.00
Total Expenses:	\$197.47	\$147.93	\$0.00	\$0.00	\$22,451.32
Land Contribution:	\$66.85	\$66.85	\$66.85	\$66.85	\$8,690.00
Total Expenses and Contributions:	\$264.32	\$214.78	\$66.85	\$66.85	\$31,141.32
Net Contribution Percentage:	57.3%	60.4%	100.0%	100.0%	58.6%
Arranged Contribution:	50.0%	50.0%	0.0%	0.0%	50.0%
Difference:	7.3%	10.4%			8.6%

TENANT RELATIVE CONTRIBUTIONS:	Corn		Soybeans		
Variable Expenses:	\$156.84	\$105.20	\$0.00	\$0.00	\$17,032.35
Fixed Expenses:	\$40.21	\$35.65	\$0.00	\$0.00	\$4,930.90
Total Expenses:	\$197.05	\$140.85	\$0.00	\$0.00	\$21,963.25
Total Expenses and Contributions:	\$197.05	\$140.85	\$0.00	\$0.00	\$21,963.25
Net Contribution Percentage:	42.7%	39.6%	0.0%	0.0%	41.4%
Arranged Contribution:	50.0%	50.0%	0.0%	0.0%	50.0%
Difference:	-7.3%	-10.4%			-8.6%

Southeast 60-40 Dryland

LANDWONER RELATIVE CONTRIBUTION:	Corn	Soybeans			
Variable Expenses:	\$44.86	\$19.35	\$0.00	\$0.00	\$4,173.88
Fixed Expenses:	\$21.00	\$21.00	\$0.00	\$0.00	\$2,730.00
Total Expenses:	\$65.86	\$40.35	\$0.00	\$0.00	\$6,903.88
Land Contribution:	\$66.85	\$66.85	\$66.85	\$66.85	\$8,690.00
Total Expenses and Contributions:	\$132.71	\$107.20	\$66.85	\$66.85	\$15,593.88
Net Contribution Percentage:	45.8%	50.5%	100.0%	100.0%	47.8%
Arranged Contribution:	40.0%	40.0%	0.0%	0.0%	40.0%
Difference:	5.8%	10.5%			7.8%

TENANT RELATIVE CONTRIBUTIONS:	Corn	Soybeans			
Variable Expenses:	\$116.86	\$69.56	\$0.00	\$0.00	\$12,117.10
Fixed Expenses:	\$40.21	\$35.65	\$0.00	\$0.00	\$4,930.90
Total Expenses:	\$157.07	\$105.21	\$0.00	\$0.00	\$17,048.00
Total Expenses and Contributions:	\$157.07	\$105.21	\$0.00	\$0.00	\$17,048.00
Net Contribution Percentage:	54.2%	49.5%	0.0%	0.0%	52.2%
Arranged Contribution:	60.0%	60.0%	0.0%	0.0%	60.0%
Difference:	-5.8%	-10.5%			-7.8%

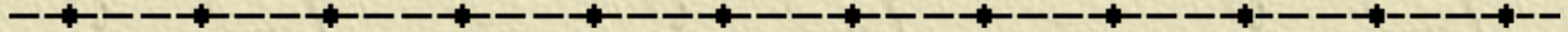
East-Central 50-50 Pivot (Tenant Covers all Chemicals)

Crop share under center pivot with tenant providing all chemicals and irrigation power unit.

LANDOWNER RELATIVE CONTRIBUTION:	Corn		Soybeans		
Variable Expenses:	\$112.70	\$61.72	\$0.00	\$0.00	\$11,337.69
Fixed Expenses:	\$73.50	\$73.50	\$0.00	\$0.00	\$9,555.00
Total Expenses:	\$186.20	\$135.22	\$0.00	\$0.00	\$20,892.69
Land Contribution:	\$75.33	\$75.33	\$75.33	\$75.33	\$9,792.39
Total Expenses and Contributions:	\$261.53	\$210.55	\$75.33	\$75.33	\$30,685.08
Net Contribution Percentage:	54.9%	57.2%	100.0%	100.0%	55.9%
Arranged Contribution:	50.0%	50.0%	0.0%	0.0%	50.0%
Difference:	4.9%	7.2%			5.9%

TENANT RELATIVE CONTRIBUTIONS:	Corn		Soybeans		
Variable Expenses:	\$174.65	\$122.05	\$0.00	\$0.00	\$19,285.22
Fixed Expenses:	\$40.21	\$35.65	\$0.00	\$0.00	\$4,930.90
Total Expenses:	\$214.86	\$157.70	\$0.00	\$0.00	\$24,216.12
Total Expenses and Contributions:	\$214.86	\$157.70	\$0.00	\$0.00	\$24,216.12
Net Contribution Percentage:	45.1%	42.8%	0.0%	0.0%	44.1%
Arranged Contribution:	50.0%	50.0%	0.0%	0.0%	50.0%
Difference:	-4.9%	-7.2%			-5.9%

Southeast 60-40 Dryland (Tenant Covers all Chemicals)



LANDOWNER RELATIVE CONTRIBUTION:	Corn		Soybeans		
Variable Expenses:	\$31.63	\$5.93	\$0.00	\$0.00	\$2,441.28
Fixed Expenses:	\$21.00	\$21.00	\$0.00	\$0.00	\$2,730.00
Total Expenses:	\$52.63	\$26.93	\$0.00	\$0.00	\$5,171.28
Land Contribution:	\$66.85	\$66.85	\$66.85	\$66.85	\$8,690.00
Total Expenses and Contributions:	\$119.48	\$93.77	\$66.85	\$66.85	\$13,861.28
Net Contribution Percentage:	41.2%	44.1%	100.0%	100.0%	42.5%
Arranged Contribution:	40.0%	40.0%	0.0%	0.0%	40.0%
Difference:	1.2%	4.1%			2.5%

TENANT RELATIVE CONTRIBUTIONS:	Corn		Soybeans		
Variable Expenses:	\$130.09	\$82.98	\$0.00	\$0.00	\$13,849.70
Fixed Expenses:	\$40.21	\$35.65	\$0.00	\$0.00	\$4,930.90
Total Expenses:	\$170.30	\$118.63	\$0.00	\$0.00	\$18,780.60
Total Expenses and Contributions:	\$170.30	\$118.63	\$0.00	\$0.00	\$18,780.60
Net Contribution Percentage:	58.8%	55.9%	0.0%	0.0%	57.5%
Arranged Contribution:	60.0%	60.0%	0.0%	0.0%	60.0%
Difference:	-1.2%	-4.1%			-2.5%

Conclusion:

- ✦ In a transition period when tailoring rental shares to the specific parcel will become increasingly common.
- ✦ User friendly software program now being built to assist in estimating appropriate shares.
 - ◆ Useful to both land owner and tenant
 - ◆ Due out by September 2006

Future Sensitivity Matrix Examples:

LANDLORD'S PER ACRE REVENUE LESS TOTAL COSTS

share rent (under different prices and yields)

PRICES	YIELDS	----- below -----			----- above -----	
		25%	10%	Avg	10%	25%
corn	169	203	225	248	281	
soybeans	49	59	65	72	81	
25% below						
Corn	\$1.58	-\$8	\$24	\$46	\$68	\$101
Soybeans	\$4.13					
10% below						
Corn	\$1.89	\$24	\$64	\$90	\$116	\$155
Soybeans	\$4.95					
Avg						
Corn	\$2.10	\$46	\$90	\$119	\$148	\$191
Soybeans	\$5.50					
10% above						
Corn	\$2.31	\$68	\$116	\$148	\$180	\$228
Soybeans	\$6.05					
25% above						
Corn	\$2.63	\$101	\$155	\$191	\$228	\$282
Soybeans	\$6.88					

TENANT'S PER ACRE REVENUE LESS TOTAL COSTS

share rent (under different prices and yields)

PRICES	YIELDS	----- below -----			----- above -----	
		25%	10%	Avg	10%	25%
corn	169	203	225	248	281	
soybeans	49	59	65	72	81	
25% below						
Corn	\$1.58	-\$53	-\$39	-\$29	-\$20	-\$6
Soybeans	\$4.13					
10% below						
Corn	\$1.89	-\$39	-\$22	-\$11	\$1	\$17
Soybeans	\$4.95					
Avg						
Corn	\$2.10	-\$29	-\$11	\$2	\$14	\$33
Soybeans	\$5.50					
10% above						
Corn	\$2.31	-\$20	\$1	\$14	\$28	\$48
Soybeans	\$6.05					
25% above						
Corn	\$2.63	-\$6	\$17	\$33	\$48	\$72
Soybeans	\$6.88					

EQUIVALENT PER ACRE CASH RENT

share rent (under different prices and yields)

PRICES	YIELDS	----- below -----			----- above -----	
		25%	10%	Avg	10%	25%
corn	169	203	225	248	281	
soybeans	49	59	65	72	81	
25% below						
Corn	\$1.58	\$94	\$108	\$118	\$127	\$141
Soybeans	\$4.13					
10% below						
Corn	\$1.89	\$108	\$125	\$136	\$147	\$164
Soybeans	\$4.95					
Avg						
Corn	\$2.10	\$118	\$136	\$149	\$161	\$180
Soybeans	\$5.50					
10% above						
Corn	\$2.31	\$127	\$147	\$161	\$175	\$195
Soybeans	\$6.05					
25% above						
Corn	\$2.63	\$141	\$164	\$180	\$195	\$219
Soybeans	\$6.88					

Example of Future Comparison Table:

--- price and yield combinations ---				--- per acre ---	
corn price	soybean price	corn yield	soybean yield	Share rent	Cash rent
\$1.58	\$4.13	169	49	-\$53	-\$181
\$1.58	\$4.13	203	59	-\$39	-\$134
\$1.58	\$4.13	225	65	-\$29	-\$103
\$1.58	\$4.13	248	72	-\$20	-\$72
\$1.58	\$4.13	281	81	-\$6	-\$25
\$1.89	\$4.95	169	49	-\$39	-\$134
\$1.89	\$4.95	203	59	-\$22	-\$78
\$1.89	\$4.95	225	65	-\$11	-\$41
\$1.89	\$4.95	248	72	\$1	-\$4
\$1.89	\$4.95	281	81	\$17	\$52
\$2.10	\$5.50	169	49	-\$29	-\$103
\$2.10	\$5.50	203	59	-\$11	-\$41
\$2.10	\$5.50	225	65	\$2	\$1
\$2.10	\$5.50	248	72	\$14	\$42
\$2.10	\$5.50	281	81	\$33	\$104
\$2.31	\$6.05	169	49	-\$20	-\$72
\$2.31	\$6.05	203	59	\$1	-\$4
\$2.31	\$6.05	225	65	\$14	\$42
\$2.31	\$6.05	248	72	\$28	\$88
\$2.31	\$6.05	281	81	\$48	\$156
\$2.63	\$6.88	169	49	-\$6	-\$25
\$2.63	\$6.88	203	59	\$17	\$52
\$2.63	\$6.88	225	65	\$33	\$104
\$2.63	\$6.88	248	72	\$48	\$156
\$2.63	\$6.88	281	81	\$72	\$234