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Landowner's Adjusted Net-Share Rent as a Percent of Crop Returns

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Over time, more farmland leases in Illinois have been shifting from traditional crop share leases to cash leases. In addition, there has been some increase in flexible or variable rent cash leases from fixed cash leases. Variable cash rent leases have terms that tie the cash rental amount the operator pays for the year to some measure of the actual economic returns for the year. How the actual cash rent is determined varies from one variable lease to another. One type of variable cash lease bases the rent on a percentage of the actual crop returns for the year.

Crop returns can be calculated in different ways, but a common approach is to use actual yields times an average crop price. The average price may be an average price at a local elevator over a certain period when the grain is traditionally marketed. Payments from government farm programs may also be included in crop returns.

One of the factors in this type of lease that needs to be negotiated is what percentage of the crop returns should be used in determining the cash rent amount. Historical studies have concluded that this percentage may be as low as 15 to 20 percent on lower productive soils to as high as 35 to 37 percent on the highest productive soils. In this article, we use Illinois Farm Business Farm Management (FBFM) record data from 2014 through 2023 to calculate landowner's adjusted net-share rent and then compare this figure to crop returns to determine what this percentage has been under typical crop share arrangements. This information could be useful in negotiating an appropriate percentage of crop returns to be paid for cash rent.

It is important to understand how landowner's adjusted net-share rent is calculated. The landowner's adjusted net-share rent is calculated by taking the share of the crop returns the landowner would be receiving under a typical crop share lease for the area and subtracting off the landowner's share of shared expenses they would be paying under the crop share lease. For example, in a typical 50/50 crop share lease, the landowner would be receiving 50 percent of the crop proceeds and government payments, if any, and paying 50 percent of the crop expenses. Shared crop expenses normally would include fertilizer, seed, chemicals, drying, storage and crop insurance. Note the shared crop expenses do not include certain expenses that the landowner would be paying whether the lease is a crop share or cash lease, namely real estate taxes and possibly some insurance.

Tables 1 through 4 below list accrual crop returns and landowner's adjusted net-share rent on a per acre basis for 2014 through 2023 for four geographic regions in Illinois. The tables also include the net-share rent as a percentage of crop returns.

Table 1. Northern Illinois

Year	Crop Returns	LLD's Adjusted Net-Share Rent	Net-Share Rent as % Crop Returns
2014	$837	$257	30.8
2015	$734	$223	30.4
2016	$781	$254	32.5
2017	$708	$224	31.6
2018	$782	$263	33.6
2019	$710	$224	31.5
2020	$873	$306	35.1
2021	$1,089	$406	37.3
2022	$1,326	$471	35.5
2023	$1,002	$292	29.1
2014 - 2023 avg	$884	$292	32.7
2014 - 2023 high	$1,326	$471	37.3
2014 - 2023 low	$708	$223	29.1

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Table 2. Central Illinois (Higher Productive Soils)

Year	Crop Returns	LLD's Adjusted Net-Share Rent	Net-Share Rent as % Crop Returns
2014	$829	$264	31.8
2015	$695	$204	29.3
2016	$784	$254	32.4
2017	$729	$230	31.6
2018	$843	$291	34.5
2019	$791	$254	32.1
2020	$895	$313	35.0
2021	$1,107	$413	37.3
2022	$1,347	$485	36.0
2023	$1,030	$303	29.4
2014 - 2023 avg	$905	$301	32.9
2014 - 2023 high	$1,347	$485	37.3
2014 - 2023 low	$695	$204	29.3

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Table 3. Central Illinois (Lower Productive Soils)

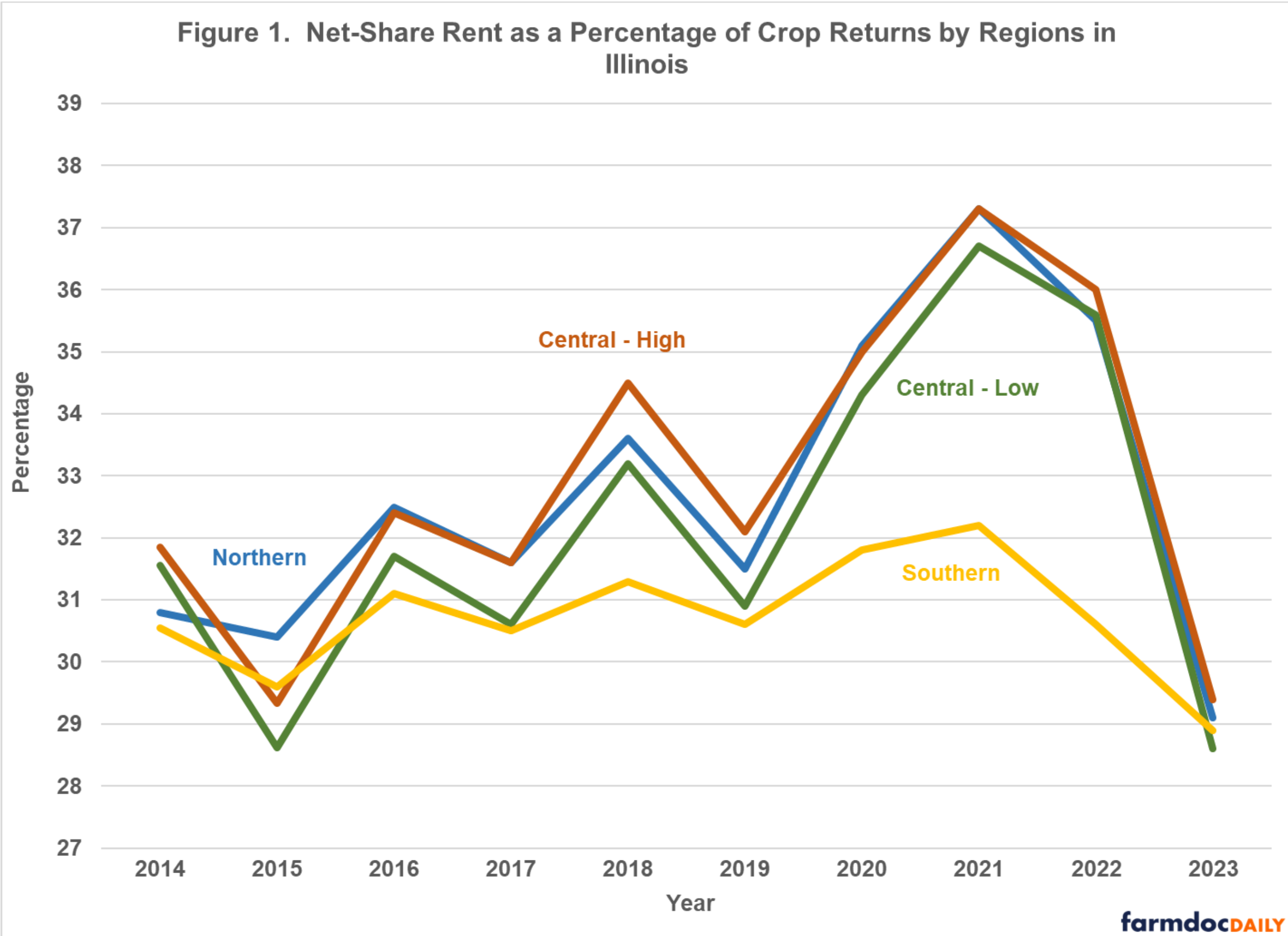
Year	Crop Returns	LLD's Adjusted Net-Share Rent	Net-Share Rent as % Crop Returns
2014	$780	$246	31.6
2015	$657	$188	28.6
2016	$722	$229	31.7
2017	$674	$206	30.6
2018	$755	$251	33.2
2019	$700	$216	30.9
2020	$826	$283	34.3
2021	$1,009	$370	36.7
2022	$1,260	$448	35.6
2023	$963	$275	28.6
2014 - 2023 avg	$835	$271	32.2
2014 - 2023 high	$1,260	$448	36.7
2014 - 2023 low	$657	$188	28.6

Table 4. Southern Illinois

Year	Crop Returns	LLD's Adjusted Net-Share Rent	Net-Share Rent as % Crop Returns
2014	$721	$220	30.5
2015	$565	$167	29.6
2016	$660	$205	31.1
2017	$614	$187	30.5
2018	$696	$218	31.3
2019	$644	$197	30.6
2020	$799	$254	31.8
2021	$1,037	$334	32.2
2022	$1,149	$352	30.6
2023	$874	$253	28.9
2014 - 2023 avg	$776	$239	30.7
2014 - 2023 high	$1,149	$352	32.2
2014 - 2023 low	$565	$167	28.9

At the bottom of each table are the averages for 2014 through 2023 along with the high and low figure for the 10-year period. The average net-share rent as a percentage of crop returns for the 10-year period are remarkably close for the four regions, 32.7% for northern Illinois, 32.9% for central Illinois with the higher productive soils, 32.2% for central Illinois with the lower productive soils and 30.7% for southern Illinois. The range between the highest and lowest percentage of gross returns was 7.6 to 8.2 percentage points for northern and central Illinois but only 3.3 percentage points for southern Illinois.

It is interesting to note that the highest crop return per acre was in 2022 but this was not the highest percent crop returns for the four areas. The highest net-share rent as a percentage of crop returns for all regions over the last ten years occurred in 2021. Even though crop returns and landowner's adjusted net-share rent were higher in 2022 than 2021, the net-share rent figure did not increase at the same rate as crop returns due to higher costs resulting in a lower crop return percentage in 2022 compared to 2021. The lowest net-share rent as a percent of crop returns occurred in 2023 except for central Illinois with the higher soil rating where 2015 was the lowest by a tenth of a percent.



The general observation during the 2014 through 2023 time-period is that this percentage started at low level in 2014, trended upward until the peak in 2021 and has been decreasing since. This has especially been the case for northern and central Illinois. This trend in percentages has been much flatter for southern Illinois.

Projections for 2024 and 2025 indicate that the net-share rent as a percentage of crop returns will increase compared to 2023 due to lower costs and similar returns. Actual farm data will confirm this or not.

A set percentage of crop returns is the factor that determines the amount of cash rent paid per acre by some variable cash rent leases. Historical and more recent studies indicate for the most productive land in Illinois an appropriate percentage of crop returns would be in the mid to upper thirty percent range. For lower productive soils an appropriate percentage would be in the low thirty or high twenty percent range. This is based on a return to landowners similar to what they would be earning on a "typical" crop share lease for the area. These percentages might be adjusted up or down based on other factors and goals of the landowner and operator. It is also suggested that these percentages should be reviewed from time to time as changes in crop returns and expenses affect returns to farmland.

The authors would like to acknowledge that data used in this study comes from farms across the State of Illinois enrolled in Illinois Farm Business Farm Management (FBFM) Association. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 5,000 plus farmers and 70 professional field staff, is a not-for-profit

organization available to all farm operators in Illinois. FBFM field staff provide on-farm counsel with recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact the State Headquarters located at the University of Illinois Department of Agricultural and Consumer Economics at 217-333-8346 or visit the FBFM website at www.fbfm.org.