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Landowner's Adjusted Net-Share Rent as a Percent of Crop Returns, a Historic Review Revisited

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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 rent 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 that 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 maybe 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 2010 through 2019 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. It would seem that this information would be useful in negotiating an appropriate percent of crop returns to be paid for cash rent.

It is important to have an understanding of how landowner's adjusted net-share rent is calculated. 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

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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 possible some insurance.

Tables 1 through 4 below list crop returns and landowner's adjusted net-share rent on a per acre basis for 2010 through 2019 for four geographic regions in Illinois. The tables also include the net-share rent amount as a percentage of crop returns.

Year	Crop Returns	LLD's Adjusted Net-Share Rent	Net-Share Rent as % Crop Returns
2010	\$811	\$288	35.5
2011	\$1,005	\$367	36.5
2012	\$1,102	\$394	35.8
2013	\$925	\$296	32.0
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
2010 - 2019 avg	\$840	\$279	33.0
2010 - 2019 high	\$1,102	\$394	36.5
2010 - 2019 low	\$708	\$223	30.4

Year	Crop Returns	LLD's Adjusted Net-Share Rent	Net-Share Rent as % Crop Returns
2010	\$788	\$280	35.5
2011	\$941	\$343	36.4
2012	\$1,038	\$371	35.7
2013	\$864	\$279	32.3
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
2010 - 2019 avg	\$830	\$277	33.2
2010 - 2019 high	\$1,038	\$371	36.4
2010 - 2019 low	\$695	\$204	29.3

Table 3. Central Illinois (Lower Productive Soils)

Year	Crop Returns	LLD's Adjusted Net-Share Rent	Net-Share Rent as % Crop Returns
2010	\$713	\$249	35.0
2011	\$853	\$303	35.5
2012	\$981	\$344	35.1
2013	\$805	\$253	31.4
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	\$701	\$216	30.8
2010 - 2019 avg	\$764	\$249	32.4
2010 - 2019 high	\$981	\$344	35.5
2010 - 2019 low	\$657	\$188	28.6

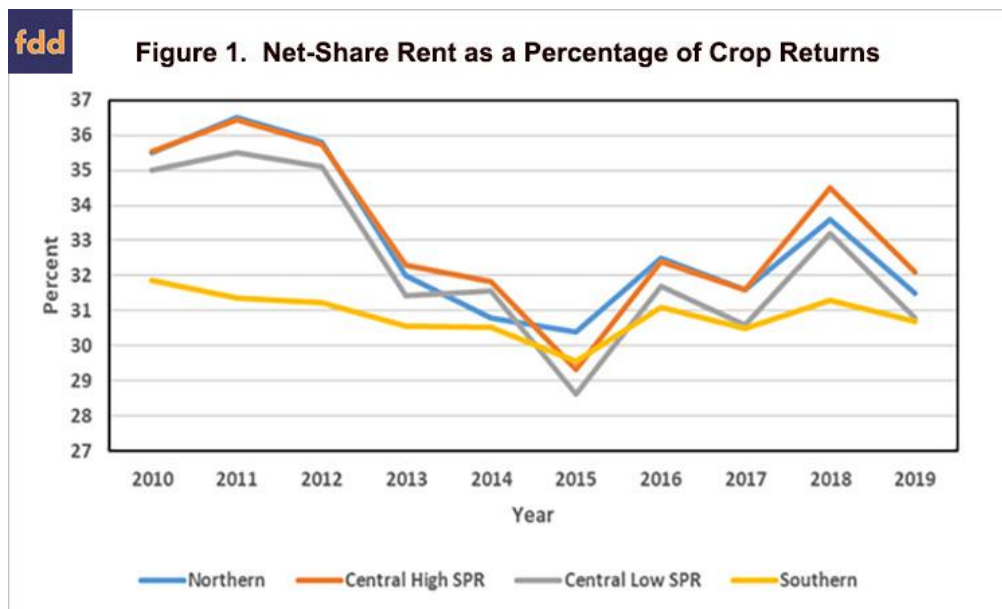
Table 4. Southern Illinois

Year	Crop Returns	LLD's Adjusted Net-Share Rent	Net-Share Rent as % Crop Returns
2010	\$696	\$222	31.9
2011	\$732	\$230	31.4
2012	\$794	\$248	31.2
2013	\$761	\$233	30.6
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	\$198	30.7
2010 - 2019 avg	\$688	\$213	30.9
2010 - 2019 high	\$794	\$248	31.9
2010 - 2019 low	\$565	\$167	29.6

At the bottom of each table are the averages for the 2010 through 2019 along with the high and low figure for the 10-year period. The average net-share rent as a percent of crop returns for the 10-year period are remarkable close for the four regions, 33.0% for northern Illinois, 33.2% for central Illinois with the higher productive soils, 32.4% for central Illinois with the lower productive soils and 30.9% for southern Illinois. The range between the highest and lowest percent of gross returns was 6.1 to 7.7 percentage points for northern and central Illinois but only 2.3 percentage points for southern Illinois.

It is interesting to note that the highest crop return per acre for all four regions was in 2012 but this was not the highest percent crop returns for any of the four areas. For northern and central Illinois, the highest net-share rent as a percentage of crop returns occurred in 2011. For southern Illinois, it is for 2010.

Even though crop returns and landowner's adjusted net-share rent were higher in 2012 than 2011, 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 2012 compared to 2011. The lowest net-share rent as a percent of crop returns occurred in 2015 for all four regions.



The general observation during the 2010 through 2019 time-period is that this percentage peaked during the 2010 through 2012 time-period, trended downward through 2015 and has been moving higher through 2018 but dropped again in 2019. This has especially been the case for northern and central Illinois. This percentage has been much more flatter for southern Illinois.

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 the Illinois Farm Business Farm Management (FBFM) Association. Without Illinois FBFM, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 5,500+ farmers and 68 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provide on-farm counsel along with recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact our office located on the campus of the University of Illinois in Mumford Hall at 217-333-5511 or visit the FBFM website at www.fbfm.org.