



Synopsis of Research Reports:

How Much Farmland Actually Sells? Evidence from Illinois (*fdd related*)

There have been several very notable land sales in Illinois and surrounding states setting new high per acre sales prices in many areas, and leading to increased interest by others in evaluating both potential sales and purchasing opportunities. Near the end of 2012, there was a flurry of end-of-year farmland auctions and new listings of farm properties. At two separate recent meetings, professional appraisers indicated that new requests are “flooding in” for farmland appraisals supporting decisions about trust creation or sale. Casual explanations of the turnover activity include elevated concern about tax and estate law changes, efforts to take advantage of market momentum, strong balance sheets and derived demand from recent high income years, and continuing strong investor demand. Others have suggested that the level of activity in the farmland market is not that unusual and that there are often peaks in the 4th and 1st quarters each year -- and that this year is thus not abnormal at all. And on the other side of the argument, farmers and investors seeking additional land to continue to cite thin market conditions; neighbor bidding wars are noted as explanations of high sales prices; numerous reports occur of auctions that fail to meet reserve requirements; and there remains low interest by absentee owners in selling in the majority of cases.

So how much farmland *actually* sells each year?

It turns out that is a difficult question to answer directly. First, while property transfer records are public, they differ in accessibility by state and are generally not made available electronically. Further, the definition of a *farm* and a *sale* are both somewhat difficult to singularly identify. Farms are classified by both type and use, and for taxation purposes, may qualify as a farm but be essentially a development property, or not farmable for other reasons. Likewise, parcel size may limit the usefulness in a commercial scale farm operation of certain small “farm” parcels. In the end, the definition of a farm is that which interests the farm buyer.

To begin to assess the question, data on all transfers in Illinois from 2000 to 2011 were collected from the Illinois Department of Revenue. For concreteness, the data in the tabulations below limit those treated as a potential “farm” sale to those with 10 or greater acres (eliminating many rural residence and lifestyle farms) and less than 1281 acres (sales greater than two sections are quite rare and often not market based) to help eliminate a few outlier conditions. The data are also screened to exclude sales with price per acre values below \$100 or above \$20,000 to limit the influence of non-representative sales and development parcel influence as well. Additionally, the land had to be classified as some form of farm in either the type or use fields of the transfer form to remain. Thus, a few non-farm agricultural parcels (e.g., recreational, mining areas, etc.) were also removed. Likewise a

sale to a relative or a related business party, while recorded as a transfer, is not likely to have been offered to the public at large and should perhaps not be treated in the same form as a sale where multiple buyers had equal access to the property. Other transfers are recorded, typically within trust or between related parties, where a sale price of \$1 is used to validate the contract, but again is not a representative sale. Prior to 2000, the version of the transfer declaration used one set of definitions that allowed us to estimate reasonably reliably the number of arm's-length sales. The transfer declaration forms were updated and extended thereafter, and while the overall quality of data increased, the issue of "relatedness" become slightly more complex to control for in the sample, but are reasonable given the equivalence found at the "junction" when we switched to the newer forms.

In Illinois, there are approximately 26.7 million acres of farmland, down slightly each year as irreversible developments occur, and distributed roughly in proportion to land mass except for areas around Chicago, and other metropolitan areas of the state. Table 1 shows land in farms by county by in farm use from the most recent Census of Agriculture in 2007. The totals will have declined slightly since then, but proportions remain relatively intact. Interestingly, Cook County is very large in land mass terms and still has over 6 thousand acres classified as farmland, though it is unlikely any "sales" would occur under conditions that would represent commercial farm conditions.

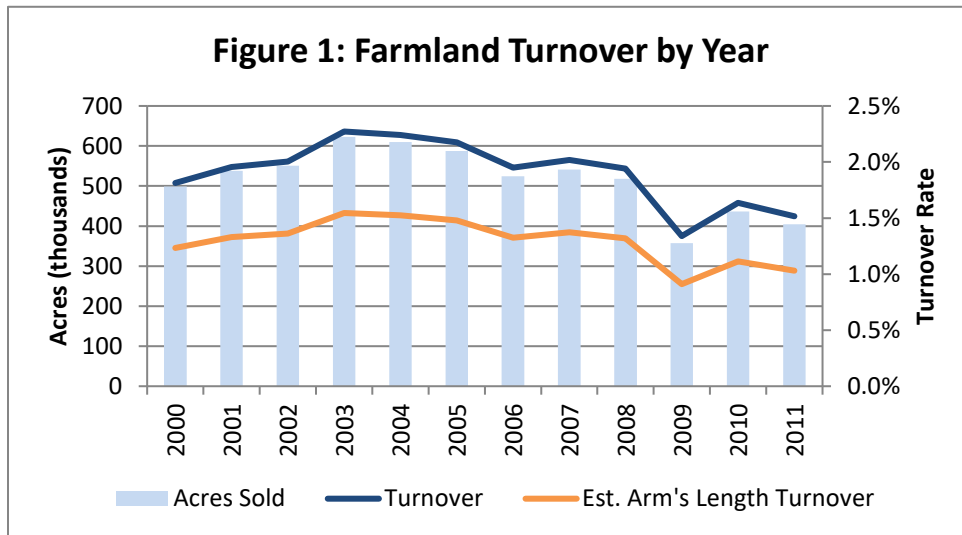
Table 1. Illinois Land in farm use by County

<i>county</i>	<i>acres</i>	<i>county</i>	<i>acres</i>
Adams	374,133	Lee	395,624
Alexander	47,208	Livingston	628,502
Bond	224,760	Logan	320,356
Boone	137,162	Macon	290,603
Brown	151,058	Macoupin	394,228
Bureau	478,389	Madison	312,936
Calhoun	82,443	Marion	260,679
Carroll	265,153	Marshall	204,584
Cass	173,543	Mason	273,362
Champaign	550,481	Massac	89,693
Christian	449,512	Mcdonough	307,725
Clark	238,706	Mchenry	215,584
Clay	209,834	Mclean	675,984
Clinton	268,441	Menard	168,594
Coles	254,869	Mercer	306,306
Cook	6,713	Monroe	178,134
Crawford	205,356	Montgomery	347,765
Cumberland	144,981	Morgan	320,512
De Kalb	370,772	Moultrie	167,791
De Witt	198,680	Ogle	366,470
Douglas	261,513	Peoria	259,204
Du Page	3,357	Perry	200,354
Edgar	352,535	Piatt	267,265
Edwards	116,690	Pike	389,808
Effingham	242,009	Pope	60,809
Fayette	303,258	Pulaski	101,189
Ford	270,720	Putnam	62,705
Franklin	207,877	Randolph	252,926
Fulton	385,302	Richland	202,860
Gallatin	185,753	Rock Island	178,623
Greene	273,088	Saline	117,233
Grundy	215,474	Sangamon	518,153
Hamilton	219,873	Schuyler	207,457
Hancock	392,898	Scott	135,731
Hardin	31,740	Shelby	387,288
Henderson	170,443	St Clair	306,533
Henry	489,903	Stark	169,775
Iroquois	677,803	Stephenson	337,932
Jackson	224,414	Tazewell	329,268
Jasper	243,451	Union	122,362
Jefferson	232,531	Vermilion	457,375
Jersey	189,462	Wabash	114,361
Jo Daviess	281,457	Warren	294,907
Johnson	100,499	Washington	353,903
Kane	192,372	Wayne	333,255
Kankakee	385,808	White	296,989
Kendall	166,872	Whiteside	405,333
Knox	362,951	Will	220,851
La Salle	643,291	Williamson	94,124
Lake	20,773	Winnebago	183,615
Lawrence	194,035	Woodford	288,400
Illinois Total		26,746,366	

source: tabulated from USDA data

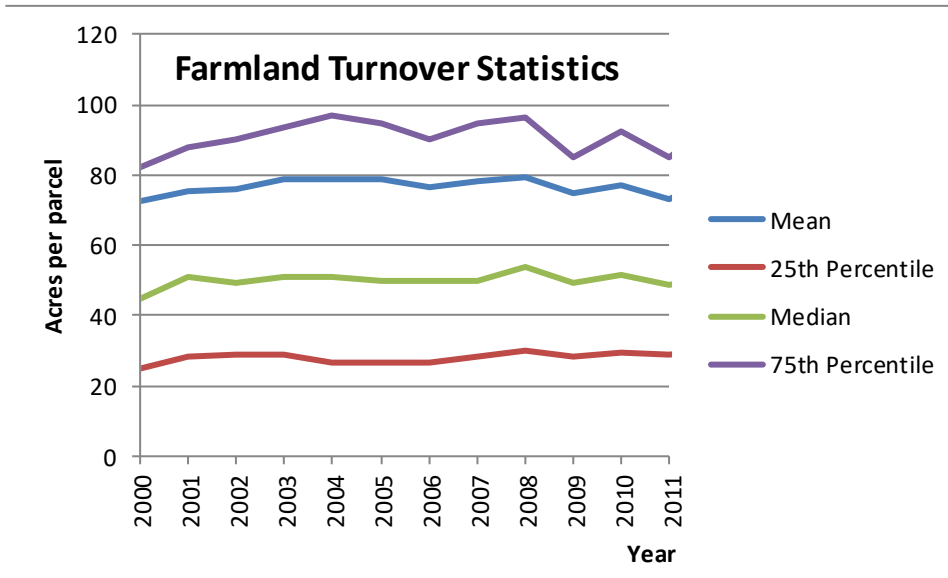
After the basic data screens described above were applied, there remained 80,779 parcel sales from property transfer declarations from 2000-2011 in Illinois totaling 6.54 million acres over that 12 year period. Per year, there were an average of 6,732 qualifying parcel sales and 544,833 total acres sold. Given the information above, total Illinois farmland turnover averaged only 1.9% per year of total land in farms from 2000 to 2011. However, this average is almost certainly an overstatement of actual

farmland turnover because our screen for related-party transfers excluded only 18% of transferred acreage, well below the USDA's estimate that 51% of farmland sales that they estimate are not arms-length. It is possible that USDA overstates the fraction of transfers between related parties, and that IDOR screens do not fully capture all related sales information. If we use the USDA's estimate of independence to further adjust the exclusion rate, the average annual turnover of farmland in arm's length transfers would be just over 1% from 2000 to 2011, a figure that is consistent with Illinois' pre-2000 history, screened by a different indicator of "arm's length" status. Although the farmland sales data do not provide accurate turnover rates for comparison with previous years, they can be meaningfully analyzed within the 2000 to 2011 timeframe. Figure 1 shows these data graphically, highlighting a slight reduction in turnover through time (note: 2012 IDOR data are not yet available).



Interesting as well, the median and interquartile parcel sizes through time have not actually changed all that much, though have increased slightly as shown through time in figure 2 below.

Figure 2.



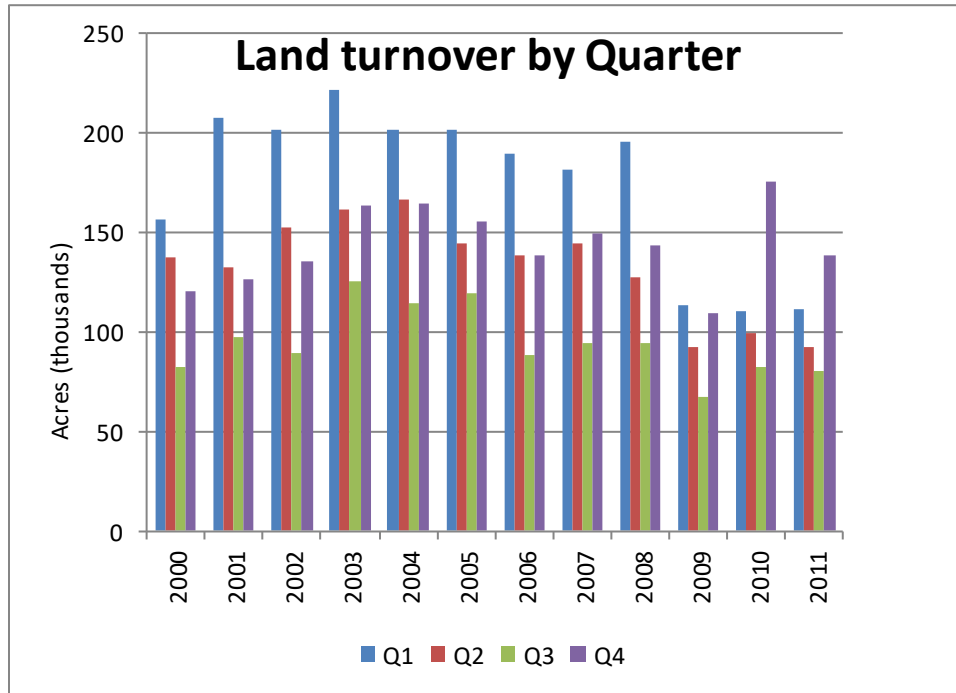
Finally, the acres and calendar quarter in which sold are tabulated through time to address the question of the seasonality of sales. As can be seen in table 2 below, there has been a shift away from the first quarter to some degree and toward the fourth quarter, consistent with conventional wisdom, but still showing the seasonal pattern that repeats through time.

Table 2. Calendar Quarter in which land transfers (acres)

	-----quarter sold -----				Total
	Q1	Q2	Q3	Q4	
2000	156,996	137,077	82,703	120,780	497,556
2001	207,153	132,522	97,939	126,907	564,521
2002	201,450	152,895	89,246	135,596	579,187
2003	221,453	162,001	125,551	163,392	672,396
2004	201,241	166,728	114,000	164,316	646,285
2005	201,486	144,642	119,057	155,091	620,276
2006	189,421	138,374	88,244	138,209	554,248
2007	181,579	144,323	94,643	149,263	569,807
2008	195,747	127,173	94,471	143,890	561,281
2009	113,487	92,301	67,351	109,641	382,780
2010	110,201	99,476	82,651	175,073	467,401
2011	111,020	92,756	80,775	138,304	422,855
Total	2,147,959	1,631,708	1,157,707	1,720,461	6,657,835

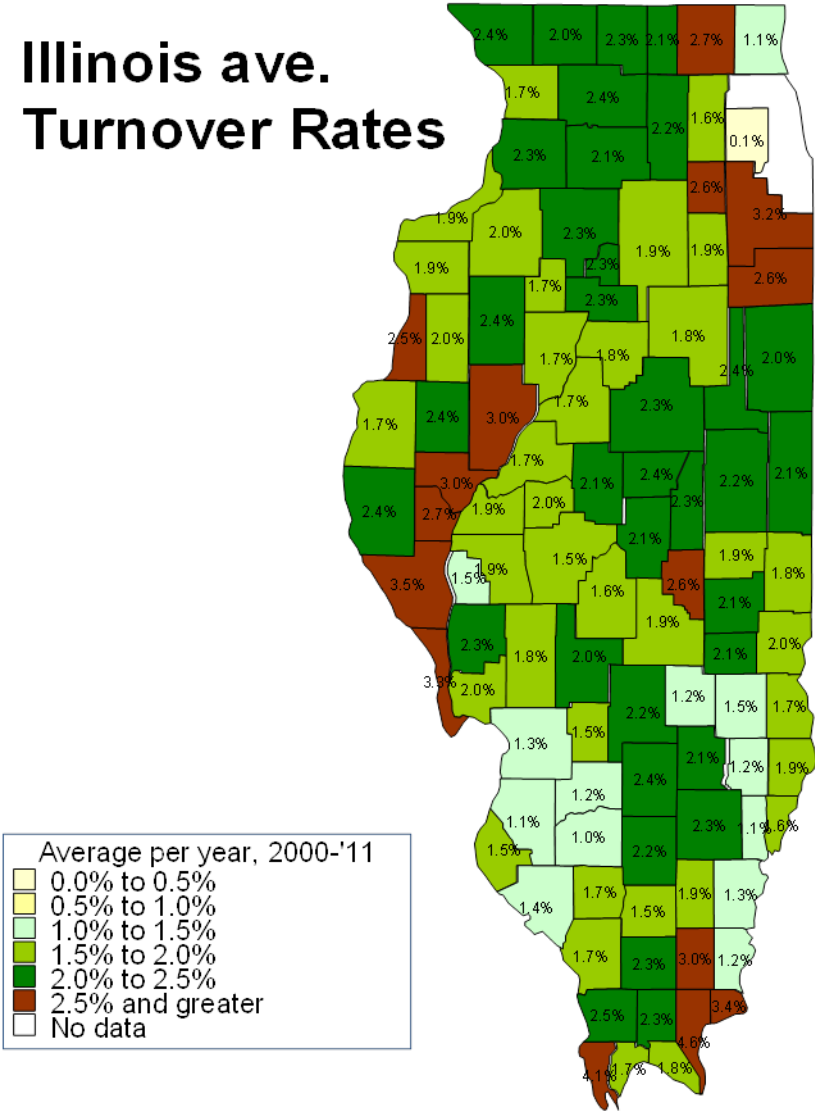
Figure 3 presents the same information graphically, but highlights the relatively lower activity in the second and third quarters each year.

Figure 3.



The distribution of sales around the state ranges slightly as shown in figure 4 below. Importantly, these are total rates conforming to the definitions of farm sales used against all record in the Illinois Department of Revenue sales database divided by USDA's measure of land in farms. Thus, a large sale or two in an area with low relative farmland will result in an elevated rate. Figure 4 breaks out the turnover rates by county.

Illinois ave. Turnover Rates



Many are surprised at how little farmland actually sells in any year and how long holding periods are as a result for most farmland owners. In any case, it is clear that the Illinois farmland market turns over very slowly and display features that likely qualify as “thin markets”. Future work will extend this exercise to a broader region representing Midwest agriculture.

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Note: The views expressed herein are solely the author’s opinions and do not necessarily reflect those of entities with whom professionally affiliated. All errors and omissions are the author’s alone.