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The Illinois Institute for Rural Affairs (IIRA) works to improve the quality of life for rural residents by partnering with public and private agencies on local development and enhancement efforts.



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# **Foreign Businesses in the Agricultural Sector In Illinois**

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Adee Athiyaman<sup>1</sup>

## **Abstract**

Fourteen overseas companies operate 27 subsidiaries in the state. The typical parent company has been in business since 1954, employs 23,500 people, and has an annual revenue of \$10.03bil. The 27 subsidiaries function in 50 different industries; slightly more than 40% of the firms function in the livestock industry. The question is whether foreign business investments will displace the “local” farmer. Using risk computations from modern finance theory, *I conclude that foreign business takeover of Illinois agricultural land is unlikely to happen.*

## **Introduction**

The Agricultural Foreign Investment Disclosure Act (FIDA) of 1978 requires foreign persons: individuals, firms, or other legal entities such as a ‘trust’, to provide information about acreages acquired or transferred in the US<sup>2</sup>. Data on these filings are available to the public in the aggregate; for example, ‘total acres purchased by foreigners’ in a county can be obtained from the USDA, longitudinally, starting 2004<sup>3</sup>. While these “reports” can be used to assess changes in foreign ownership of land at the county level, information about the type of owner, for example, subsidiary of a foreign company, size of the parent company, etc. are not available.

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<sup>2</sup> Data are collected using the form FSA-153; See, <https://forms.sc.egov.usda.gov/efcommon/eFileServices/eForms/FSA153.PDF>.

<sup>3</sup> See, <http://www.fsa.usda.gov/programs-and-services/economic-and-policy-analysis/afida/index>.

This paper fills this gap in knowledge. Specifically, it highlights the characteristics of foreign firms investing in the agriculture sector in Illinois. Also, using data on private holdings of agricultural land, the paper highlights the ‘risk’ of increases in foreign ownership of agricultural land in Illinois.

### Conceptual Framework

The question of interest is “why firms invest abroad”. The theory of the firm suggests that firms exist to maximize shareholder value<sup>4</sup>. Shareholder value is maximized by minimizing, if not eliminating, two risks: systematic or market risk and unsystematic or unique

risk<sup>5</sup>. Thus, either a market turbulence or the occurrence of a firm-specific event can impact firm performance. One solution to managing risk is diversification; a diversified firm is susceptible only to market risk; unique risk is diversified away<sup>6</sup>.

The market risk for investment in Illinois agriculture can be gleaned from data on farm real estate. As shown in Table 1, the average farmland value per acre in Illinois is the highest in the tri-states region, 2021 estimates. Also, Illinois boasts the highest annual compound growth rate (ACGR) in land value (Table 1).

**Table 1: Farm Real Estate, Average Value (\$) Per Acre: Illinois, Indiana, and Iowa, 2017-2021<sup>7</sup>**

State	2017	2018	2019	2020	2021	ACGR
Illinois	7,160	7,280	7,280	7,400	7,900	2.46%
Indiana	6,580	6,580	6,580	6,600	7,100	1.90%
Iowa	7,350	7,270	7,190	7,070	7,740	1.29%

The metrics in Table 1 suggest that Illinois could be a prime target for foreign investments in agricultural land; a recent news report claims that foreign

“investors are driving up farmland prices so the next generation of farmers cannot buy the land they need”<sup>8</sup>.

<sup>4</sup> See, for example, Weitzman, M. (2003). *Income, Wealth, and the Maximum Principle*. Cambridge, MA: Harvard University Press.

<sup>5</sup> Van Horne, J. C. (1980). *Financial Management and Policy*. 5<sup>th</sup> ed. Englewood Cliffs, NJ: Prentice Hall.

<sup>6</sup> Bowman, R.G. (1979). The theoretical relationship between systematic risk and

financial variables. *Journal of Finance*, 34, 617-630.

<sup>7</sup> Land Values 2021 Summary (August 2021) 21 USDA, National Agricultural Statistics Service.

<sup>8</sup> Foreign farmland ownership rising, *The Telegraph*, June 12, 2022. Available: <https://www.thetelegraph.com/news/article/Foreign-farmland-ownership-rising-17236479.php>.

## Methodology

Data on foreign agricultural firms with subsidiaries in Illinois were obtained from Uniworld Business Publications<sup>9</sup>; the search for foreign subsidiaries operating in Illinois was conducted using the two-digit, NAICS code for agriculture, NAICS 11. Timeseries data on foreign landholdings at the county level were obtained from the USDA's Farm Service Agency reports<sup>10</sup>. Longitudinal data on county GDP and ACGRs were extracted from an earlier *Research Brief*<sup>11</sup>.

Data analysis involved computation of descriptive statistics for all relevant variables, five-number summary,

cross-tabulations, and content analysis of company descriptions.

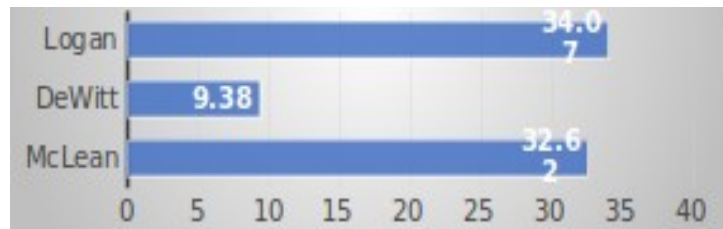
## Findings

In 2017, foreign ownership of agricultural land in Illinois counties averaged 1151 acres. It increased to 1673 acres in 2020; a 12.47% annual compound growth rate. Counties with the most growth in foreign acquisition of agricultural land include Clay and Cumberland. McLean County had the most acres under foreign ownership, both in 2017 and 2020; Schuyler County had the least, 7 acres in 2020 (Table 2). Appendix 1 lists foreign acreage and ACGR data for all the counties.

**Table 2: Foreign Ownership of Ag Land**

(i) Counties with the Most Foreign Ag Ownership in 2020 and ACGRs, %, 2017-2020

County	Acres	
	2017	2020
McLean	98,448	261,923
DeWitt	40,885	54,169
Logan	13,820	38,401



<sup>9</sup> <https://uniworldonline.com/>.

<sup>10</sup> Same reference as footnote 3.

<sup>11</sup> Athiyaman, A. (2022). Rural Illinois in numbers: Content-valid indicators for governance. *Research Brief*, 4(11), June 16, 1-

59. Available: [http://www.iira.org/wp-content/uploads/2022/06/Rural-Illinois-in-Numbers-Content-Valid-Indicators-for-governance\\_RB4\\_11\\_2.pdf](http://www.iira.org/wp-content/uploads/2022/06/Rural-Illinois-in-Numbers-Content-Valid-Indicators-for-governance_RB4_11_2.pdf).

(ii) Counties with the Largest ACGRs, 2017-2020

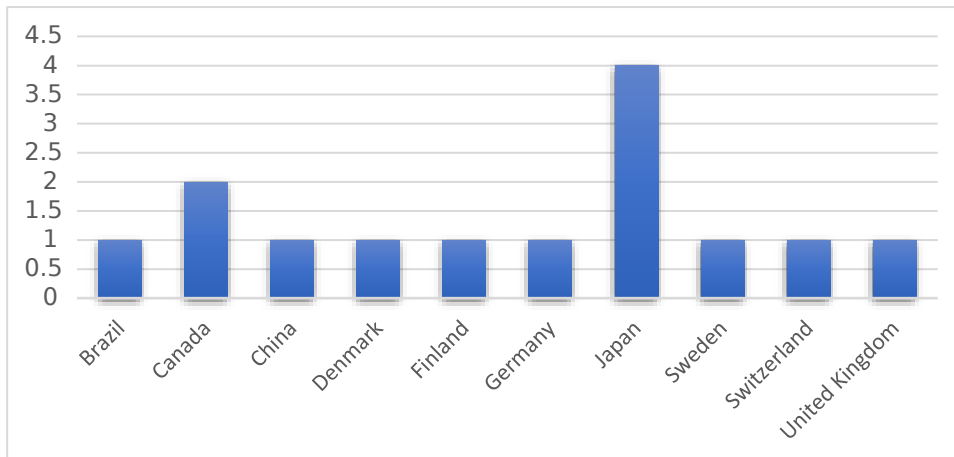
County	ACGR	2017 Foreign Acreage	2020 Foreign Acreage
Clay	160%	50	6,137
Cumberland	160%	17	2,083
Woodford	88%	1,833	25,341
Cass	79%	267	2,841
Warren	50%	2,394	10,690

Parent Companies:

Fourteen overseas companies operate 27 subsidiaries in the state. Japan is the leading operator with four parent companies. Geographically, it is the

European nations that operate the most subsidiaries in the agricultural sector in Illinois, 57% (Figure 1 and Appendix 2).

**Figure 1: Geographical Locations of Parent Companies of Ag Firms in Illinois**

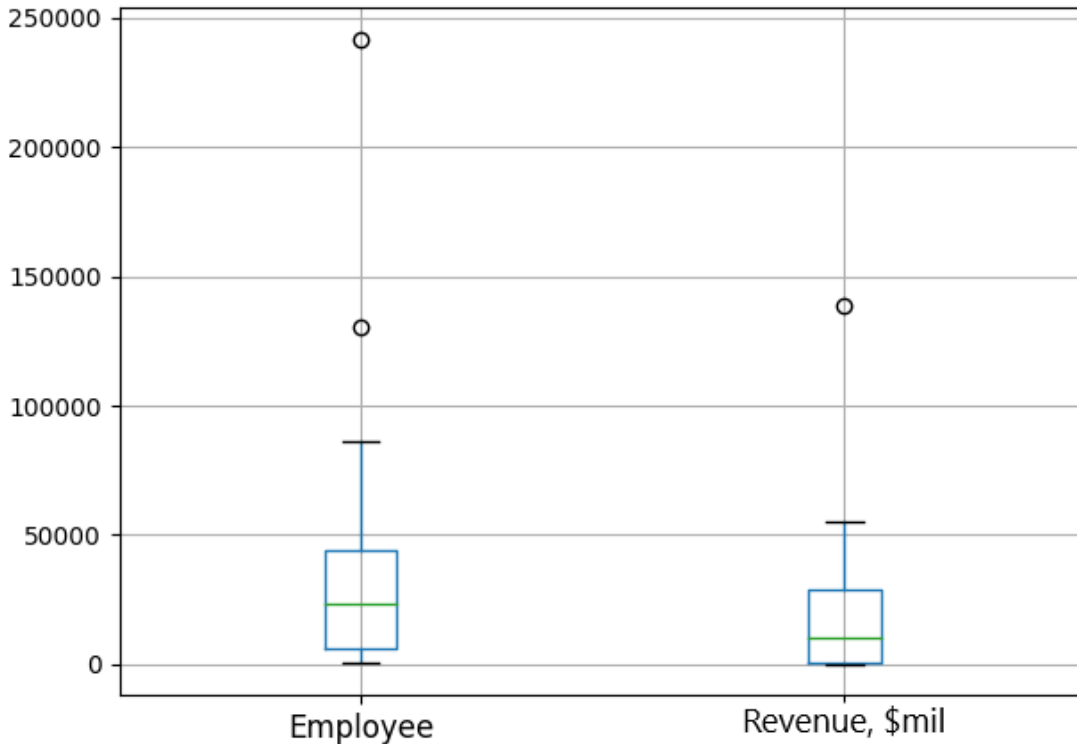


The typical parent company has been in business since 1954, employs 23,500 people, and has an annual revenue of \$10.03bil (Figure 2). The Brazilian firm, JBS SA, has the most employees,

242,000. The Mitsubishi Corporation of Japan boasts the most revenue, \$139bil<sup>12</sup>. The oldest firm is John Swire & Sons Ltd; it has been in business for more than two centuries (Appendix 2)

<sup>12</sup> The correlation between the two firm size indicators is positive ( $r=0.41$ ) and statistically significant,  $t = 1.85$ ,  $p<0.05$ .

**Figure 2: Size of the Parent Firms: Box Plots of Employee Numbers and Revenue**



**Note:** Descriptive statistics, 5-number summary:

*Employee Numbers:* Minimum value = 650; Quartile 1 = 6072; Median = 23500; Quartile 3: 44102; Maximum value: 242,000.

*Revenues (\$mil):* Minimum value = 193; Quartile 1 = 664; Median = 10,029; Quartile 3: 29,000; Maximum value: 139,000.

### Foreign Subsidiaries

The 27 subsidiaries function in 50 different industries. Slightly more than 40% of the firms function in the livestock sector, for example, beef cattle ranching, goat farming, hog and pig

farming, and chicken egg production. Crops including nursery and greenhouse crops account for 30% of the activities, and farm management services are the focus for 16% of the foreign subsidiaries (Table 3).

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**Table 3: Business Activities of the Foreign Subsidiaries**

<b>Industry</b>	<b>Percentage of Firms</b>
NAICS 115210: Support activities for animal farming	14%
NAICS 112111: Beef cattle ranching and farming	10%
NAICS 113210: Forest nursery and gathering forest products	8%
NAICS 111191: Oilseed and grain combination farming	8%
NAICS 112420: Goat farming	6%
NAICS 111930: Sugarcane farming	6%
NAICS 112519: Aquaculture	6%
NAICS 111140: Wheat farming	6%
NAICS 111920: Cotton farming	6%
NAICS 113110: Timber tract operations	6%
NAICS 112410: Chicken egg production	6%
NAICS 115112: Soil preparation, planting, and cultivating	6%
NAICS 111998: All other miscellaneous crop	2%
NAICS 112112: Cattle feedlots	2%
NAICS 115116: Farm management services	2%
NAICS 112210: Hog and pig farming	2%
NAICS 111160: Rice farming	2%
NAICS 113310: Logging	2%
<b>Total</b>	100% (N = 50)

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## Summary and Conclusion

In 2017, foreign ownership of agricultural land in Illinois counties averaged 1151 acres. It increased to 1673 acres in 2020; a 12.47% annual compound growth rate. Fourteen overseas companies operate 27 subsidiaries in the state. The typical parent company has been in business since 1954, employs 23,500 people, and has an annual revenue of \$10.03bil. The 27 subsidiaries function in 50 different industries. Slightly more than

40% of the firms function in the livestock industry.

The descriptive analysis shows that large overseas firms are more likely to invest in Illinois agriculture. The question is whether these types of investments will displace the “local” farmer. Modern finance theory helps us to address this question, albeit at a macro level, using the risk indicator, *Ai*:

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$A_i = \frac{\sigma_{i,m}}{\sigma_m^2}$ , where,  $i$  is the ACGR of foreign land ownership in Illinois counties and  $m$  is the growth rate of county GDP.

For Illinois agriculture, I estimate  $A_i$  at 2.22, using data from Appendix 3. An index greater than 1 indicates a riskier investment.

In conclusion, foreign business takeover of Illinois ag land is unlikely to happen.

## Appendix 1: Foreign Ownership of Ag Land in Illinois Counties and AGRS: 2017 and 2020

County	Acres_2017	Acres_2020	ACGR
Adams	899	899	0.00%
Alexander	2462	2403	-0.81%
Bond	224	224	0.00%
Boone	493	493	0.00%
Brown	466	466	0.00%
Bureau	17105	17106	0.00%
Carroll	1108	1108	0.00%
Cass	267	2841	78.82%
Champaign	10701	12021	3.88%
Christian	11270	37564	40.13%
Clark	0	160	NA
Clay	50	6137	160.34%
Clinton	160	160	0.00%
Coles	599	2270	44.41%
Cook	293	322	3.15%
Crawford	60	60	0.00%
Cumberland	17	2083	160.28%
DeKalb	8481	10104	5.84%
De Witt	40885	54169	9.38%
Douglas	4289	13011	36.99%
DuPage	273	273	0.00%
Edgar	565	1974	41.70%
Edwards	30	30	0.00%
Fayette	235	399	17.65%
Ford	29252	29580	0.37%
Franklin	5918	5918	0.00%
Fulton	760	800	1.71%
Greene	6984	7477	2.27%
Grundy	14961	14998	0.08%
Hamilton	5370	5370	0.00%
Hancock	2817	3151	3.73%
Hardin	650	650	0.00%
Henderson	1711	1711	0.00%
Henry	5608	5632	0.14%
Iroquois	29754	30047	0.33%
Jackson	1151	1151	0.00%
Jefferson	118	118	0.00%
Jersey	1420	1500	1.83%
Jo Daviess	487	532	2.95%



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<b>County</b>	<b>Acres_2017</b>	<b>Acres_2020</b>	<b>ACGR</b>
Johnson	280	280	0.00%
Kane	931	1025	3.21%
Kankakee	3771	4085	2.67%
Kendall	2554	2554	0.00%
Knox	259	300	4.90%
Lake	440	440	0.00%
LaSalle	14135	14556	0.98%
Lawrence	13	13	0.00%
Lee	5518	10142	20.29%
Livingston	19047	19387	0.59%
Logan	13820	38401	34.07%
McDonough	16625	17064	0.87%
McHenry	3346	3455	1.07%
McLean	98448	261923	32.62%
Macon	28504	28566	0.07%
Macoupin	1611	2107	8.95%
Madison	711	711	0.00%
Marion	363	363	0.00%
Marshall	696	696	0.00%
Mason	3242	3242	0.00%
Massac	2345	2345	0.00%
Menard	374	374	0.00%
Mercer	1319	2882	26.05%
Monroe	680	680	0.00%
Montgomery	1302	1302	0.00%
Morgan	641	641	0.00%
Moultrie	2839	2839	0.00%
Ogle	6957	6992	0.17%
Peoria	120	120	0.00%
Perry	793	793	0.00%
Piatt	11619	16202	11.08%
Pike	97	219	27.15%
Pope	976	976	0.00%
Pulaski	2274	2274	0.00%
Putnam	78	78	0.00%
Randolph	1673	1673	0.00%
Richland	39	39	0.00%
Rock Island	385	539	11.22%
St. Clair	202	894	49.58%
Sangamon	1059	1239	5.23%
Schuyler	7	7	0.00%
Scott	1252	1252	0.00%

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<b>County</b>	<b>Acres_2017</b>	<b>Acres_2020</b>	<b>ACGR</b>
Shelby	553	756	10.42%
Stark	827	1047	7.86%
Stephenson	9524	9524	0.00%
Tazewell	2644	2644	0.00%
Union	1497	1497	0.00%
Vermilion	10754	10792	0.12%
Warren	2394	10690	49.88%
Wayne	11516	12587	2.96%
White	0	4562	NA
Whiteside	414	696	17.32%
Will	1093	1097	0.12%
Williamson	1283	1283	0.00%
Winnebago	2203	2712	6.93%
Woodford	1833	25341	87.55%

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## Appendix 2: List of Parent Companies of Ag Firms, Subsidiaries, Operating in Illinois

Company	City	Country	Founded	Employee	Annual Revenue (mil)	Company Type
AJINOMOTO CO., INC.	Tokyo	Japan	1908	32509	10100	Public
CANOPY GROWTH CORPORATION	Smiths Falls	Canada	2013	4430	483	Public
COFCO INTERNATIONAL	Chene-Bougeries	Switzerland	1993	11000	31000	Private
DANISH CROWN FOODS	Randers	Denmark	1887	23000	9958	Private
DELAVAL INTERNATIONAL AB	Tumba	Sweden	1878	2500	1206	Private
FIRSTSERVICE CORPORATION	Toronto	Canada	1989	24000	2407	Public
GEA FARM TECHNOLOGIES GMBH	Bonen	Germany	1881	650	193	Private
JBS SA	Sao Paulo	Brazil	1953	242000	36785	Public
JOHN SWIRE & SONS LIMITED	London	United Kingdom	1816	130716		Private
MARUBENI CORPORATION	Tokyo	Japan	1858	45470	55306	Public
mitsubishi corporation	Tokyo	Japan	1954	86098	139000	Public
TOMOEGAWA PAPER CO., LTD.	Tokyo	Japan	2006	1460	310	Public
UPM KYMMENE CORPORATION (UPM)	Helsinki	Finland	1996	18700	11993	Public
WANXIANG GROUP CORPORATION	Hangzhou	China	1969	40000	23000	Private

### Appendix 3: Data for Systematic Risk Analysis

County	Acres_2017	Acres_2020	ACGR	Gdp_2017	Gdp_2020	ACGR_GDP
Adams	899	899	0.00%	3135910	3004617	-0.0143
Alexander	2462	2403	-0.81%	151111	147920	-0.0071
Bond	224	224	0.00%	500923	505790	0.0032
Boone	493	493	0.00%	1567478	1608551	0.0086
Brown	466	466	0.00%	422319	455980	0.0256
Bureau	17105	17106	0.00%	1203867	1139625	-0.0183
Carroll	1108	1108	0.00%	553035	563373	0.0062
Cass	267	2841	78.82%	584011	593363	0.0053
Champaign	10701	12021	3.88%	10135840	9763130	-0.0125
Christian	11270	37564	40.13%	1523876	1265823	-0.0618
Clark	0	160	0.00%	527166	525463	-0.0011
Clay	50	6137	160.34%	526895	526389	-0.0003
Clinton	160	160	0.00%	999175	954844	-0.0151
Coles	599	2270	44.41%	2227308	2159678	-0.0103
Cook	293	322	3.15%	3538018133	44457109	-0.0089
Crawford	60	60	0.00%	2151895	1822658	-0.0554
Cumberland	17	2083	160.28%	962765	924839	-0.0134
DeKalb	8481	10104	5.84%	3688459	3802486	0.0101
De Witt	40885	54169	9.38%	1094477	1187292	0.0271
Douglas	4289	13011	36.99%	1023955	986847	-0.0123
DuPage	273	273	0.00%	83841990	81986150	-0.0075
Edgar	565	1974	41.70%	759380	728315	-0.0139
Edwards	30	30	0.00%	280106	255189	-0.0311
Fayette	235	399	17.65%	533581	497287	-0.0235
Ford	29252	29580	0.37%	581718	663646	0.0439
Franklin	5918	5918	0.00%	1034331	876961	-0.055
Fulton	760	800	1.71%	854009	773353	-0.0331
Greene	6984	7477	2.27%	294211	284648	-0.011
Grundy	14961	14998	0.08%	3569733	4059818	0.0429
Hamilton	5370	5370	0.00%	392665	291875	-0.0989
Hancock	2817	3151	3.73%	538605	515392	-0.0147
Hardin	650	650	0.00%	78733	70567	-0.0365
Henderson	1711	1711	0.00%	169167	167726	-0.0029
Henry	5608	5632	0.14%	1340740	1382530	0.0102
Iroquois	29754	30047	0.33%	1065782	1051553	-0.0045
Jackson	1151	1151	0.00%	2248751	2164357	-0.0128
Jefferson	118	118	0.00%	1795705	1657999	-0.0266
Jersey	1420	1500	1.83%	467011	463177	-0.0027
Jo Daviess	487	532	2.95%	752904	711418	-0.0189
Johnson	280	280	0.00%	201367	213340	0.0193

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Kane	931	1025	3.21%	24151876	23946745	-0.0028
Kankakee	3771	4085	2.67%	5432958	5658125	0.0135
Kendall	2554	2554	0.00%	3241171	3375378	0.0135
Knox	259	300	4.90%	1643344	1583351	-0.0124
Lake	440	440	0.00%	55318009	54706679	-0.0037
LaSalle	14135	14556	0.98%	5347355	5225406	-0.0077
Lawrence	13	13	0.00%	521480	537410	0.01
Lee	5518	10142	20.29%	1433989	1464440	0.007
Livingston	19047	19387	0.59%	1683287	1786360	0.0198
Logan	13820	38401	34.07%	938916	948474	0.0034
McDonough	16625	17064	0.87%	1086669	985645	-0.0325
McHenry	3346	3455	1.07%	10965496	10170115	-0.0251
McLean	98448	261923	32.62%	13138760	12822459	-0.0081
Macon	28504	28566	0.07%	6161686	5589315	-0.0325
Macoupin	1611	2107	8.95%	1123377	1054833	-0.021
Madison	711	711	0.00%	12181624	12986578	0.0213
Marion	363	363	0.00%	1226948	1152914	-0.0207
Marshall	696	696	0.00%	351628	365992	0.0133
Mason	3242	3242	0.00%	515810	373756	-0.1074
Massac	2345	2345	0.00%	547010	542130	-0.003
Menard	374	374	0.00%	217891	223795	0.0089
Mercer	1319	2882	26.05%	391238	388188	-0.0026
Monroe	680	680	0.00%	864854	818856	-0.0182
Montgomery	1302	1302	0.00%	1204467	907371	-0.0944
Morgan	641	641	0.00%	1392734	1444379	0.0121
Moultrie	2839	2839	0.00%	660849	816150	0.0704
Ogle	6957	6992	0.17%	2528865	2619663	0.0118
Peoria	120	120	0.00%	11419973	11181923	-0.007
Perry	793	793	0.00%	565480	579709	0.0083
Piatt	11619	16202	11.08%	471374	499961	0.0196
Pike	97	219	27.15%	496626	508290	0.0077
Pope	976	976	0.00%	60049	55919	-0.0238
Pulaski	2274	2274	0.00%	210206	149905	-0.1127
Putnam	78	78	0.00%	319178	315308	-0.0041
Randolph	1673	1673	0.00%	1424631	1254990	-0.0423
Richland	39	39	0.00%	576012	544301	-0.0189
Rock Island	385	539	11.22%	9253888	9105484	-0.0054
St. Clair	202	894	49.58%	10764103	10421418	-0.0108
Sangamon	1059	1239	5.23%	10076814	9734977	-0.0115
Schuyler	7	7	0.00%	237707	232053	-0.008
Scott	1252	1252	0.00%	143507	144811	0.003
Shelby	553	756	10.42%	695309	784017	0.04
Stark	827	1047	7.86%	197426	209655	0.02

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Stephenson	9524	9524	0.00%	1727785	1697006	-0.006
Tazewell	2644	2644	0.00%	5993560	4818375	-0.0727
Union	1497	1497	0.00%	369211	377182	0.0071
Vermilion	10754	10792	0.12%	3019062	2920343	-0.0111
Warren	2394	10690	49.88%	751131	738545	-0.0056
Wayne	11516	12587	2.96%	410674	401315	-0.0077
White	0	4562	0.00%	534577	485263	-0.0323
Whiteside	414	696	17.32%	1959959	1920402	-0.0068
Will	1093	1097	0.12%	30659654	30663731	0
Williamson	1283	1283	0.00%	2693221	2587496	-0.0133
Winnebago	2203	2712	6.93%	12689835	11654778	-0.0284
Woodford	1833	25341	87.55%	1067386	1067716	0.0001