Southern Illinois Farming Survey

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As part of the Southern Illinois Regional Assessment Project, a farming survey was conducted in April and May of 2007 in the twenty Southernmost Illinois counties: Alexander, Edwards, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Johnson, Massac, Perry, Pope, Pulaski, Randolph, Saline, Union, Wabash, Wayne, White and Williamson. The objectives of the farming survey were as follows:

- To assess farming practices and information sources important to farming decisions in Southern Illinois
- To assess threats and opportunities for the Southern Illinois region from the perspective of local residents and farmers
- To assess the role of the Dixon Springs Agricultural Center (hereafter DSAC) in farming and land management in Southern Illinois

Methodology

A list of Southern Illinois residents from the study region was obtained from DSAC and UIUC Extension databases. A sample of residents was randomly selected to receive the 5-page survey questionnaire. The sample was designed to ensure a reasonable proportion of residents from each of the 20 counties. Pope County was intentionally over-sampled given the presence of DSAC. In total, 582 surveys were successfully delivered via mail (with 30 administered at local agricultural workshops). The overall response rate was 33.7% based on receiving 198 completed surveys.

Key Findings

- University information resources and other local farmers were viewed as the most important sources for information for farming decision making across the region. Although the majority of farmer respondents (60.6%) indicated DSAC as an important or very important information source, its actual effect varies by sub-region and by farming practice.

- The survey results show a broad recognition of economic, social, and environmental threats for Southern Illinois. Although the responses varied to a certain extent by sub-region and farmers' practices, healthcare, maintaining family farms, employment opportunities, and soil erosion were seen by the farmers surveyed as the most important threats for Southern Illinois.

- Bio-fuels development, recreational hunting, specialty crop production, tourism, and coal mining were perceived by a majority of respondents as the most important opportunities for Southern Illinois. The breakdown of responses, however, shows some variations among sub-regions and between the conventional and specialty agriculture groups.

- A vast majority of respondents (77.7%) indicated that the DSAC is important or very important to Southern Illinois farming and land management. Three key dimensions were clear from respondents' perceptions of Dixon Springs Agricultural Center:

(1) DSAC provides important information on variety trials and best practices.

(2) DSAC's location in Southern Illinois is critical.

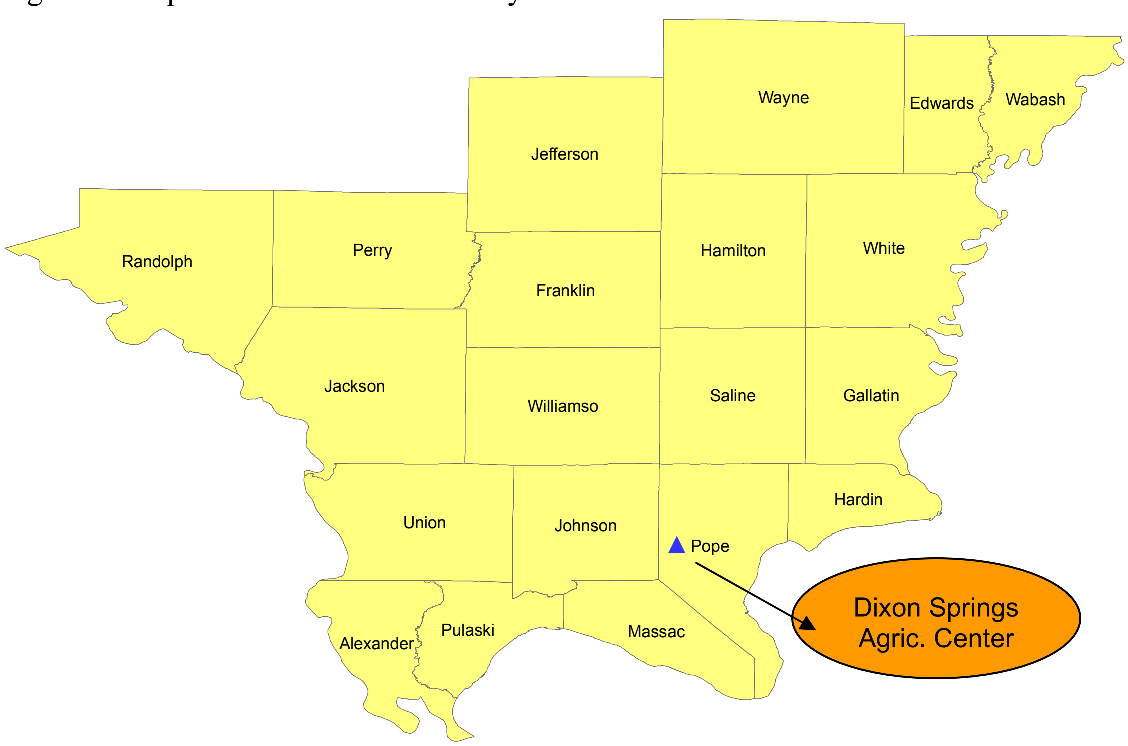
(3) DSAC is a valued resource for information, education, and help for area farmers.

Detailed Survey Results

1. Background Information of Survey Respondents

1.1 Study Area: Southern Illinois

Figure 1: Map of Southern Illinois Study Area



1.2 Respondents by Counties

- All the twenty counties were reasonably represented in this sample except Wayne and Alexander. Databases used to identify farmers did not include enough people from these two counties for full sampling.

- The average response rate across all counties was 33.7%. The highest response rate came from Union County (44.8%). The lowest response rate was from Wayne County (23.3%).

- Pope County had the highest proportion (14.4%) of the total surveys received.

Table 1: Number of surveys received by counties

Counties	*No. of Surveys Sent*	*No. of Surveys Received*	*Response Rate*	*% of Total*
Alexander	15	4	26.7%	2.1%
Edwards	30	8	26.7%	4.1%
Franklin	29	10	34.5%	5.2%
Gallatin	31	13	41.9%	6.2%
Hamilton	27	8	29.6%	4.1%
Hardin	29	11	37.9%	5.7%
Jackson	28	9	32.1%	4.6%
Jefferson	29	7	24.1%	3.6%
Johnson	29	11	37.9%	5.7%
Massac	30	12	40.0%	6.2%
Perry	28	7	25.0%	3.6%
Pope	68	28	41.2%	14.4%
Pulaski	30	8	26.7%	4.1%
Randolph	29	7	24.1%	3.6%
Saline	29	10	34.5%	4.6%
Union	29	13	44.8%	6.7%
Wabash	7	2	28.6%	1.0%
Wayne	30	7	23.3%	3.6%
White	27	11	40.7%	5.7%
Williamson	28	10	35.7%	5.2%
Total	**582**	**196**	**33.7%**	**100.0%**

1.3 Respondents by Sub-regions

To determine the variations of survey results across Southern Illinois, we aggregated the twenty counties into four sub-regions based on geographical locality (Figure 2):

- Northeast: Edwards, Hamilton, Jefferson, Wabash, Wayne, White

- Southeast: Gallatin, Hardin, Massac, Pope, Saline
- Southwest: Alexander, Johnson, Pulaski, Union
- Northwest: Franklin, Jackson, Perry, Randolph, Williamson

Figure 2: Map of Southern Illinois Study Area Sub-Regions

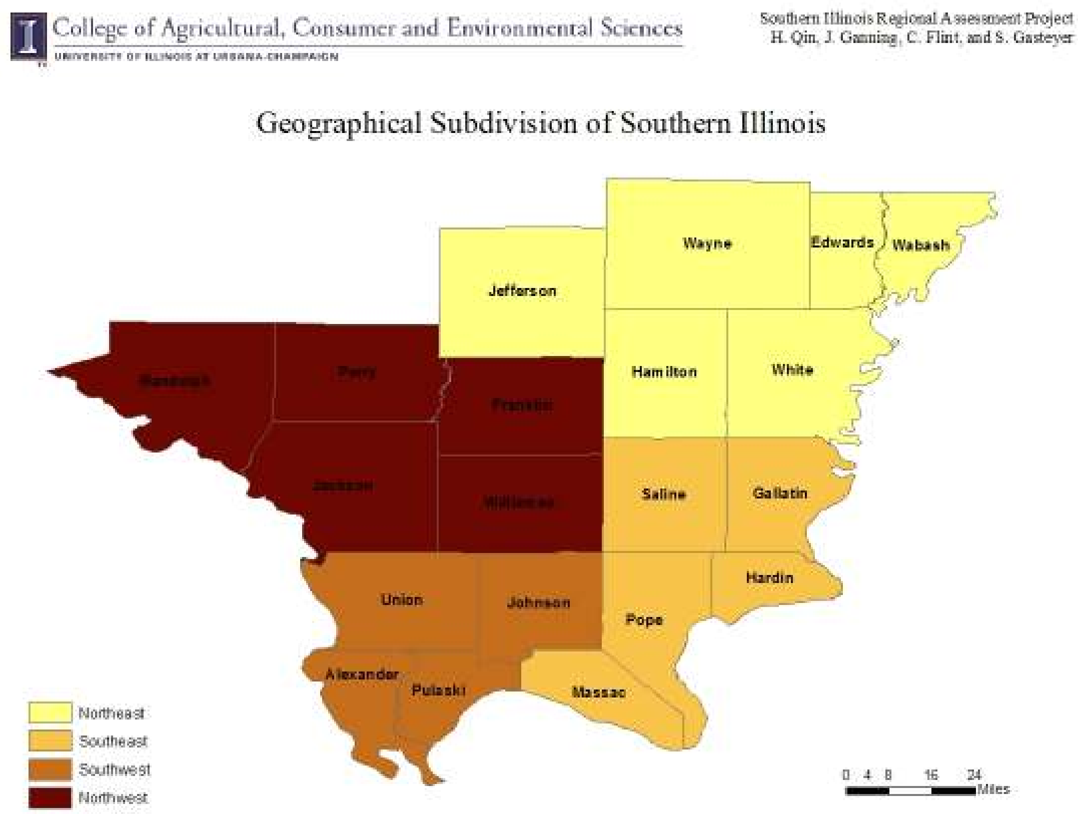


Table 2: Number of surveys received by sub-regions

Sub-region	*No. of Surveys*	*% of the Total*
Northeast	43	21.9%
Southeast	74	37.8%
Southwest	36	18.4%
Northwest	43	21.9%
Total	**196**	**100.0%**

The southeast sub-region that includes Pope County had the highest proportion (37.8%) of the total surveys received.

1.4 Descriptive Statistics of Respondents

- Of all the respondents, 174 (88.8%) were involved with farming, market gardening or agricultural production (Table 3).[1]

Table 3: Number of farmer respondents by sub-regions

Sub-regions	*No. of Surveys*	*% of the Total*
Northeast	39	22.4%
Southeast	65	37.4%
Southwest	34	19.5%
Northwest	36	20.7%
Total	**174**	**100.0%**

- The average age of respondents was 58.4, suggesting an aging farming population in the Southern Illinois region.

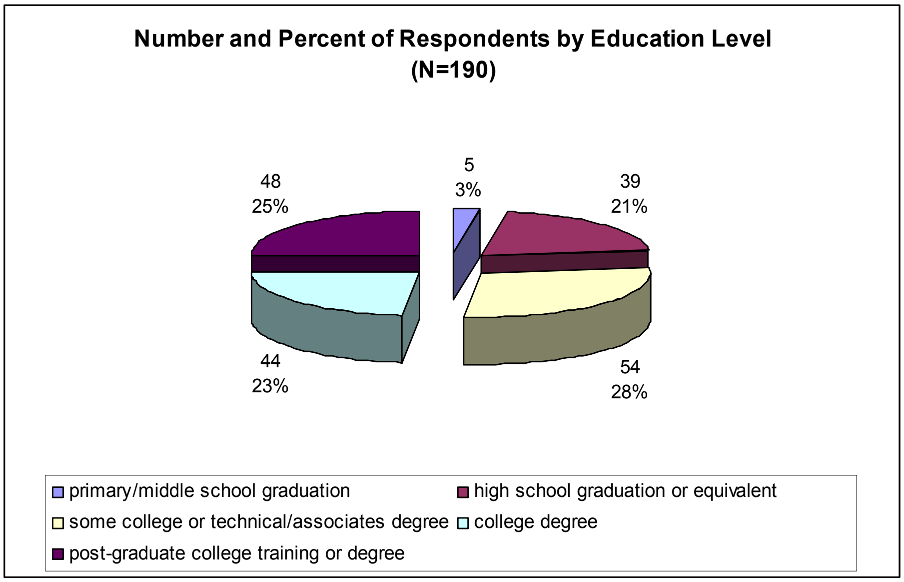
- The vast majority of respondents were male (92%), which is fairly typical for farming occupations. The proportion of female farming operators in the sample (5.9%) is much less than the Illinois state figure. In 2002, there were totally 101,574 farm operators in Illinois and 19,840 of them (19.5%) were women[2].

- Overall, the education level of respondents was quite high. Nearly half of the respondents (48.5%) reported having a college degree or higher education (see Figure 3). This statistic is four times the 2000 Southern Illinois regional average (12.0%), and much higher than the 2000 Illinois state average (26.0%).[3]

- Compared to people in other occupations, farmers normally have relatively lower job and residence mobility. This is partially confirmed by the survey data as on average respondents reported living in their current counties for about 40 years, and those involved with farming had been working in agriculture for about 31 years.

[1] Only these 174 farmer respondents answered farming related questions in the questionnaire.
[2] USDA, National Agricultural Statistics Service, 2002 Census of Agriculture
[3] U.S. Census Bureau, Census 2000

Figure 3: Number and Percent of Respondents by Education Level (N=190)

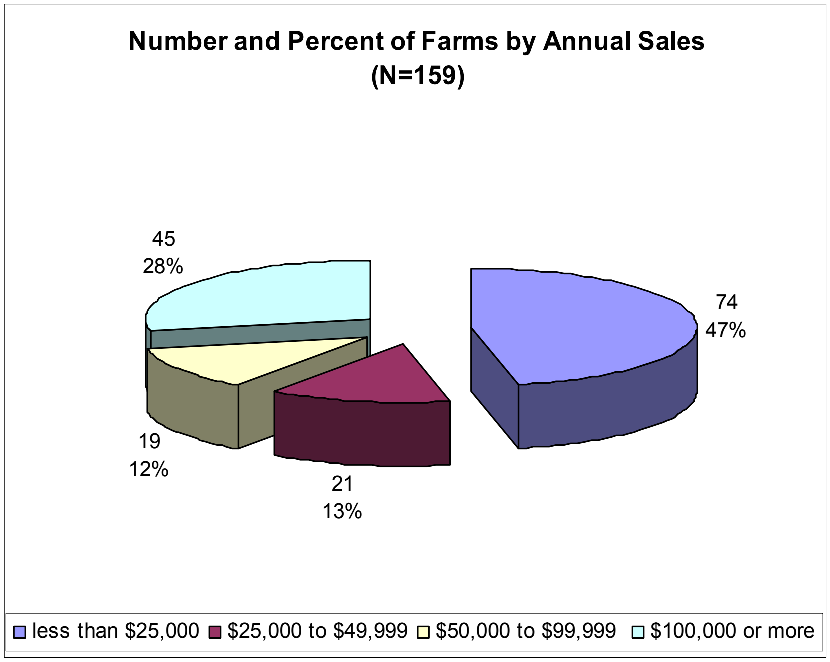


2. Annual Total Farm Sales

The mean annual farm sales of the surveyed farms was lower than the region average, which was $50,680 in 2002.[4] The variation of farm sales in the sample was very large (Figure 4). Nearly half of the farmers (46.5%) reported less than $25,000 of annual gross total sales, while over a quarter (28.3%) reported an annual market value of $100,000 or more.

[4] USDA, National Agricultural Statistics Service, 2002 Census of Agriculture

Figure 4: Number and % of Farms by Annual Sales (N=159)



3. Farm Size

The average size of the surveyed farms was 715 acres, nearly two times the Illinois state statistic in 2002 (374 acres). As can be seen from Figure 5 and Table 3, the distribution of farms with different sizes in the sample is similar to that in the state data, except that our survey included a higher proportion of large scale farms (2,000 acres or more). The annual farm sales and farm size data show that both larger farm corporations and smaller family farms are well represented in the sample.

Figure 5: Number and Percent of Farms by Size (N=161)

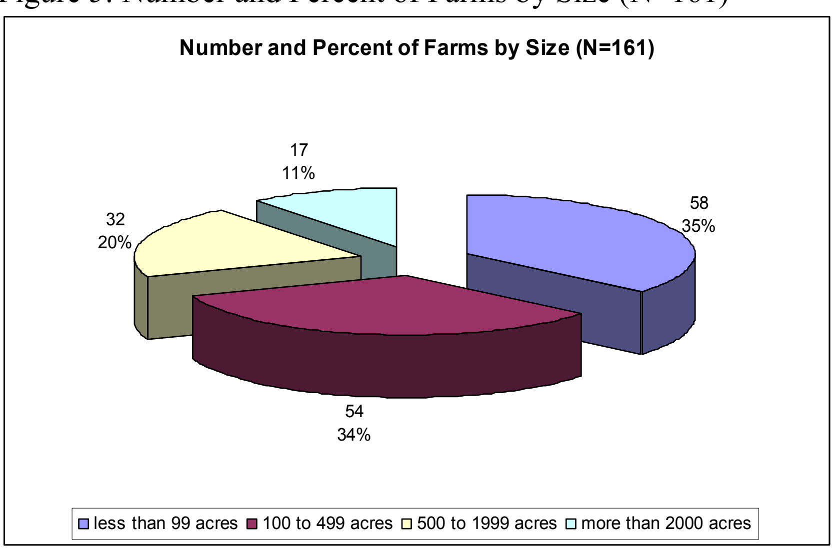


Table 3: Number of farms by size (N=165)

Farm Size (acres)	*Survey Data*		*State Data (2002)*	
	No. of Farms	*%*	*No. of Farms*	*%*
0-99	58	36.0%	29960	41.0%
100-499	54	33.5%	25565	35.0%
500-1999	32	19.9%	15743	21.6%
2000-	17	10.6%	1759	2.4%
Total	165	100.0%	73027	100.0%

4. Types of Farming Enterprises

The top five types farming business reported by the 174 farmer respondents are listed in Table 4.

Table 4: Ranking of Farming Enterprise Types of Farmer Respondents

Rank	*Types of Farming Enterprises*	*Total Farms*	*Number of Farms Reporting*	*%*
1	hay and/or alfalfa	174	82	47.1%
2	beef cattle	174	81	46.6%
3	oilseeds or grains (row crops)	174	79	45.4%
4	fruits	174	42	24.1%
5	vegetables	174	27	15.5%
6	horses	174	22	12.6%
7	goats/sheep	174	11	6.3%
8	greenhouse/bedding plants	174	8	4.6%
9	poultry (meat and/or eggs)	174	7	4.0%
10	landscape/turf	174	6	3.4%
11	aquaculture	174	6	3.4%
12	tobacco	174	2	1.1%
13	dairy (cows or goats)	174	0	0.0%

To examine the effects of farming enterprises on farmers' answers to the survey questions, we categorized farmer respondents into the following two agricultural groups based on the specific farming business they operate. While 69% of farmers surveyed said they were involved in conventional farming products such as hay, grain, and/or beef production, 52% said they engaged in some type of specialty agriculture. This is most likely an over-representation of the specialty growers in the region due to the specialty crop grower database used to identify a portion of the respondents.

- Conventional Agriculture : oilseeds and/or grains, hay and/or alfalfa, and beef cattle

- Specialty Agriculture: fruits, vegetables, tobacco, greenhouse/bedding plants, poultry (meat and/or eggs), landscape/turf, aquaculture, horses, goats/sheep, dairy (cows or goats), trees, and others (nuts, herbs, swine, bees)

5. Land in Conservation Reserve Program (CRP)

The Conservation Reserve Program (CRP) is a federal project that provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner[5]. Nearly one third (32.8%) of farmer respondents had land in the CRP program, with an average size of 82.6 acres.

6. Types of Farming Practices

Table 5 shows the top five farming practice types reported by farmer respondents.

Table 5: Ranking of Farming Practice Types of by Number of Reporting

Rank	*Types of Farming Practices*	*Total Farms*	*Number of Farms Reporting*	*Percent*
1	No till crop production	174	89	51.1%
2	Maintain grass waterways	174	81	46.6%
3	Conventional farming	174	76	43.7%
4	Grass-fed livestock – cow/calf	174	73	42.0%
5	Increase organic matter in soil	174	62	35.6%
6	Rotational grazing	174	44	25.3%
7	Integrated pest management	174	43	24.7%
8	Value-enhanced crops	174	30	17.2%
9	Feedlot cattle with grain	174	17	9.8%
10	Low-input production	174	15	8.6%
11	Sustainable agriculture	174	14	8.0%
12	Organic farming – not certified	174	9	5.2%
13	Grass-fed livestock – finishing	174	5	2.9%
14	Organic farming – certified	174	0	0.0%

- No till farming, a technique particularly designed for the region by the DSAC, was practiced in 51.1% of all surveyed farms.
- Soil erosion and degraded soil quality are serious problems in the Southern Illinois region. Increasing organic matter in soil was among the major farming activities practiced by the surveyed farmers.

- A minority (5.2%) of the surveyed farms were engaged in non-certified organic farming, and no farmers identified involvement in certified organic farming.

[5] Natural Resources Conservation Service, USDA.

7. Types of Farm Marketing

Table 6 lists the top five farming practice types reported by farmer respondents.

Table 6: Ranking of Farm Marketing Types by Number of Reporting

Rank	Types of Farming Marketing	Total Farms	Number of Farms Reporting	Percent
1	Direct marketing	174	81	46.6%
2	Sale barn/Buying station	174	58	33.3%
3	Livestock auctions	174	47	27.0%
4	Grain processor	174	27	15.5%
5	Pre-conditioned sales	174	22	12.6%
6	Wholesale local	174	21	12.1%
7	Farmers markets	174	18	10.3%
8	Roadside stands	174	15	8.6%
8	Heifer/bull sales	174	15	8.6%
10	Wholesale shipping	174	7	4.0%
11	U-Pick	174	6	3.4%
12	Community Supported Agriculture	174	4	2.3%

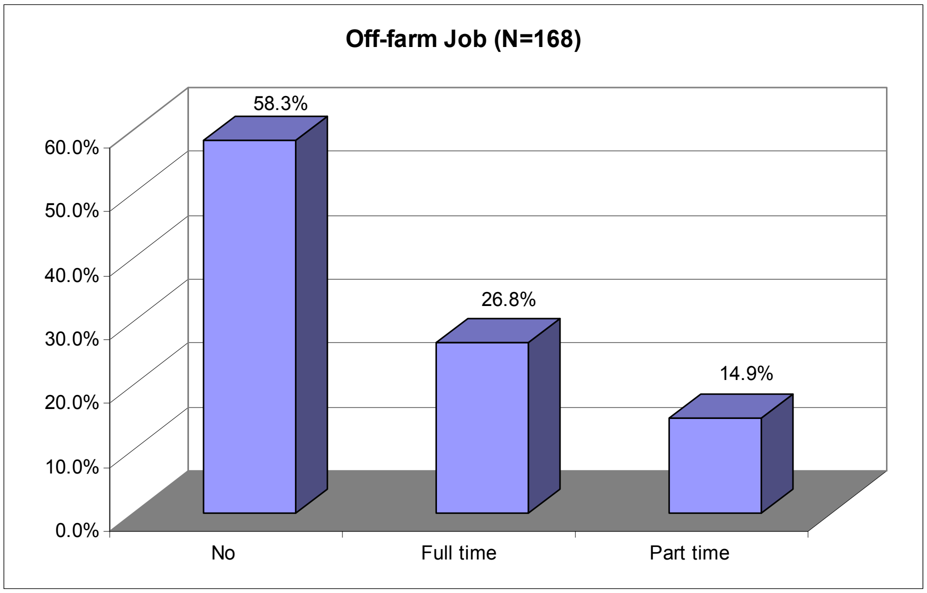
- Nearly half (46.6%) of the surveyed farms reported using direct markets. Other types of direct markets are also adopted (10.3% farmers' markets, 8.6% roadsides stands, 3.4% U-pick).

- Only four farmers indicated involvement with Community Support Agriculture (CSA).

8. Off-farm Employment

In terms of measuring off-farm employment, 42% of farmer respondents had a full- or part-time off-farm job (see Figure 6). Off-farm work contributed to a large proportion of farm income. Overall a majority of the surveyed farmers (64%) indicated that 50% or higher of their net household income came from off-farm work. Of those farmer respondents who reported off-farm work, 43.1% worked in their counties of residence and around one third (34.5%) commuted to an adjacent county, while 22.4% traveled for work across two or more counties.

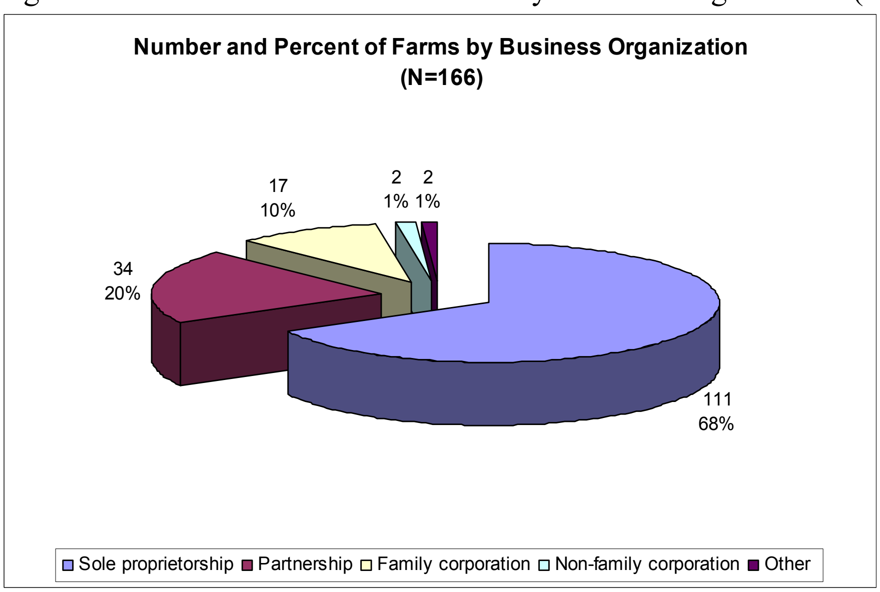
Figure 6: Off-farm Job (N=168)



9. Farm Business Organization

Overall, 78% of the surveyed farms were operated by families, either in the form of a sole proprietorship family farm or a large family corporation (see Figure 7). Over 61% of farmer respondents owned 100% of their farms, and nearly 26% reported that more than 50% of their farms are rented.

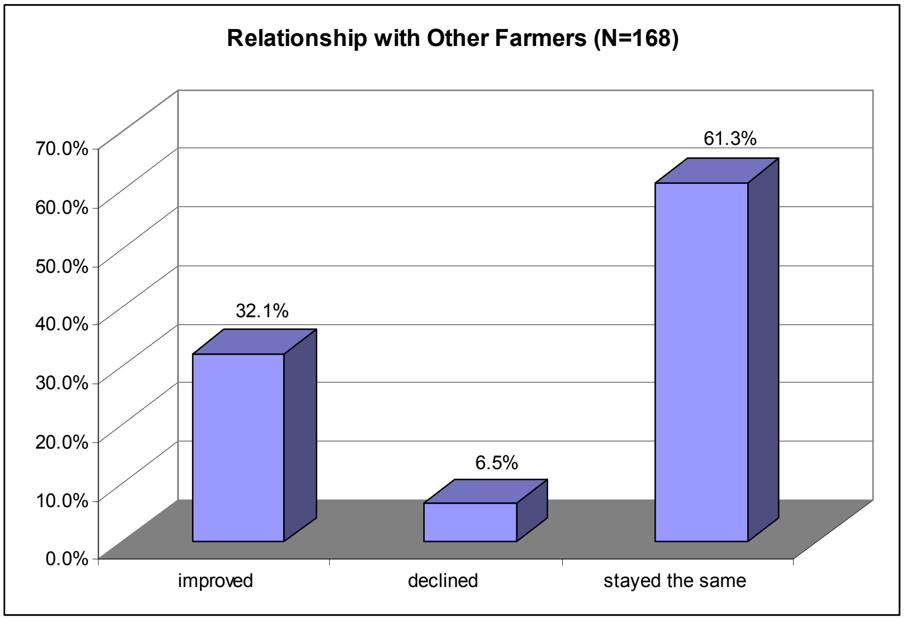
Figure 7: Number and Percent of Farms by Business Organization (N=168)



10. Relationship with Others

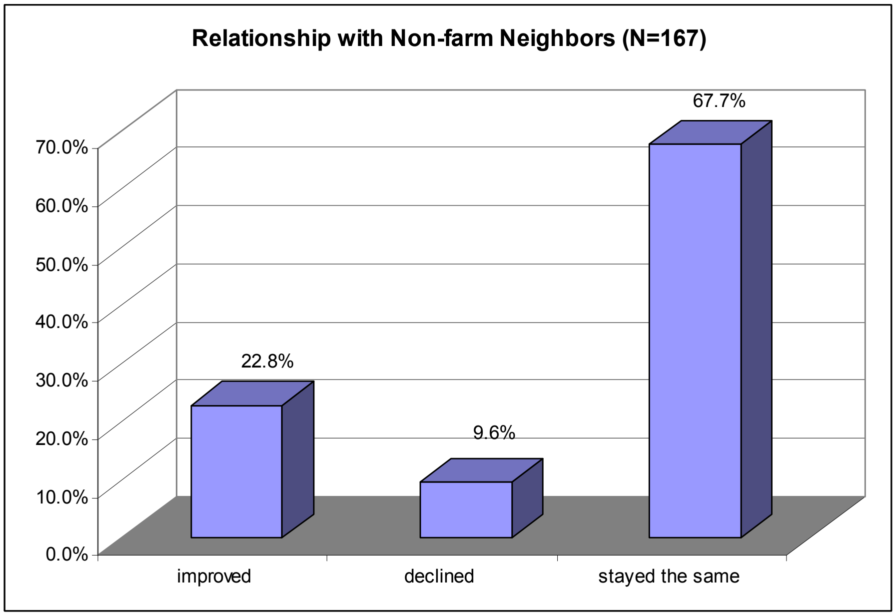
About 93% of farmer respondents indicated that their relationship with other farmers had improved or stayed the same (see Figure 8).

Figure 8: Relationship with Other Farmers



About 91% of farmer respondents indicated that their relationship with non-farm neighbors had improved or stayed the same.

Figure 9: Relationship with Non-farm Neighbors (N=167)



11. Information Sources for Farming Decision Making

11.1 Overall Results

The importance of each information source for decision making in farming is measured on a scale from 1 (not important) to 5 (very important). As shown in Table 7, university information resources were the most important for farmer respondents. Other farmers were also considered a good information source. Governmental agencies, such as Natural Resource Conservation Service and Farm Bureau, were reported to be of moderate importance. Popular media (internet, radio, TV, newspaper, etc.) were less important information sources for farmer respondents' farming decision making process.

Table 7: Ranking of Farming Information Sources by Indicated Importance

Rank	*Sources of Information*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Dixon Springs Agricultural Center	155	3.7	60.6%
2	University Extension	157	3.6	58.6%
3	University Researchers	158	3.6	57.6%
4	Field days, Workshops, Conferences	156	3.5	54.5%
5	Other Farmers	162	3.5	49.4%
6	Fertilizer/Pesticide dealers	158	3.3	43.7%
7	Natural Resource Conservation Service	153	3.0	39.9%
8	Farm Bureau	161	2.9	34.8%
9	Seed Companies	154	3.0	33.1%
10	Internet (listserves, websites)	146	2.4	25.3%
11	Trade Organizations	152	2.7	24.3%
12	Local and National Farm Organizations	155	2.6	22.6%
13	Banks or Loan Officers	157	2.4	21.0%
14	Radio or TV	153	2.4	15.7%
15	Wholesalers and Marketers	155	2.4	14.8%
16	Newspaper	153	2.3	13.7%

11.2 Breakdown of Response by Sub-region

The breakdown of response by sub-region category generated similar findings to the overall results. University information resources and local farmer community were the most important sources for farming decision making in all four sub-regions. However, comparing answers by different sub-region suggests some variation of the importance of DSAC as a farming information source. The highest proportion of farmers indicating DSAC as important to very important (4-5 on a scale from 1-5) came from the Southeast sub-region (where DSAC is located). But for the Northeast area, DSAC was not among the most important information sources for farming decision making. The difference of indicated importance of DSAC for Southeast and Northwest is statistically significant at the .05 level (T-test of sample means=2.845, df=86, p=.006; Chi-square test=9.963, df=4, p=.041).

Table 8: Top Five Farming Information Sources by Indicated Importance (Northeast)

Rank	*Sources of Information*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Field days, Workshops, Conferences	37	3.5	62.2%
2	Dixon Springs Agricultural Center	35	3.6	57.1%
3	University Extension	36	3.7	55.6%
4	University Researchers	36	3.6	50.0%
5	Other Farmers	35	3.3	42.9%

Table 9: Top Five Farming Information Sources by Indicated Importance (Southeast)

Rank	*Sources of Information*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Dixon Springs Agricultural Center	59	4.0	71.2%
2	University Researchers	57	3.8	70.2%
3	University Extension	56	3.7	66.1%
4	Other Farmers	61	3.7	52.5%
5	Field days, Workshops, Conferences	58	3.5	52.2%

Table 10: Top Five Farming Information Sources by Indicated Importance (Southwest)

Rank	*Sources of Information*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Dixon Springs Agricultural Center	32	3.6	62.5%
1	University Extension	32	3.6	62.5%
3	Field days, Workshops, Conferences	33	3.5	48.5%
4	Other Farmers	33	3.4	42.4%
5	University Researchers	34	3.3	44.1%

Table 11: Top Five Farming Information Sources by Indicated Importance (Northwest)

Rank	*Sources of Information*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	University Researchers	31	3.6	58.1%
2	Other Farmers	33	3.7	57.6%
3	Field days, Workshops, Conferences	28	3.5	50.0%
4	University extension	33	3.2	45.5%
5	Fertilizer/pesticide dealers	32	3.3	43.7%

Note: Dixon Springs Agricultural Center: N=29, Mean=3.2, % of reporting 4 or 5=41.4%.

11.3 Breakdown of Response Regarding Information Sources by Farming Enterprise Category

The responses of the two farming enterprise groups were similar, but DSAC was a more important information source for farmer respondents in conventional agriculture (65.4% reporting important or very important) than for those in specialty agriculture (55.8% reporting important or very important). The statistical test of this difference was statistically significant (T-test of sample means=1.906, df=153, p=.058; Chi-square test=8.866, df=4, p=.065).

Table 12: Top Five Farming Information Sources by Indicated Importance (Conventional Agriculture)

Rank	*Sources of Information*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Dixon Springs Agricultural Center	78	3.9	65.4%
2	Field days, Workshops, Conferences	76	3.4	63.2%
3	University Extension	75	3.6	56.0%
4	University Researchers	76	3.7	51.3%
5	Other Farmers	80	3.6	47.5%

Table 13: Top Five Farming Information Sources by Indicated Importance (Specialty Agriculture)

Rank	*Sources of Information*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	University Extension	82	3.6	61.0%
2	University Researchers	82	3.5	57.5%
3	Dixon Springs Agricultural Center	77	3.5	55.8%
4	Field days, Workshops, Conferences	80	3.5	52.4%
5	Other Farmers	82	3.5	51.2%

12. Importance of DSAC

One survey question asked respondents, "How important is the Dixon Springs Agricultural Center to farming and land management in Southern Illinois?" Possible answers ranged from 1 (not important) to 5 (very important).

12.1 Overall Results

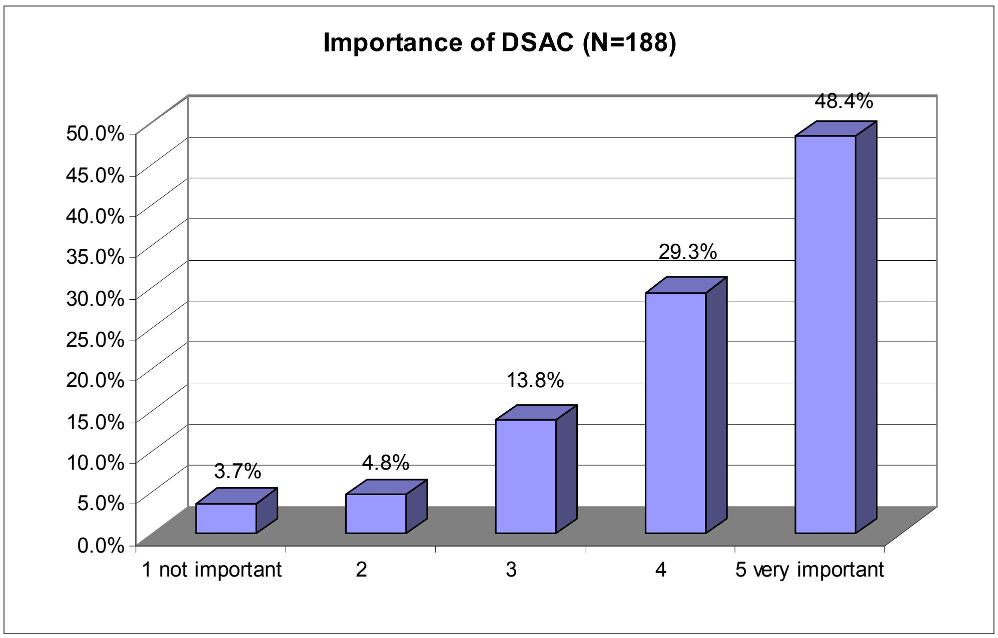
The mean value of the importance of DSAC was 4.1. A vast majority of respondents (77.7%) indicated that DSAC was important to very important (4-5) to Southern Illinois farming and land management (see Figure 10). We also asked respondents to explain their answer in a few sentences. The following quotes summarize the overwhelming response from Southern Illinois farmers:

- *DSAC is integral part of community and region which provides resources and support that would otherwise be inaccessible to residents.*
- *[DSAC is] more important than any other thing for Ag in Southern IL.*
- *The DSAC has done more for Pope, Hardin, and Johnson counties than any other entity in Southern IL*
- *The DSAC is important to all of Southern Illinois counties.*

To sum up, there were three key dimensions that are clear from respondents' perceptions of the DSAC:

- DSAC provides important information on variety trials and best practices.
- DSAC's location in Southern Illinois is critical.
- DSAC is a valued resource for information, education, and help for area farmers.

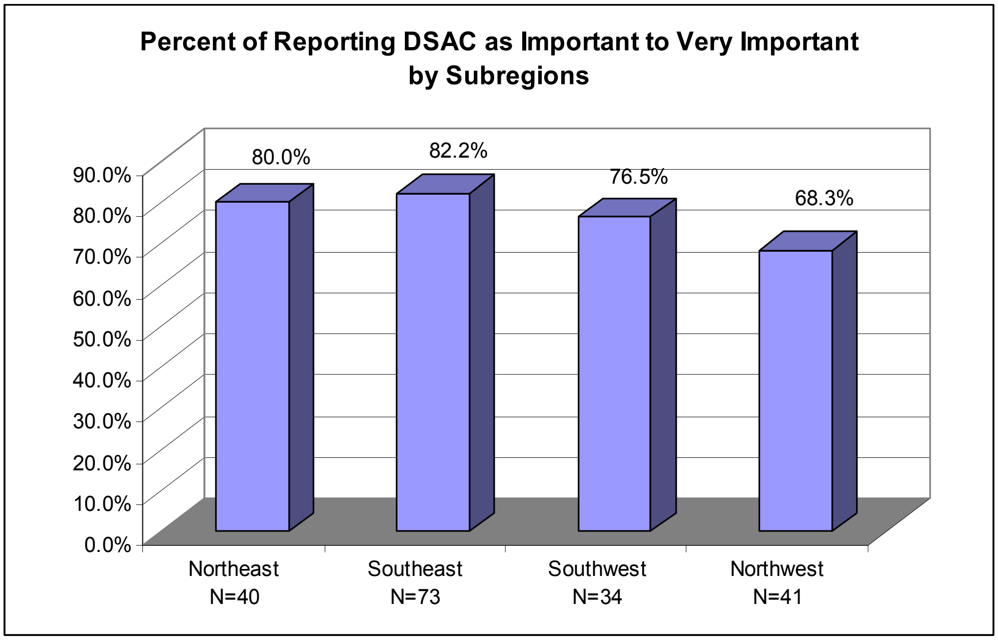
Figure 10: Importance of DSAC (N=188)



12.2 Breakdown of Response by Sub-region

Figure 11 shows the spatial variation of perceived importance of DSAC among the four sub-regions. The Southeast area had the highest proportion (82.2%) of respondents indicating DSAC as important to very important to local farming, while the Northwest area had the lowest (68.3%). These results are consistent with previous findings on the importance of DSAC for farming information. However, this difference between the two sub-regions is not statistically significant (T-test of sample means=1.532, df=112, p=.128; Chi-square test=5.517, df=4, p=.238).

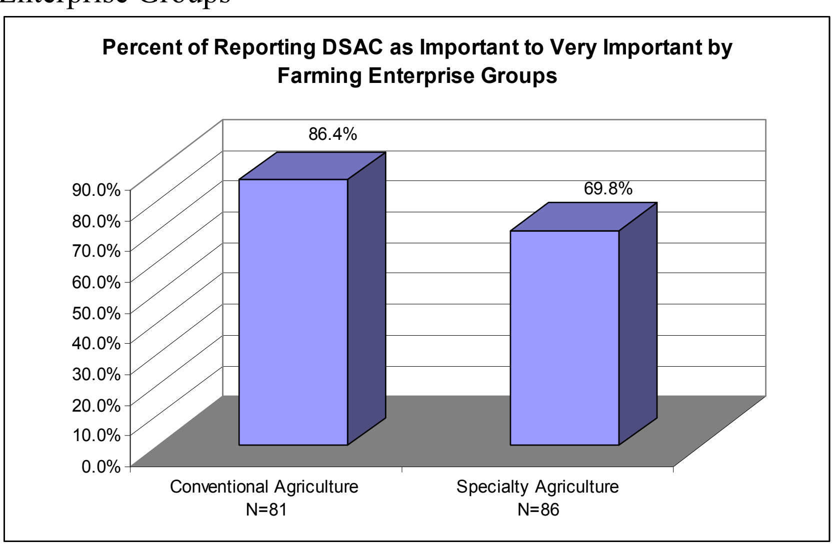
Figure 11: Percent Reporting DSAC as Important to Very Important by Sub-regions



12.3 Breakdown of Response by Farming Enterprise Category

Consistently, we found differences between the two agricultural groups with regard to the perceived importance of DSAC. Farmer respondents in conventional agriculture (86.4%) considered DSAC to be more important to Southern Illinois farming and land management than those in specialty agriculture (69.8%). This difference is statistically significant (T-test of sample means=2.830, df=146, p=.005; Chi-square test=9.820, df=4, p=.044).

Figure 12: Percent Reporting DSAC as Important to Very Important by Farming Enterprise Groups



13. Perceived Threats for Southern Illinois

13.1. Overall Results

The importance of issues presenting threats for Southern Illinois was measured on a scale from 1 (not a problem) to 5 (serious problem). Generally speaking, the results show a broad recognition of economic (employment, land price, and market), social (healthcare, family farm, and education), and environmental (soil erosion, water quality, and wildlife management) threats for Southern Illinois. As can be seen in Table 14, the most serious problem reported by respondents was healthcare coverage. Despite the need of medical care, many people in this region are unable to obtain health insurance coverage. In 2003, the average rate of individuals without health insurance in Southern Illinois was 17.0%, higher than the state rate of 13.7% (13.9% in 2006)[1]. Other major threats for the region highlighted by respondents include the maintenance of family farms, employment opportunities, soil erosion, and increasing land prices. The following selected quotes of in-depth interviews corroborate the mailing survey results (see report on farming interview findings).

- Maintaining Family Farms

"How are the farmers today gonna teach the next generation or two generations down? The age of the farmer is gradually increasing and increasing and it should be the other way. …Can we make farming available cost wise that that young person can make a living?"

- Employment Opportunities

"We have a surplus of labor. We have a number of people that are underemployed or unemployed. We have people with a good work ethic and a willingness to work. We just need jobs and opportunities."

- Increasing Land Prices

"Land prices are a big problem. For the area, it's getting almost untouchable for someone to start."

[1] Illinois Project for Local Assessment of Needs (IPLAN) data system; U.S. Census Bureau: Income, Poverty, and Health Insurance Coverage, 2006.

Table 14: Ranking of Perceived Threats for SI by Indicated Seriousness

Rank	*Threats for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Healthcare	180	4.0	70.0%
2	Maintaining family farms	190	4.0	69.5%
3	Employment opportunities	187	3.9	69.5%
4	Soil erosion	184	3.8	67.4%
5	Increasing land prices	189	3.6	59.3%
6	Commodity market price fluctuations	178	3.5	52.2%
7	Water quality	180	3.4	50.6%
8	Wildlife management	182	3.4	49.5%
9	Access to agricultural markets	183	3.4	47.0%
10	Education opportunities	183	3.2	45.4%
11	National forest ownership/management	177	3.3	45.2%
12	Labor availability	184	3.3	44.0%
13	Out-migration (declining population)	173	3.1	41.6%
14	Internet access	178	2.9	33.1%
15	Coal mining	181	2.9	32.6%
16	In-migration (growing population)	180	2.8	28.9%
17	Coal-bed methane production	163	2.8	28.2%

13.2 Breakdown of Perceived Threat Responses by Sub-region

The results from the breakdown of perceived threats by sub-region show similarities. Maintaining family farms, employment opportunities, healthcare, and soil erosion were the most important threats across the region. Comparison of responses from different sub-regions shows spatial variations in respondents' perceived threats for Southern Illinois. In the Northeast area which is mainly composed of agricultural counties with large-scale farms, soil erosion was considered to be the most serious problem (71.1% reporting moderately serious to serious). National forest ownership and management was seen as a major threat in Southeast. This sub-region has a very large share of land cover in the Shawnee National Forest. There is an increasing tension between the federal forest management and local agricultural development in this area (see report on forest resources). Water quality was perceived as presenting a serious threat for the Northwest area. This finding was partially confirmed by the results of in-depth interviews in Williamson County (see report on farming interviews).

Table 15: Top Five Perceived Threats for SI by Indicated Importance (Northeast)

Rank	*Threats for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Soil erosion	38	3.8	71.1%
2	Increasing land prices	40	3.8	65.0%
3	Maintaining family farms	40	3.7	62.5%
4	Healthcare	38	3.8	60.5%
5	Employment opportunities	41	3.6	56.1%

Table 16: Top Five Perceived Threats for SI by Indicated Importance (Southeast)

Rank	*Threats for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Maintaining family farms	73	4.2	75.3%
2	Employment opportunities	72	4.0	73.6%
3	Healthcare	68	4.1	70.6%
4	National forest ownership/management	64	3.9	67.2%
5	Soil erosion	70	3.8	64.3%

Table 17: Top Five Perceived Threats for SI by Indicated Importance (Southwest)

Rank	*Threats for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Maintaining family farms	34	4.0	76.5%
2	Employment opportunities	33	4.0	69.7%
3	Healthcare	32	3.8	68.7%
4	Soil erosion	33	3.7	63.6%
4	Increasing land prices	33	3.7	63.6%

Table 18: Top Five Perceived Threats for SI by Indicated Importance (Northwest)

Rank	*Threats for Southern Illinois*	*N*	*Mean*	*Percent Reporting 4-5*
1	Healthcare	42	4.0	78.6%
2	Soil erosion	43	3.9	72.1%
3	Employment opportunities	41	3.9	75.6%
4	Maintaining family farms	43	3.8	60.5%
5	Water quality	41	3.6	58.5%

13.3 Breakdown of Perceived Threat Responses by Farming Enterprise Category

Overall, farmer respondents in the two agricultural groups had similar views of threats for Southern Illinois (see Tables 19 and 20). However, some economic issues such as employment opportunities, maintaining family farms, and increasing land prices appeared to be more serious problems for farmers in conventional agriculture than for those in specialty agriculture.

Table 19: Top Five Perceived Threats for SI by Indicated Importance (Conventional Agriculture)

Rank	*Threats for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Employment opportunities	79	4.1	77.2%
2	Maintaining family farms	82	4.1	75.6%
3	Soil erosion	79	3.8	68.4%
4	Increasing land prices	79	3.8	67.1%
5	Healthcare	76	3.9	64.5%

Table 20: Top Five Perceived Threats for SI by Indicated Importance (Specialty Agriculture)

Rank	*Threats for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Healthcare	82	4.0	75.6%
2	Soil erosion	85	3.8	65.9%
3	Employment opportunities	86	3.7	64.0%
4	Maintaining family farms	86	3.9	62.8%
5	Wildlife management	84	3.6	57.1%

14. Perceived Opportunities for Southern Illinois

14.1. Overall Results

The importance of issues presenting opportunities for Southern Illinois was measured on a scale from 1 (not a viable opportunity) to 5 (important opportunity) (see Table 21). As corn is becoming a major raw material for bio-fuels, it is not surprising that a vast majority of respondents (70.4%) indicated that bio-energy production provides great opportunity for Southern Illinois. The abundant natural endowment of this region also holds large potential for recreational and tourism development as suggested in the survey results. Specialty agriculture, value-added livestock production, and the recovery of coal mining industry were viewed by a majority of respondents as important opportunities for

Southern Illinois as well. These results were also confirmed by our in-depth interviews (see report on farming interviews):

- Recreational Hunting

"Recreational hunting and fishing are just exploding. It's like you can't charge them enough."

- Specialty Crops

"Young people could support themselves with specialty crops although it's hard work."

- Coal Mining

"Coal mining is an opportunity. Coal mines are needed but not longwall mining."

Table 21: Ranking of Perceived Opportunities for SI by Indicated Importance

Rank	Opportunities for Southern Illinois	N	Mean (1-5)	Percent Reporting 4-5
1	Bio-fuels development	189	4.0	70.4%
2	Recreational hunting	185	3.7	60.0%
3	Specialty crop production	185	3.7	57.8%
4	Tourism	179	3.7	57.5%
5	Coal mining	183	3.7	56.8%
6	Agri-tourism	182	3.6	53.3%
7	Value-added livestock production	181	3.6	50.3%
8	Commercial wildlife production	180	3.3	49.4%
9	Coal-bed methane production	171	3.3	40.4%
10	Organic agricultural production	177	2.9	31.1%

14.2 Breakdown of Perceived Opportunities Responses by Sub-region

The breakdown of perceived opportunities in Tables 22-25 shows that bio-fuels production, recreational hunting, and tourism are perceived as favorable opportunities by respondents across sub-regions. Agri-tourism was reported as a major opportunity in the more forested Southeast and the more economically disadvantaged Southwest. Coal mining was considered as a less important opportunity in the Southwest as compared with other sub-regions, probably due to the absence of coal mines in that area.

Table 22: Top Five Perceived Opportunities for SI by Indicated Importance (Northeast)

Rank	*Opportunities for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Recreational hunting	39	3.9	66.7%
2	Bio-fuels development	41	3.9	65.9%
3	Coal mining	39	3.8	59.0%
4	Specialty crop production	40	3.6	55.0%
5	Tourism	39	3.4	51.3%

Table 23: Top Five Perceived Opportunities for SI by Indicated Importance (Southeast)

Rank	*Opportunities for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Bio-fuels development	71	4.0	69.0%
2	Tourism	67	3.7	62.7%
3	Coal mining	71	3.6	57.7%
4	Recreational hunting	70	3.6	57.1%
5	Agri-tourism	69	3.6	56.5%

Table 24: Top Five Perceived Opportunities for SI by Indicated Importance (Southwest)

Rank	*Opportunities for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Bio-fuels development	35	4.2	77.1%
2	Specialty crop production	35	3.8	71.4%
3	Agri-tourism	34	3.8	61.8%
4	Tourism	33	3.8	57.6%
5	Recreational hunting	34	3.8	55.9%

Table 25: Top Five Perceived Opportunities for SI by Indicated Importance (Northwest)

Rank	*Opportunities for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Bio-fuels development	42	3.9	71.4%
2	Recreational hunting	42	3.8	61.9%
3	Specialty crop production	41	3.7	61.0%
4	Coal mining	42	3.8	59.5%
5	Tourism	40	3.7	55.0%

14.3 Breakdown of Perceived Opportunities Responses by Farming Enterprise Category

Comparison of Tables 26 and 27 shows that farmer respondents in conventional agriculture favored bio-fuels development more than those in specialty agriculture.

Farmers growing raw crops and grains were likely to be more involved in the bio-energy production than specialty farmers. Not surprisingly, specialty crop production was indicated as the greatest opportunity by farmer respondents in the specialty agriculture group (67.4% reporting 4-5).

Table 26: Top Five Perceived Opportunities for SI by Indicated Importance (Conventional Agriculture)[6]

Rank	*Opportunities for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Bio-fuels development	80	4.2	76.2%
2	Recreational hunting	79	3.7	59.5%
3	Tourism	76	3.5	55.3%
4	Coal mining	80	3.6	52.5%
5	Specialty crop production[1]	77	3.5	49.4%

Table 27: Top Five Perceived Opportunities for SI by Indicated Importance (Specialty Agriculture)

Rank	*Opportunities for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	Specialty crop production	86	3.9	67.4%
2	Bio-fuels development	87	3.8	64.4%
3	Recreational hunting	85	3.7	61.2%
4	Coal mining	81	3.7	60.5%
5	Tourism	82	3.7	57.3%

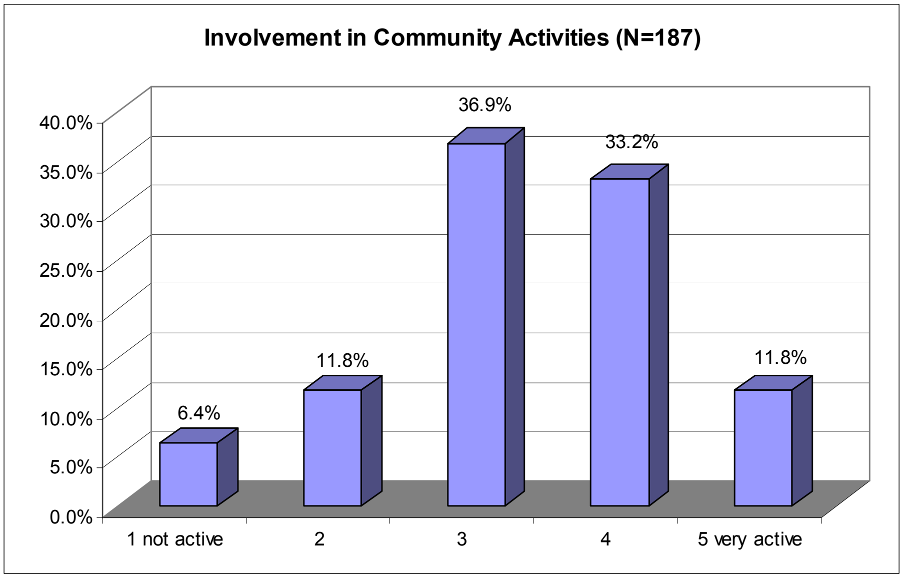
15. Community Activeness

15.1. Community Involvement

We asked respondents to describe their personal level of involvement in community or local area activities. The scale ranged from 1 (not active) to 5 (very active). The mean scale of respondents' community involvement was 3.4 (range 1-5) (see Figure 13). Less than half (45%) of respondents indicated active or very active community involvement (scale 4-5).

[6] For the conventional agriculture respondents, "value-added livestock production" has a slightly lower % of reporting 4-5 (48.7%), but a higher mean value (3.6).

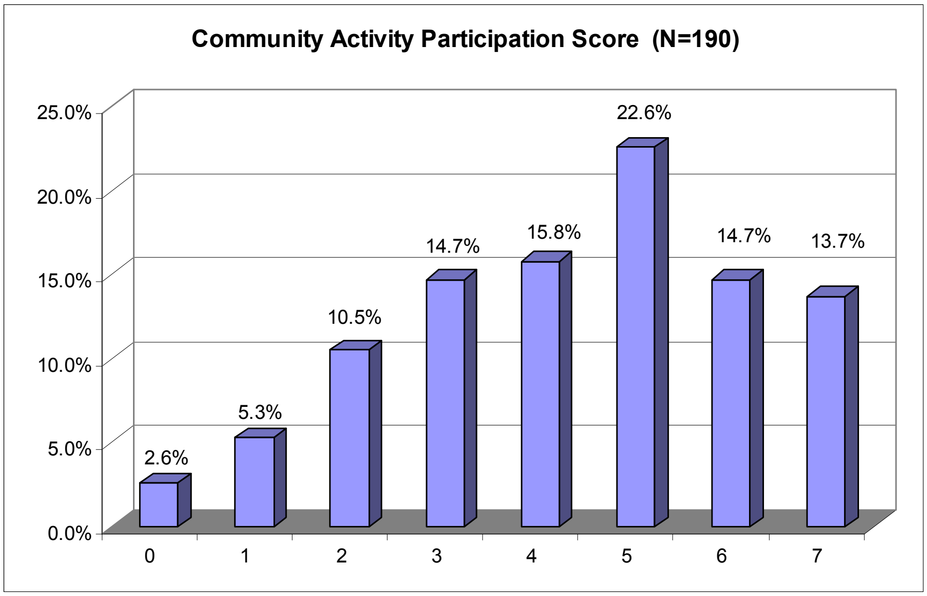
Figure 13: Involvement in Community Activities (N=187)



15.2. Participation in Community Activities

Respondents were also asked if they participated in any of the following seven general types of community activities during the past twelve months: attending a local community event, contacting a public official about a community issue, working with others to address a community issue, attending a public meeting in community, serving as an officer or a leader in a community organization, serving in an elected or appointed local government capacity, and voting in a local election. We summed each respondent's answers into an activity participation score ranging from 0 to 7. The mean score of respondents' participation in community activities is 4.3 (range 0-7). About half (51.1%) of the respondents had a score of 5 to 7 (see Figure 14).

Figure 14: Community Activity Participation Score (N=190)



15.3. Perceptions of Community

Finally, we asked survey respondents to rate their communities using five different scales as a place to live, to visit, to work, to do business, and to raise children. Respondents perceived community as a place for family life rather than economic activities. A majority of respondents agreed or strongly agreed that their community was a place to raise children (81.0%) or to live (78.5%). Less than half of the respondents rated community highly as a place to do business or to work (37.0% and 36.8% respectively).

Table 28: Ranking of Perceptions of Community by Response

Rank	*Opportunities for Southern Illinois*	*N*	*Mean (1-5)*	*Percent Reporting 4-5*
1	As a place to raise children	184	4.2	81.0%
2	As a place to live	186	4.1	78.5%
3	As a place to visit	183	3.4	50.8%
4	As a place to do business	184	3.0	37.0%
5	As a place to work	185	2.9	36.8%