

PREPARED FOR

**KANE COUNTY PLANNING DIVISION** 







**KANE COUNTY** LIVESTOCK **MARKET ASSESSMENT** 

**FINAL REPORT** 

2024



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## PROJECT OVERVIEW

This report represents a full synthesis of the research completed during a livestock market assessment of Kane County producers. The research was conducted between June 2023 and April 2024. The following report includes:

- 1. A detailed accounting of the methodology used in each phase of research (secondary, primary)
- 2. A summary of the inputs, insights, and data collected in each phase of research
- 3. A summary of the conclusions and/or recommendations reached from analyzing the inputs collected
- 4. Retail demand analysis for meat and meat products
- 5. Livestock market strategies and priorities for County action

### Project Background

Kane County, Illinois, has a long and reliable record of supporting agricultural producers in ways that enable more locally produced foods to reach more people in Kane County. These initiatives stem from the Growing for Kane Ordinance that has its origins in a community Health Impact Assessment that recommended programs and policies that have positive economic and health impacts for residents and stimulate local food production.

Through survey findings conducted after the COVID-19 pandemic in 2022, the County found that reduced access to processing facilities was the top concern among local livestock farmers working to bring their products to market. Additionally, producers have also identified the high cost of material inputs, access to buyers, and availability of labor as additional challenges. Kane County issued a request for proposals on December 6, 2022, for a qualified consultant to conduct an agricultural market assessment for livestock products produced and sold within the regional market. New Venture Advisors (NVA) was awarded the project on March 15, 2023. NVA has an extended relationship with Kane County and has contributed to or led several projects within the county over the past decade.

### Assessment Goals

The goal of this assessment is to identify untapped market opportunities for Kane County livestock producers to greater support the local meat industry and solve for challenges. The assessment focused on three key information areas:

- production capacity analysis
- processing capacity, demand, and landscape analysis
- demand analysis

The assessment will also be a tool for local livestock operators and processors, providing actionable data and guidance to support the overall meat industry.

### Scope and Timeline

The assessment was designed in four major phases with four research areas. The project began in June 2023 and was completed in April 2024.

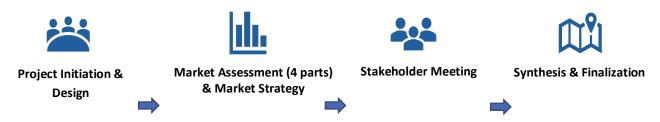


Table 1: Project Timeline

PROJECT TIMELINE	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	JAN	FEB	MAR	APR
Project initiation											
Project design and research plan											
Part 1: Production capacity analysis											
Part 2: Demand analysis											
Part 3: Processing capacity analysis											
Ag committee presentation											
Part 4: Market access strategies and system model											
Stakeholder meeting											
Synthesis and finalization											

### Project Team

Table 2: Kane Livestock Assessment Project Team

Kane County Development and Community Services Department

- Matt Tansley, Planner
- Mark VanKerkhoff, AIA, Director

New Venture Advisors LLC

- Kathy Nyquist, Principal
- Andrea Carbine, Project Lead
- Caroline Myran, Research Lead
- Maura Rapkin, Research Analyst
- Emmy Nyquist, Research Support

- Sheree Goertzen, Research Analyst
- Claudia Yang, Financial Analyst
- Deb Wilkinson, Project Administration
- Christian Vetter, Retail Analyst

## REGIONAL AND AGRICULTURAL LANDSCAPE

### Regional Demographics

Kane County is in the northeast corner of Illinois. Geneva, the county seat, is approximately fifty miles west of Chicago. Kane County slightly decreased in population from 515,520 in 2010 to 514,982 in 2023. Of the population, 86.0 percent are White alone, 6 percent are Black, 4.7 percent are Asian, and 33.1 percent are Latinx.<sup>1</sup>

With 69.6 percent of the population in the labor force, the median income in Kane County is \$96,400, which is higher than the median for the state of Illinois at \$78,433. In Kane County, 8.1 percent of the population is in poverty compared to the state average of 11.9 percent. However, as of June 2023, the unemployment rate, at 4.9 percent, was slightly above the state rate of 4.5 percent.<sup>2</sup>

### Overview of Agriculture Landscape

Illinois is home to 71,213 farm operations, a 2 percent decrease from 2017; of these, 17,078 are livestock and poultry operations. The number of livestock and poultry operations decreased by 13.8 percent from 2017 to 2022.<sup>3</sup>

Table 3: Agriculture Landscape in the Northeast Region

	Kane	Cook	DeKalb	DuPage	Kendall	Lake	McHenry
Farm operations (#)	509	154	807	60	383	306	828
Change from 2017	-16%	-15%	4%	-22%	22%	1%	-6%
Livestock farms (#)	152	60	169	31	68	132	366
Livestock sales (\$)	\$58,190,000	\$3,010,000	\$166,256,000	\$93,000	\$856,000	\$6,045,000	\$30,827,000
% livestock sales of total ag sales	20.5%	13.4%	30.6%	1.3%	0.6%	12.9%	12.6%
% acres as pastureland	2.7%	5.6%	0.5%	25.0%	0.7%	9.4%	5.8%
Average income per farm (\$)	\$178,758	\$54,979	\$211,344	\$65,521	\$136,315	\$39,026	\$77,666
Sell direct-to-consumer	72	36	42	17	27	62	160
Sell direct-to-wholesale channels	18	13	8	0	3	8	29

<sup>&</sup>lt;sup>1</sup> U.S. Census Bureau, "Population Estimates, July 1, 2023 (V2023) —Kane County, IL," Quick Facts, https://www.census.gov/quickfacts/fact/table/kanecountyillinois#.

<sup>&</sup>lt;sup>2</sup> Illinois Department of Employment Security, "Illinois Unemployment Rate by County," https://ides.illinois.gov/content/dam/soi/en/web/ides/labor\_market\_information/local\_area\_unemploymentstatisticslaus/countymap\_aa.pdf.

<sup>&</sup>lt;sup>3</sup> USDA National Agricultural Statistics Service, 2022 Census of Agriculture, State-Level Data Illinois, accessed March 25, 2024, https://www.nass.usda.gov/Publications/AgCensus/2022/Full\_Report/Volume\_1,\_Chapter\_1\_State\_Level/Illinois/.

The Upper Northeast region, which includes, Kane, Cook, DeKalb, DuPage, Kendall, Lake, and McHenry Counties, accounts for 4 percent of farm operations in Illinois with 3,047 operations, a 3 percent decrease from 2017 to 2022. Approximately one in three farms in the region are livestock operations, with a total of \$207,087,000 in sales. Only 2.5 percent of the 857,194 acres in production are used as pastureland. <sup>4</sup>

The average income per operation in the Upper Northeast region is \$97,475, which is significantly lower than the state average of \$140,625. Other characteristics in the region are 2 percent of farms are certified organic, 168 operations practice rotational grazing management, and 14 percent of farms sell direct-to-consumer and 2.6 percent sell into wholesale channels.<sup>5</sup>

### Landscape of Meat Production and Supply

From 2017 to 2022, beef operations decreased from 282 to 240, and the number of pig operations increased from 115 to 118. Table 4 is a breakdown of the operations by size of inventory.<sup>6</sup>

Table 4: Meat Production and Supply

	Kane	Cook	DeKalb	DuPage	Kendall	Lake	McHenry
Cattle, beef inventory	1,064	152	994	2 (D)	836	11 (D)	1,827
Cattle, beef operations	41	14	60	2	23	2	98
inventory 1–20	28	13	40	2	15	2	77
inventory 20–100	10	1	20	0	5	0	15
inventory 100+	3	0	0	0	3	0	6
Pig inventory	(D)	23	291,168	11	56	10	14,918
Pig operations	12	5	34	9	6	5	47
inventory 1–24	9	5	3	9	6	5	27
inventory 25–99	0	0	1	0	0	0	12
inventory 100–999	0	0	0	0	0	0	4
inventory 1000+	3	0	30	0	0	0	4

<sup>\*(</sup>D) exact numbers are withheld to protect individual businesses.

As illustrated in figure 1, most beef operations are small with under twenty head, whereas pig operations are split between very small (under twenty-four head) and large (over one thousand head).<sup>7</sup>

<sup>5</sup> Ibid.

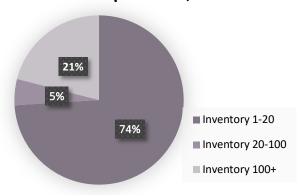
<sup>&</sup>lt;sup>4</sup> Ibid.

<sup>&</sup>lt;sup>6</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> Ibid.

## Size of Beef Operations, 2022

## Size of Hog Operations, 2022



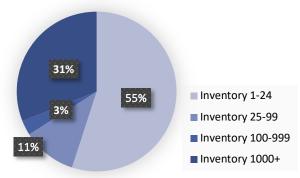


Figure 1: Size of Beef and Hog Operations by Inventory

Other livestock and poultry operations in the Upper Northeast region include 119 sheep, 59 goat (meat), 51 dairy (cattle), and 500 poultry operations (which includes layers). Table 5 is a breakdown of the different types of operations.

Table 5: Other Livestock Operations in the Upper Northeast Region, Illinois, 2022

Type of operation	Kane	Cook	DeKalb	DuPage	Kendall	Lake	McHenry
Meat goat	0	1	16	3	6	3	30
Sheep	15	10	16	15	4	13	46
Any poultry	58	22	77	22	41	48	232
Chicken, broiler	3	3	24	6	9	2	41
Cattle, dairy	10	5	7	0	0	1	28

### Meat Processing

There is a dearth of meat slaughtering in the Upper Northeast region of Illinois. While there are 220 meat processors in the area, most are near Chicago in Cook County and do not serve small to mid-sized meat producers.

Figure 2: Number of Meat Processors<sup>8</sup>

Indicator: Meat processors, count, 2022
Definition: Number of meat processors (USDA)

McHenry
S
Lake
S
DuPage
24
Look
159

Kendall

Further, there are only six slaughtering facilities in or near the focus area, as indicated by a red x in figure 3.

© 2023 Mapbox © OpenStreetMap

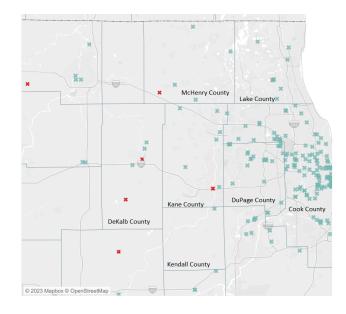


Figure 3: Location of Slaughtering Facilities

The slaughter facilities in the study area that serve mid-sized meat producers range from small to very small, with two focusing on pork and one on turkeys.

<sup>&</sup>lt;sup>8</sup> A. Chaifetz et al. "Data to Support a Thriving and Informed Local and Regional Food Sector," Food and Agriculture Mapper and Explorer, eXtension Community Local Regional Food System Community of Practice, https://localfoodeconomics.com/data/food-and-agriculture-data-explorer/.

Table 6: USDA-Inspected Meat Processing Facilities (Slaughter)

Size	Facility name	Location (IL)	Retail, wholesale, or custom
Small	Pork King Packing	McHenry	Custom, retail
Small	Eickman's Processing	Winnebago	Custom, retail
Very small	Ho Ha Turkey Farm	DeKalb	Retail
Small	DeKalb County Packing Co	DeKalb	Wholesale
Small	Aurora Packing Company	Kane	Wholesale
Very small	Freedom Sausage	LaSalle	Custom, wholesale

### Meat Processing Industry: Workforce Statistics and Concerns

According to the most recent Fact Sheet released by the American Meat Institute, the meat and poultry industry employs nearly 500,000 workers. More than 140,000 work in meat packing plants (those that slaughter animals), and nearly 119,000 work in meat processing plants that further process meat cuts into ground beef, hot dogs, ham, and other products.<sup>9</sup>

According to a 2006 survey of American Meat Institute members,

- 92 percent of plant respondents said they offer additional insurance like life insurance and short- and long- term disability;
- 52 percent of responding plants offered wellness programs, and according to an Employee Benefit Research Institute (EBRI) 2003 survey, 23 percent of employees had access to wellness programs;
- 96 percent of responding plants offer pension, 401(k), or other investment plans;
- 75 percent of responding plants offered educational assistance like classes or tuition reimbursement;
- 29 percent of responding plants offered English as a second language classes;
- 55 percent of responding plants offered scholarships.

Recent data (September 2020) reported by the Economic Policy Institute showed that nationally the meat- and poultry-processing workforce is predominantly male and overwhelmingly made up of people of color, with a large percentage of immigrants and refugees. Among these, a majority come from Latin America, with smaller numbers from Asian and African countries. Many immigrant workers are noncitizens; however, this data does not indicate the percentage of the workforce that is undocumented.<sup>10</sup>

<sup>&</sup>lt;sup>9</sup> American Meat Institute, "Meat Fact Sheet," https://www.meatinstitute.org/index.php?ht=a/GetDocumentAction/i/82885.

<sup>&</sup>lt;sup>10</sup> Angela Stuesse and Nathan T. Dollar, "Who Are America's Meat and Poultry Workers?" September 2020, https://www.epi.org/blog/meat-and-poultry-worker-demographics/.

## MARKET ANALYSIS

### Research Overview

NVA designed the market assessment to have three main components, fed by multiple research methods: a production capacity analysis, a processing capacity analysis, and a demand analysis. Secondary research was conducted to understand the regional and agricultural landscape and to provide quantitative insights. Following the secondary research, NVA led a series of primary research efforts among meat producers, processors, and buyers in the region to further understand the needs and challenges in the industry. These steps were completed through qualitative research methods (interviews) and quantitative research methods (farmer survey).

Table 7: Research approaches to feed each market analysis component

Market analysis component	Research tool/data source	Research goal
Production capacity analysis	Livestock farmer interviews Livestock farmer survey Secondary research/landscape data	To define ongoing challenges faced by livestock producers in bringing their products to market and to assess the land and infrastructure needs of grazing operations
Processing capacity analysis	Processor interviews Processor landscape research/secondary data	To understand the available processing landscape, challenges, opportunities, and costs associated with providing desired services
Demand analysis	Buyer interviews Meat industry research and consumer demand analysis	To assess the market potential and demand for specialty and local meat products and to identify new market channels

### *Interview Overview and Methodology*

NVA worked with the Kane County Development and Community Services Department to identify a list of priority contacts to interview to inform the Kane County livestock assessment.

Seventeen interviews were conducted by the NVA team between June 15, 2023, and November 7, 2023. Three core stakeholder groups were interviewed for the assessment: farmers and ranchers (five livestock farmer interviews), meat processors and processing facilities (six processor interviews), and key meat/food buyers in the region (six meat buyer interviews).

An additional 24 informants were contacted but declined or were not responsive to inquiries.

Table 8: List of Interviewees

Туре	Organization	Contact	Title	Distance to Kane Co
Farmer - diversified	All Grass Farms LLC	Cliff McConville	Owner/Operator	0 miles
Farmer - dairy	Lenkaitis Holsteins Farms	Sarah and Andy Lenkaitis	Owner/Operator	0 miles
Farmer - poultry	Rustic Road Farm	Marc Bernard	Owner/Operator	0 miles
Farmer - beef	Creekside Cattle	Mike Peters	Farm Manager	0 miles
Farmer - pork	Pitstick Pork Inc.	Dave Pitstick	Owner/Operator	0 miles
Buyer - wholesale	Local Foods	Jim Carbine	CEO	48 miles
Buyer - retail	Freedom Sausage	Tabitha Navarro	Manager	53 miles
Buyer - retail	Ream's Meat Market	Stewart Reams	Owner/Operator	11 miles
Buyer - wholesale	Sodexo, Local Foods, Q7 Ranch	Dave Rand	VP of Food Transformation, COO, Owner	48 miles
Buyer - institutional	U-46 School District	Daniella Beci	Director of Food Services	13 miles
Buyer - wholesale	Midwest Foods	Alex Frantz	Local and Sustainability Coordinator	64 miles
Processor	Country Village Meat	Paul and Laurie Darrow	Owner/Operator	55 miles
Processor	Eickman's Processing Co.	Tom and Katie Eickman	Owner/Operator	89 miles
Processor	Das Schlacht Haus	David Steadsman	Owner	150 miles
Processor	Lake Geneva Country Meats	Nick Vorpagel	VP	71 miles
Processor	This Old Farm (TOFI Packing)	Jessica Roosa	Owner	179 miles
Processor	Twin Cities Pack	Levi Powers	Owner	92 miles

### Survey Overview and Methodology

NVA worked with Kane County Development and Community Services to draft and program a meat producer survey. The goal of the survey was to reach more farmers for input on the meat industry in the region and validate what was heard in interviews. The County disseminated the survey through a number of outreach channels (Kane County Farm Bureau, Growing for Kane list, social media, and personal outreach).

The survey was open for ten weeks from June 30 to September 1, 2023. There were sixteen total responses. Two of the farmer respondents were also interviewed. Most survey respondents were male, White, and between the ages of fifty-five and sixty-four. Nine out of the sixteen farmers raise beef, and most farms were relatively small.

Table 9: Survey Respondents Stats (At a Glance)

Farmer type	Farm size	Top certifications/practices
Many respondents raise both beef and hogs and eggs	Most farms are on smaller end	Few official certifications, no organic growers
9 Raise beef	5 1-25 acres	4 Rotational grazing
5 Raise hens (eggs)	1 26-100 acres	3 Naturally grown
4 Raise hogs	3 101-250 acres	2 Non-GMO
4 Raise lamb	2 251-500 acres	2 Organic methods not certified
4 Raise poultry (meat)	1 501-1000 acres	1 Animal Welfare Approved
2 Raise goats		1 Certified Humane
4 Report secondary animal products or other animal	als	

## PRODUCTION CAPACITY ANALYSIS

Goal: To define ongoing challenges faced by livestock producers in bringing their products to market and to assess the land and infrastructure needs of grazing operations

### Farmer Interview Summary

Land availability is a major concern, with farms facing competition from suburban home development and the Kane County Forest Preserve for valuable pasture land. Interviewees reported that suburban neighbors occasionally dislike the prospect of a livestock farm nearby. The perception that land conservancy prioritizes corn and soy farmers over livestock operations adds to the frustration and hinders the growth of the industry. This shrinking land base poses a significant constraint on farmers' ability to expand their operations and meet growing demand. Preserving farmland for farm use would protect the historical farm work in the county as well as encourage farmers to invest in long-term growth.

The dispersion of animals across various farm locations complicates logistics and resource allocation for local farmers. Farmers are raising animals on multiple plots across the county and occasionally outside of it. Farmers who could raise all their animals on one farm may be able to increase efficiency and decrease travel time.

The lack of a local sale barn or processing infrastructure for meat markets forces producers to travel significant distances, while limited access to vital services like veterinarians, nutritionists, and organic feed creates additional hurdles. Bringing some of these services to the county could increase employment opportunities as well as reduce barriers for livestock growers.

Processors who prioritize the importance of the end product, including branding, packaging, and consistent butchering, are worth traveling for.

**Increased costs of operations**: Labor and material costs are often significantly higher than anticipated, putting a strain on profitability. Local, grass-fed, and organic certifications do not command significant price premiums in the mass market. Farmers must use efficiency of scale or strategic marketing to turn a profit.

Suburbia will complain about livestock farm neighbors—there are stories about neighbors suing over cows next door.

There was rich dairy industry there before suburban sprawl from Chicago. Dairy farmers have left or moved further west.

There's so much opportunity but not enough synergy.

— Farmer interviews, 2023

**Market pricing**: The volatility of market prices makes it difficult for farmers to predict their income and plan accordingly. To address this issue, some farmers are considering growing their own feed, gaining more control over their production costs and potentially improving their market share.

**Branding** is also an area of concern for farmers. They recognize the need to differentiate their products through labeling and branding strategies, but many lack the expertise and resources to do so effectively. Packaging and transportation are expensive, and the number of processors serving small to medium-sized growers is limited.

Table 10: Products from Interviewed Farmers

Animal or main product	Secondary
Milk (2 farms)	Sour cream, cottage cheese, dairy-based dips, raw milk
Beef (2)	"Freezer beef," half beef (half of a whole cow, cut per customer order),
	hamburger, grass-fed beef, jerky,
Cows: Holstein, Angus	Feeder calves, breeding cows
Pork (2)	Frozen: nose to tail, bacon, chops, tenderloin, butts/ham, sausage, spare-ribs,
Red Wattle and Duroc	bone in chop, shoulder, feet, ears/tails go into broth
Boar	
Goats (1)	Breeding, baby goat/kid hugs
Turkey (2)	Whole bird for thanksgiving frozen (2), broth
Chicken (2)	Bone broth (2), soup, chicken sausage, rounds, broilers
Eggs (3)	
Produce	Diversified fruits and vegetables, commodity corn and soy, feed for livestock
Manure	

### Farmer Survey: Results and Analysis

### **FARM INFORMATION**

*Primary farm output and size (Q4, Q8):* Respondents were primarily beef, egg, and dairy producers. Four producers raise hogs, lamb, and poultry as well. *Other* respondents included bees and assorted livestock. Average farm size is approximately 218 acres. Half of respondents (50%) produce on less than thirty acres of land.

Figure 4: Farm Output

# Q4 - What is the primary output on your farm? (Please select all that apply) 16 Responses

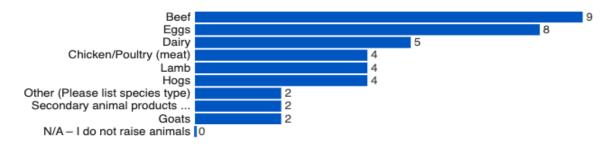


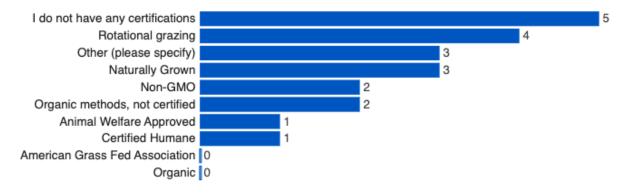
Table 11: Farm Size in Acres

Farm size in acres (Q8)	Count	%
1–25	5	42%
26–100	1	8%
101–250	3	25%
251–500	2	17%
501–1000	1	8%

**Farm certifications (Q9):** Of the certifications and practices listed, rotational grazing and naturally grown were among the most commonly reported. Forty-two percent of respondents do not have any certifications, and there were no organically certified meat or dairy producers.

Figure 5: Certifications and Practices

# Q9 - Which of the following certifications or practices do you have? 12 Responses



### MARKETING, DISTRIBUTION, and INFRASTRUCTURE

Primary market outlets as a function of gross farm income (Q10): All respondents stated that a percentage of their gross farm income comes from farm stand/on-farm retail outlets, indicating that this is the most commonly used market outlet. Of the market outlets listed, the second most commonly used was shipping off-farm direct sales, with 63 percent of respondents stating that a percentage of their gross farm income comes from this outlet. No respondents counted grocery stores, restaurants, or institutions as a percentage of their gross farm income, indicating that they do not participate in these market outlets. Three farmers stated that 100 percent of their sales go through only one channel: farm stand, broker, or shipping off-farm indicating that these growers have a heavy reliance on just one market outlet.

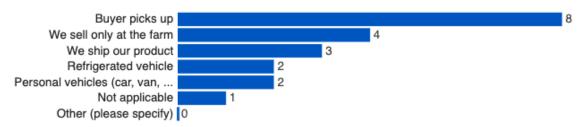
Table 12: Sales Channels

Sales channels	0–10%	11–25%	26–50%	51–75%	76– 100%	Total count
Farm stand/on-farm retail (includes direct to individual)	5	0	1	1	1	8
CSA or farmers market	1	0	1	0	0	2
Broker	1	0	0	0	1	2
Shipping off-farm direct sales	1	2	0	1	1	5
Grocery stores	1	0	0	0	0	1
Restaurants	1	0	0	0	0	1
Institutions (schools, hospitals, etc.)	1	0	0	0	0	1
Wholesalers, distributors, or food hubs	2	0	0	0	0	2
Total respondents	8					

**Distribution strategies (Q11):** Responses indicate that farmers employ a number of distribution strategies on their farms. The most commonly used distribution strategy employed was selling to a buyer who picks up directly from the farm, as indicated by 66 percent of respondents. Thirty-three percent of respondents only sell product from their farm, indicating they have no other distribution strategies. It is worth noting that while 63 percent of respondents indicated in the previous question that they ship their products off-farm through direct sales, only 16 percent of respondents indicated they use a refrigerated vehicle or personal vehicle. This may indicate a potential need for distribution vehicles to support continued access to increased off-farm shipping services.

Figure 6: Distribution Strategies

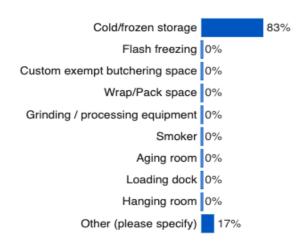
# Q11 - Which of the following distribution strategies do you employ on your farm? 12 Responses



**Butchering/processing infrastructure (Q12):** Farmers primarily use cold/frozen storage on their farm. Only one farmer specified this question did not apply to them. Farmers report having almost no on-farm value-added processing or equipment space.

Figure 7: Butchering/Processing Infrastructure

# Q12 What type of butchering / processing infrastructure do you have on your farm? 6 Responses

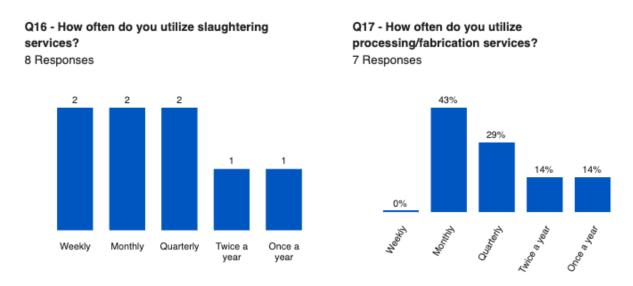


Preferred processors (Q15): Eleven farmers reported using the following processors:

- Bittner's Meats
- Smithfield
- Lena Maid Meats
- Country Village Meats
- Livestock Auctions Kane Livestock, Milwaukee
- Dairy Farmers of America (DFA) milk
- Twin Cities Pack
- This Old Farm
- Country Pride Meats
- Das Schalt Haus
- Eickman's Processing

**Frequency of slaughtering and processing needs (Q16, Q17):** Responses indicate a variety of timelines for slaughtering needs. Twenty-five percent of respondents indicate they slaughter their animals weekly, monthly, or quarterly; 43 percent of respondents indicated they require processing or fabrication services monthly; and 29 percent of respondents indicate they require these services quarterly.

Figure 8: Usage of Slaughtering and Processing/Fabrication Services



### BARRIERS AND CHALLENGES TO ACCESSING FACILITIES

Top challenges and barriers farmers face in 2023(Q13, Q14): Respondents indicated facing a variety of challenges in 2023, with expenses as the number one challenge. Expenses includes input costs such as the cost of hay and the cost of capital. Seventeen percent of respondents also expressed concern around labor needs, meeting processing plant's deadlines for finishing animals, availability of grazing land, weather (specifically drought), and processing bottlenecks. Only 8 percent of respondents were concerned about advertising their product, market price volatility, access to non-GMO feed, and the distance to processors.

The top barriers mentioned involved bottlenecks in slaughtering and processing options (58% and 50% of respondents, respectively), as well as the distance of USDA processing facilities (50% of respondents). Forty-two percent of respondents stated that the availability and cost of labor is another considerable barrier.

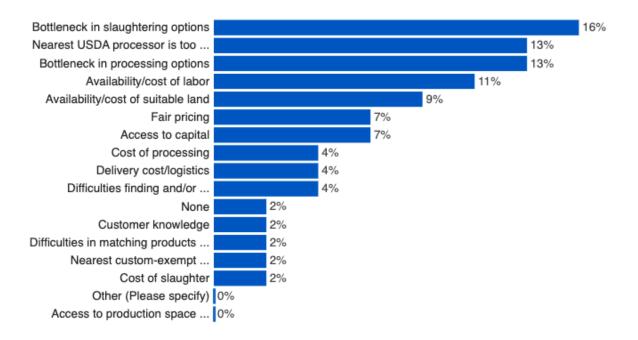
#### Table 13: Top Business Challenges

Q13 - What are the top challenges you or your business face in 2023? 12 Responses

Top Challenges	Count		Percentage
Expenses, Input Costs, Cost of Capital		4	33%
Labor		2	17%
Time to Market for Finished Product		2	17%
Land Availability		2	17%
Weather		2	17%
Processing Bottlenecks		2	17%
Advertising Product		1	8%
Market Volatility		1	8%
Access to Non-GMO Feed		1	8%
Distance to Processing		1	8%
Total Respondents	1	L2	

Figure 9: Barriers to Expanding Business Operations

Q14 - Below are some barriers that might prevent you from expanding your livestock business or continuing your operation in 2024. Please indicate which, if any, apply to you. (Select all that apply)
12 Responses

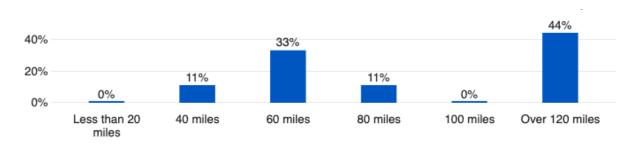


Distance willing to travel to slaughter/processor facility (one way) (Q18): Forty-four percent of respondents indicated they would be willing to travel over 120 miles one way to a slaughter/processor facility. Thirty-three percent of respondents indicated they would be willing to travel 60 miles one way. Increased willingness to travel long distances may indicate that farmers are already used to traveling long distances, which suggests the need for additional local facilities to support their processing needs.

Figure 10: Distance Willing to Drive to Slaughter/Processor Facility

Q18 - What is the farthest distance you are willing to drive to a slaughter/processor facility (one way)?

9 Responses



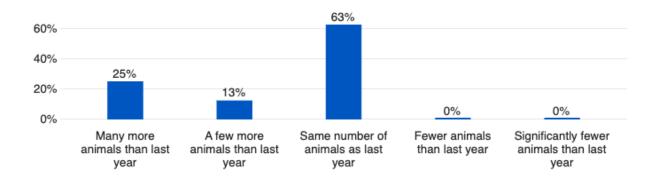
### CURRENT AND PROJECTED PROCESSING CAPACITY AND NEEDS

Projected processing needs (Q19): Sixty-three percent of respondents indicated their total numbers of animals processed in 2023 are likely to stay the same as last year, while 13 percent of respondents indicated they will be processing a few more or many more animals than last year. No respondents indicated they would be processing fewer or significantly fewer animals than the previous year. Results may indicate a heightened market demand for livestock products in this area, which would encourage farmers to increase the size of their operations or maintain their operations, depending on the size of their farm. These results may suggest the need for additional local or regional slaughter/processing facilities to accommodate growth in livestock production and to help farmers maintain their current production rates.

Figure 11: Estimated Change in Total Animals Processed

Q19 - What is your estimated change in total numbers of animals you will process this year compared to last year?

8 Responses



**Average animals processed annually (Q20):** Hogs are the most processed animal, with a total of 19,800 head processed annually, followed by chicken/poultry at 8,000 head. No respondents indicated they processed goats or secondary animal products.

Table 14: Annual Heads Processed

Q20 - On average, how many of the following do you process annually (list per head, not lbs)
16 Responses

Animal Type	Head processed per year	Average per farm (based on 16 respondents)
Hogs	19800	6600
Poultry	8000	4000
Beef	76	15
Lamb	50	50
Dairy Cows	25	12.5
Egg layers	1700	850

**Type of meat fabrication needed per animal type (Q21):** 8 out of 10 respondents stated they require breakdown into retail cuts for hogs, beef, lamb, and chicken/poultry (meat), indicating a higher demand for retail cuts as the primary method of meat fabrication. Only 2 respondents stated they require specialty meat services for hogs; and "just slaughter" for beef and dairy cows.

Figure 12: Type of Meat Fabrication Needed

Q21 - Based on the numbers entered above, please select the type of meat fabrication you expect to need per animal type

10 Responses

Field	Hogs	Beef	Lamb	Goats	Poultry	Eggs	Dairy	Total	
Just slaughter	0	1	0	0	0	0	1	2	
Breakdown into primals	0	0	0	0	0	0	0	0	
Breakdown into retail cuts	2	3	1	0	2	0	0	8	
Specialty meat services (i.e. sausage, charcuterie, curing, smoking, aging)	2	0	0	0	0	0	0	2	

Key requirements for new processing/slaughter facility (Q22): This was an open-ended, unaided question. The following table was aggregated from the written responses. Out of eleven responses, top reported requirements for a new processing/slaughter facility include having accurate source-identification and labeling (3 mentions) and having high-quality packaging (3 mentions). The next highest mentions were custom cuts (2), flexibility with butcher-date scheduling and shipping (2), competitive pricing (2), and high-quality customer service (2). Other requirements range from the ability to offer custom packaging to having a cooler that can accommodate aging cuts up to twenty-one days.

Table 15: Key Requirements for New Processing/Slaughter Facility

Key Requirements for New Processing/Slaughter Facility (Q22)	Count
Accurate Source-Identification and Labeling	3
High Quality Packaging	3
Custom Cuts	2
Flexibility with Butcher-Date Scheduling and Shipping	2
Competitive Pricing	2
High Quality Customer Service	2
Custom Packaging	1
Option for Resale of Product	1
Large Facility	1
USDA Certified	1
Cleanliness	1
Shorter Distance	1
Option for Value-Added Product	1
Vacuum Packing	1
Nitrate/MSG Free Cures	1
Scale to take Live Weights	1
Able to take a Variety of Animals	1
Cooler to Age Cuts up to 21 days	1

Top features of a slaughter/processing facility (Q23): This question provided potential features for respondents as an aided question. The following table was aggregated from the written-in responses. There was high alignment with the unaided answers, which indicates a strong/accurate preference for these features. Out of eleven respondents, high-quality packaging and high-quality customer service were the top desired features, each with ten respondents saying it was important or very important for a processor to provide. The next top characteristics were USDA-inspected slaughter and processing (9), variety of cutting options (9), convenient location (7), and a private firm label (7). Online scheduling (2) and freezer storage for rent (2) had lower interest. Organic certification and mobile slaughter had the lowest interest, with only one respondent marking either service as important. Other write-ins included cleanliness.

Table 16: Top Features of Slaughter/Processing Facility

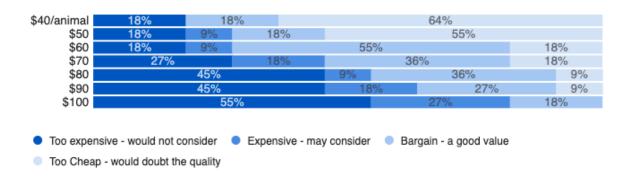
Q23. Top Features	Important		Not Imp	ortant
	Count	%	Count	%
High-quality packaging	10	91%	1	8%
High-quality customer service	10	91%	1	8%
USDA-inspected slaughter and processing	9	82%	1	7%
A variety of cutting options	9	82%	2	7%
Convenient location	7	64%	1	6%
Private firm label	7	64%	2	6%
Cryo-packaging	4	36%	5	3%

Q23. Top Features	Important		Not Imp	ortant
Custom-exempt slaughter and processing	3	27%	7	2%
Cooler storage for rent	3	27%	8	2%
Online scheduling	2	18%	5	2%
Freezer storage for rent	2	18%	8	2%
Organic certified	1	9%	9	1%
Mobile slaughter	1	9%	9	1%
Other (please specify)	1	9%	10	1%
Total respondents	11			

Ideal price for kill services per animal (Q24): Based on these results for those who responded "expensive - may consider" and "bargain - a good value," ideal prices for kill services range from \$60 to \$70. Seven respondents indicated \$60 as "expensive - may consider" or "bargain - a good value." Six respondents indicated \$70 as "expensive - may consider" or "bargain - a good value."

Figure 13: Ideal Price for Kill Services

# Q24 - What is the ideal price you'd pay for kill services per animal? 11 Responses

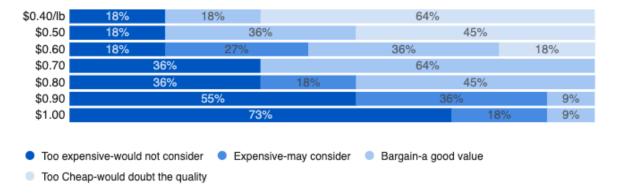


*Ideal price for fabrication services per pound (Q25):* Based on these results for those who responded "expensive - may consider" and "bargain - a good value," ideal prices for fabrication services per pound range from \$0.60 to \$0.80. Seven respondents indicated \$0.60, \$0.70, and \$0.80 as either "expensive - may consider" or "bargain - a good value."

Figure 14: Ideal Price for Fabrication Services

### Q25 - What is the ideal price you'd pay for fabrication services per pound?

11 Responses

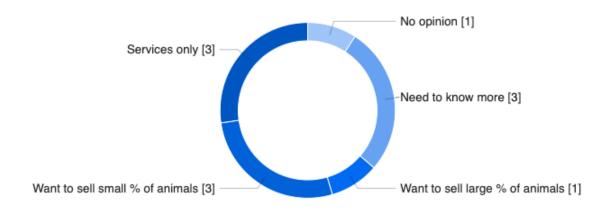


Interest in selling to a local facility that would purchase animals for slaughter (Q26): Three out of eleven respondents indicated they would be interested in selling a small percentage of animals to a local facility. Three out of eleven respondents also indicated that they are only looking for services and want to handle their own sales and distribution. Only one farmer would be willing to sell a large percentage of their animals to such a facility. One farmer had no opinion, and three out of eleven respondents would be interested in learning more about such a facility.

Figure 15: Interest in Selling or Services Only

Q26 - If there was a local facility that would purchase your animals for slaughter, processing and distribution would you be interested in selling animals or would you prefer services only?

11 Responses



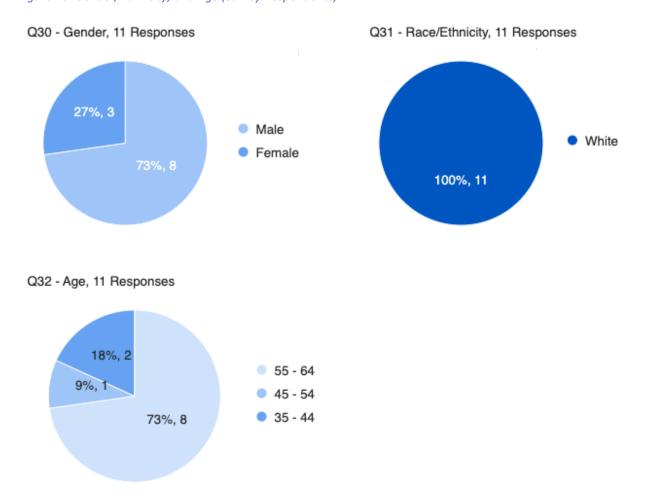
Additional thoughts to support livestock farmers (Q27): The last question was open-ended and asked for additional thoughts. A summary of the three responses:

- One respondent indicated they felt they needed a better understanding of what reasonable
  prices would be for quality services to have more of an opinion on Q22 and Q23 and emphasized
  the need for local and regional services.
- One respondent indicated they wanted additional support in finding market opportunities and new customers.
- One respondent emphasized the importance of receiving support with acquiring land as well as negotiating rental contracts. This respondent also suggested forging stronger relationships with neighboring counties as a potential solution toward enhancing land access, specifically for growing feed crops and rotational grazing.

### DEMOGRAPHICS OF FARMERS (optional)

*Gender, ethnicity, and age: (Q30–32):* Most respondents were male (73%), White (100%), and between the ages of 55 and 64 (73%). This is in line with census demographics, which report a primarily White population in these neighborhoods.

Figure 16: Gender, Ethnicity, and Age (Survey Respondents)



### Farmer Survey: Summary of Data

Farmers who responded to this survey are primarily from the St. Charles and Hampshire Townships, are predominately White, male, and between the ages of 55 and 64. Most farmers utilize a limited scope of market outlets, primarily farm stands and on-farm retail, as well as shipping off-farm direct sales. Most farmers do not have a variety of distribution services at their disposal and have no on-farm value-added processing or equipment space.

Farmers are willing to travel longer distances to reach a processor, indicating a high interest in developing a local or regional processor closer by. A key barrier to growing farm businesses was the lack of access to a processor and bottleneck in processing and slaughtering. There was high alignment of slaughterhouse features and services among farmers —in both unaided and aided questioning. Farmers listed high-quality customer service, a variety of cutting options, USDA-inspected slaughter and processing, quality labeling and packaging, a private firm label, and convenience of location as key features of a processor. Average ideal pricing ranges are as follows and are in line with industry and regional standards:

• kill per animal: \$60–\$70

• fabrication per animal: \$0.60 –\$0.80

Most farmers are processing the same number of animals or more animals this year than last year, although the number of total animals processed is still small in comparison to feed lots and commercial slaughterhouses—farmers interested in utilizing a new processor are, on average, farming under one hundred acres and would be considered small-scale ranchers. Hogs are the top species to be processed in 2023, followed by poultry then eggs then beef. Farmers are most interested in breaking down their animals into retail cuts.

If Eickman's went out of business, a lot of farms would go out of business too.

It doesn't make sense to drive 2–3 hours to a processor—price of gas, well-being of animals, people don't have time.

—Buyer and processor interviews, 2023

## PROCESSING CAPACITY ANALYSIS

Goal: To understand the available processing landscape, challenges, opportunities, and costs associated with providing desired services. Processor Landscape

Meat processors are the supply chain step between livestock farmers and their end customer. In the study region, there are forty-one meat processors serving small to midsized livestock producers, spanning Illinois, Wisconsin, and Indiana. In the market area, farmers are driving an average of 80 miles roundtrip to access processing services and as far as 194 miles outside the market area. Kane County lacks processors and has one slaughter facility, although it does not cater to Kane producers as its privately owned. Sixteen out of forty-one processors (39%) offer kill services. Despite being a faster growing market than other meats, poultry has fewer processing options than beef/hogs.

### Processor Interview Summary

The processors interviewed were all named as being a preferred processor by a Kane County producer. None of them were in Kane County, and some were as far as 150 miles one way from the county. These processors, ranging from Wisconsin to Indiana, all provided kill services in addition to custom processing. Almost all offered some sort of specialty packaging/labeling and named it as a key differentiator for them in the marketplace.

Figure 17: "By the Numbers" Processors Snapshot

## BY THE NUMBERS

Number and Location of Processors:

Processor Location	Count	Miles away (avg one way)
Tier 1 (Market Area)	20	40
Tier 2 (IL)	15	97
Tier 3 (WI, MI, IN)	6	97
Kane County	1	-

Inspection status:

USDA Inspected	29
Non-Exempt	12

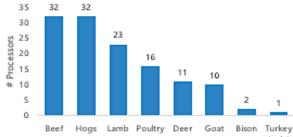
### Meat slaughter:

Slaughter/Kill services*	23
Processing only	17

### Most in Demand services:

- Private Labeling
- Vacuum Packaging
- Custom Cuts
- Slaughter
- Value added services

## Animal Species Handled



All facilities that handle cows also handle pigs:(only)

#### Processor Wishlist:

- Provide longer beef aging
- Provide Kill-only services
- More custom processing for processor's own retail outlet

"

**Slots for cows and hogs are available**. They all are taking new customers; however, slots for October and November fill up almost immediately once their book is opened for the following year. No one mentioned that they weren't ever able to fit someone in, though.

**Seasonality in processing** needs causes demand and supply to be inconsistent with each other, and March through May is the slowest season for most processors. Identifying a way to continue to generate sales during this time is a key challenge for most processing facilities.

**Labor availability** poses a major challenge to this industry, causing business stress and operating inconsistency. The interviewed poultry processor said it was their biggest threat and challenge to their business: "Every day I come in and I don't know if I'm going to be able to have enough people to run the lines." However, almost all processors who work with beef, hogs, and lamb also said hiring and retaining skilled, competent employees was one of the biggest hurdles they face in their industry. Only two said it was not a top concern.

Product variability and inconsistent supply from farmers can also be a challenge for processors. Farmers occasionally schedule processing slots but fail to utilize them, causing disruptions to processors' production schedules and increasing their overhead costs. Some farmers request basic processing, while others require more elaborate preparation. This variability makes it difficult for processors to standardize their processes and maintain consistent outputs. Most processors interviewed had not done a cost-benefit analysis of their operation to understand the most efficient and lucrative product mix to maximize their profitability. Rather, they procure business based on their maximum production capabilities (a balance of hog and beef kill, dry aging, and processing).

Barriers to entry and barriers to facility expansion are high, especially due to the rigorous regulatory environment. Three interviewed processors reported the desire to expand their facilities and services. One noted that they could not expand due to the expensive retrofitting required to meet current regulatory standards, and another shared that they have the space to expand but there is not enough skilled labor available to do the work. Most processors said they couldn't expand, even if they wanted to, due to regulatory constraints and lack of labor force. A few interviewees mentioned it was common for meat processors to be a family business and many operations are handed down through generations, most often because the skill is unique, the work is dirty and hard, and the regulatory requirements and capital investment required to start a new facility are so high that it's incredibly difficult for people "outside the industry" to enter.

Farmer customers are price sensitive and dislike paying a premium for extra processing or specialty packaging, but they need this service to sell their products Farmers doing direct-to-consumer sales must receive a premium price for their final meat product. In order to secure this retail price, they need quality packaging/branding and for the product to "look appetizing and consistent" in order to command a premium price from consumers. However, the additional price per pound fees associated with this service can add fifty cents per pound or more to the processing fee for farmers. Processors

mentioned that farmers don't understand the expensive equipment required for quality labeling and vacuum packaging and/or the importance of this for their own sales. Processors with retail outlets occasionally procure meat from large meat wholesalers rather than small farms because they can't rely on local farmers to consistently supply their shops with high-demand cuts.

#### Most in-demand services:

- private labeling
- vacuum packaging
- custom cuts
- slaughter
- value-added services

#### **Processor wishlist:**

- provide longer beef aging
- provide kill-only services
- more custom processing for processor's own retail outlet

### **Processors with retail outlets:**

- Country Village Meats
- Das Schlacht Haus
- Eickman's Meat Processing
- Lake Geneva Country Meats
- This Old Farm

### PROCESSOR PRICING SUMMARY

Most processors dry age beef for one to two weeks before it is butchered. Pork is a faster and cheaper alternative. Beef takes longer to process and is more expensive. Poultry processing is experiencing severe bottlenecks.

"

We're used to paying for cheap food and cheap labor. If you're competing with the trades (like plumbing or electrician—they make \$100 an hour) but we're paying \$30 to \$35 an hour. It's a really hard challenge to explain the value proposition that <u>"if you want to have this service, you have to pay for it."</u>

—Poultry processor interview, 2023

Table 17: Processing Pricing Models Summary

	Beef	Hogs	Lamb/goat	Poultry
Kill fee	Kill fee: 3 processors at \$140/head	Kill fee: \$65/head	\$67.50/head	Under 300 count priced per bird; over 300 there's a discount per bird; offal is additional cost
Hanging weight	\$.19/lb. on hanging weight  (\$121 minimum per beef) includes standard dry aging  Additional charge of \$.08/lb. on the hanging weight for heavy beef over 1,600 lbs. live weight	\$.31–.35/lb. hanging weight  (\$46.59 minimum per animal)  Charge of \$.08/lb. on the hanging weight for heavy hogs over 350 lbs. live weight		
Whole animal	Half - \$.0.95/lb. Quarter - \$1/lb. Or based on market price  Processing whole or half (billed on dressed weight) Processing when all boned (dressed weight): \$1.40/lb.  Estimated cost for a whole: \$800 Estimated cost for a half: \$450 Estimated cost for a quarter: \$260 (based on 1,200 lb. live weight)	\$0.93/lb. based on dressed weight  Estimated cost for a whole: \$280 Estimated cost for a half: \$160 (based on 250 lb. live weight)	Lamb: harvest and process \$130.00 Whole harvest fee: \$85.00 each	
Basic butchering	Cut wrap freeze: \$1/lb.	\$1/lb. processing	\$1.20; minimum of \$65 of processing	Priced for bone-in breast, bone-in thighs
Custom	Patties \$.85/lb. Stew meat/cube steaks \$.75/lb. White paper wrap: \$.80/lb. Vacuum sealed: \$1.30/lb.	White paper wrap: \$.80/lb. Vacuum sealed: \$1.30/lb.	White paper: \$1.50/lb. Vacuum sealed: \$1.85/lb.	

	Beef	Hogs	Lamb/goat	Poultry
Value- added: smoked, cured, specialty meats	Jerky: \$6.00/lb. Patties: \$1.25/lb. Full boning of the chuck: \$30.00 per half Partial boning of the chuck: \$20.00 per half Making patties (4 or 6 oz. size): \$1.50/lb. Cubed steak under 6 lbs.: \$6.00 charge Cubed steak over 6 lbs.: \$1.00/lb. Stew meat over 12 lbs. \$10.00 per half Corned beef brisket: \$12.00 each Offals: \$19.97 per animal/set.	Boning out fee: Sausage: \$.60-\$4/lb. Bacon and hams: \$1.05/lb.  Curing, smoking hams/bacon: \$1.73/lb. No nitrate bacon: \$1.65/lb. Flavored bacon: \$1.65/lb. Uncured: \$1.75/lb. Sliced jowl and belly bacon: \$3.50/lb.  Ground pork: \$1.50/lb. Bratwurst: \$2.90/lb.  Offals: \$7.99/animal  Meat sticks, salamis, ground, etc.: Meat sticks: \$5.69/lb. Salami: \$3.99/lb.	Processed lamb trim under 6 lbs.: \$7.50  Processed lamb trim over 6 lbs.: \$1.25 per lb.  This includes ground lamb, stew meat, etc.  Split orders: \$12.00 per half  Lamb head saved: \$15.00 each	Have pet food manufacturing license; process chicken backs and necks for pet food or will make broth for people

## **DEMAND ANALYSIS**

Goal: To assess the market potential and demand for specialty and local meat products and to identify new market channels. Section includes:

- Retail and consumer demand analysis
  - meat consumption trends
  - market volume
  - o market comparison
- Buyer interviews

### **Meat Consumption Trends**

### **Historic Meat Consumption**

The following graph shows per capita consumption of meat in the United States from 1999 to 2020. Over the entire period, meat consumption averaged 252 pounds per person. There were, however, trends in the data. Per capita consumption was relatively stable from 1999 to 2006. From 1999 to 2006, meat consumption averaged over 250 pounds per person. Then, meat consumption fell by 15 pounds between 2007 to 2013, reaching a low of 235 pounds per person in 2014. From 2015 to 2019, per capita consumption increased each year, reaching 264 pounds per person in 2020.

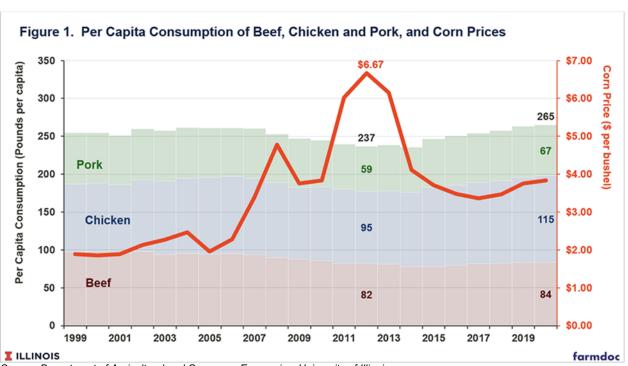


Figure 18: Per Capita Consumption of Beef, Chicken and Pork, and Corn Prices

Source: Department of Agricultural and Consumer Economics, University of Illinois

Two things contributed to the *overall* decline in per capita consumption in the period from 2007 through 2016:

- First, ethanol production began to build in 2006 through 2013, which combined with low corn yields in 2010 through 2012 led to higher feed prices and, in turn, increased consumer prices.
- Second, there was the Great Recession of 2008, which caused lower disposable incomes. Reductions in incomes typically lead to lower meat consumption.

### **Shifts in Consumption**

There has been a change in dominant consumption across the three major meat categories since 1999:

- In 1999, beef had more consumption than chicken or pork. Over time, beef consumption has declined from 97 pounds per person in 1999 to 83 pounds in 2020.
- Pork consumption has remained relatively stable at 68 pounds per person in 1999 and 67 pounds per person in 2019.
- Chicken consumption increased from 89 pounds per person in 1999 to 112 pounds per person in 2019. Chicken now has a higher per capita consumption over beef and pork.

### **Implications**

Overall, consumption of meat in the United States is relatively stable, temporally influenced by the economics of feeding livestock and general economic conditions. Economic growth in the United States may increase meat consumption marginally, but large increases should not be expected.

### Past and Present

The U.S. meat market is growing at a rate of 1–2 percent per year. The highest growth is in the poultry sector, followed by pork. Beef consumption has been relatively flat in recent years.<sup>11</sup>

- **Beef consumption** for the most recent decade (2013–22) averaged just 57 pounds per person per year and dipped to an annual low of 54 pounds in 2015. Despite all the recent shocks (pandemic, inflation, supply chain issues), beef consumption trended higher in recent years. In 2022, consumption was estimated at 59.1 pounds, the highest since 2010.
  - However, in May 2023, U.S. beef consumption for 2023 was forecasted to slip to 57.0 pounds. For 2024, a bigger decline—down to 52.8 pounds—is expected. If these early 2024 trends are realized, it would be the lowest beef consumption observed since 1970, behind the 2015 low of 54.0. Reasons behind this include production cost increases and declining real wages.
- **Pork consumption** has a steady consumption trend. The United States has consumed around 50 pounds of pork per capita annually since the 1970s. There have been ups (the early 1970s) and downs (the mid-1970s and 2010–14), but the overall trend is flat and fairly stable.

<sup>&</sup>lt;sup>11</sup> Source: Economic Research Service

<sup>&</sup>lt;sup>12</sup> Real wages are wages adjusted for inflation, or, equivalently, wages in terms of the amount of goods and services that can be bought.

• Poultry consumption has shown the biggest growth in the last five decades. During the 1970s, poultry consumption averaged 50.6 pounds per capita. In 2022, consumption hit a record of 111.6 pounds per capita.

### Long-Term Trends: Environmental and Health Issues

The U.S. meat industry has been criticized in recent years for its impact on the environment. The production of meat requires a lot of land, water, and energy. This has led to concerns about the sustainability of the meat industry and the natural resources required as inputs. The environmental impact of meat production has led to a decline in meat consumption in the United States. In 2018, per capita meat consumption in the United States was down 3 percent from the previous year. Despite the recent increase in meat consumption, this long-term trend is expected to continue as more people become aware of the environmental impact of meat production.

There are also concerns about the health impact of meat consumption. The World Health Organization has classified processed meats as carcinogenic (producing or tending to produce cancer). This has led to a decline in *processed meat* consumption in the United States, although overall meat consumption remains high.

### Long-Term Trends: Challenges and Opportunities

#### Challenges

A key challenge facing the meat industry is the increasing popularity of plant-based meat products and alternative proteins. These products are often seen as a healthier and more humane option than traditional meat products, which has impacted sales of traditional meat products. Another challenge facing the meat market is the outbreak of diseases such as swine flu and avian flu. These diseases have also led to a decline in demand for meat products, as consumers are concerned about the safety of these products.

#### **Opportunities**

A major opportunity for the sector is the increasing popularity of organic and grass-fed meat products. Consumers are becoming more aware of the health benefits of these products, and as a result, sales of these products are increasing.

Another opportunity in the meat market is the growing demand for specialty meats such as game meats and exotic meats. These meats are often seen as being more flavorful and interesting than traditional meats, which has led to an increase in sales.

Generally, consumers are becoming more positive toward game meat consumption, primarily because of its perceived health benefits and ethical production practices, and for the experience of tasting exotic meats. These health benefits are associated with the low-fat and cholesterol contents, high protein and mineral contents, and favorable fatty acid profile of game meat compared to meat from domesticated

species; the omission of pharmaceuticals (especially antibiotics); use of organic products (e.g., non-GMO feeds); and the extensive nature of production systems/natural environment from which they are culled. However, game and exotic meats are still just a fraction compared to the regular livestock meat supply.

### **Challenge/Opportunity - Lab-Grown Meat**

Lab-Grown meat can be both a challenge and opportunity—a challenge to traditional livestock farming but also an opportunity to diversify supply and create new business opportunities.

Producers/manufactures use a cow's stem cells, for example, the building blocks of muscle and other organs, to begin the process of creating the cultured meat. The cells are placed in petri dishes with amino acids and carbohydrates to help the muscle cells multiply and grow. Once enough muscle fibers have grown, the result is a meat that resembles ground beef. The first lab-made hamburger was created in 2013, and it cost about \$325,000 to produce.

For lab-grown meat to replace a significant percentage of meat that is consumed, consumer acceptance will be key. Current studies indicate that people are still quite reluctant to accept cultured meat, although acceptance can be increased through savvy marketing and storytelling.

Furthermore, it is also difficult to say how the nutritional value of these novel products will compare. The reason for the uncertainty is that producing lab grown meat is complex and expensive and most of the knowledge is owned by the companies who have invested in developing the technology.

Despite lab-grown meat being approved by the FDA last year, it will still take quite a bit of time before it will hold a significant share of the market.

### **Prices**

According to the USDA, the cost of beef has risen by about 5 percent since 2022. The cost of pork has risen even more, by about 7 percent. The main reasons for this are

- supply shortage outbreak of swine fever in China, 2022;
- supply shortage droughts (Australia and Argentina);
- U.S. tariffs on imported goods;
- supply chain issues; and
- global rise in demand (population growth).

All these factors have contributed to higher meat prices in the U.S. market.

# Market Volume: Households and Commercial Demand in the Kane County Market Area

#### **Private Households**

Table 18: Household Meat Product Demand Volume by Spending Chicago MSA (IL Counties Only)

Year	2023	2028	Change
Total	\$4,289,809,686	\$4,894,219,148	\$604,409,462
Per household	\$1,266.03	\$1,417.64	\$151.60
Source: Data Axle, Inc., ESRI BIS			

- It is estimated that spending volume will increase by 12 percent over the next five years, despite a modest population/household growth of 0.21 percent between 2023 and 2028.
- Households still spend the most for beef products (\$440 on average annually), followed by pork (\$310 on average annually), and poultry (\$300 on average annually), and this distribution is projected to remain the same for 2028.

#### Commercial

Table 19: Commercial Meat Product Demand Volume by Sales, Independent Businesses, Chicago MSA

Demand source	Volume	Number of businesses	Average volume		
Meat retail (butcher shops, etc.)	\$166,062,000	152	\$1,092,513		
Restaurants	\$368,107,120	3,262	\$112,847		
Meat wholesale	\$1,973,409,000	58	\$34,024,293		
Meat-related manufacturing	\$2,012,142,000	87	\$23,128,069		
Total	\$4,519,720,120				
Source: Data Axle, Inc., ESRI BIS, National Restaurant Association (IL Counties Only)					

- While restaurants account for the largest number of businesses by far, they have the smallest average volume/demand per business.
- Meat wholesale businesses show the smallest number of establishments but the highest volume/demand per business.

#### Market Comparison: Chicago MSA vs. Houston MSA

Houston, Texas, was chosen as a comparable U.S. market to the Chicago Metropolitan Statistical Area (MSA) based on number of households and median income in addition to similar agricultural geography surrounding the urban center. The following section compares the two markets in order to contextualize the Chicago metro's meat consumption trends.

Table 20: Metro Area Comparison Chicago MSA (#3) and Houston MSA (#5)

Area	Chicag	o MSA	Housto	n MSA		
Year	2023	2028	2023	2028		
Total households	3,699,565	3,737,975	2,657,115	2,819,864		
Annual growth rate 2023–28	0.2	1%	1.2	0%		
Household used organic meat (2023)	500,676	13.53%	331,495	12.48%		
Likelihood to buy organic meat	114		105			
Median household income	\$80,564	\$90,771	\$74,548	\$83,847		
Median disposable income (2023)	\$63	,794	\$61,897			
Annual spending all households	\$4,661,877,779	\$5,330,607,789	\$3,169,431,723	\$3,784,273,105		
Change 2023–28	\$668,730,010	14.3%	\$614,841,382	19.4%		
Annual per household spending	\$1,266.03	\$1,417.64	\$1,192.81	\$1,342.01		
Change 2023–28	\$151.60 \$149.20					
Source: ESRI BIS, US Census Bureau, American Community Survey (ACS)						

#### Metro Area Comparison

- Houston has a higher household growth rate than Chicago. This also reflects in the increase in the household spending volume for meat products volume over the next five years (Chicago MSA +14.3%, Houston MSA +19.4%).
- Medium household income is higher in the Chicago MSA compared to the Houston MSA.
- Chicago has a higher percentage of households that bought/consumed organic meat.
- Likelihood that Chicago households buy organic meat is fourteen times higher (114) than the national average (100), the likelihood to buy organic meat products in Houston is five times higher (105) than the national average (100).
- This implies that Chicago is a more "mature" market in which meat niche and specialty products (organic, game, and exotic meats) do appear to have a larger likelihood to find consumers.

#### **Independent Restaurants Demand Model:**

There are currently 3,262, independent restaurants listed in the Kane County, Illinois, market area with an estimated total sales volume of roughly \$2.2 billion annually.

Every restaurant has a different demand volume for meat and meat products. Restaurant meat procurement depends on the type of restaurant (e.g., steakhouse), number of meat related menu items, and cuisine of the establishment.

To estimate the demand for meat and meat products from those 3,000+ independent restaurants, the average sales volume was calculated per restaurant and some restaurant industry cost standards were applied. This resulted in the estimates in table 21.

Table 21: Modeled Restaurant Meat Demand, Chicago Metro Area (IL Counties of Market Area)

Average sales per restaurant		\$663,806
Average cost of food (industry standard)	40.0%	\$265,523
Average cost of meat		
Low (industry standard)	25.0%	\$66,381
High (industry standard)	30.0%	\$79,657
Average cost of poultry		
Low (industry standard)	12.0%	\$31,863
High (industry standard)	18.0%	\$47,794
# of independent restaurants		3,262
Estimated demand		
Low		\$320,469,728
High		\$415,744,512
Source: Data Axle, Inc., ESRI BIS, National Restaurant Association		

According to the demand modeled in table 22, restaurants who spend 25 percent of their food budget on meat, spend an average about \$66,381 per year on meat, or about \$320 million total. Restaurants who are spending 30 percent of their food budget on meat are averaging \$79,657 per year on meat, or about \$415 million across all establishments in the Illinois counties of market area.

Table 22: Summary Annual Estimated Sales Volume (IL Counties of Market Area)

Annual Estimated Sales Volume	
Meat retail	\$166,062,000
Restaurant	\$2,165,336,000
Meat wholesale	\$1,973,409,000
Meat related manufacturing	\$2,012,142,000
2023 household demand	\$4,289,809,686
Total	\$10,606,758,686
Source: Data Axle, Inc., ESRI BIS, National Restaurant Association	

#### Market Demand Summary

The U.S. meat market is growing at a rate of 1–2 percent per year.

- Beef consumption has been relatively flat in recent years. However, in May 2023, U.S. beef consumption for 2024 was forecasted to slip to 57.0 pounds. For 2024, a bigger decline—down to 52.8 pounds— is expected. If these early 2024 trends are realized, it would be the lowest beef consumption observed since 1970, behind the 2015 low of 54.0.
- **Pork consumption** has a steady consumption trend. The United States has consumed around 50 pounds of pork per person annually since the 1970s. There have been ups (the early 1970s) and downs (the mid-1970s and 2010–14), but the overall trend is flat and fairly stable.
- **Poultry consumption** has shown the biggest growth in the last five decades. During the 1970s, poultry consumption averaged 50.6 pounds per capita. **In 2022, consumption hit a record of 111.6 pounds per capita.**

• The Kane County market area, as part of the Chicago MSA, is a more 'mature' market than other comparable metro areas in the United States, in which meat niche and specialty products (organic, game, and exotic meats) have a larger likelihood to find consumers. The likelihood that Chicago consumers would buy organic meat is fourteen times higher than the national average and 8 percent higher than comparable city Houston, Texas. This may be used as a proxy for other values-based purchasing like "local," "grass fed," and "humanely raised."

#### Buyer Interview Summary

Buyer trends from interviews: Large buyers are interested in specialty products that evoke nostalgia, familiarity, or offer sales, variety bundles, or ready-to-eat convenience. Top trends include convenient packaged and pre-cooked meats. Pork, beef, and poultry remain the most popular meat choices.

#### **Trends Mentioned:**

- pre-cooked sausage product
- pre-made trays/charcuterie boards
- adult "Lunchables"
- convenient, packaged products
- meat bundles (deals)
- plant-forward menus
- college campuses pushing back against meat

Figure 19: Buyer business types



- organ meats for pet foods
- tomahawk steaks
- meat that needs minimal preparation: pre-cooked or "just heat and serve"

"Pre-cooked sausage is flying off the shelves."

—Regional distributor

**Meat supply chain is heavily consolidated.** A distributor interviewee mentioned that there weren't many options to buy regenerative or local meats —and that if "Eickman's went out of business, a lot of farms would go under too." This suggests that there is not enough redundancy in the marketplace for livestock farmers to process their products, which in turn threatens the buyer's ability to source these items.

Institutional buyers want products that align with existing specifications. Institutions may purchase products in certain weights, dimensions, packaging, and schedules. Often, they have created their own efficiencies and processes around their preferred products. In order for a new supplier to penetrate this market, it would be easier for the institutional buyer if the producer matched the existing specifications with which they work—that is, the supplier should match the product they are already buying. This preference for consistency minimizes disruptions to their operations and supply chain management.

"

More people looking for meat bundles, people are nervous with economy—they want a deal and they want more food in their house. "

If you can get the chef and the farmer buy-in, there is opportunity to get distributor on board.

— Buyer interviews, 2023

**Buying opportunities with the school district**: Recent funding from the state board of education toward the Farm to Child Nutrition Programs (F2CNP) provides schools with the flexibility to purchase local meat products within a specified radius. This funding prioritizes socially disadvantaged groups and encourages the introduction of new products to the school food program.

**Buyers will pay a premium for pre-processed, value-add items**. Convenience, ready to eat, pre-cooked, and pre-made all command a premium. However, **price sensitivity with local processed items remains a major factor**, as buyers may not be able to turn around and retail local products if they are significantly more expensive than conventionally produced meat.

Buyers seek reliable and scalable farm suppliers capable of consistently delivering bulk quantities of meat, ideally exceeding one hundred pounds per order. Farms must be able to supply at volume and a consistent product or be willing to scale to meet the need of the new market channel.

**Source identified is more important than organic or grass fed.** Organic meats are not in huge demand, according to interviewees, but products should have a story. Buyers respond well to compelling narratives, supplier/farmer stories that resonate with their customers and add value.

Familiarity is key, as buyers prioritize offerings that align with their existing customer base's preferences, minimizing disruptions to their operations and ensuring a smooth introduction of new products.

#### **DESIRED PRODUCTS by meat type**

#### **CHICKEN**

- chicken breasts
- breaded chicken
- jumbo chicken breasts
- grilled chicken
- popcorn chicken
- chicken breakfast sausages

#### BEEF

- whole sides of beef (distributors)
- snack sticks
- hamburger meat
- beef tenderloin
- jerky

- high choice grain finished beef
- grass fed freezer beef
- pre-cooked hamburger patties

#### **PORK**

- sausage
- ham
- bacon

#### Other/seasonal

- frozen meat
- pre-sliced sandwich/lunch meat (specifically turkey or turkey-ham)
- lamb, goat
- whole turkey

#### Market opportunities identified through interviews:

**Value-chain coordination:** "If you can get the chef and the farmer [connected], there is opportunity to get a distributor on board." Distributors may be more willing to source from a new or local farmer if their restaurant customers have already set up the relationship. Working to match these types of buyers and farmers opens additional market channels for the farmer.

Farm to school: U46 is the second biggest district in the state and services 35,000–40,000 meals a day at schools in Kane, Cook, and DuPage Counties. The district runs self-operated kitchens which means they do not use a food service management company to make meals. Being a self-operated school district also means that they have significantly more flexibility in what they purchase from suppliers, since they are not contracted through a third party to serve specific meals or work with specific suppliers. U46 works with Gordon Food Service as their broadline distributor, and 99 percent of the meat they buy in is frozen. They also have funding through January 2025 to purchase directly from farmers through the Department of Education. Being independently operated with a small budget for local food purchasing represents a strong market opportunity for local farmers to work with the schools to get more local meats into their food menus, especially frozen beef, which is an item they are already purchasing.

**Predetermined sales** could play a significant role in enhancing the success of small to midsize livestock farmers interested in reaching new market channels. By securing commitments from buyers in advance, farmers have a sure market for their products, which creates more efficiencies in the supply chain. Preseason contracts also save time in marketing and sale.

## MARKET RESEARCH SUMMARY

#### **Regional Summary**

#### Changing county identity

- Regional identity is changing as more areas suburbanize; 4 percent of the land is in grazing operations.
- Market area income is significantly lower than the state average.
- Growing population of suburban neighborhoods are not amenable to sounds, smells, and sights of real farms next door.
- Kane County used to have many more dairy farms; farmers moved west.
- Interviewees indicated lost knowledge about zoning, permitting, and agricultural property assessments at the village level.

#### → Limited land

- Only 4 percent of the 932,926 acres in production are used as pastureland in the region.
- Farmers in Kane County want more land for their animals: half of interviewees had their animals in multiple locations over an hour away from each other.
- Farmers feel blocked in Kane County because of expanding suburban development and other competing interests.
- Forest Preserve and land conservancy may be competing with farmers for affordable land.

#### Grower profile

- There is a small number of livestock producers in Kane County, as indicated by low survey response rate, input, and ag census data.
- Most raise beef, followed by pigs and sheep.
- In Kane County, poultry is number two livestock product.
- Surveyed producers process more hogs than any other species.
- Beef operations have increased, while hog operations have shrunk in the region.
- Organic certification is low.

#### Livestock Producer Summary

# Farmers want to increase their sales and grow their business but are seriously constrained by land access and labor.

#### Lack of desired processors nearby cause market inefficiencies.

• Farmers are willing to drive more than three hours to utilize the "right" processor that they can trust with their products and that offers the services they want.

#### Market access

• Farmers would like to sell through a processor to limit labor inputs and distribution needs.

#### Volatile market pricing

- Sale price is often unknown even through production, making it difficult to predict profit margin.
- Current pricing: dairy prices are low; beef prices are high; and chicken prices are low.
- The COVID-19 pandemic added complexity: industry pricing has shifted in the county, and farmers pivoted into different product markets.

#### Farmers are growing their own feed to get better market share.

- Feed (corn, grain, silage), services, and materials are not available locally; sourcing is often from Wisconsin.
- There is no local organic feed.

#### Livestock-focused services desired in Kane County:

- veterinarian and nutritionist
- added value processing for large animals
- sale barn or auction house

#### Processor/Processing Summary

#### The industry is consolidated with few options for processing.

- Barriers to expanding within the industry are very high, primarily because of the regulatory environment.
- Labor constraints for small processors are the most significant challenge.

#### Processors differentiate by offering labeling, marketing, and high-quality value-added services.

- Added value processing adds substantial costs to the end product.
- There are no significant waitlists for slots.

#### → Farmers report facing bottlenecks in processing and slaughter facilities but have high standards for processing, labeling.

- Farmers are traveling more than three hours for the processing they need and labeling they desire:
  - roll packaging services
  - labeling, with "grass fed" and "pasture raised" and Food Safety Modernization Act (FSMA) requirements
  - efficiency with butchery
  - flexibility with processing timing
- Quality processing and services are more important than storage capabilities of a facility.

Top desired requirements for a processor include

- high-quality packaging
- high-quality customer service
- USDA-inspected slaughter and processing
- a variety of cutting options
- convenient location
- private firm label

Figure 20: SEQ Map - Preferred Processors by Kane County Growers



#### → Nearby processors don't have enough services or space for local demand.

- They may not have the slots, the packaging, can't do the desired cuts.
- Some processors can't take new customers with high volumes.
- Logistics can be difficult between multiple processing facilities.
- Farmers may have too much OR too little meat to consistently use the same processor.
- They risk being turned down by processors, traveling far from their farms for processing, or losing out on preferred processor quality and time slots.

#### It's hard to compete with the "big guys."

- Big processing plants will offer services but will deny processing if the farmer goes to process anywhere else.
- Small farms don't receive same benefits and economies of scale as larger farms.
- Packer capacity is limited; big processing plants won't take on orders that are too small due to high demand.

#### Demand and Market Summary

- Overall meat consumption is stable but projected to decline in coming years.
- Poultry is seeing the most significant growth in demand.
- Buyers want local products to have a story, mainly to command a higher price.
- Large buyers desire convenience and pre-packaged products or value-add.
- Institutional buyers have price sensitivity and require large volumes with specifications.

## SYSTEM CAPACITY MODELS

To better understand the analysis, the project scope included developing a capacity model of the current system, matching production and processing within local demand, labor, and transportation constraints. It was evaluated through the lens of farmers, processors, and buyers to identify consistent constraints across all three scenario views.

To evaluate the findings from both primary research and the retail demand analysis, two methodologies were used:

- A qualitative analysis of the deficits in the current system's capacity looks at the system
  to evaluate how each primary stakeholder group (farmers, processors, and buyers)
  identifies and enunciates the constraints impacting the overall system. This analysis
  helps to prioritize the issues facing all these system groups and is utilized in developing
  strategies in the following sections of this report.
- A quantitative analysis primarily examines the supply and demand assumptions to understand if the two prioritized constraints (land access and processing capacity) are as limiting as the system perceives.

#### Qualitative Analysis Summary – System Constraints

All three primary stakeholder groups—farmers, processors, and buyers—were unified in their perception of the regional food system's limitations/constraints related to animal raising and meat production/distribution. As illustrated in Table 23, there were several areas that the stakeholder groups believed limited their ability to grow (or increase herd size) and thus meet greater demand from buyers in the marketplace (both consumer and commercial channels). These include labor, land access, capital access, support for market channel development, and consumer education or marketing support.

Table 23: Summary of Constraints Identified by Primary Stakeholder Groups

FARMERS	PROCESSORS	BUYERS
Labor	Labor	-
Land (consolidation, encroachment, preservation, zoning)	Land (access, regulatory)	-
Capital	Capital (expansion/update)	-
Access to/quality of processing: booking, quality/consistency, value-	**Disconnect – Have available capacity for processing	General concern on consolidation among processors creates market instability

FARMERS	PROCESSORS	BUYERS
add/labeling, limited number/consolidation	appointments/services, despite perceived scheduling backlogs.	
Market access/channel development support	Market access/channel development support	Market access/channel development support
	+ private label operator or resources (volume/supply for)	+ farmer <> buyer (end user) connections and resources
Marketing/consumer education support (other technical supports)	Marketing/consumer education support (other technical supports)	Marketing/consumer education support (other technical supports, storytelling)
Animal care resources: vet care, quality local feed	-	-
Technical/ed resources: succession planning, rental negotiation	Technical/ed resources: retiring/market options, regulatory supports Upgrade/innovate (suggested need)	Technical/ed resources: buyer requirements  Needed upgrades/innovation to meet (by processors)
Regional assistance: farmland access, suburban creep	Regional assistance: land access, regulatory support  **Value chain alignment on demand, services, quality, and pricing with producers	Regional assistance:  **Value chain coordination/ alignment on services, products, quality, volumes (aggregation)
Infrastructure resources: self- processing (value-add), storage, sales barn, distribution supports	Aging/expansion space (infrastructure resources)	Hub/aggregation (infrastructure resources)  **Distribution supports  Product mix (value-add/prepared)  Product volumes

However, there was one main area in which there was a strong disconnect between producers' and processors' perceptions—this was in the availability/access to processing from regional processors, quality of those services, and pricing models reflective/supportive of high quality in those services. Buyers too identified this as a primary constraint, which leads to high instability in the market. Further instability is perceived to be due to the potential consolidation of processors (as they age out or close facilities due to a lack of expansion or growth opportunities). These closures would further shrink needed industry access points and contribute to the lack of growth among farmers and lack of availability of desired products in the marketplace.

The prioritized constraints informed the strategies developed in the following report sections by identifying opportunities to change market conditions (via the County's actions) and better support producers and processors. This could potentially contribute to more stability in the marketplace and, in the long term, the growth of herds and services.

#### Quantitative Analysis Summary

The two primary stakeholder groups—farmers and processors—were unified in their perception that access to land was a key constraint of their ability to expand operations. This was identified as being due to a restrictive regulatory environment, capital or funding access issues, and the encroachment on agricultural and industrial land uses by suburban sprawl as the area (adjacent to Chicago's developing urban landscape) expands and draws new residents.

A quantitative model to understand total land capacity and efficiency—and thus validate the perception of land access needed—was performed as a part of this study. The model used four primary study area counties—Kane, DeKalb, Kendall, and McHenry—to evaluate if optimal efficiency of animal raising was applied to the documented acreage dedicated to pasture and animal production in those counties and if there was enough available land acreage to support existing operations (table 24) and potential growth (table 25).<sup>13</sup>

Table 24: Quantitative Land Capacity Model (Existing Output)

Farm statistics	Unit	Kane	DeKalb	Kendall	McHenry
Land in farms	Acres	170,254	371,777	137,899	208,339
% of farmland for pasture	%	2%	<1%*	<1%*	2%
Pasture farmland	Acres	3,405	1,859	689	4,167

<sup>\*</sup> Used 0.5% in calculations

Optimal efficiency was identified for each of the primary animal types using the following figures: cattle/beef – ten cows/acre (Source); pigs – twenty-five pigs/acre (Source); goats – three goats/acre (Source); and sheep – ten sheep/acre (Source). Due to differences in how each producer raises their animals, the structure and set-up of their land operations, and the frequency of multiple-site farms in the region, it is clear that these are high-level representations that will have variance in the local marketplace. These estimates are used for this model and may differ from the actual acreage used regionally.

Potential growth scenarios were informed by desired demand documented from interviews with local buyers, which identified the potential volumes of various animal meat products that commercial markets were looking to source. These volumes represented a 30 to 40 percent increase above current production volumes, and 40 percent was used as the targeted increase in output for modeling purposes.

<sup>&</sup>lt;sup>13</sup> Of the total counties evaluated in the market analysis, these four key counties were chosen for quantitative analysis as they represented the primary study focus (Kane County) and three adjacent counties with high animal agriculture representation.

Current output/inventory		Kane	DeKalb	Kendall	McHenry		
Cattle	#	4,631	18,599	3,809	17,848		
Hogs & pigs	#	51,093	276,185		13,267		
Goats	#	140	291	113	2,245		
Sheep & lambs	#	800	1,057	41	779		
Land needed at current output wi	th optimal density						
Cattle	Acres	463	1,860	381	1,785		
Hogs & pigs	Acres	2,044	11,047	n.a.	531		
Goats	Acres	47	97	38	748		
Sheep & lambs	Acres	80	106	4	78		
Total land needed at current outp	out	2,633	13,110	423	3,142		
Additional land needed for curren	Additional land needed for current output			0	0		

As illustrated in table 24 if optimal efficiency is met across available acreage in the local region (four study counties examined), there is currently sufficient acreage to support existing production in all counties except for DeKalb (which would require an additional 11,251 acres to adequately meet current output).

However, when the growth target (40% increase in output) is applied, as illustrated in table 25, three of the four study counties examined would require additional acreage—Kane, DeKalb, and McHenry. For Kane County to support existing producers scaling to the projected growth to meet market demand would require a minimum of 282 additional acreages to be put into grazing/animal production. And, because this is based on optimal efficiency across acreage, this projection most likely underestimates the total acreage needed to meet market demand in the region.

Table 25: Quantitative Land Capacity Model (Target Output)

Target inventory		Kane	DeKalb	Kendall	McHenry		
Cattle	#	6,483	26,039	5,333	24,987		
Hogs & pigs	#	71,530	386,659	n.a.	18,574		
Goats	#	196	407	158	3,143		
Sheep & lambs	#	1,120	1,480	57	1,091		
Land needed at target output v	vith optimal density						
Cattle	Acres	648	2,604	533	2,499		
Hogs & pigs	Acres	2,861	15,466	n.a.	743		
Goats	Acres	65	136	53	1,048		
Sheep & lambs	Acres	112	148	6	109		
Total land needed at target out	tput	3,687	18,354	592	4,398		
Additional land needed for targ	282	16,495	0	232			

This modeling thus validated the "land access" constraint discussed and identified by system stakeholders in the analysis. Growth is currently constrained by available land (dedicated acreage for animal raising).

The second constraint that was evaluated in a quantitative model was whether local processing capacity was sufficient to support the demand from producers. This was a difficult constraint to fully evaluate because there is no publicly reported data mix on total slaughter and processing outputs, as all processors in the regional marketplace are private operators and thus not required to report this information. In addition, via conversations with local producers, the analysis identified that a portion of local producers were traveling outside of the region (and in many cases, the state) to seek higher quality, better price, or available booking capacity from preferred processors in other locations.

The regional marketplace (total study counties) is supported by forty-one total processors (across Illinois, Wisconsin, Michigan, and Indiana). Across this mix, twenty-nine are USDA-inspected, and only twenty-three offer slaughter and processing services in the same facility.<sup>14</sup>

To create a system representation of available capacity, five regional processors were identified that operate in the study region that were both utilized by some of the producers involved in the study and willing to share data on their outputs (volumes and headcounts of animals being slaughtered and processed across each animal type). Further, these five represented the smaller group of facilities (twenty-three total) that were USDA-certified and offered both slaughter and processing in one facility location. These processors' data was thus chosen to be representative of processors in the regional marketplace. These processors (across three states) represent 22 percent (21.739%) of the total processing capacity in the study area market — and the data was benchmarked accordingly.

The model was designed to project and evaluate the following:

• the benchmark and projected total system processing capacity represented by these processors' data (table 26),

<sup>&</sup>lt;sup>14</sup> All processor data was cited in the analysis sections prior in this report.

<sup>&</sup>lt;sup>15</sup> The five processors who provided information and were utilized in this model were Country Village Meats (IL), Das Schlat Haus (IL), Eickman's Processing (IL), Lake Geneva Country Meats (WI), and This Old Farm (IN).

- whether existing regional capacity was capable of meeting the needs of just Kane County producers' current output and growth output (40% increase in output) (table 27), and
- if existing regional capacity was capable of supporting total current and expanded regional output (table 28)

Table 26: Projected System Capacity Represented by Processor Data

Slaughter	Processor #1	Processor #2	Processor #3	Processor #4	Processor #5	Benchmark total	Projected system total
Cattle per week	8	12	50	2	100	172	
Hogs per week	15	12	70	2	75	174	
Lambs per week	2	0	5	0	15	22	
Cattle per year	400	600	2,500	100	5,000	8,600	39,468
Hogs per year	750	600	3,500	100	3,750	8,700	39,927
Lambs per year	100	0	250	0	750	1,100	5,048

Table 27: Projected Processor Capability of Supporting Kane County Output (Current and Growth)

	Kane County existing output	Kane County (increased output)	System slaughter capacity	Over capacity with current output?	Over capacity with growth output?
Cattle	4,631	6,483	39,468	No	No
Hogs	51,093	71,530	39,927	Yes	Yes
Lambs	800	1,120	5,048	No	No

Table 28: Projected Processor Capability of Supporting Regional (Study) Output (Current and Growth)

	Four-county area (current output)	Four-county area (increased output)	System slaughter capacity	Over capacity with current output?	Over capacity with growth output?
Cattle	44,887	62,842	39,468	Yes	Yes
Hogs	340,545	476,763	39,927	Yes	Yes
Lambs	2,677	3,748	5,048	No	No

As illustrated in the prior two model tables, the current system (as projected in this exercise) can realistically only support the study producers' lamb production output (at both current and growth output levels). All other production—cattle and hogs, specifically, at both current and growth outputs—does not have enough capacity to support needed animal volumes.

This reflects what was heard from regional producers in the analysis, although it is somewhat contradictory to what regional processors noted. The discrepancy is most likely because

regional producers are traveling outside of the designated study region to seek processing services due to capacity constraints and personal preferences such as cuts available, value-added products available, and quality of process/service outputs.

These modeling exercises serve to reinforce the priorities identified in the analysis and evaluation of the system, confirming constraints felt by producers, processors, and buyer stakeholders across the region.

## MARKET ACCESS STRATEGIES + SOLUTIONS

As with all food system sectors, the slaughter, processing and production of meat are interconnected. For example, unless processing services are expanded, slaughter capacity will not be maximized and producers can't maintain or expand their operations or capitalize on value-added products. Job growth over multiple sectors will be hindered without industry expansion, but additional workforce training is needed to develop the highly skilled employees who could support industry growth. <sup>16</sup> In order to simultaneously address the interdependent issues laid out in this market assessment, there are three major goals that should be addressed to support the livestock industry in Kane County:

- **Goal 1:** Correct value-chain misalignment between producers and processors
- Goal 2: Develop a skilled workforce in meat processing
- Goal 3: Support farm and processor growth and expansion

These goals with corresponding actions and objectives were presented to the Kane County Agricultural Committee and discussed during a farmer workshop lead by NVA on March 27, 2024. During the workshop, farmers were invited to review the market assessment, ask questions, provide feedback, and prioritize the proposed market strategies.

The following Kane County livestock market strategies reflect the feedback received from the farmer workshop and are prioritized based on their ideas and the results from the market assessment (table 29).

The recommendations are set up as Goals > Objectives > Actions, whereby the "actions" are concrete policy, program, or funding steps that could be taken by Kane County to support this industry. The actions in blue, were prioritized by farmers in the workshop through "dot voting."

<sup>&</sup>lt;sup>16</sup> Vermont Farm to Plate Issue Brief, accessed on March 15, 2024, https://www.vtfarmtoplate.com/sites/default/files/2022-03/vermont\_agriculture\_and\_food\_system\_strategic\_plan\_2021-2030.pdf.

## Goal 1: Correct value-chain misalignment between producers and processors

- Objective 1.1. Improve communication and scheduling between producers and processors: address disconnect between processor capacity and booking waitlist/advanced timeline for booking
  - Action 1.1.1 Support the development of an interactive processor directory to standardize slaughter and processing scheduling in the region. The business directory could include slaughter and processing schedules and available dates at facilities, trucking days, services offered, etc., in a regularly updated and searchable format. Producers could utilize the directory, which would improve communication and lead to efficiencies across the system (e.g., helping processors to operate full days instead of multiple partial days). The County should evaluate potential costs to establish and maintain the directory as a resource or identify a community partner who could host the directory.
- Objective 1.2 Address seasonality mismatch between producers and processors: address high season processing availability needs (from producers) and plan to support low-season lulls (of processors)
  - Action 1.2.1 Convene existing small business development partners to provide technical assistance to processors to help them identify potential solutions for seasonality issues (e.g., developing additional value-added product offerings to help processors utilize downtime and increase profitability during slow months).
- Objective 1.3. Address the disconnect between the processing/packaging services desired by farmers and the processing services currently offered by local meat processors

<sup>&</sup>lt;sup>17</sup> Each goal has a weighted score based on workshop feedback on corresponding actions.

- Action 1.3.1 Partner with existing technical resources (like NMPAN, IL Association of Meat Processors, NCAT/ATTRA) to offer curriculum and technical assistance to processors to update labeling equipment/offerings, processing techniques, skills training, etc.
- Action 1.3.2 Provide mini grants to processors to upgrade technology, improve capacity, and improve labeling/marketing services.

  2
  Mini grants could fund
  - building, modernizing, or expanding existing facility or equipment
  - modernizing equipment and technology
  - staffing or operational costs specifically tied to updating facility needs
  - supporting workforce recruitment, training, and retention

## GOAL 2 Develop a skilled workforce in meat processing

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3

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#### **Objective 2.1** Support workforce and training programs

- Action 2.1.1 Partner with an educational institution to design and offer curriculum and technical assistance to build workforce training program for skilled labor development in meat processing sector
- Action 2.1.2 Support educational partners in the establishment of an internship/externship program to place graduates

Action 2.1.3 Support educational partners in developing funnel of new labor and potential trainee/students. Activities may include establishing tours or info fairs for FFA/high school programs in order to build a pipeline of potential interest or offering recruitment programs aimed at groups such as re-entry, veterans/former military, and immigrant/refugee groups.

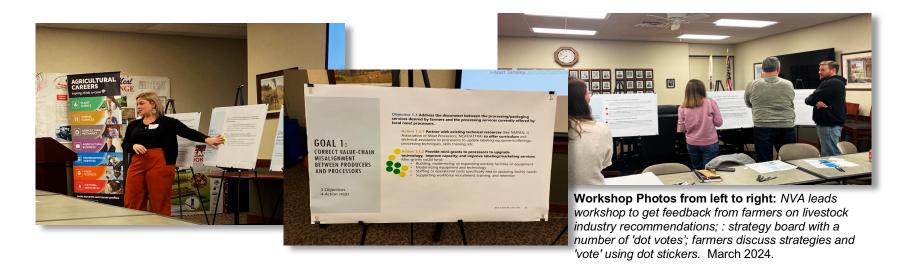
#### Objective 2.2 Support processors in labor retention

Work with educational partners to ensure communication feedback loop between training programs and processors to update/adjust programs to respond to changing industry needs (reporting, feedback structure)

Action 2.2.1 Work to create clear guidelines for what is expected of "good actors" in the processing sector to support worker safety, good working conditions, and pay/benefit parity for new roles

3

GUAL 3	Support farm and processor growth and expansion	
Objective 3.1	Increase land available for livestock production	
Action 3.1.1	Promote and create greater engagement of existing farmland protection program	
Action 3.1.2	Evaluate how to engage lease holders within existing programming to create pathway to land acquisition	7
Objective 3.2	Support the expansion or establishment of meat processing businesses	
Action 3.2.1	Work with economic development partners and the county's zoning staff to evaluate the existing zoning code to determine if current regulations are hindering or supporting development of processing. Then, collaborate with the County Board to amend zoning to be more favorable for establishment of new or expansion of existing processing businesses.	18
Objective 3.3	Increase demand for locally produced meat from Kane County	
Action 3.3.1	Work with Farm Bureau and other partners to drive demand through coordinated marketing campaigns around locally produced meat. Add "local meat" to existing Bounty of Kane program promotion.	15
New Idea from Workshop	Explore hub/broker services for livestock farmers (central location to cross dock or drop off products for direct-to-consumer sales, broker service or value chain coordination with local buyers to identify local markets)	



Based on feedback from the farmer workshop, the **following recommendations are put forward as next steps for the Kane County Planning Division:** 

• Goal 1 and goal 3 should be prioritized. Goal 1 had a weighted average of 1.59, and goal 3 had a weighted average of 1.51. While goal 2 around workforce development had less interest from farmers, it is essential that labor and workforce needs be addressed in the meat/processing industry in order for other areas of focus to be successful.

The following actions received the most enthusiasm from farmers; they are listed in order of priority:

- 1. Provide mini grants to processors to upgrade technology, to improve capacity, and to improve labeling/marketing services. (Action 1.3.2) Mini grants could fund
  - o building, modernizing, or expanding existing facility or equipment
  - modernizing equipment and technology
  - o staffing or operational costs specifically tied to updating facility needs
  - o supporting workforce recruitment, training, and retention
- 2. Work with economic development partners and the county's zoning staff to evaluate the existing zoning code to determine if current regulations are hindering or supporting development of processing. Then, collaborate with the County Board to amend zoning to be more favorable for establishment of new or expansion of existing processing businesses. (Action 3.2.1)
- 3. Support the development of an interactive processor directory to standardize slaughter and processing scheduling in the region. (Action 1.1)
- 4. Work with Farm Bureau and other partners to drive demand through coordinated marketing campaigns around locally produced meat. Add "local meat" to existing Bounty of Kane program promotion. (Action 3.3.1)

There was discussion around updating and adapting the Growing for Kane program to include and highlight more livestock and meat producers. There was also discussion about how to reach more buyers and market products more effectively. Farmers discussed the idea of a hub/brokerage service to support shared marketing services for local meat producers and provide value chain coordination services to identify who, locally within the county, is interested in buying local meat at scale. These discussion points can be explored in concert with the four top recommended actions above.

# CASE STUDIES AND TECHNICAL RESOURCES TO SUPPORT SYSTEM STRATEGIES

The following case studies of representative programs and technical resources were identified to support the suggested system strategies.

#### Goal 1: Value Chain Misalignment – Technical Resources

Goal 1 and its supporting actions focused on helping connect producers and processors better understand producer demand, identify quality standards and best practices, and create resources to assist with booking capacity and related system constraints. The following technical resources were provided to assist with these objectives and represent compatible skills programs, resource clearing houses, or related technical advising.

Table 30: Value Chain Technical Resources

Technical Resource	Resource(s) Provided
This Old Farm	<ul> <li>Branding/packaging Innovation</li> <li>"Good Actor" standard setting</li> <li>Distribution technical support</li> <li>Supporting farmer networks</li> </ul>
Niche Meat Processors Assistance Network	<ul> <li>Education around technologies, innovations, best practices</li> <li>"Good Actor" standard setting</li> </ul>
IL Association of Meat Processors	<ul> <li>"Good Actor" standard setting</li> <li>Education/outreach supports for processor implementation</li> <li>Technical support for new technologies</li> </ul>
NCAT/ATTRA	<ul> <li>National Center for Appropriate Technologies (Sustainable Ag)</li> <li>Advocacy for supporting farmer&lt;&gt;processor relationship building</li> </ul>

#### Goal 2: Workforce Development – Case Studies

Goal 2 and its supporting actions focused on supporting the development of workforce programming and supporting services to create new jobs and a skilled labor base to support both agricultural job and processing job needs in the region. The following case studies were developed to illustrate three existing workforce development programs current in pilot or operation that focus on similar outcomes and integrate best practices that should be considered for Kane's future programs (if developed).

Table 31: Workforce Development Case Studies

MN Community Colleges TRAINING PROGRAM	OSU-NMPAN Partnership TRAINING PROGRAM	OHIO STATE UNIV. EXPANDED  TRAINING COURSES
Post-pandemic (2022) two Minnesota community colleges expanded workforce/ag skills training programs to include needed slaughter and cutting.	One of six university programs funded via USDA-NIFA grants focused on offering programs via community or technical colleges within a state.	Meat Science Extension via OSU has been expanding virtual coursework and hands-on classwork to support the industry needs for workforce.
Funding support came from legislative funds appropriation (led by county efforts to attain).	NMPAN and OSU partner to develop the partnership and curriculum.	Partners include counties/state; have also partnered with 4-H to begin industry interest among youth
Program asks processors to "sponsor" local students pathway to hiring.	Pairs coursework with apprenticeship with existing processors to finish skills training and pathway to hiring.	Supports building skills and safety/certification of existing workers, which was a stated need of the industry.

#### Goal 3: Farm and Processor Growth (Expansion) - Technical Resources

Goal 3 and its supporting actions focused on identifying opportunities to support both producers and processors in accessing growth opportunities—via land access, capital access, service/program supports led by the County, or marketing support. The following technical resources illustrate similar programs or resources developed in other states and counties that may provide implementation ideas or opportunities for the suggested actions of this goal.

Table 32: Farm and Processor Growth Technical Resources

Program Resource	Resource(s) Provided
The Pasture Project	<ul> <li>Resource through the Wallace Center that offers a good mix of resources for livestock operators / graziers, including for land access and operational planning.</li> </ul>
Shenandoah Processing Facility Expansion	<ul> <li>USDA + County funded processing expansion to support capacity needs within the Shenandoah Valley region</li> </ul>
NY/State Programs to Fund Processing Infrastructure	<ul> <li>Grant program built by a partnership of New York State         Department of Agriculture and administered by the Hudson         Valley AgriBusiness Development Corp. (HVADC)</li> <li>Grants are kept at scale to support operating processing         expansions (50–250k) or new builds, including identifying needs         for advocacy for expansion</li> </ul>

Program Resource	Resource(s) Provided
WSDA Local Meat Processing Capacity Grants	<ul> <li>Funding was allocated by the Washington State Legislature, with advocacy and leadership from the WSDA</li> <li>Forty recipients were a blend of producers (looking to expand on-farm operations or build-out processing capacity) and existing operators looking to build out or expand operations (including equipment purchase)</li> <li>Grants emphasis was on smaller funding (50k average) to support wider application across the state and encourage application</li> </ul>

## **APPENDIX CONTENTS**

- I. Research plan
- II. Interview guides
- III. Livestock producer survey
- IV. Processor landscape grid
- V. Retail demand data tables
- VI. Workshop agenda/notes

Appendixes are provided as separate documents included in the full report package at time of submission.