

A STRONG MEAT SECTOR FOR THE BEEF STATE: EXAMINING STATE MEAT INSPECTION AND OTHER STATE-LEVEL POLICIES FOR SUPPORTING SMALL MEAT PROCESSING

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I. INTRODUCTION

When COVID-19 hit packing plant floors in the spring of 2020, the effects of the outbreak were felt far beyond the four walls of a given facility. With workers spending long hours on the line and in close proximity to one another, the environment was perfect for a respiratory virus to find new hosts, and, early in the pandemic, the coronavirus ripped through the meat sector. Plants were forced to shut down to slow the spread not only at the facility, but the community at large, and the dominant meat supply chains in the country came grinding to a halt. In late May, Nebraska's meat processing industry accounted for one quarter of the state's confirmed COVID-19 cases, with 2,700 people infected and eight deaths.1

As a result, livestock ready for slaughter had nowhere to go, and producers were forced to

euthanize large quantities of meat animals to avoid the cost and space constraints in keeping them alive. The agriculture sector, already in a persistent downturn, faced historic losses, leading to higher prices, rations, and empty shelves at the grocery store. This left producers and customers alike looking for better ways of doing business.

A major factor in these system-wide problems is the concentration of the meat market, which has made the supply chain vulnerable to unforeseen disruptions in a way that has deleterious effects on the entire sector and on the consumers who rely on it for food. As a result, states have been looking for means to support and expand their small, independent meat processors to bring diversification, and therefore resilience, to the supply chain. Supporting small, independent processors is also seen as a boon for smaller farmers, for customers looking for access to quality products close to home, and for rural economies for whom independent meat processing plants may represent a significant driver.

This paper will begin by exploring the current challenges facing the meat processing industry, especially those brought to light by the pandemic. From there, it will outline the costs

¹ Merrill, Elizabeth. "Football and the Factory Line: Living at Risk in a Heartland Hot Zone." National Geographic, May 20, 2020, nationalgeographic.com/history/2020/05/coronavirus-upends-meatpacking-jobs-football-grand-island-nebraska. Accessed November 2020.

and benefits of a state inspection program. Finally, it will list a number of creative supports for the small meat sector that have emerged in recent years, and conclude with a recommendation for a course of action to be pursued in Nebraska.

II. MARKET CONCENTRATION AND SUPPLY CHAIN VULNERABILITY DURING COVID-19

Ninety-eight percent of marketable meat products in the U.S. are processed at only 50 facilities.2 Since these plants are operating at maximum capacity on a normal basis, they are unable to accommodate extra product if one shuts down, leading to product shortages, wasted animals, capital, and revenue, and all of the effects outlined above. COVID-19 exposed the disproportionate fallout when an industry becomes so consolidated that the temporary closure of a handful of facilities can significantly damage the entire industry. Concomitant with this consolidation in processing has been the concentration in feeding operations: between 1982 and 1997, many small- and medium-sized farms producing livestock went out of business. Concentrated animal feeding operations (CAFOs) absorbed smaller operations and increased animal density while simultaneously decreasing the number of operations from 435,000 to 213,000.3 This effect, likewise, compounded the losses when animals had to be euthanized in the spring of 2020.

The vulnerabilities in a concentrated meat sector were thrown into sharp relief during the early stages of the pandemic. Farmers lost a large amount of revenue and, by July 2020,

the sector had posted nearly \$5 billion in losses.⁴ The Oklahoma cattle industry alone lost around \$600 million.⁵ Consumers were shocked to find empty shelves or rationed purchasing at the local store as meat prices rose to historically high rates. According to the Federal Reserve Bank of Kansas City,

"In May, beef prices were 18 percent higher than a year ago, and pork prices were 7 percent higher than in 2019. Also, beef prices increased 11 percent from April to May, the largest monthly increase on record."

As prices shot up for consumers, they crashed for producers, dropping as much as 20 to 30 percent in late spring.⁷ The picture of damage to the meat industry painted by an analysis from Oklahoma State University and the National Cattlemen's Beef Association in April 2020, before the worst of the pandemic's effects were felt, was stark:

"The total beef cattle industry impact of COVID-19 is an estimated loss of \$13.6 billion in total economic damage, as a result of \$9.2 billion in total revenue loss across 63 million animals... These impacts include \$8.1 billion loss (\$3.7 billion direct revenue loss; \$4.4 billion breeding herd asset value loss) to the cow-calf sector representing 59.7 percent of total impact; \$2.5 billion loss to the stocker/backgrounding

² Boyanton, Megan U. "Pandemic Meat Shortage Spurs Calls to Shift Slaughterhouse Rules." Bloomberg Government, Oct. 19, 2020, about.bgov.com/news/pandemic-meat-shortage-spurs-calls-to-shift-slaughterhouse-rules. Accessed November 2020.

³ Fitzgerald, Amy J. "A Social History of the Slaughterhouse: From Inception to Contemporary Implications." Research in Human Ecology, University of Windsor, humanecologyreview.org/pastissues/her171/Fitzgerald.pdf. Accessed November 2020.

⁴ NAFB News Service. "Hog Farmers Face Near \$5 Billion Loss." KNEB, July 21, 2020, kneb.com/agricultural/hog-farmers-face-near-5-billion-loss. Accessed November 2020.

⁵ Metzer, Steve. "Nowhere to go: Oklahoma Cattle Industry Loses \$600M Due to COVID-19." The Journal Record, April 29, 2020, journalrecord. com/2020/04/29/nowhere-to-go-oklahoma-cattle-industry-loses-600m-due-to-covid-19. Accessed November 2020.

⁶ Cowley, Cortney. "COVID-19 Disruptions in the U.S. Meat Supply Chain." Federal Reserve Bank of Kansas City, July 31, 2020, kansascityfed.org/research/regionaleconomy/articles/covid-19-us-meat-supply-chain. Accessed November 2020.

⁷ Hadavi, Tala. "The Meat Industry Could Face Losses of \$20 Billion in 2020." CNBC, June 9, 2020. cnbc.com/2020/06/09/coronavirus-may-cause-the-meat-industry-to-face-losses-of-20-billion.html. Accessed November 2020.

According to a May estimate from the National Pork Producers Council, up to 10 million hogs would have had to be euthanized before the end of the summer. The effect was quickly felt downstream, at grocery stores all over the country; consumers found 30 percent less meat on shelves and prices up 20 percent from that time last year. This led many to ask why there was often no route for small farmers to legally sell to local customers.

The reality of these supply chain disruptions revealed a gap in meat processing. Between custom exempt processing, where an owner has their animal butchered for personal consumption, and the "big four" meat processing companies, there lies an underdeveloped space of small, mid-size, and niche processors. The local and regional market for meat products is, in many spaces, largely untapped, making it more difficult, in this state, to buy good Nebraska beef from down the road than to buy it from an the anonymous source across country. Developing the small meat sector would diversify the supply chain, thereby distributing and diminishing risk to the meat market, providing consumers with reliable access, and producers with the choice of to whom they sell. Just as significantly, if the experience of other states is an indication, promoting the small meat sector is an important economic development tool for rural areas, and a state inspection program can be essential to allowing crucial businesses in small towns to get off the ground or expand operations.

One of the causes of these gaps is the persistent market concentration in the industry noted at the outset of this section. In 1985, 50 percent of meat production was accounted for by the four largest firms; by 1996 that number had risen to 80 percent. A similar concentration was seen more than a century ago, when 80 percent of meatpacking belonged to a mere five companies, but antitrust laws amended that situation. Data Today, the number sits around the spot it has been since the mid-1990s, at 85 percent.

The story is one of local decline. Since 1990, the number of livestock slaughter establishments has decreased by 40 percent, and federally inspected slaughter locations have also decreased by 36 percent. ¹⁴ In 1967, 9,627 livestock slaughtering facilities were operating in the U.S. That same year, the Wholesome Meat Act was passed. ¹⁵ Through this process, the U.S. Department of Agriculture (USDA) secured itself as the federal authority regulating meat supply chains; this resulted in increased restrictions on raising,

- 10 "Concentration Measures for the Beef Packing Industry." U.S. Department of Agriculture, Economic Research Service, ers.usda.gov/webdocs/publications/47232/17820_tb1874h_1_.pdf?v=0. Accessed November 2020.
- 11 Waltenburg, Michelle A., et al. "Update: COVID-19 Among Workers in Meat and Poultry Processing Facilities-United States, April–May 2020." Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report, July 7, 2020, doi.org/10.15585/mmwr.mm6927e2. Accessed November 2020.
- 12 McCrimmon, Ryan. "Price Check on Big Beef." Politico, May 26, 2020, politico.com/newsletters/morning-agriculture/2020/05/26/price-check-on-big-beef-787872. Accessed November 2020.
- 13 Ibid
- "Overview of the United States Slaughter Industry." U.S. Department of Agriculture, National Agricultural Statistics Service, Agricultural Statistics Board, Oct. 27, 2016, downloads.usda.library.cornell.edu/usda-esmis/files/b5644r52v/jd473028z/7w62fc23r/SlauOverview-10-27-2016.pdf. Accessed September 2020.
- 15 Shanker, Deena. "There Aren't Enough Slaughterhouses to Support the Farm-to-Table Economy." Bloomberg, May 23, 2017, bloomberg.com/news/articles/2017-05-23/there-aren-t-enoughslaughterhouses-to-support-the-farm-to-table-economy. Accessed November 2020.

⁸ Peel, Derrell S., et al. "Economic Damages to the U.S. Beef Cattle Industry Due to COVID-19." Oklahoma State University Extension, April 2020, extension.okstate.edu/fact-sheets/economic-damages-to-the-u-s-beef-cattle-industry-due-to-covid-19.html. Accessed November 2020.

⁹ Sawyer, Will. "Closed Meat Plants Today Mean Empty Meat Cases This Summer." CoBank, May 2020, cobank.com/knowledge-exchange/animal-protein/closed-meat-plants-today-mean-empty-meat-cases-this-summer. Accessed November 2020.

transporting, storing, and distributing meat. ¹⁶ Since 2016, there have been fewer than 1,100 federally inspected slaughterhouses across the nation. ¹⁷ In 1965, neighboring Iowa supported more than 550 small meat processing facilities; as of today that number is smaller than 200. ¹⁸

III. A BRIEF HISTORY OF FEDERAL AND STATE INSPECTION

Whether enforced by a state or federal program, all inspections for meat sold in the U.S. must meet standards established by the federal government under the 1906 Federal Meat Inspection Act with regard to animal health, sanitation, waste disposal, and facilities requirements. These standards grew, initially, out of worries typified by Upton Sinclair's "The Jungle," which exposed egregiously unsanitary and dangerous conditions in meatpacking.

These regulations were effective in reforming the industry in ways that made it much safer for workers and consumers alike. In the 1950s, with the growing complexity of the meat processing industry and the emerging uses of chemical additives and drugs on livestock, new concerns were raised about wholesomeness and visible contamination, as well as disease-causing agents. As a result, the 1938 Federal Food, Drug, Cosmetic Act was amended to include

16 "Cattle Inspection: Committee on Evaluation of USDA Streamlined Inspection System for Cattle (SIS-C)." Institute of Medicine (U.S.) Food and Nutrition Board, National Academies Press, 1990, ncbi. nlm.nih.gov/books/NBK235649. Accessed November 2020.

17 Shanker, Deena. "There Aren't Enough Slaughterhouses to Support the Farm-to-Table Economy." Bloomberg, May 23, 2017, bloomberg.com/news/articles/2017-05-23/there-aren-t-enough-slaughterhouses-to-support-the-farm-to-table-economy. Accessed November 2020.

- 18 Powell, Marie. "Meaty Issues Processing Plant Working Group." Center for Rural Affairs, Feb. 1, 2008, cfra.org/blog/meaty-issues-processing-plantworking-group. Accessed November 2020.
- 19 "Meat Science, Meat Inspection." Texas A&M University, meat.tamu.edu/ansc-307-honors/meat-inspection. Accessed October 2020.

proscriptions against unhealthy additives. The 1960s saw the passage of the Wholesome Meat Act and the Wholesome Poultry Products Act, which sought to respond to the complexities of modern processing, in part, by requiring state inspection programs that met or exceeded federal standards.

In the 1970s, a number of states, including Nebraska, decommissioned their meat inspection programs as a cost-saving measure, but this move came with its own drawbacks, the including retraction of independent processing. For this reason, several states, such as South Dakota and Kansas, maintained their programs, and other states, such as Missouri and Minnesota, returned to operating a state program after being designated under solely federal inspection. The chief reason for decommissioning state inspection in Nebraska was the sense that maintaining a program was not equal to or did not provide the benefits of federal inspection, namely, interstate commerce.²⁰ Today, the Cooperative Interstate Shipment program fills that gap, allowing state-inspected meat to be sold beyond state lines. The existence of this program and the historical experience of the benefits of state inspection to the small meat processor are additional reasons for reexamining such a program in Nebraska.

IV. ESTIMATING THE COST OF STATE INSPECTION

Before examining the possible benefits of a state meat and poultry inspection program, we will examine a few considerations against adding such a program to the existing federal one. The most obvious and salient consideration is cost. The closure of state inspection programs in the 1970s had to do, in part, with cost considerations. Federal meat inspection is fully funded by federal dollars; therefore, many states did not see the utility of paying for administrative, payroll, equipment, and other costs for a program that would be duplicative of the existing

20 Slaughter, Kara, et al. "Potential Impacts of State Meat and Poultry Inspection for the State of Nebraska." University of Nebraska Public Policy Center, 2001, digitalcommons.unl.edu/publicpolicypublications/97. Accessed November 2020.

federal program. In the last several decades, many states, especially Midwest states that produce large amounts of cattle, pork, and poultry, have brought their programs back.

A 2001 study from the University of Nebraska-Lincoln put the average yearly state program costs at \$1,882,319. This year, the program cost in Kansas, whose livestock production is similar to Nebraska's, was roughly \$3.2 million prior to federal cost-sharing. Kansas and Nebraska each maintain roughly 6.5 million head of cattle and account for around 22 percent each of national beef production, and each, likewise, produces roughly 3.5 million hogs each year for pork. Given these and other similarities in resources, population, and market, make Kansas' program budget a reasonable estimate of the cost of a Nebraska state program.

Much of the question of whether this program is a worthwhile investment for Nebraska turns on whether a likely cost of around \$1.5 million a year (accounting for at least 50 percent federal cost-share) is worth the benefits that might be accrued. The following section will show the ways in which a state program is not merely duplicative of a federal program, how it might benefit growth in the small meat processing sector, and will assess the question of program costs versus benefits.

V. BENEFITS OF STATE INSPECTION

Although the federal program is fully funded by federal dollars, the Food Safety and Inspection Service (FSIS) also offers significant funding to offset costs in opening state-level programs. Each year, the FSIS offers nearly \$50 million to help state inspection programs develop. ²¹ A full 50 percent of states' operating funds are automatically provided by FSIS from there on out. ²² If the Strengthening Local Processing Act, now before

Congress, passes, this assistance will be boosted to 60 percent of costs for state meat inspection and 80 percent for Cooperative Interstate Shipment facilities.²³ This increase in funding seems to indicate a recognition at the federal level that state inspections can be beneficial for the diversity and resilience of the sector, especially for the growth of small, independent producers.

This federal assistance drastically defrays the cost of a state-level program, and, for this reason, a number of states with significant meatpacking capacity have decided the cost of state inspection is well worth the benefits accrued. Oregon and New Mexico are looking to open similar programs, and a 2020 analysis for New Mexico showed net benefits for growth in the sector, including higher sales and employment in excess of program startup and maintenance costs.²⁴ Both New Mexico and Oregon recognized a dearth of processing capacity during the pandemic and are hoping to expand local operations and create a space for other such businesses to emerge. Only a few years ago, Iowa recognized a similar vulnerability to Nebraska's and began applying for a reinstatement of their long-dormant state meat inspection program. A recent Cooperative Interstate Shipment agreement between Iowa and the FSIS makes the state the seventh in the U.S. to allow select small meat lockers to sell their products across state lines. 25

This points to a central benefit of state inspection, namely, that it is better suited to the operations of a small facility, and therefore decreases the burden of opening or maintaining a small

- 23 "H.R.8431 Strengthening Local Processing Act." 116th Congress (2019-2020), Sept. 29, 2020, congress.gov/bill/116th-congress/house-bill/8431. Accessed December 2020.
- 24 Parker-Sedillo, Lenora Gayle. "Cost of Implementing and Operating a State Meat Inspection Program and the Economic Impact in New Mexico." New Mexico State University, August 2020, search.proquest.com/openview/e7c995e0596 ac6cb27fd26ea493ee608/1.pdf?pq-origsite=gsch olar&cbl=18750&diss=y. Accessed November 2020.
- 25 "FSIS and Iowa Sign Cooperative Interstate Shipment Agreement." U.S. Department of Agriculture, Food Safety and Inspection Service, May 21, 2020, fsis.usda.gov/wps/portal/fsis/newsroom/news-releases-statements-and-transcripts/newsrelease-archives-by-year/archive/2020/nr-05212020-02. Accessed August 2020.

^{21 &}quot;Requirements for State Programs." U.S. Department of Agriculture, Food Safety and Inspection Service, fsis.usda.gov/wps/portal/fsis/topics/inspection/state-inspection-programs/state-inspection-and-cooperative-agreements/requirements-for-state-programs. Accessed August 2020.

²² Ibid.

locker or processing facility. This would provide stability to the supply chain by diversification. Kevin Barnhill, owner of a meat locker in Blair, Nebraska, points out that, during the height of meat shortages during the pandemic, he was able to maintain a steady supply of quality product for his customers, which included many new buyers. Barnhill is USDA inspected, but, if proponents of state inspection are correct, more operations like his could emerge and flourish. Barnhill himself stated he may move to state inspection if it becomes available in Nebraska.

Barnhill further notes federal inspection is designed, for efficiency's sake, to deal with processing operations that handle several thousand head a day, not for small operations which might process as few as six head in a day. Smaller businesses can face difficulties and added costs when working with federal inspectors who are mostly focused on the major plants.

These sentiments align with those voiced in the University of Nebraska-Lincoln study referenced above. In a series of surveys across all 50 states, as well as surveys and in-depth interviews with state officials and producers in Minnesota and Kansas, researchers sought to understand what makes federal and state inspection distinct and what might make the latter beneficial.

Minnesota and Kansas officials noted, while state and federal programs must be equivalent in respect to the quality of inspection, they are not equivalent in all respects. The federal program features requirements that add to the cost, but are not directly related to health and safety. For instance, facilities are expected to construct a designated office and have a shower available for the inspector, and inspectors on this level uniformly charge \$40 per hour for overtime or for inspection of non-amenable species. Federal requirements for a separate on-site bathroom and office for a federal inspector were specifically cited in the study from Maine's Leg-

islature as a reason that prohibited customexempt processors from becoming federally inspected.²⁸ Typically, the overtime fee also includes travel time and overnight stays, which may be more likely where federal inspectors may not be as widely distributed as they can be in a state program. State inspectors are more flexible on certain burdensome rules, not in ways that compromise or fall short of inspection requirements, but in ways that adapt to the size of a business, its hours of operation, location, and other needs particular to a small business. These inspectors are also more accessible in general.

Another element of this flexibility is the costsavings that comes from approaching testing for pathogens in a way more suitable to the conditions of a small plant, which would require less frequent and extensive testing to maintain the same safety standards.29 USDA requirements and practices are adapted to higher volume facilities, but smaller operations require more limited testing to ensure the same sanitary status, a practice that a state program would be more able to integrate into its procedures. State officials identified a willingness among inspectors to work with producers to bring their operations into full compliance rather than simply failing them, and to take the time to explain and educate processors on the rules and regulations.³⁰ The problem is not, they were sure to note, that federal inspectors were somehow bad at their jobs, but that they were on work plans dictated by the needs of big processors and not small businesses.31

On this theme of accessibility and flexibility, one survey respondent working in a state inspection program said:

²⁶ Oltmans, Brady. "Hurdles Facing the Local Meat Markets." Center for Rural Affairs, Sept. 23, 2020, cfra.org/blog/hurdles-facing-local-meat-markets. Accessed November 2020.

²⁷ Slaughter, Kara, et al. "Potential Impacts of State Meat and Poultry Inspection for the State of Nebraska." University of Nebraska Public Policy Center, 2001, digitalcommons.unl.edu/publicpolicypublications/97. Accessed November 2020.

²⁸ Maine Meat Review Task Force. "Encouraging Production, Sale, and Consumption of Maine-Raised Meat Products." Maine State Legislature, Maine Department of Agriculture, Food, and Rural Resources Legislative Review, February 1996, lldc.mainelegislature.org/Open/Rpts/kf3878_z99m34_1996.pdf. Accessed November 2020.

²⁹ Slaughter, Kara, et al. "Potential Impacts of State Meat and Poultry Inspection for the State of Nebraska." University of Nebraska Public Policy Center, 2001, digitalcommons.unl.edu/publicpolicypublications/97. Accessed November 2020.

³⁰ Ibid.

³¹ Ibid.

"We provide inspection services to small establishments which FSIS does not want due to size and remote locations; most of them prefer state inspection due to our accessibility and flexibility in accommodating their schedules of operation; many would close if required to be federallyinspected, thus increasing unemployment and reducing state revenues."32

Another emphasized the role of state inspection in developing niche markets:

"By providing individual attention and guidance to small and very small business[es], the environment is conducive to the development and success of those processors. This provides a positive economic impact to local economies by additional jobs and marketplaces for raw materials... Also, small business feeds small business. That is, small farmers supply small packers, who supply small jobbers, who supply small retailers, who supply small populations (communities)."33

Processors had similar things to say:

"We have a good relationship with our Topeka office and staff that may not be with federal inspection. State inspection is designed for small plants and federal inspection is for large plants." And, "I have been federal and they are a pain in the 'butt'—the state people have worked with us, and we still turn out a wholesome product."34

In summary, the feeling among survey respondents was that federal inspection did not have the interest or resources adequate to respond to the needs of small producers and processors.

For this report, the Center for Rural Affairs spoke with Dr. Mendel Miller, a native Nebraskan who now helps lead the South Dakota Animal Industry Board. Dr. Miller identified a few chief reasons why state inspection is worth having in his state—strong support of the industry, a need to retain businesses in small towns, and South

Dakotans take pride in the meat their state produces. He also pointed out the growing market for local meat and desire from South Dakotans to purchase beef and other products close to home. When the federal inspection began and other states abandoned their own programs, he noted, those "small plants simply went out of business," but not in South Dakota, where state inspection has been around since the 1960s. Dr. Miller described the economic effects of a small meat packing business this way:

"The state program covers almost 100 plants in small towns, and, each of those plants means six or eight jobs in town, and that's a really significant impact on a small town economy."

Dr. Miller again emphasized "accessibility" for reasons processors prefer state inspection. A state inspector, he notes, is usually a familiar face; a processor "knows the inspector. He's typically a local, they can relate to him, they can call up the office and know who to ask for. The federal inspection program, by contrast, can be a hassle of red tape and multiple chains of command." If a processor has a question about compliance, he may need to go through the inspector, the frontline officer, and then the district office. For South Dakotans, that district officer is in Des Moines, Iowa, which is more than a 10-hour drive from the farthest parts of the state. It can be hard, he notes, for the federal inspector to "run all over to every distant corner of the region, and for federal inspection to be responsive to small lockers." For a plant to "get a new label, we can do in a week what might take the federal program six months." Dr. Miller also pointed out that a state inspector will tend to work with a producer to make sure everything is in compliance, staying late or communicating outside of work to help them understand and meet regulations.

To engage in a full input-output analysis of the economic impact of a state meat inspection program is beyond the scope of the present study, but the above is intended to give a sense of why a growing interest remains in such a program from producers, processors, and lawmakers in Nebraska. In the words of Dr. Nicole Neeser, from Dairy and Meat Inspection at the Minnesota Department of Agriculture, even absent that type of analysis, "I know if you ask any state director they'd say that the benefits outweigh the costs."

³² Ibid.

³³ Ibid.

³⁴ Ibid.

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Subject	Cooperative Interstate Shipment inspected	Federally inspected	
Inspection personnel	State appointed, federally-trained inspectors	Federally-appointed inspectors	
Application	Apply for a recommendation via the state where the establishment resides.	Apply for a grant of inspection via the FSIS district office associated with your state.	
Inspection label	Federally inspected seal with "SE" which symbolizes the product was made from a "state establishment." The abbreviation will usually be on the federal seal as well. Each legend will differ due to different state abbreviations.	One standard seal of inspection for carcasses, one standard seal of inspection for processed meats, and a standard seal for raw and processed poultry.	

The preceding is also intended to explain why such a program, though more expensive than sole reliance on federal inspection, is qualitatively different from a federal-only model. As noted above, the 2020 study conducted in New Mexico, a state that, like Nebraska, is looking into the potential for state meat inspection, did show a net economic benefit, with a "total annual operating cost [of] \$1,141,507," which would "increase the slaughter and processing number of six facilities by 3,600 animals per year. The total economic impacts were an estimated 22.9 new jobs and \$2,570,764 of output."35 These numbers, however, are based on the assumption that only six small facilities would switch to state inspection, with an increase in 12 animals processed per week, per facility, and the output and jobs created are only in terms of those six facilities. In total, the employment multiplier was 2.04 and the total output multiplier was 1.78. This means that for every one job created in meat processing, 1.4 jobs are created elsewhere in the regional economy, and every \$1 of input amounts to a total of \$1.78 in output.

In comparing New Mexico to Nebraska, one note is the meat sectors of the two states are quite

Parker-Sedillo, Lenora Gayle. "Cost of Implementing and Operating a State Meat Inspection Program and the Economic Impact in New Mexico." New Mexico State University, August 2020, search.proquest.com/openview/e7c995e0596 ac6cb27fd26ea493ee608/1.pdf?pq-origsite=gscholar& cbl=18750&diss=y. Accessed November 2020.

different in scale. Where New Mexico has only six federally-inspected facilities, Nebraska has well over 50, and these account for 21 percent of all cattle slaughtered in the U.S. In addition, Nebraska has a far greater number of custom exempt facilities, numbering at least 63. The model referenced above also elected not to factor in the possibility of new local businesses which could be started with the lower barriers represented by a state inspection program.

Finally, in judging the merits of state inspection, Cooperative Interstate Shipment opens stateinspected meat to markets around the region. The program was created by the 2008 farm bill to connect meat lockers with fewer than 25 employees to interstate and international meat markets.36 This inspection reciprocity beyond state borders should allay fears about closing out important regional markets for meat sales. The USDA lays out the differences for meat processors between the two kinds of inspection for interstate sale. See Table 1.

[&]quot;FSIS and Vermont Sign Cooperative Interstate Shipment Agreement." U.S. Department of Agriculture, Food Safety and Inspection Service, Aug, 11, fsis.usda.gov/wps/portal/fsis/newsroom/ news-releases-statements-and-transcripts/newsrelease-archives-by-year/archive/2020/nr-08112020-01. Accessed November 2020.

VI. REGULATORY REFORM AND FEDERAL INVESTMENT

State inspection is not the only route to be pursued by states looking to create a space for local and regional meat markets. In particular, Wyoming and Vermont have developed creative models that allow producers to sell directly to consumers outside of the normal inspection process.

Wyoming's law comes as an amendment to its five-year-old Food Freedom Act, which was passed to deregulate the trade of homemade or "cottage" foods. The amendment allows a customer to purchase shares in a livestock herd to demonstrate ownership. This ownership entitles the shareholder to substantial portions or individual cuts of meat from livestock in that herd. Because the shareholder now has an ownership stake, these animals may be processed on the farm or at a custom-exempt facility and do not require state or federal inspection.

The change provides a new perspective as to who is or may be an owner of livestock in that state by defining an animal share as "an ownership interest in an animal or herd of animals created by a written contract between an informed end consumer and a farmer or rancher that includes a bill of sale to the consumer for an ownership interest in the animal or herd and a boarding provision under which the consumer boards the animal or herd with the farmer or rancher for care and processing and the consumer is entitled to receive a share of meat from the animal or herd."37

While ordinarily individual cuts of meat would not be available for sale if not inspected, section 623 of the Federal Meat Inspection Act allows for meat slaughtered for personal use to be exempt from inspection if the customer owns a significant portion of the meat animal prior to slaughter. Because the Wyoming law allows a customer to own an animal share, that customer qualifies as having a significant stake in a meat animal prior to processing and therefore an entitlement to an agreed upon dividend in the form of cuts of meat. This has been a creative way to scale up

"HB0155 - Animal shares." State of Wyoming 65th Legislature, March 17, 2020, wyoleg.gov/ Legislation/2020/HB0155. Accessed December 2020.

the sort of exchanges that previously happened informally, when customers were being asked to purchase animals from the farmer by the whole or half instead of individual cuts.

An excerpt from one report on the effects of Wyoming's new model is worth quoting for the picture it paints of the law's impact. Bonita Carlson runs Persson Ranch near Gillette, Wyoming, with her husband Drew Persson.

"It's caught quite a few people's attention in the state," she tells me. "It's pretty exciting news for sure. Even with social distancing, I've spoken with probably 20 people personally who are interested in using animal shares."

Carlson tells me the fact the Wyoming law lowers costly barriers to entry for ranchers like her-for example, she won't have to transport her animal-share cattle to an outof-state feedlot-will help her high-quality grassfed beef compete on price with larger competitors.

"We will be selling 93 percent lean ground beef for much cheaper than they're selling 80/20 at the grocery store," Carlson said. "We should be competitive enough that a single mom can purchase ground beef from us, too."38

The law kept a consistent supply of Wyomingproduced meat flowing into state markets. This move is not without complication, however. Nebraska Gov. Pete Ricketts explained, "Wyoming has different legislation and they have their own inspectors, so they have the ability to waive those inspections. Whereas, we have used USDA inspectors, so that would require USDA to

Linnekin, Baylen. "New Wyoming Law Lets Local Ranchers Sell Cuts of Meat Directly to Consumers." Reason, April 4, 2020, reason.com/2020/04/04/ novel-new-wyoming-law-lets-local-rancherssell-cuts-of-meat-directly-to-consumers/#:~:text= The%20Wyoming%20amendment%20takes%20 advantage, %22 owner %22 %20 of %20 the %20 animal. Accessed November 2020.

waive those inspections."³⁹ This could be another instance of the greater flexibility involved with state inspection programs.

Vermont made a similar move this year, amending Chapter 204 of its major agriculture statute, Title 6, to allow customers to own a part of a live meat animal.40 According to this amendment, multiple customers may own a meat animal together, but, to be exempted from inspection, they must slaughter the meat themselves, or with an itinerant slaughterer, on the farm where the animal was raised, and may only be quartered or halved before removal from the farm premises. The goal, again, is to allow the customer to purchase exempt meat without themselves keeping the livestock to be slaughtered and processed. In both Vermont and Wyoming, meat obtained by this means may only be consumed by members of the household with the share or ownership interest in a herd or animal or by non-paying guests. Meats processed this way must be labeled with a warning noting that the process of slaughter and butchering underwent no inspection.

In addition to these strategies for making inspection requirements more efficient and less burdensome, many states have dedicated grant funding for small meat lockers to expand their businesses. In conversations conducted for this paper, several processors pointed to a lack of shackle or cooler space as a chief obstacle to business expansion. In Montana, small- and medium-sized meat processors have access to funds to support and expand their operations through a Montana Meat Processing Infrastructure Grant. This program is using federal relief funds to help small businesses recover from the detrimental impacts of COVID-19 and to invest in state meat processing. A total of \$150,000 is available for each processor to stabilize local food

systems, become state or federally inspected, and respond to a national demand.

In Maine, three new meat processors have been issued 90-day grants for inspection in custom slaughter operations with the goal to increase local meat supply chains.⁴¹ This grant allows for processors of wildlife to temporarily expand to cattle, pigs, and sheep. Customers will be able to sell meat at farmers markets or stores operated on their farms.

Like Nebraska, Kentucky and Pennsylvania are both under federal inspection. For its part, Kentucky has implemented the Kentucky Agricultural Development Fund Meat Processing Investment Program to assist processors who are currently, or hope to become, USDA certified. This is designed to expand current infrastructure, and the funding levels are \$20,000, \$37,500, and \$250,000.42 Pennsylvania has taken a more ground-up approach, with the Very Small Meat Processor Federal Inspection Reimbursement grant program. This funding source is designed to financially help small operations meet federal inspection and certification guidelines for new meat processors at \$50,000.43

National Farmers Union President Rob Larew expressed a common view that lies behind these various state initiatives: "Over the past several decades, we have come to rely on fewer and larger facilities to process all of our meat... This system, though efficient, is particularly vulnerable to disruptions—a fact that has become impossible to ignore as coronavirus outbreaks at just a handful of plants have backed up the entire supply chain. Small- and medium-sized plants can ensure greater resilience and food security in

³⁹ Balin, Elise. "Ricketts: Meat Processing Approach Similar to Wyoming's Unrealistic for Nebraska." Star Herald, May 5, 2020, starherald.com/townnews/economics/ricketts-meat-processing-approach-similar-to-wyomings-unrealistic-for-nebraska/article_4d9cbe97-2641-543b-a76f-59142f245574. html. Accessed November 2020.

^{40 &}quot;Title 6: Agriculture, Chapter 204: Preparation Of Livestock And Poultry Products, § 3311a. Livestock; inspection; licensing; personal slaughter; itinerant slaughter." Vermont General Assembly, legislature.vermont.gov/statutes/section/06/204/03311a. Accessed November 2020.

^{41 &}quot;Maine Adds to Slaughtering Capacity to Ease Meat Bottleneck." The Associate Press, June 7, 2020, apnews.com/3fc627aec7325aefa16d13ceaba330ad. Accessed November 2020.

^{42 &}quot;2020 Guidelines, Meat Processing Investment Program." Kentucky Agricultural Development Fund, agpolicy.ky.gov/funds/Documents/KADF_MeatProcessingInvestmentProgram_General Guidelines.pdf. Accessed August 2020.

^{43 &}quot;Very Small Meat Processor Grant Program, A Pennsylvania Farm Bill Program." Pennsylvania Department of Agriculture, agriculture.pa.gov/Pages/ Very-Small-Meat-Processor-Grants.aspx. Accessed August 2020.

times of crisis, as well as flexibility in marketing for farmers and ranchers."44

VII. CONCLUSION

The continuing shocks to the meat processing industry from the ongoing global health crisis have many states looking for ways to support their small meat processors. One sign of the interest in this goal was the introduction of the Strengthening Local Processing Act by Rep. Jeff Fortenberry (R-NE) during the second session of the 116th Congress.

A state meat inspection program is one tool other Midwestern states with livestock resources similar to Nebraska's have deemed beneficial and worth the additional costs. If Nebraska was to follow the pattern from these other states, such a program would contribute to the growth and stability of the small meat sector, expanding small businesses, adding jobs, and ensuring reliable access to Nebraska-raised meat to customers in the state and in the region.

This study has considered the benefits of a state meat inspection program in the context of the current health crisis, examined the views of processors, inspectors, and program directors, and has made an effort to weigh the benefits of such a program against its costs. The Center's recommendation is that the State of Nebraska should adopt a state meat inspection program as a part of a broader effort to rebuild a strong, resilient meat sector that serves Nebraskans. The consistent testimony of processors and inspection personnel in states with their own inspection programs is that such programs are well worth the cost, because they are more affordable for the small processor, less burdensome, more accessible, and easier to work with than a federal inspection program. Extrapolating the multiplier effect identified in the New Mexico analysis suggests bringing such a program to Nebraska would have significant benefits for employment and total economic output of the region.

"RAMP-UP Act Will Help Meat and Poultry Processors Access Inspection to Meet Demand." House Agriculture Committee, July 2, 2020, agriculture.house.gov/news/documentsingle.aspx? DocumentID=1918. Accessed November 2020.

The Center also recommends the state follow the lead of its neighbor, Wyoming, in finding ways to free producers and customers to create beneficial arrangements without harming the public good. Following Wyoming's Food Freedom Act, we recommend that the State of Nebraska allow customers to purchase shares in an animal or herd of animals. Consistent with federal law, these shares will entitle customers to exercise their ownership right. That right allows shareholders to purchase individual cuts of meat from animals processed at a small, custom exempt facility. This setup provides a stable alternative to selling to the same large meat companies and provides a pathway for local people to do business together, eye to eye. Neighboring states like Missouri, Iowa, and Kansas, have created grant programs to help small processors expand their capacity. These play a crucial role in supporting small processors and strengthening the sector. We recommend that Nebraska provide grants for small and very small processors to expand their operations, and thereby ease the current production bottleneck.

With state inspection in place to facilitate the sale of high quality, safe products to local, state, and regional markets, and with the government getting out of the way of neighbors who want to do business together, Nebraska will be on its way to creating a strong and resilient marketplace. Nebraskans are rightfully proud of producing some of the best meat animals in the world. The state's laws and regulations should be designed to make sure the people involved in producing, processing, and buying those animals get a fair shake. The proposals recommended here will help make that true, and to create a meat sector that truly serves Nebraskans.

ABOUT THE CENTER FOR RURAL AFFAIRS

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